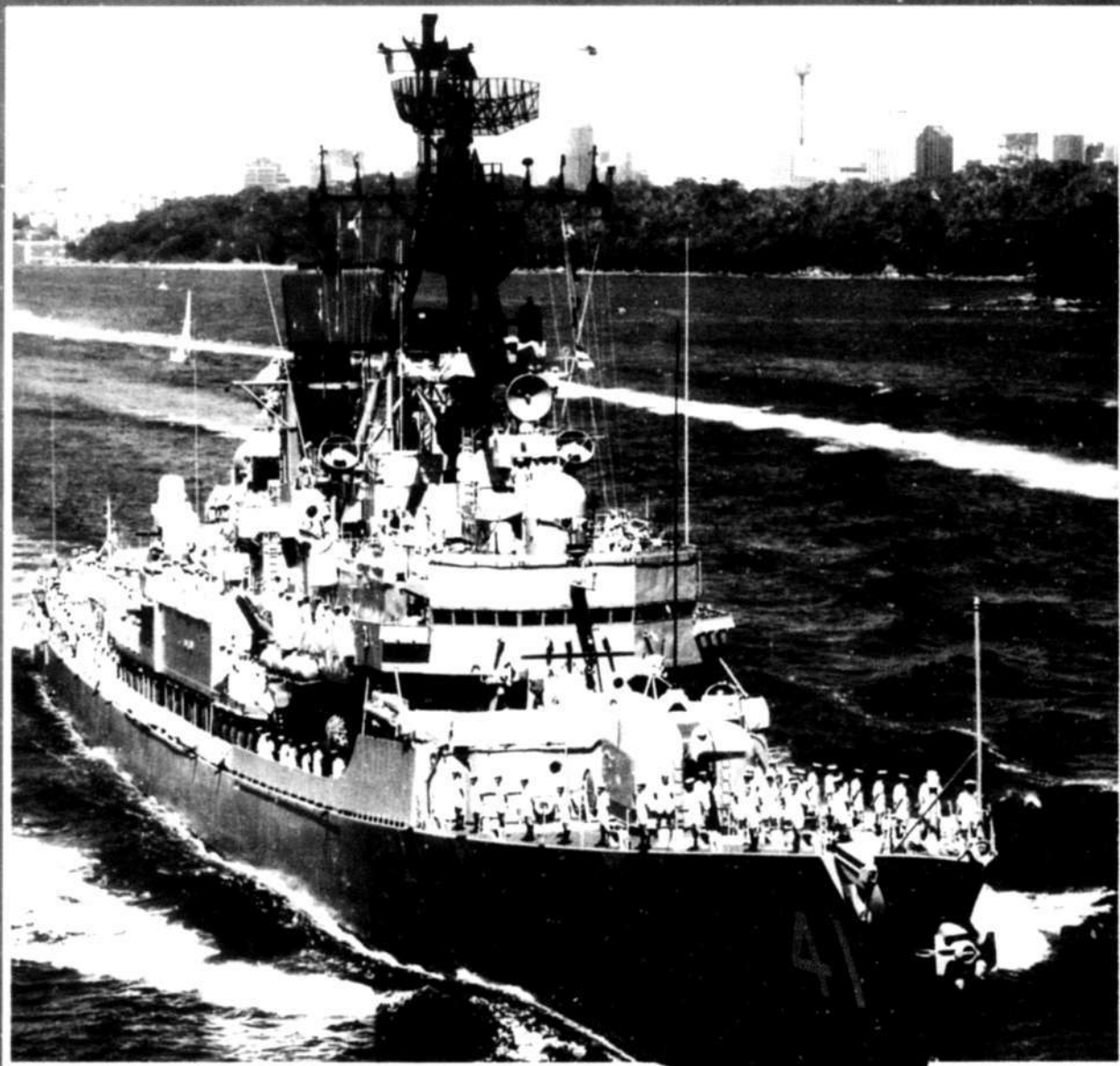


# THE NAVY

*The magazine of*  
THE NAVY LEAGUE OF AUSTRALIA



- VIEWPOINT    ● NEWS    UPDATE
- THE GARDEN ISLAND    ● BATHURST CLASS    50 YEARS
- HMAS COOK PAYS OFF    ● HMAS PROTECTOR
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those of the authors and are not necessarily those of the Federal  
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### OUR FRONT COVER PHOTOGRAPHS

Views of the recently re-armed HMAS BRISBANE. The ship sailed  
for the Gulf on 12 November in company with HMAS SYDNEY. Note  
the two Phalanx CIWSs amidships.

(Photo — Naval Photographic Unit)

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## Who Tells Who To Do What?

Following the government's decision to despatch a small naval force to join the ships of other nations in the Middle East several months ago, the question of who was to direct the activities of the RAN ships when they reached the operational zone arose; the matter received limited attention by the media and intense attention in the responsible departments of governments.

**D**eciding the command arrangements for combined armed forces has as often as not been a cause of friction over the years, not so much between Service leaders as between governments.

The legitimate desire of national governments to determine if, when and how their armed forces are to be used is the main stumbling block in assembling a viable multi-national force under unified command; language and communication differences, varying operational procedures and logistical requirements etc. are lesser problems that can usually be overcome given time and opportunity for combined exercises.

Extraordinary technological developments, not least in communications, appear to have increased rather than reduced the difficulties associated with the command of multi-national forces. In an award-winning essay titled "Controlling C" (C is the acronym for command, control and communications) published in the July 1990 edition of the United States Naval Institute's journal *PROCEEDINGS*, Lieutenant Christopher Abel of the US Coast Guard writes of communication developments that enable the President, C-in-C of the Armed Forces as well as the political leader, to communicate almost instantly with commanders and individual units thousands of miles away. After making the point that communications play a pivotal role in the exercise of military command, Lieutenant Abel expresses the belief that instant communications together with increasingly centralized command arrangements can have some disturbing consequences:

- A temptation for the Head-of-State to depart from his traditional role of making strategic and policy decisions and entrusting implementation to his subordinates; instead becoming involved in the detail of operations and on occasion directing the way they are to be carried out.
- The adverse effect on subordinates in the chain-of-command when over-ridden or by-passed by directions from on high — on their autonomy, ability to make decisions quickly and act decisively, and on their self-confidence.
- In practical terms, the vulnerability of electronic communications to disruption by an opponent, causing the central command to lose contact with the operational zone.

It is impracticable in the space available to Viewpoint to refer to all the possible consequences of instant communication and centralized command that causes the author of C' concern, nor the examples he quotes of political leaders intervening in military matters at an operational level. In summary, he believes present-day communication capability must be brought under intelligent control and used with restraint to avoid weakening the chain-of-command including the authority of the commander on the spot.

Although Lieutenant Abel's essay concerns the United States in particular, it is relevant to Australia and other countries wherein the Armed Forces are subordinate to civilian authority; it also has a bearing on the situation in the Middle East today.

The decision by the Australian government (and other governments) to deploy a naval force was quite properly a political

one but subsequently the way the ships were to be used in the operational zone (the high risk area plus its approaches) produced reports that indicated political direction was extending too far and impinging with military expertise and authority. This potential problem now seems to have been resolved and the ships operate under rules-of-engagement which take into account both political and military considerations.

At the time Viewpoint goes to print the problem of establishing a unified command in the Middle East has not been solved. At sea, the movements of the ships of the several nations involved have been co-ordinated while remaining answerable to their respective governments; this should enable an effective sea blockade to be maintained. However in the event of war it would appear essential for the governments concerned to appoint an overall commander for the large sea, land and air forces gathered in the Middle East; not to do so would surely be a recipe for disaster. Any attempt by individual governments to restrict the way their contingents were used would also invite trouble.

The problems outlined in the foregoing must be addressed — one likes to think they are — and solved if the United Nations Organisation is to become an effective instrument in the preservation of world peace.

*Geoffery Evans*

GEOFFERY EVANS  
Federal President.

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Dear Sir,

*Whilst the news that HMAS Stuart is not to be laid up for some time is welcome the present and foreseeable strength of the Royal Australian Navy or lack of it must be a matter of concern to all those to believe that a strong and efficient Navy is essential for Australia's security.*

Recently HMAS Curlew the last of the Navy's minesweepers was withdrawn from service and we understand that HMAS Parramatta will also be laid up on completion of her current commission. In terms of fighting ships the Navy only possesses twelve ships — five "River" Class frigates, three DDG's and four guided missile frigates. The "River" class frigates are now very old and one has been laid up for years. If the "Stuart" and "Parramatta" are also to be laid up this will leave only ten fighting ships to undertake Australia's maritime defence.

In this respect the Patrol boats may have a role in coastal surveillance especially in peace time but would have a limited role in the event of any hostilities. The submarine force is of course not suited to a defensive role.

The guided missile frigates presently building in Williamstown seem to be taking an abnormally long time to construct and on present indications by the time they are operational it can be expected that the last of the "River" class will have gone. If the construction time of ... these ships is any guide it can be expected all the DDG's will be ending their useful life by the time that the planned light patrol frigates enter service.

Presumably the submarines now under construction will be replacements for existing submarines rather than an addition to the present strength.

Thus for all the responsibilities that the Navy must undertake it will have only ten first line fighting ships and it is most unlikely that they would all be operational at any one time. These responsibilities are vast. For a start practically all Australia's domestic sources of oil comes from offshore wells — the Bass Strait, the Northwest shelf and the Challis and Jabiru oil fields. Presumably in times of tension or hostilities these offshore installations would require Naval protection, as would Port approaches, and merchant convoys apart from interdiction of any hostile force. How this could be achieved with the present or foreseeable force is difficult to envisage.

In both World Wars enemy commerce raiders laid mines in shipping lanes within easy sight of the coast without detection which caused shipping losses and disruption of the coastal shipping. Today Australia has no resources for mine-countermeasures and to talk of taking up "craft of opportunity" for this purpose is merely "pie in the sky".

However if the decreasing number of ships in the Royal Australian Navy presents a gloomy picture surely the training of Naval officers must also be worrying. Presumably every young man (and now woman) joins the Navy with two ambitions — to go to sea and one day to command a fighting ship. In the first instance with the comparatively small number of operational ships the chances of getting away to sea must be getting less and less — and what proportion of Naval officers are able to achieve command these days?

One has only to take a trip or two on the Maaly ferry to observe the amount of time that Naval ships spend in port. Obviously the time spent at sea must be reduced accordingly. Simulators are an excellent means of training but are no substitute for the real thing. Perhaps the joint factors of less time spent at sea and reduced chances of obtaining command may be the reason why there are so many resignations from the Service these days.

What of the Naval officer who is fortunate enough to attain Flag Rank? It would seem that every Flag Officer of the Royal Australian Navy is shore based these days. With such a small number of ships in commission now divided into two squadrons between East and West does a Flag Officer ever get the chance to exercise a Fleet at sea in which the eminent British Naval historian Captain Roskill once described as the "art of the Admiral".

It has been stated by various authorities defence capabilities have been based on the premise of no foreseeable hostilities within ten years but recent history has shown that when they do occur they invariably do so at short notice such as the Falklands war, the Gulf crisis (when a large number of tankers were hit by exocet missiles and mines were also laid) and now of course the present Kuwait crisis. Such notice would not enable the Navy to acquire additional resources.

As stated I have painted a gloomy picture — but surely it is realistic. It is the interest of all who wish to see a strong and efficient Royal Australian Navy to draw attention to the present shortcomings and to hope that the day is not too far distant when we see that Service restored to its former strength.

Yours faithfully

ALAN PEARSON M.B.E.  
Fairlight 2094

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# HMAS PROTECTOR

## *New Trials and Safety Ship*

*The Royal Australian Navy's latest acquisition, the new Trials and Safety ship HMAS PROTECTOR was formally commissioned into the Fleet during an onboard ceremony at the Fleet Base in Sydney on Tuesday 30 October, 1990*

Under the command of LCDR Banyer, the ship is manned by a total of four officers and 13 sailors and is initially based in Sydney.

PROTECTOR was built by Elders Prince of Western Australia in 1984 for the now defunct National Safety Council of Australia (Victoria) as the offshore supply vessel BLUE NABILLA. The ship was purchased by the RAN for \$3 million through brokers acting for the NSCA (Victoria) liquidators.

One of the initial tasks allotted to the new ship is to assist in trials of leased minehunting systems for the MHI project and from the mid 1990s to act as an escort during sea trials for the new Collins class submarines.

PROTECTOR is fitted with comprehensive position fixing equipment, a flight deck for a Navy utility helicopter, space for a manned submersible vehicle (and an A frame to launch and recovery same), two remotely operated vehicles (ROVs), diving equipment, and a recompression chamber. The ship has a top speed of 10.5 knots with a range of 10,000 nautical miles. She is driven by controllable pitch propellers and is fitted with a side scan sonar.

PROTECTOR was selected for naval service from a short list of five second hand vessels available locally and overseas, the most expensive being \$6 million. The successful BLUE NABILLA incorporated more of the features required for submarine trials support than any other of the contenders, although some modifications were carried out in late 1990 before the ship began her trials programme in January, 1991.

In naval service the 670 tonne, 42.7 metre long PROTECTOR will retain her former NSCA colour scheme of bright orange hull and red superstructure.

☆ ☆ ☆

### The First PROTECTOR

Built as a cruiser by Wm Armstrong and Company at Newcastle-upon-Tyne, the 1884 vintage HMCS PROTECTOR operated with the colony of South Australia up to 1901 when she transferred to the Commonwealth after Federation.

The ship's original and impressive armament included an eight



HMAS PROTECTOR at the Fleet Base, Sydney, November, 1990  
(Photo — Naval Photographic Unit)

inch gun forward, four six inch guns on the broadside and a fifth at the stern plus four three pounder and five Gatling guns. She was manned by 90 officers and men. Top speed was 14 knots.

PROTECTOR was integrated into the RAN in 1911 and three years later was rebuilt with an enclosed bow and fitted with a new gun armament of two four inch, two 12 pounder and four three pounder guns. During the early part of the Great War she was employed as a submarine depot ship and later served as a patrol vessel, minesweeper and training ship.

From 1921 PROTECTOR acted as a tender at the Flinders Naval Depot, being renamed CERBERUS on 1 April. She was finally paid off for disposal in 1924 (when forty years old) and sold for conversion to a lighter, named SIDNEY.

In 1943 the former PROTECTOR was requisitioned by the US Army, but en-route to war duties in New Guinea collided with a tug off Gladstone. Her hulk was taken to Heron Island and later sunk for use as a breakwater, her rusting remains being still visible today.



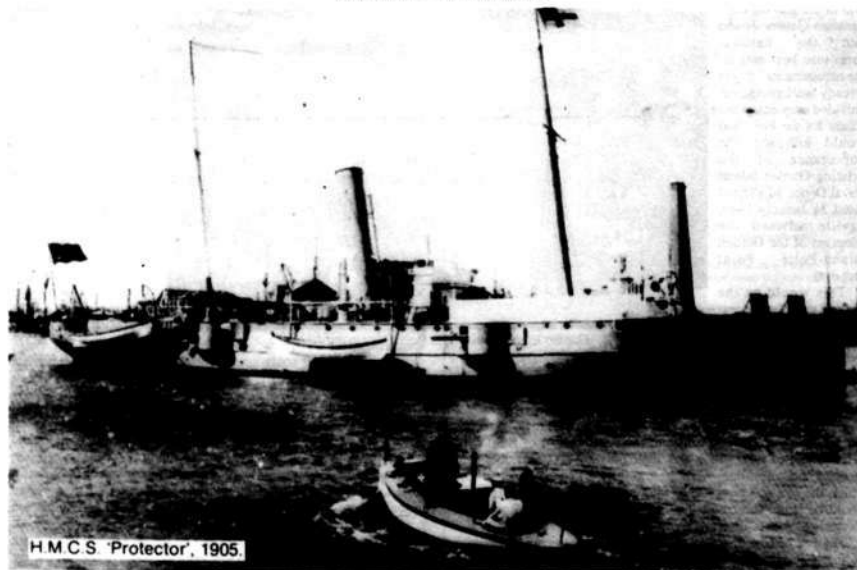
PROTECTOR as BLUE NABILLA, laid up in Port Melbourne, 1990

(Photo — Tim Ryan)

HMAS PROTECTOR — continued



HMCS PROTECTOR, as built, 1884



H M C S 'Protector', 1905.

HMCS PROTECTOR, Port Adelaide, 1905



# THE VANISHING ISLAND

by TOM FRAME

*Fifty years ago work commenced on the largest engineering undertaking in Australia to that time. Tom Frame looks at the construction of Garden Island Dockyard and its role today.*

It is nearly impossible to believe that a little saddle shaped island in Sydney Harbour of 4 hectares would today be the most strategically important naval base in the southern hemisphere enclosing an area of over 30 hectares. Work started on its transformation exactly fifty years ago.

With the threat of another war looming large in the 1930s, Australia was hampered by a shortage of Docking facilities. To use the Dock in Singapore, opened in 1938, would entail a round trip of 8,000 miles from the east coast of Australia which relied in any event of a damaged ship steaming that far.

The Australian Naval Board recommended the construction of a graving dock despite the enormous cost. As a result, Sir Leopold Saville, a senior principle in the British engineering firm, Sir Alexander Gibb and Partners, was invited to Australia to investigate and report on the most suitable site. He arrived in June 1939 for a tour of every state and an inspection of some 16 possible sites located within eight principal ports in southern Australia. He was to consider the strategic as well as the engineering aspects of the sites.

After completing his investigation, Saville concluded that three sites would fulfil these requirements. One was at Adelaide, the other two were in Sydney Harbour. The construction of the graving dock between Garden Island and the harbour foreshore best met all the requirements. It was already well protected, provided easy entry and access for the Fleet and would enhance the importance of the existing Garden Island Naval Depot. In a report dated 31 January 1940, Saville advised the adoption of the Garden Island-Potts Point proposal.

This would be the greatest engineering feat in Australia's history, surpassing even the Sydney Harbour Bridge.

It would involve the reclamation of 30 acres between Potts Point and Garden Island; the construction of the graving dock measuring 1,139 feet long, 147 feet wide with 45 feet draught of water.

Before work on the dock could begin, the first task was to reclaim the area between Potts Point and the southern tip of the Island. 170,000 feet of sheet piling and approximately 800,000 cubic yards of stone and core filling were used to form a huge coffer-dam from which the sea was pumped, leaving large basin in which the dock would be built. The coffer dam, known as the "Burma Road", was commenced in late 1940 and completed early in February 1942.

The fall of Singapore to the invading Japanese on 15 February adding to the urgency of the work. The dock at Singapore was now unavailable and Cockatoo Island was engaged in the construction of

new ships for the Navy. Construction on the graving dock continued night and day with additional labour being hired as the project progressed.

The dock was ready for initial flooding in September 1944. The construction was sufficiently advanced to allow the emergency docking of HMS Illustrious on 2 March 1945, three weeks prior to the official opening ceremony.

The Chief of Naval Staff, Admiral Sir Guy Royle, provided a crystal clear statement of the role the Graving Dock would play in the current war and in Australia's future. "The envisaging of a capital ship dock for Australia was a recognition of the extent to which the defence of the Commonwealth depends, and must always depend, upon seapower. But seapower cannot be exercised to the full if the warships which are its most potent instrument cannot be assured of an adequate haven for docking, repairs and maintenance. A dock which cannot accommodate ships of all sizes is not an effective ancillary to seapower".

The Captain Cook Graving Dock has been surpassed only once in Australia's engineering history and that was by the Snowy Mountains power scheme.

April Fool's Day in 1987 marked a turning point for the Australian dockyards and shipbuilding industry. After a long period of crippling industrial disputes, Defence Minister Kim Beazley announced that the Commonwealth Government would sell its controlling interest in Williamstown Naval Dockyard, which was still part of the Defence Department, while the Government's lease on Cockatoo Island would not be renewed beyond the refit work then being undertaken on the Oberon Class submarines. The New South Wales State Dockyard at Newcastle

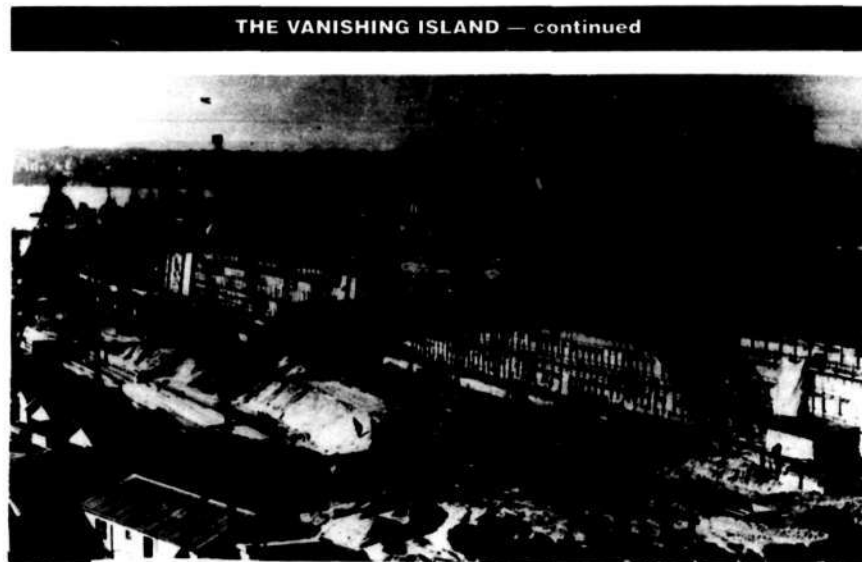
was also to be sold.

Garden Island would in future be operated by the wholly government owned Australian Defence Industries (ADI). It would operate on a full-cost recovery basis in its dealings with all customers, including the Navy, which continued to be the major and priority customer. The Dockyard's monopoly on naval work had ended with the RAN able to call for tenders for work traditionally carried out by Garden Island. And although the RAN had preferred customer status in terms of work priority, it was under no compulsion to place work in Garden Island.

For its part, Garden Island was able to tender for non-naval work such as harbour ferries and civil scientific research vessels. At the same time, the Dockyard was permitted to apply the principles of



Garden Island viewed from Potts Point in the 1930s



Captain Cook Graving Dock under construction in the Second World War.

commercially based operations to all its functions with the objective of achieving full-cost recovery across all its activities by 1991 and streamlining of any then not viable. There were also sweeping administrative and organisational changes aimed at transforming Dockyard 'culture'. This was the greatest challenge of all.

Garden Island operating under ADI control has passed its first major test. It was able to provide the Navy with the technical support necessary to have the three ships bound for the Gulf ready in just three days. Of those three days, the first had been a rostered day off, the other two days were a Saturday and Sunday. The Dockyard was also able to re-build the vital ammunition lift in HMAS Success which had virtually disintegrated shortly before the ships were due to sail for the Gulf crisis. This pressure performance augurs very well for the future.

The Navy's presence in Sydney Harbour has not been without its opposition. While various alternatives have been proposed, the Garden Island facility remains too valuable to dispense with and too costly to relocate elsewhere. The retention of Garden Island is also crucial to the Navy's operational needs. There is presently an insufficient number of dockyards and ship repair and maintenance facilities in Australia and for this reason alone Garden Island must remain the principal naval dockyard. It has done a good job in meeting the needs of the Royal Australian Navy and the Royal Navy before it and proven the wisdom of the Government's expenditure during the war.

*Lieutenant Tom Frame is with the Department of History at the Australian Defence Force Academy. His new book, The Garden Island, was launched by His Excellency Rear Admiral Peter Sinclair AO, the Governor of NSW, on 7 October as Garden Island.*

THE VANISHING ISLAND — continued

## Garden Island — A History

T.R. Frame

Garden Island has been the focus for all naval activity in Australia's quarter of the globe for over two centuries and has been the home of the Royal Australian Navy since its establishment in 1911. Yet its history has never been written.

This book describes the use of the island for naval purposes by the First Fleet in 1788, its seizure by Governor Lachlan Macquarie in 1811, the protracted negotiations that led to the Navy's return and its subsequent development as one of Australia's most important and strategically valuable naval facilities. Set within the context of the waning fortunes of British naval power, the growth of the city of Sydney and the creation of a new South Wales government, this comprehensive and in places controversial account analyses the forces that led to the formation of an Australian navy, the difficulties encountered in operating as an independent naval unit and the problems faced by the Navy with its fleet based in a city with enormous urban pressures.

Garden Island has had a wonderfully varied and colourful history. Today it is one of the most important historic sites in Australia and the most strategically important naval base in the Southern Hemisphere.

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# AUXILIARY MINESWEEPERS UPDATE

The Royal Australian Navy's pair of recently acquired auxiliary minesweepers are now homeported at HMAS Waterhen in Sydney . . .

The two vessels were due to berth in Sydney on Saturday morning 13 October but after encountering very rough seas and high winds BANDICOOT suffered steering gear damage with her rudder jammed about 10 nautical miles from Port Stephens. Her sistership WALLAROO took the vessel in tow for Broughton Island but this soon parted in the difficult conditions.

Helicopters from Naval Air Station at Nowra were despatched to the scene to provide assistance if required and a civilian tug, IRON COVE was requested from Newcastle to tow BANDICOOT into Port Stephens. This second attempt at towing was hampered by problems with the larger tug which had to return to port.

'When the rudder jammed on the Friday night we were left going around in small circles', her commanding officer LEUT Rousseau said. 'The ten man crew endured 36 hours without sleep and seasickness was a problem'.

Seas were eight metres high with the winds gusting at 52 knots or 70 miles per hour, not the most appropriate conditions for the towage of BANDICOOT from her precarious situation.

A second tugboat from Newcastle arrived on the scene and stood by the damaged BANDICOOT over the night of 13/14 October as the WALLAROO made her own way to Port Stephens. After one abortive attempt the tug was forced to wait until the seas eased to a swell of about four metres. The second attempt was made at 0330 with BANDICOOT finally reaching the safety of Salamander Bay in Port Stephens four and a half hours later, at about 0800 on Sunday morning 14 October.

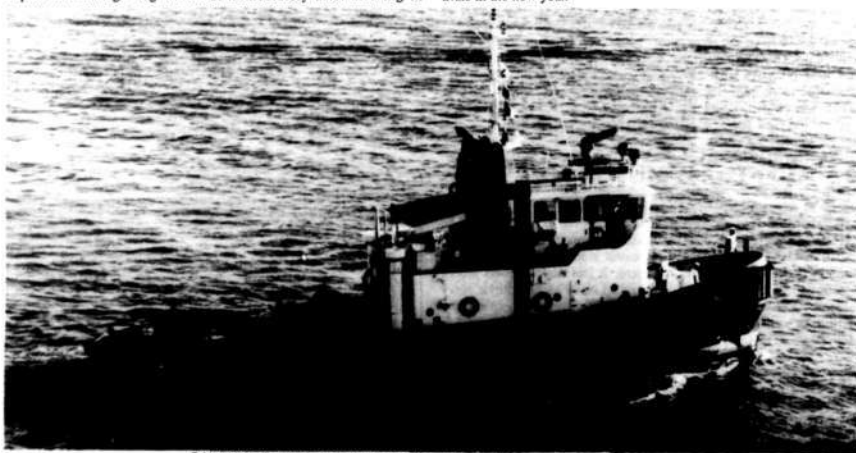
'Land was a very pleasing sight after some of the worst seas ever experienced by the men in our crew', LEUT Rousseau said. 'Work to repair the damage began almost immediately after arriving in



WALLAROO in Singapore prior to the delivery voyage

Salamander Bay and lasted for two days'.

The two auxiliary minesweepers arrived at HMAS Waterhen in Sydney Harbour on 16 October. Both were to be taken in hand to remedy any defects and prepare the vessels to begin a full round of trials in the new year.



BANDICOOT arriving in Sydney after her rudder problems north of Port Stephens.

(Photo - Brian Morrisson)

# Bathurst Class Corvettes — 50 YEARS ON

*Versatile they were, protecting the nation's merchant ships against both air and submarine attacks, sweeping enemy laid minefields, surveying prior to amphibious landings, transporting troops, shelling enemy positions ashore, towing stranded ships and providing the much needed escort for all types and sizes of other ships.*

They were the 56 strong Bathurst class Australian Minesweepers, more popularly known as Corvettes. December 1 1990, marked the 50th anniversary of the commissioning of the lead and name ship. The class served far and wide during the Second World War, from the Pacific and New Guinea to Malaya and the Philippines, the Indian Ocean and Persian Gulf and into the Mediterranean and to the Atlantic Ocean. Post war the ships provided both minesweeping and reserve training with the final unit, COLAC not leaving naval service until early 1984.

Now five decades later only a few remain, CASTLEMAINE and WHYALLA as museum ships at Williamstown in Port Phillip and Whyalla in South Australia, while ex-BENDIGO could be laid up in China.

To commemorate the fifty years as well as ten years of the RAN Corvettes Association the seventh National Re-union of the Association was held in Sydney in October, 1990. More than 1600 former shipmates from across Australia attended the event with guest of honour, the Chief of Naval Staff, Vice Admiral M.W. Hudson, AC, RAN.



HMAS ROCKHAMPTON, showing the effects of hard war service

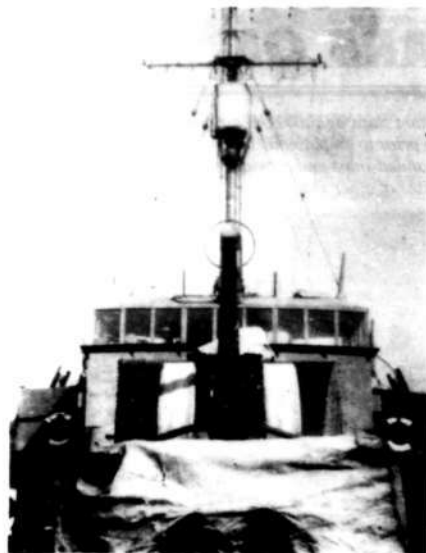


ROCKHAMPTON under construction



CAIRNS being launched

**BATHURST CLASS CORVETTES —  
continued**



*Main armament and bridge, HMAS COOTAMUNDRA*



*The 'barber shop', HMAS COOTAMUNDRA*



*HMAS BOWEN alongside HMAS PLATYPUS, late in the war. Beside the corvette are HMAS AIR CLAN and the Army workboat AM 1629 (SOLLUM)*

**BATHURST CLASS CORVETTES — continued**



*BANDA ex WOLLONGONG in the Dutch East Indies*



*HMAS TOWNSVILLE, gun and bow from her bridge*



*TERNATE, ex KALGOORLIE after her sale to the Netherlands*



*HMAS TOWNSVILLE, amidships, looking forward*



*Corvettes sold for new careers, post war*



*The final moments of HMAS WARRNAMBOOL, sunk by a mine off Queensland, 1947*



*Corvettes in reserve, Athol Bight*



*HMAS WAGGA as a training ship for the Sydney Port Division, RANR*



*An RNZN Bathurst: ex HMAS INVERELL*



*Some of the nautical exhibits aboard ex HMAS CASTLEMAINE*



*The long serving HMAS CASTLEMAINE, in use as a cadet training ship at HMAS Cerberus*



*RAN Corvette memorial in Western Australia*





Four inch gun, ex HMAS CASTLEMAINE



20mm Oerlikon gun, ex HMAS CASTLEMAINE



Tank cleaning vessel, ex HMAS COLAC is readied to be sunk as a target by Fleet units.

# NAVAL MATTERS

by A. W. GRAZEBROOK

## Navy Losing Our Technology Edge

In June, Commodore Terry Roach, RAN, told the United Services Institute of the ACT (\*) in Canberra that:

- \* Recent developments in Europe and relationships between the superpowers are expected to lead to a massive amount, indeed a glut, of modern equipment coming onto the market at very cheap prices. No longer is smart weaponry the sole province of the major powers and their close allies.
- \* The regional technological advantage that the ADF has enjoyed over many years has begun to disappear.

Commodore Roach is the Director General Force Development Sea at HQADF. As such, his statements on naval warfare are authoritative to say the least. His carefully measured conclusions should have vitally important effects on the development plans for the RAN.

The first point is to define "our region". The Defence Department has somewhat rigid definitions of "our region" which exclude India, Japan and China. Outside authorities question this and argue that any power (other than a super power) which has significant forces with the range to reach Australian waters must be considered a regional power. That necessitates the inclusion of India, China, Japan and Taiwan.

Realism in delineating the region is crucially important. The outlook is much less optimistic if the full region is recognised. Two of the additional powers operate nuclear powered submarines, for example. Three of them operate substantial diesel electric submarine fleets.

The second point is that Navy has lost much more technological edge than Army or, particularly, Air Force.

The RAAF is far and away the most modern, numerous and technologically capable air force in our immediate region. Even using the more realistic wider region, our P3Cs and FA18s are as good as anything in service and our F111s (particularly with the modernised avionics they are to receive) are markedly more capable than any combat aircraft in the Indian, Chinese or Japanese air forces in the strategic and tactical strike roles.

That is not to say that our Air Force is unnecessarily large. We have and need more P3Cs than other regional powers because we have a much larger maritime zone. We need more C130s because our Army (and Air Force support) must be moved over much greater distances.

Nor is equipment the only measure. Our P3C Wing is very seriously undermined.

Although several immediate regional air forces now operate F16s and thus the RAAF has "begun to lose technological advantage", and there are equipment gaps (AEW & C), it is true to say that the RAAF enjoys a very substantial technological edge in the immediate region. The RAAF is likely to enjoy that edge for many years to come.

The same cannot be said of Navy.

The Navy League has pointed out cases of loss of technological edge in earlier years and identified areas for concern in the future.

Earlier losses of technological advantage included surface to air missiles and helicopters for destroyer sized ships. Other regional powers — Malaysia, Thailand, Indonesia — had surface to surface missiles in service many years before the RAN. Even today, we have no real technology edge over Indonesia, Thailand or Singapore in this field.

Small ship helicopters are another example. Indonesia had helicopters at sea on corvettes ten years before Australia. However, as our S70B2 Sea Hawks go to sea in the FFG7 class frigates, we will regain a technological edge in the immediate region and technological parity in the wider region. Nevertheless, it should be noted that both Japan and Taiwan have small ship helicopters of the S70 type in service in their navies.

Turning to submarines, when they completed their modernisation, our Oberons (with their weapon and sensor updates) were the best in the immediate region and as good as anything except some Japanese submarines in the full region. However, since then, Taiwan has acquired two modern submarines, is negotiating to three more 2100 ton boats already under construction, and has ordered two Type 209 boats from Germany.

Further, equipment has become available which enables Type 209 submarines to launch guided missiles whilst underwater. Type 209 boats are in service in the immediate region and the large number of that type in service in South America makes them relatively easily available on the second hand market.

This occurs as personnel shortages may force Australia to pay off some Oberons early to train crews for the Collins class. This would

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leave our submarine squadron well below operational strength.

Our own new Type 471 Collins class submarines will restore our technology edge in the immediate region and will be as good as any in the full region except (in high sustained underwater speed) the Chinese and Indian nuclear powered submarines.

In mine warfare, we are behind. Indonesia and Malaysia both have effective minehunters in service. Australia has none. We have under trial a minesweeping technology which, because of its economics, should enable us to operate larger numbers of minesweepers than would be the case with conventional vessels.

The Standard SM-1 missile, in the DDGs and FFGs, give us an edge in area defence anti-air warfare in the immediate region. Our parity in the full region will disappear when the first of Japan's Aegis type destroyers (light cruisers by many standards) commissions in 1993 with their vertically launched SM2.

The second batch of Taiwanese modified FFG7s are expected to deploy a vertically launched SM2 type missile.

Proposals for a half life modernisation of our FFG7s are still in the earliest proposal stage. That modernisation is essential to retain our technology edge in AAW.

Our tier II destroyer escorts are fitted with Seacat — an archaic point defence system. The Anzacs will have Sea Sparrow, with the advantage of the Mark 41 launching system.

Our close in weapons system — Phalanx — is middle aged. We have only enough systems for the six FFG7s. The three DDGs, Tobruk, Success and Westralia should all be fitted. We should have plans to supplement Phalanx with RAM (rolling airframe missile).

Other areas, with lower profile, are very important.

We have no edge on military satellite communications because they are a new technology. We have some capability begged, borrowed or rented from allies. We will need more but the route to acquire these is unclear because of broad commercial difficulties in deciding whether to launch the second AUSSAT.

The new Jindalee over the horizon radar facilities will give us improved surface detection surveillance capability. Our large area makes this need unique to Australia. Early detection is the only way in which we can hope to deploy optimally our limited forces. The new Maritime Command Centre in Sydney, with its capability to receive, analyse and distribute tactical and strategic information, strengthens Australia very significantly in this way.

The new naval communications station project, to replace the facilities operated by HARMAN, is vital. It is not yet approved and some years from commissioning.

With three study contracts let, ASSTASS, the Australian strategic towed array sonar system, is in the early stages. It offers significant potential capability to supplement Jindalee.

And then, Army needs badly the helicopter support ship. Navy will need a replacement training ship for JERVIS BAY. The DDGs will need successors.

The advantages of a technological edge strategy are obvious for a country with low population, large area and relatively well educated nation.

However, other regional powers are developing their technological capability at a much faster rate than Australia. India and Taiwan are such powers. Both are applying that improved capacity to defence.

Japan, with a huge technological capability for some years, is now applying that to the development of new weapons, communications and sensors.

Eventually, China will catch up.

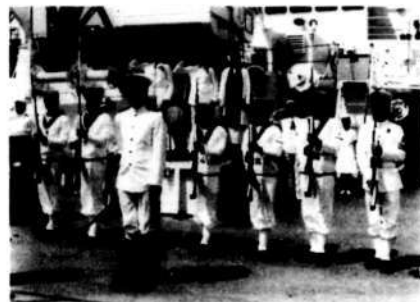
Our technological edge strategy is our only option. It will cost money. If there is not enough in the defence budget, then more money must be allocated to defence.

(\*) Commodore Roach's lecture is re-printed in full in Journal of the Royal United Services Institute of Australia, vol 11 no 1, August, 1990

# NAVY SURVEY SHIP DECOMMISSIONS

The Royal Australian Navy's oceanographic research vessel, HMAS COOK, was decommissioned at a ceremony at Fleet Base, Woolloomooloo on Wednesday, 31 October. The ship is to be sold as a going concern 10 years after she was commissioned into the Navy. The decision has enabled the Navy to achieve necessary savings this financial year to pursue higher priority projects. Commissioned on 28 October, 1980, HMAS COOK was employed

on oceanographic work and on exercises in Australian waters. She undertook deployments to South East Asia and the Pacific. During her naval career she steamed 292,000 nautical miles. HMAS COOK was built at Williamstown Naval Dockyard in Victoria. Oceanographic research will continue to be performed full-time by the Navy's six ships and survey motor launches based around Australia.



COOK being launched, August 1977

The Royal Australian Navy (RAN) first became involved with oceanography in 1955 when the RAN Experimental laboratory was established. Over the years a number of converted warships have been used to assist oceanographers. However, HMAS COOK was the RAN's first purpose built oceanographic ship.

In October, 1966 a modified MORESBY hull was selected by the Naval Board to form the basis of HMAS COOK, and the preparation of detailed ship characteristics began in March 1967. However in May 1967, the Principal Naval Architect expressed doubts that the MORESBY hull would accommodate all the equipment and machinery required, and that the beam would need to be increased by one and a half feet. This in turn increased the cost of \$7.816m.

During January 1969 HMAS COOK's final draft characteristics were submitted and approved by the Naval Board. In September of the same year the Australian government approved the acquisition of an Oceanographic ship by the RAN. Due to this fact HMAS COOK was re-designated as primarily an Oceanographic ship in February 1970. Meanwhile the cost of HMAS COOK had escalated to \$16.401m.

By July 1972 the design package was

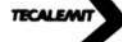
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completed and HMAS COOK's projected construction cost had increased to \$18.739m. In January 1973 the tenderer's letter for the construction of HMAS COOK was released by the Department of Shipping and Transport to prospective bidders. A status report on the project (HMAS COOK) was forwarded by Navy to the Minister of Defence in March and information was received that there were four bids for the construction task.

Unfortunately, during May a new submission was required on HMAS COOK's construction as the government was unable to undertake any new financial commitments, due to a freeze on procurement of government furnished equipment. In August HMAS COOK's cost was reduced by \$1.12m by the deletion of items and a review of characteristics was ordered to seek further cost reductions. The Minister of Defence then visited Williamstown Naval Dockyard (Wildock) after the RAN requested that HMAS COOK be constructed at Wildock. By the end of September the suspension on procurement of government furnished equipment was lifted and the Minister of Defence gave formal approval to proceed with HMAS COOK's construction at Wildock for a total project cost of \$17.5m.

By July HMAS COOK's cost had risen to \$21m and there was concern that HMAS COOK would not be built. However approval was granted to commence construction of HMAS COOK at this price, provided a thorough review of project costs were carried out. October 1974 saw the first metal for HMAS COOK cut.

In March 1975 a new submission was prepared for Ministerial approval since HMAS COOK's construction costs had blown out to an estimated \$24.636m. The Minister of Defence authorised the extra funds for HMAS COOK's construction in July, however, HMAS COOK's construction was suspended in August as the Supply Bills were not passed through Parliament.

The Supply Bills were finally passed in November and construction of HMAS COOK resumed, however, by April 1977 costs had increased to \$26.826m. The Minister of Defence approved the extra funding as required and in August HMAS COOK was launched by Mrs D.J. Killen.

During August 1978 all Shipwright construction was completed and by January 1980 all major electrical work was finished. HMAS COOK was commissioned at Wildock in October for a cost of \$28.7m. Sea and working trials were completed in May 1983 and HMAS COOK was then deemed operational.



Arriving in Sydney for the first time, June, 1981

In April 1986 HMAS COOK hosted the Captain Cook 216th Commemorative Ceremony in Botany Bay and acted as the Naval Reviewing Ship for the RAN 75th Anniversary in October. The following year in January HMAS COOK was the Flagship for the RANSA Regatta and in January 1988 the Tall Ships reviewing platform.

During November 1989 HMAS COOK won the inaugural New South Wales (NSW) Cancer Council Daffodil Barge and ceased operational service on 31 August 1990. In October HMAS COOK won the NSW Cancer Council Daffodil Barge for the second time running and was decommissioned on 31 October 1990.

HMAS COOK was one of the few ships in the RAN to have women billeted as part of the crew. Their selection was based on

qualifications and ability.

The ship itself is 96.6m long, 13.4m wide and has a displacement of 2600 tonnes. A crew of 112 sailors and 12 officers operate the ship with a maximum of 13 scientists embarked to conduct experiments.

HMAS COOK was equipped with a number of sophisticated instruments for measuring oceanic properties. The stabilised Broad Beam Echo Sounding Sonar (seabeam) is fitted permanently in the hull of the ship. It was used for profiling the ocean floor and operates by sending out a number of beams of sound and listening to the returning echos. From these echos, a contour chart of the ocean floor beneath the track of the ship is produced. Another vital function of the ship was to measure conductivity, temperature, oxygen content and depth to determine the acoustic characteristics of the ocean. The results of such work aid the design and development of active and passive sonar. The ship was also equipped to conduct seismic surveys and take samples of the seabed.

The heart of the recording of scientific information was the data logging system. The majority of the oceanographic, meteorological and navigational data was the recorded by two Hewlett Packard 1000E computers from the twenty-three sensors which were onboard the ship or deployed over the side in the water. The system could be flexible, allowing extra data to be entered manually as well as permitting the processing of raw data to be carried out without interrupting normal logging operations.

To assist with the deployment of the over-the-side sensors, a number of hydraulic winches were fitted to the ship. An "A" frame structure was mounted on the quarter-deck of the ship and an oceanographic winch containing 10km of steel cable was kept in



In dock for inclining tests



As flagship of the 75th Anniversary Fleet Review, October, 1986

the hold below deck. To compliment the oceanographic winch COOK also carried a permanently fitted crane which was used for lifting equipment as required.

An unusual feature of HMAS COOK was the After Conning Position (ACP)

which enabled the ship to be controlled from the after end. This was also used for positioning the ship when experiments are being conducted and a close liaison between the bridge staff and the scientists is required. Two Auxiliary Propulsion Units (APUs)

were fitted to the ship to enable precise manoeuvring. At the forward end a bow thruster extends beneath the hull, rotated through 360 degrees and an active rudder were fitted aft. Both APU's were electrically driven hydraulic motors and the active rudder has its own controllable pitch propeller (CPP). Together they permit the ship to turn in its own length and maintain station for long periods when scientific work was being conducted.

The ship is powered by four V-12 twin turbo Caterpillar diesels each generating 634KW of power. The four engines are mounted side by side and drive two gearboxes which transmit power to the two shafts carrying the controllable pitch propellers. The engines can be operated from a number of positions which include the bridge, after conning position, and at the engine itself. However, the usual control location is the Machinery Control Room (MCR) which also houses the ship's sophisticated alarm and indicator system.

HMAS COOK has a top speed of 17 knots, however, it carries enough fuel to sail halfway around the world at maximum economy. The ship was deployed for periods of up to 10 weeks in the oceans and seas around Australia and in the South-West Pacific. During the ten years of operation within the RAN, HMAS COOK was underway for 21621 hours, steamed 291459 nautical miles, conducted numerous scientific experiments and helped immeasurably in the advances made in the oceanographic/hydrographic world.



HMAS COOK at Fremantle in NOVEMBER, 1989

# NAVAL NEWS

## Decommissioning of destroyer escort deferred

The decommissioning of the Royal Australian Navy's destroyer escort HMAS STUART will be deferred until May 31, 1991, the Minister for Defence, Senator Robert Ray has announced.

"Due to the Navy's deployment to the Gulf, which will be for an unknown duration, the paying off of the HMAS STUART will be deferred to maintain the Navy's ability to meet training commitments in Australia and to participate in international exercises," Senator Ray said.

HMAS STUART is based at HMAS Stirling in Western Australia. The ship was withdrawn from operational service on August 31, 1990, to be paid off later this year as part of the implementation of the current financial year Budget.

"The deferral will also result in an increased number of ships homeported in Western Australia once HMAS TORRENS takes up active duty in the west later this year," Senator Ray said.

"The decision to defer the decommissioning of STUART is a clear demonstration of the Government's commitment to a two ocean navy, planning for which will see at least ten additional ships in Western Australia by 1995."



The newly commissioned Federated States of Micronesia patrol boat FSS MICRONESIA proceeding to sea after her handover in the Port of Fremantle on November 3. The twelfth Pacific Patrol Boat to be handed over to South Pacific nations, MICRONESIA joins her sister PALIKIR in Micronesian waters.

Photo: Navy Public Relations (WA)

## Pacific patrol boat to FSM

The Minister for Defence Science and Personnel, Mr Gordon Bilney, has handed over a second \$5 million Pacific Patrol Boat to the Federated States of Micronesia during a ceremony in Fremantle, Western Australia, tomorrow on 3 November, 1990.

The Minister said that the new patrol boat, to be named FSS MICRONESIA, would further enhance the maritime surveillance and control capability for the small Pacific nation. The first FSM patrol boat, the FSS PALIKIR, was handed over on April 28 this year.

Mr Bilney said: "This is the 12th Pacific Patrol Boat brought into service in Pacific Island countries to assist them in policing their vital 200 nautical mile Exclusive Economic Zones.

"We are providing many of our Pacific neighbours with the ability to strengthen their economic and defence self-reliance, whilst also supporting efficient local industry. Through this program we are achieving partnership in the Pacific."



HMAS STUART

# NAVAL NEWS — Continued

## HMAS PERTH home from Asian deployment

The Royal Australian Navy's guided missile destroyer HMAS PERTH returned to Sydney on 19 October after a five month Asian deployment.

During her deployment HMAS PERTH participated in various multi-national naval exercises with Japan, UK, New Zealand, Malaysia and Singapore.

After a well deserved period of leave the ship's company will resume normal fleet duties.

## Tonga hosts multi-national defence exercise

Australian Defence Force (ADF) elements have participated in a multi-national defence exercise in Tonga.

Exercise Late Tofua saw the involvement of two Royal Australian Navy Patrol Boats, HMA Ships WOLLONGONG and TOWNSVILLE, an infantry platoon from 2/4 RAR, an Army communications detachment, a RAAF P3C maritime surveillance aircraft and a C130 Hercules transport aircraft.

The exercise, was held between November 1-7 in the Tongan islands, emphasises the increasing defence cooperation between Australia and countries of the South West Pacific. It allowed the ADF to practice interoperability and broader co-operation with the Tongan and other regional Defence Services while exposing our defence forces to different operating conditions.



HMAS PERTH

## Gulf replacement ships sail from Sydney

Australia's ongoing commitment to the international naval blockade of Iraq was made clear on November 12 when two more Royal Australian Navy warships sailed for the Persian Gulf.

The 520 men aboard the guided missile destroyer HMAS BRISBANE and the guided missile frigate HMAS SYDNEY

were farewelled by hundreds of family members at Sydney's Garden Island Fleet Base.

The Prime Minister, Mr Hawke, the Defence Minister, Senator Robert Ray and the Leader of the Opposition, Dr John Hewson, all went aboard the ships before they sailed.

"I am here not just on behalf of the Government but the people of Australia to give you people, the members of the ships' companies, a simple message — to wish you bon voyage, and a safe return," Mr Hawke said.

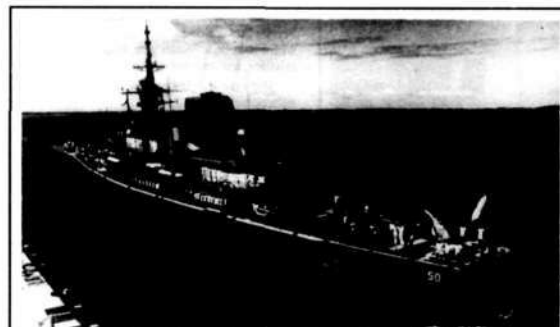
He said the men were sailing with the overwhelming support of the majority of Australians.

At a press conference held onboard HMAS SYDNEY, the Maritime Commander of Australia, Rear Admiral Ken Doolan, said the ships and their crews were well prepared to handle the tasks ahead of them in the Gulf.

Rear Admiral Doolan said the ships would be subjected to intensive training drills as they sailed down the east coast of Australia and across the Great Australian Bight to the HMAS Stirling naval base in Western Australia. This will include mock attacks by RAAF F-111 bombs and Hornet fighters.

The Australian task group will be accompanied by the Royal New Zealand Navy tanker HMNZS ENDEAVOUR as far as Western Australia.

The task group will resupply at HMAS



The Western Australian based destroyer escort HMAS SWAN prepares to berth at the HMAS STIRLING fleet support facility on October 24 after a five month South East Asian deployment.

Photo: Navy Public Relations (WA)



## NAVAL NEWS — Continued

Stirling and from there will head north towards Cocos Island in the Indian Ocean before changing course for the Gulf. They are expected to rendezvous with the frigates DARWIN and ADELAIDE in the Arabian Sea on about 3 December.

DARWIN and ADELAIDE have been on patrol in the Gulf since early September, and are due to return to Sydney via Singapore and Darwin on 21 December.

The supply ship HMAS SUCCESS will be relieved by the RAN's new-supply ship HMAS WESTRALIA in late January.

The commander of the task group is Commodore Chris Oxenbould, a former commanding officer of the destroyer HMAS PERTH. HMAS BRISBANE is under the command of Captain Chris Ritchie, and HMAS SYDNEY's commanding officer is Commander Lee Cordner.

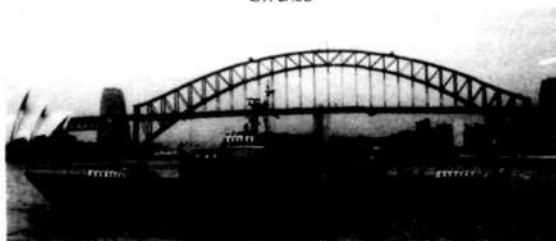
HMAS BRISBANE is a US-designed and built guided missile destroyer of the Charles F Adams class. It has a crew of 333 and is capable of speeds in excess of 30 knots. It has undergone several refits since entering service in the RAN in the middle 1960s.

The ship has been specially modified for service in the Gulf, with two Phalanx anti-missile weapon systems being fitted amidships to port and starboard. This will improve the ship's self defence capability against missile attack. HMAS BRISBANE is the only destroyer of its class in the world to have Phalanx.

The ship is also armed with two 5-inch



LA PLACE



LA GLORIEUSE

guns, anti-air and anti-ship missiles, the Ikara anti-submarine system and dual triple torpedo tubes.

HMAS SYDNEY is a sister ship to the ADELAIDE and DARWIN. Also designed and built in the US, it is an Oliver Hazard Perry-class guided missile frigate equipped with Phalanx, a 76mm gun, anti-air/anti-ship missiles, and anti-submarine torpedoes.

She also carries Seahawk and Squirrel helicopters.

### French Navy ships visit Sydney

Two French Navy ships arrived in Sydney on 1 November for a goodwill visit.

The hydrographic survey ship LA PLACE and a patrol boat, LA GLORIEUSE berthed at the Fleet Base, Woolloomooloo.

On 2 November the Royal Australian Navy and the French Navy conducted a combined wreath laying service at the La Perouse Monument.



HMAS WESTRALIA, the largest ship in the Fleet, berthing at HMAS STIRLING IN Western Australia on October 23 after seven months away. The underway replenishment ship celebrated her first year of RAN service on October 9, 1990. Phone: Navy Public Relations (WA)

## THE CAPTURE OF MV KRAIT A Case of Mistaken Identity

by LYNETTE RAMSAY SILVER

There can scarcely be any Australian interested in WW II Maritime history who has not heard the story of MV Krait and the Jaywick raid on Singapore Harbour in September 1943. However, although a considerable amount is known about the raid, the early history of the vessel is sketchy, very fragmented and full of inconsistencies through which runs an element of truth. Since the late 1960s, when the story of Krait and Jaywick became well publicised, it has been accepted that the vessel Kofuku Maru, later renamed Krait, was captured by HMAS Goulburn during a routine patrol of the waters near Singapore, shortly after the commencement of hostilities with Japan. The capture of the vessel, said to have been towing four or six barges and the property of the Tai-O Fishing Company, was stated to have taken place on either December 11, 12 or 13, 1941. Up until now the veracity of these statements has never been questioned.

While researching the background of Krait/Kofuku Maru for the book *The Heroes*

of Rimau, we realised that there were several anomalies in the accepted history of the vessel's capture — anomalies which became even more apparent when the National Maritime Museum generously allowed us access to papers believed to be those of Kofuku Maru. Subsequent research has revealed that, although the fact that a Japanese fishing vessel Kofuku Maru was captured and was later renamed Krait is indisputable, not one of the other statements made about her is correct. Furthermore, with the aid of detailed naval documents, it has now been established that Kofuku Maru was not captured by Goulburn and that the ship's papers, believed to be those of Kofuku Maru, are those of a completely different vessel — a Japanese fishing boat of similar name, dimensions and appearance but of quite different internal configuration.

On December 8 1941 the 1st Auxiliary Minesweeping Group, composed of HM Australian Ships Maryborough, Goulburn,

Burnie and Bendigo, all of the 21st Minesweeping Flotilla, and several other Allied ships, was patrolling the waters off Singapore. At 12.00 noon, about forty kilometres from Singapore and only hours after war with Japan had been declared, Maryborough, the senior ship, intercepted a Japanese fishing vessel. It is almost certain that this vessel was the one we know as Kofuku Maru.\* After placing a guard on board, Maryborough escorted her prize to Singapore waters for handover to the Custodian of Enemy Property. As there is no evidence to the contrary, it appears that the honour for being the first RAN ship to capture a Japanese vessel in the Pacific Zone after the commencement of hostilities rightly belongs to HMAS Maryborough.

Ten minutes before noon on December 11, three days after Kofuku Maru was in the hands of the Custodian of Enemy Property, Goulburn was ordered to proceed to the Horsburgh Light, about sixty-five kilometres from Singapore, to take over from US destroyer Edsall another Japanese fishing vessel, the Shofuku Maru, which was towing



HMAS MARYBOROUGH

## CAPTURE OF MV KRAIT — continued

four barges. One minute after this order had been received by *Goulburn*, her sister corvette *Burnie* signalled that she had made contact with a submarine. At 12.10, ten

minutes after placing a boarding party and prize crew on board the arrested enemy ship, *Goulburn* also detected a submarine, about 450 metres distant. Leaving Gunner Officer N.O. "Paddy" Vidgen, First Lieutenant Jack Langley, Petty Officer Sandy Bossall, three armed sailors and the ship's multi-lingual Chinese steward on the Japanese ship,

*Goulburn* joined *Burnie* in the submarine chase. After an hour's fruitless search by the two corvettes, during which four depth charges were dropped, *Goulburn* broke off the attack to retrieve her seven crew members from *Shofuku Maru*, which was ordered to proceed Singapore. When Paddy Vidgen returned to *Goulburn* in the ship's



KRAIT

## CAPTURE OF MV KRAIT — continued

whaler he brought two souvenirs — two brass tubes containing *Shofuku Maru's* confiscated ship's papers and the identity documents of two of the Japanese on board, including the ship's captain, Saburo Izumi. Vidgen retained one set of identity papers, while *Goulburn's* captain, Lieutenant Basil Paul, RANR, kept the rest.

Just on dusk at 6.40 the following evening (December 12), *Goulburn* was again ordered to proceed to the Horsburgh Light, this time to take over a Japanese fishing vessel towing six barges, recently captured by the British destroyer HMS *Encounter*. By 8.15 a boarding party from *Goulburn* had been lowered in the ship's whaler to relieve *Encounter's* party, which, then returned to the destroyer.

By the time Singapore fell on February 15 1942, the tally of fishing vessels in custody was considerable. For the month of December alone, there had been many small craft apprehended by 1st Auxiliary Minesweeping Group, with nineteen being captured on December 16 — fourteen by *Bendigo* and another five by *Dragonfly*. With all this activity going on, it is not surprising that, more than thirty years later, incidents have become telescoped and the identity of *Kofuku Maru* confused with that of *Shofuku Maru* and, occasionally, the Japanese ship captured on December 12. Indeed, from the hand-lettered label on the brass cylinder which held the papers retained by *Goulburn's* commander, it appears that Basil Paul himself (despite the fact that the papers were clearly marked *Shofuku Maru*), believed them to be those of *Kofuku Maru*. With *Kofuku Maru's* surrender to Singapore authorities documented as occurring on December 8, *Maryborough's* Report of Proceedings revealing that the ship captured on December 8 was most likely *Kofuku Maru*, *Goulburn's* Log confirming this capture and recording that *Shofuku Maru* was apprehended and taken as a prize on December 11, Vidgen's confirmation that



HMAS GOULBURN

papers were retained by him and Paul, and the internal configuration of the ships being quite different (the single masted *Kofuku Maru* having five holds and the twin-masted *Shofuku Maru* only one — situated between the foremast and the wheelhouse), there is not the remotest possibility that *Shofuku Maru* is *Kofuku Maru*. Furthermore, company executives in Tokyo have revealed that the Tai-O Fishing Company was not formed until 1949, that it owned no ships named *Kofuku Maru* or *Shofuku Maru*, and that its vessels have always operated almost entirely in the fishing grounds of Taiwan.

It is highly unlikely that anyone would have had reason to recall the events of December 1941 and not *Krait* become a vessel of such significance — albeit long after the event. Indeed, it is worth noting that such is the accuracy of information volunteered by Paddy Vidgen and others on the boarding of *Shofuku Maru* and the apprehension of the second ship on December 12, that it differs only in minor details from the entries in the *Goulburn's* Log. Unfortunately, this information, offered in good faith and in the sincere belief that the captured vessel was *Kofuku Maru*, relates entirely to *Shofuku Maru*, a ship which plays no part in the history of *Krait* or

Operation Jaywick. For almost thirty years, the widespread and unquestioned acceptance of the "fact" that *Goulburn* captured *Kofuku Maru* has caused *Shofuku Maru* and, occasionally, the unnamed second vessel, to assume the identity of *Kofuku Maru*.

It is quite impossible that *Kofuku Maru*, the one time Japanese fishing vessel which occupies a special place in Australian wartime history as *MV Krait*, was captured by HMAS *Goulburn*. In the absence of any evidence to the contrary, it appears that this honour must pass to the crew of HMAS *Maryborough*.

★ ★ ★  
\* For the complex documentation and evidence which indicates that the vessel captured by *Maryborough* is *Kofuku Maru*, apply for access to Lynette Silver. The Origins and Capture of *MV Krait* (an academic paper on which this article is based), Australian War Memorial Canberra.

Compiled by Lynette Silver from wartime documents researched by Major Tom Hall and from the evidence of Lieutenant-Commander N.O. Vidgen. *The Heroes of Rimau* was released in October 1990. A book by Silver and Hall, which will document the full history of *Krait*, will be published in late 1991.

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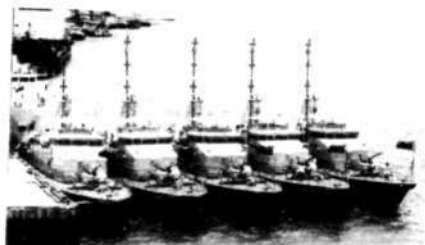
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Exercise Kangaroo II, 1976. HMAS STALWART is the mothership to two Ton class mine warfare ships and two heavy landing craft.



The Mother and her deadly chicks; HMAS PLATYPUS and submarines J1, J2, J4 and J5.



Four former S class destroyers near the Balls Head coal loader prior to being scuttled off Sydney in 1937

## COMBAT FLEETS OF THE WORLD 1990-1991 THEIR SHIPS, AIRCRAFT AND ARMAMENT

Edited by **BERNARD PREZELIN**, English  
Version by **AD BAKER III**  
Published by **United States Naval Institute Press**, Annapolis, Maryland  
Reviewed by **JOE STRACZEK**

*This latest edition of Combat Fleets Of The World marks a milestone in more ways than one. Firstly it will be the last one to list both East and West Germany as well as the first to be edited by Mr Prezelin. The task before the new editor is not one to be envied for he must maintain the standards set by his predecessor. These high standards have made Combat Fleets the book by which others of its type are not only judged but also strive to be.*

Within the pages of Combat Fleets the warship enthusiast and professional alike will find all the information they need concerning the ships used by the navies of the world. This information is easily readable and backed up by a large number of high quality photographs. Of particular interest are the photographs of the new Soviet aircraft carrier TBILSI and the drawing of an even larger 75000 ton carrier ULYANOVSK. The construction of these seems to be at odds with the apparent warming of relations between the Soviet Union and the West. One of the other points that stand out in this current edition is the increasing use being made by navies of surplus civilian craft. Some examples of this are Brazil's FELINTO PERRY, Britain's DILIGENCE and the Royal Australian Navy's COOPs. The main reason for the purchase and use of these craft is purely one of economics. The craft are available and they are cheap.

Technological changes are also becoming apparent in a number of the warship types either in service or under construction. Apart from the usual electronic improvements these changes include the use of stealth technology in the design of ships as well as the use of keylar armour for vital area protection.

In any publication of the scope and breadth of Combat Fleets there is bound to be the occasional error. In the RAN section WESTRALIA's name has been misspelt and there is some confusion with respect to the COOPs. These minor errors are expected to be corrected in the next edition. They are however minor errors and do not in any way detract from the overall quality of this publication.

All in all Combat Fleets is a very high quality publication which will continue to serve as the warship enthusiasts bible for many years to come.

☆ ☆ ☆

## BOOK REVIEWS



### THE NAVAL INSTITUTE GUIDE TO COMBAT FLEETS OF THE WORLD 1990/1991 Their Ships, Aircraft, and Armament



Edited by **Bernard Prezelin**  
English Language Edition Prepared by **A.D. Baker III**

**HMAS ARMIDALE**  
*The Ship That Had To Die*  
By **FRANK B. WALKER**  
Published by **Kingfisher Press**  
Reviewed by **PETER JONES**

*Frank Walker's book traces the tragic story of the loss of the corvette HMAS ARMIDALE off Betano Bay in December 1942.*

The ship was involved in an operation where Australian and Dutch soldiers were to be landed on the island of Timor. In the

event the ARMIDALE, without air cover was torpedoed, bombed and strafed by 13 Japanese aircraft. This relatively little known incident of the war was noteworthy for three things; HMAS ARMIDALE was the last major loss by enemy action of the war for the RAN; the extreme gallantry of Ordinary Seaman Teddy Sheean; and the incredible fight for life of the ARMIDALE's survivors.

Teddy Sheean's valour in returning to his oerlikon, while mortally wounded, and after the "abandon ship" was ordered was one of the finest acts of courage in the RAN's war. For his heroism he was Mentioned-in-Despatches. In recent times, as related in the book, moves have been made by concerned individuals to have Sheean awarded the Victoria Cross. In 1987 a Teddy Sheean Memorial was unveiled in 1987 at Ulverston, Tasmania and last year it was announced that one of the new COLLINS class submarines would be named SHEEAN.

The author has gone to considerable effort with his interviews of survivors and the best part of the book is his account, often through the eyes of these men, of the sinking of the ship and then fight for survival of the crew. It is a heart rending tale that is justification for this book alone.

The major thesis of the book however is that ARMIDALE was lost through official incompetence and then the loss was covered-up. Indeed the cover up on the part of the RAN continued until the late 1970s!

The charge of incompetence centres around the decision to press on with the operation without adequate air cover. In the early part of the war there were a number of cases (e.g. the loss HMS PRINCE OF WALES and REPULSE) where the full lethality of attack aircraft was not recognised. What the book does not tell is why the air cover that was promised did not come. This would have been useful for the reader in forming his opinion on the case presented.

As for the cover-up theory, it rests on four points. First, the loss was not fully investigated and reported to government; secondly, the crew were shunned on return; thirdly, the bravery of Sheean and rest of the crew was not fully recognised; and finally that the name ARMIDALE was forgotten through not being used for a subsequent RAN ship.

Taking the first point, Walker is able to highlight what appears to be inadequate investigations of the ship's loss. It is on this point that he is probably on firmest ground. However his other points are tenuous at best.

Walker cites the indifferent treatment for the crew of the ARMIDALE on their return to Darwin, particularly of the wounded. While this was unacceptable, does this constitute a cover-up? I am sure a number of servicemen in the war would have had reasons to complain about their treatment

## BOOK REVIEWS — CONTINUED

"by the system" but it does not mean an orchestrated campaign of cover-up.

The third point, centres on Teddy Sheean not being awarded the Victoria Cross. While it may be argued that Sheean deserved a Victoria Cross it does not logically follow that the fact he did not receive one indicates a cover-up. Indeed if there was a cover-up it is hardly likely he would have been Mentioned-in-Despatches. It appears Walker's zeal for the cover-up theory prevents him looking at the bigger picture. Walker himself refers to Lieutenant Commander Robert Rankin of HMAS YARRA who virtually repeated the act of bravery that earned Captain Fegan of HMS JERVIS BAY the Victoria Cross. Why did not Walker make the obvious connection that he too did not receive a V.C. Presumably it is because it would have weakened his case for a cover-up.

It appears there are a number of cases where RAN officers and sailors may have arguably received a higher bravery award. Recently it has suggested that the RAN at the time did not indicate a recommended award in their reports of bravery — leaving the Royal Navy to make such recommendations. This may go some way to explain the situation.

The final foundation of the cover-up theory is that the RAN has attempted to hide

the past by not naming a ship ARMIDALE. Walker states that the opportunity presented itself in the late seventies with the FREMANTLE class, but the Navy did not take it up. The trouble is the RAN DID take it up. As readers may remember the original plan called for 20 FREMANTLE class to be built and the name ARMIDALE was allocated for one of the last five. If the author's research had simply extended to Jane's Fighting Ships of the time the FREMANTLE were entering service he would have seen the name ARMIDALE in black and white.

In summary this book is a good account of the loss of the ARMIDALE and the struggle for life of the survivors. It is a pity, however, it is spoiled by a needless cover-up theory that does not stand up to even cursory analysis. The suggestion that the RAN has carried on a 50 year orchestrated cover-up is simply ridiculous. That is something even the KGB in the Cold War heyday would have been proud of! It really shows a naivety of how an organisation such as the navy operates and it is unfair to the service.

★ ★ ★

### THE IMPERIAL RUSSIAN NAVY

By A.J. WATTS

Published by Arms and Armour Press  
Review copy from Capricorn Link,  
Australia  
Price \$85

The pre-ambles to this book states that the author has brought together an

unprecedented collection of photographs and data for this new study of the Russian naval evolution.

The period covered by the book spans from the 1860s through to the Revolution in 1917 and is prefaced by a brief 20 page narrative history or introduction. Like his earlier book, *Warships of the Imperial Japanese Navy*, the author has presented his research in separate chapters, from the large capital ships down to miscellaneous warships. Very brief appendices are devoted to shipyards and a chronology of the Navy's growth. No support or auxiliary vessels are included, on the 'front line' units.

Every entry for each warship or class of combatants is described by both technical and historical narrative followed by a data table. The photographs are large format and varied and have reproduced very well.

The three centuries of naval development and actual five decades of naval hardware that has been professionally presented in the Imperial Russian Navy is reason enough to secure a copy of this unique publication.

★ ★ ★

### WARSHIPS FOTAFAX

Published by Arms and Armour Press  
Distributed by Capricorn Link, Australia  
Cost \$12.95

Midget Submarines by Paul J. Kemp  
and French Battleships 1876-1946 by R.A. Burt are the latest additions to the Fotofax series.

Midget Submarines is a brief photo summary of many unusual craft plus the

## BOOK REVIEWS — CONTINUED

human torpedoes, semi-submersibles including the Welmans and Wellfreighters operated by the RAN special forces in the Second World War. The booklet illustrates up to the 1980s with the modern sub-simmer vehicles and traces as far back as the Russian navy's midgets of the Great War. However most of the booklet is devoted to the Second World War period with the large investment in these vessels by Japan, Italy, Germany and the United Kingdom.

French Battleships is an excellent pictorial resume of those many 'strange looking' warships, the 1890s KOSHE being one of the worst designs, both in appearance and putting too much into one hull, that was ever built. Her exaggerated upper works gave too much top weight and with too little freeboard, she is claimed to have rolled excessively. For the record, the French saw the error of their ways and rebuilt the ship in 1899.

Midget Submarines and French Battleships are available in Australian from December, 1990.

★ ★ ★

### THE GERMAN NAVY IN WORLD WAR TWO

By JAK P. MALLMAN SHOWELL

Published by: Arms and Armour Press  
London and distributed in Australia by  
Capricorn Link (Aust) Pty. Ltd. Lane  
Cove, NSW  
Price \$50.00

After a time span of some 11 years, Arms and Armour Press have reprinted this sought after reference work on the German Navy.

Lavishly illustrated with 220 photographs plus another 45 maps and sets of line drawings, it is a most comprehensive compendium providing a wealth of information on Hitler's Kriegsmarine within 224 pages.

This reference work is divided into six sections: Major Aspects of German Naval

History; The Organisation of the Kriegsmarine; The German Fleet: Organisation; The German Fleet: Ships; The German Fleet: Warship Data, and Rank, Uniform Awards and Insignia. It is further supported by an excellent pictorial section titled 'Features of the Atlantic U-boat' which contains 31 exterior and interior photographs and is further supported by a four page Chronology.

There are some excellent photographs featured in this book including a Passing Out Parade at the Schiffstammdivision der Nordsee in Wilhelmshaven another of the battlecruiser *SCHARNHORST*'s iced-up forward 11-inch gun turrets while the ship was operating in the Polar Sea area in 1940.

Commencing with the major aspects of German naval history from 1919 Treaty of Versailles after World War One through to the collapse of the U-boat offensives and the end of the Third Reich, it is well laid-out and informative book. It includes just about everything you might wish to know about the German Kriegsmarine — Awards, insignia, ranks, uniforms, warship data, organisation, fleet units and history.

A worthy and recommended reference work at a reasonable price.

— Vic Jeffery

★ ★ ★

### AN ACT OF WAR

Published by Arrow Australia, an imprint of  
Random Century Australia Pty Ltd.,  
Milsom Point, NSW  
Price: \$9.95

The best way to describe this paperback would be as "chillingly realistic".

There can be no doubt the plausible situation of a foreign power invading and claiming the Cocos Islands has not been discussed or used for paper exercises in military circles on many occasions over the years.

Consider this scenario: White South Africa has fallen and there is a distinct possibility of the blocking of the Cape oil routes.

This book, set in April, 1996 describes the seizure of Cocos Islands by an Indian air

and sea assault. Unannounced, this attack was preceded by Indian Government declarations of "sovereignty" over Cocos at the United Nations General Assembly.

Tension and mystery builds prior to the attack with the disappearance of an Australian flag iron ore carrier off our north west coast.

Just how would Australia react? Try and use international political pressure, attack, or simply do nothing? As one would suspect, the "no threat for ten years" concept sees the Government-of-the-day unprepared and initially numbed by the rapid strike.

"An Act of War" raises some interesting discussion points about our strategic position and political capacity to react to a scenario as set in this novel.

Author Michael O'Connor, a former naval intelligence officer, is well known as the Executive Director of the Australian Defence Association. His detailed knowledge of defence matters and his specialisation as a political and defence policy analyst add a great deal of realism to this book.

My only correction, albeit a small one, is the reference to Australia's new Anzac-class frigates being armed with a 76mm gun, as the decision has since been made to arm them with a 127mm gun. In Michael's defence however, this announcement was made since he completed the book.

HMAS Stirling, HMAS SWAN, RAAF Learmonth, to mention a few familiar WAS defence assets are mentioned in this most thought provoking title.

Necessary reading for all thinking Australians.

— Vic Jeffery

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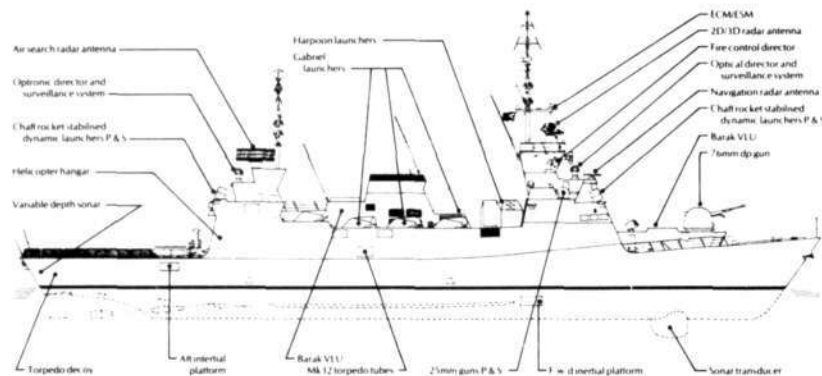
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## NEW CORVETTE FOR ISRAELI NAVY

**Surrounded on all sides by hostile Arab forces the Israeli Navy has developed a small powerful fleet centred upon the Sa'ar type fast patrol craft, the first of which were built in France in the mid 1960s.**

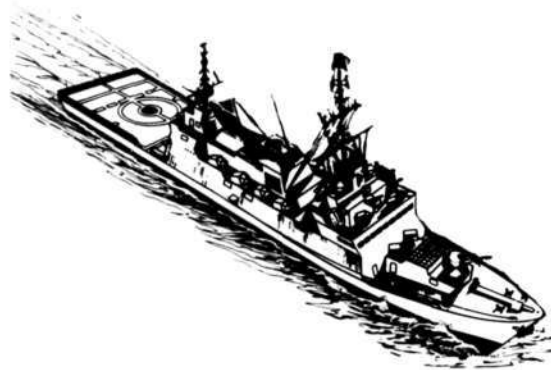
Since that time the Sa'ar boat has been progressively enlarged and improved, to meet new threats and assume new missions. These have included the addition of Harpoon missiles as well as the locally designed Gabriel anti-ship missile, 76mm guns, 20mm Phalanx CIWS\* and in the early 1980s a helicopter capability for the latest ALIYA sub-group of the Sa'ar 4.5 class.

The three new Sa'ar 5 class corvettes, now being built in the USA by Ingalls Shipbuilding are powerful multi-mission vessels, stressing maximum operational capability on a minimum sized hull. Each corvette will have a top speed of 33 knots with gas turbines and an endurance of 3500 nautical miles at 17 knots on the diesel engine.

Length overall will be 85 metres and maximum beam of almost 12 metres. Each vessel will be manned by 74 officers and men.

The weapons fit of the Sa'ar 5 comprises 64 Barak point defence missiles, contained in two 32 cell vertical launch silos, one 76 mm dual purpose gun and a five barreled 25mm Sea Vulcan gun mounted on each bridge deck. For the anti-ship role each corvette will mount two quadruple Harpoon missiles and eight single Gabriel IV cells. One set of triple Mk 32 torpedo tubes will be installed on port and starboard, passive defence will be provided by chaff and flare rocket launchers, smoke rocket launchers and a Nixie torpedo decoy system.

Helicopter operating and support facilities mean that a SH2F LAMPS Mk1 or



Lahav (Sa'ar V)

Ingalls SB

HH-65A Dauphin helicopter can be embarked for all patrols.

The 74 man crew will include 16 ship's officers, seven CPOs and 41 sailors plus four aircrew officers and six associated CPOs. For improved protection the ship's CIC has been sited below the bridge as the focal point of the command and control system. Onboard sensors include surface search, air search and navigation radars with

all antenna on two separated masts. For the offensive weapons there are three missile directors and illuminators, an optical director and a pair of optical sights. For sub-surface ops the ships will carry a variable depth sonar and a hull sonar.

The arrangement of the Sa'ar 5 has resulted in a ship allocated 37.4 % to its combat systems, compared to the normal 22%.

## NAVY LEAGUE AND CADET NEWS

# Report of the Federal President to the Annual General Meeting Navy League of Australia, Canberra, 16 November 1990

*Ladies and Gentlemen,*

*This report covers the twelve months that have passed since our last General Meeting which, as you know, was held in Fremantle — the first ever Federal Meeting held in Western Australia. I will refer to this meeting first.*

Although the decision to hold the 1989 meeting in the west was made several years beforehand, the pilots' strike almost caused it to be transferred to the eastern states where the majority of council members live. In the event, by devious means and with the aid of "friends in the right place", all Divisions, with the exception of Tasmania, were represented. Even so, when the acting Governor, Sir Francis Burt, opened the AGM, the acting Federal Secretary together with the meeting papers, was in the air somewhere over the Nullarbor due to a last minute flight change. Our principal guest, the Chief of Naval Staff, missed out altogether but was well represented at the various meetings by the Naval Officer Commanding, West Australia Area, Commodore Graham Subington.

The WA Division of the League laid on an excellent programme for the three day conference (for some, five days) which included visits to 'HMAS Stirling' and a number of firms engaged in defence work, a civic reception by the Mayor of Fremantle and a very well attended dinner to conclude the programme. All in all it was well worth the trouble involved, not only in reaching the West but getting home again.

### THE SEA & AUSTRALIA VIDEO

The principal event during the last twelve months has been completion of the first part of our educational video; the second part involves the video's distribution, together with explanatory literature, to every secondary school in Australia. Distribution is well underway in NSW and has started in Victoria but there is still a long way to go which will require a major effort on the part of each Division.

Physical distribution of course is only part of the exercise. A video in a dusty cupboard is of little use — it must be put to work and this requires much consultation with State educational authorities and their approval to include the video in schools' curricula; in those States where a good deal of autonomy lies in individual schools, the task becomes more complicated — and then there are hundreds of private schools as well as State schools ...! The dimensions of the task we have

undertaken will I am sure be appreciated by those who have some knowledge of the complex educational arrangements in our country.

The quite large number of people who have now seen the video, including educational authorities, government and private, have been generous with their praise. The Navy itself has ordered a number of copies for their own educational purposes.

I wish to place on record the thanks of members of the Navy League for the time, money and effort contributed by Commander Otto Albert, President of the NSW Division of the League and a small team in which I have no hesitation in including RADM Andrew Robertson, our senior Federal Vice-President, and NSW Committee Member, Mr John Glover.

In my opinion "The Sea and Australia" is probably the most significant single contribution the Navy League has made to Australia, although its influence may not be evident for some time to come.

### DEFENCE RELATED MATTERS

After consultation with my immediate colleagues, on behalf of the League I have expressed in appropriate quarters the League's support for the Middle East deployment of RAN ships; reservations concerning the proposal to post women to combatant ships (frigates and destroyers, submarines are already excluded); dismay at the sale of 'Stalwart'; and reservations about a number of proposals contained in the Wrigley report 'The Defence Force and the Community'. I have referred to some of these matters in 'The Navy Viewpoint' which, although it expresses a personal opinion, I believe generally reflects the views of the League's members (dissenting members can always express a different view if they so desire).

The Council will be briefed by CNS and a number of his departmental heads at Navy Office a few hours before our General Meeting. The programme is comprehensive and will bring Council member up to date on a wide range of developments either underway or planned. These briefings have become a feature of our Canberra meetings which as you know are held in the national capital every second year; in the intervening year we go to Sydney and Melbourne, occasionally venturing further afield as we did last year.

### COMMUNITY AWARD AND EFFICIENCY TROPHY

The 1989 Community Award, presented annually to HMA Ship or Establishment judged by the Council to have made the most significant contribution to the earlier community, keeping in mind the resources

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## NAVY LEAGUE AND CADET NEWS — CONTINUED

available to the unit, was won by the Exmouth Gulf Naval Communications Station 'Harold E Holt'.

The 1989 Navy League Efficiency Trophy, awarded to the most efficient NRC unit, was won by 'T3 Coral Sea', located in Townsville.

The awards were represented by the Naval Officer Commanding, WA Area (Commodore Graham Stibington) and the Chief of Naval Staff (Vic Admiral Michael Hudson) respectively.

### CADETS

The NRC is in good shape although the numbers borne are down a little on the number allowed. The shortfall in Officers' and instructors is disappointing; the number required is quite small and there is a large ex-Navy community which should be able to meet the requirements of the NRC, or at least one would think so. Having spent twenty-five years with the Navy League Cadets/ASCC/NRC I can assure members it is a very satisfying spare-time occupation.

### THE NAVY MAGAZINE

As I have said on other occasions, the success or otherwise of 'The Navy' is of very great importance to the Navy League, in fact I am sure that many members who for various reasons cannot assist the League in other ways, become members and remain because of the magazine with its mix of current affairs and historical articles. Getting the right mix — between current and historical items — is a difficult task for the editor but the answers to the questionnaire sent out some time ago provided useful guidance and I think the balance is about right.

I take the opportunity to thank on your behalf the editor and the NSW based management committee headed by Divisional president Otto Albert for constantly seeking to improve an already very good magazine.

### FEDERAL ADMINISTRATION

We are in the process of making a number of changes which I hope will result in a more effective Navy League and a better informed membership. The principal advance has been the establishment of a well

equipped office which the Federal President shares with the Victorian Division. The Federal and State sections are separate so that the Federal part can be easily transferred to the Division in which the Federal president resides.

Legislative changes have greatly increased the financial responsibilities of the Federal Council (the League is incorporated as a public company) and as a federated organisation a number of problems will have to be resolved by the Council during the current series of meetings.

### QUESTIONNAIRE

Apart from providing useful information concerning 'The Navy' magazine, other conclusions can be reached, probably the most important relating to our membership. Most members have served at some time in the Navy or Merchant service; clearly we need younger members — people who are not old enough to have spent part of their lives in the Services or in professional maritime employment. 'The Sea and Australia' video should make the Navy League quite widely known among young people but whether it will cause members to join the League remains to be seen.

Another interesting piece of information to emerge was the wide range of occupations former seafarers chose to enter — business, the trades, professions, both private enterprise and government service; the diversity was surprising.

The Council is grateful to the many members who took the trouble to reply to the questionnaire, we are still digesting and trying to act on the information provided.

### APPRECIATION

I wish to record my appreciation of the support given to me by our Vice Presidents — Andrew Robertson, John Bird and Len Vickridge; the Honorary Secretary, Roger Blythman; Honorary Treasurer, Martin Dunn; the recently appointed Assistant Secretary, John Wilkins; my Council colleagues and the many members who have contributed so much to the League on a variety of ways over the years.

GEOFFREY EVANS, *Federal President.*

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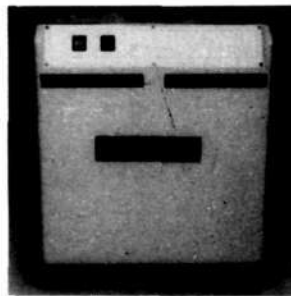
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# The Navy League of Australia

## APPLICATION FOR MEMBERSHIP

### **HISTORICAL**

*The Navy League was established in Australia in 1901, initially in the form of small branches of the United Kingdom Navy League (established in 1897) and since 1950 as an autonomous national body headed by a Federal Council consisting of a Federal President and representatives of the six States, the Australian Capital Territory and the Northern Territory.*

*The Navy League of Australia is now one of a number of independent Navy Leagues formed in countries of the free world to influence public thinking on maritime matters and create interest in the sea.*

*The Navy League of Australia cordially invites you to join us in what we believe to be an important national task.*



## MEMBERSHIP

Any person with an interest in maritime affairs, or who wishes to acquire an interest in, or knowledge of, maritime affairs and who wishes to support the objectives of the League, is invited to join.

## OBJECTIVES

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.

## ACTIVITIES

The Navy League of Australia works towards its objectives in a number of ways:

- By including in its membership leading representatives of the many elements which form the maritime community.
- Through soundly-based contributions by members to journals and newspapers, and other media comment.
- By supporting the Naval Reserve Cadets, and assisting in the provision of training facilities.
- By encouraging and supporting visits by recognised world figures such as former United States Chiefs of Naval Operations and Britain's First Sea Lords.
- By publishing "The Navy", a quarterly journal reporting on local and overseas maritime happenings, past, present and projected.
- By maintaining contact with serving naval personnel through activities arranged during visits to Australian ports of ships of the Royal Australian and Allied Navies.
- By organising symposia, ship visits and various other functions of maritime interest throughout the year.

Member participation is encouraged in all these activities.

## JOINING THE LEAGUE

To become a Member of The League, simply complete the Application Form below, and post it, together with your first annual subscription of \$12.00 (twelve dollars) (which includes the 4 quarterly editions of "The Navy"), to the Hon Secretary of the Division of the Navy League in the State or Territory in which you reside, the addresses of which are as follows:

**NEW SOUTH WALES DIVISION:** GPO Box 1719, Sydney, NSW, 2001.  
**VICTORIAN DIVISION:** C/- 4 Eleanor Court, Donvale, Vic. 3111  
**QUEENSLAND DIVISION:** C/- 42 Gilgandra Street, Indooroopilly, Qld, 4068.  
**AUSTRALIAN CAPITAL TERRITORY DIVISION:** C/- 45 Skinner Street, Cook, ACT, 2614.  
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### THE NAVY LEAGUE OF AUSTRALIA Application for Membership

To: The Hon. Secretary  
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..... Division

Sir or Madam,

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Subscriptions are due on 1st July in each year, and your membership will be current to 30th June immediately following the date on which you join the League, except that if your first subscription is received during the period 1st April to 30th June in any year, your initial membership will be extended to 30th June in the following year.

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

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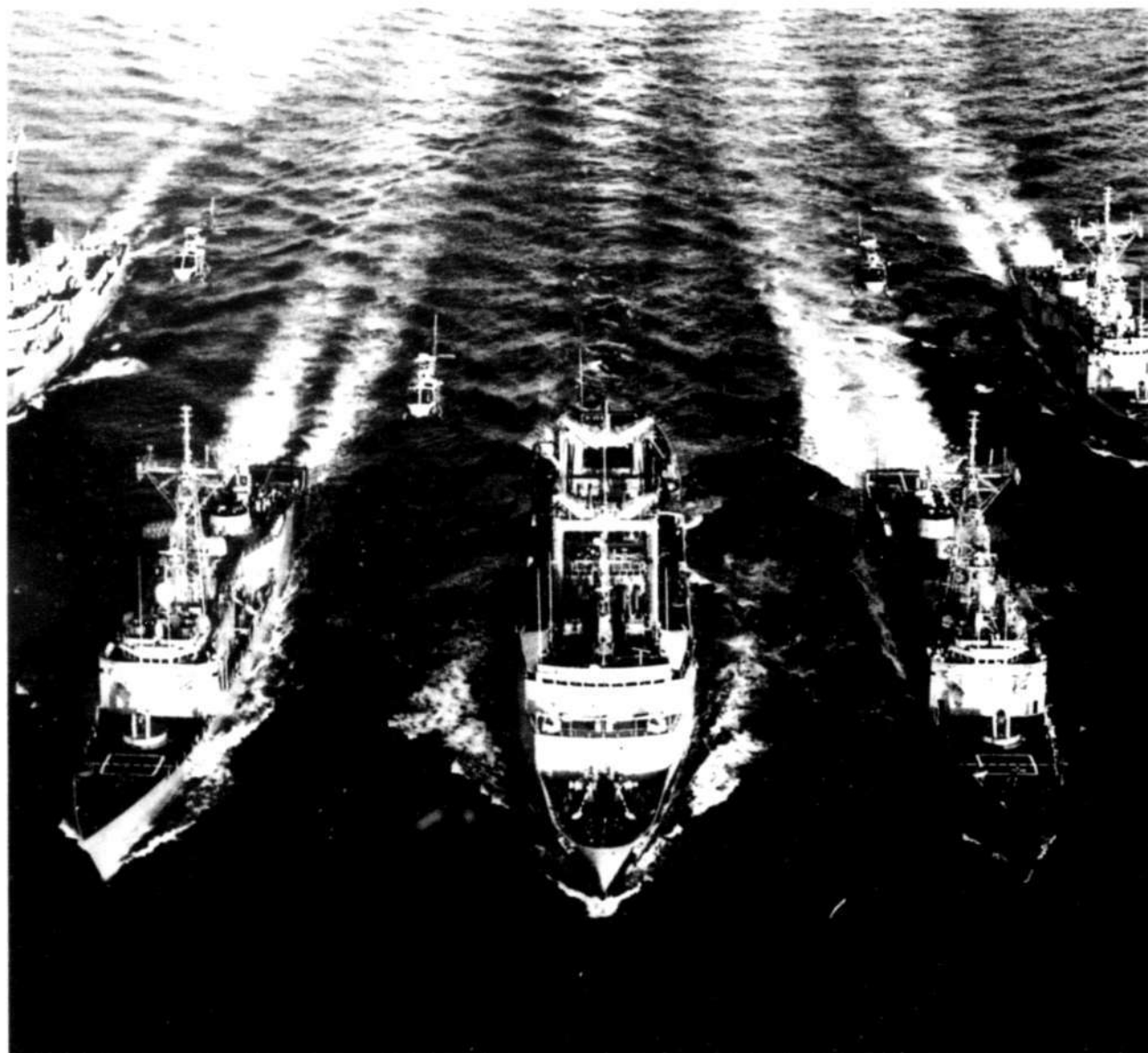
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APRIL - JUNE, 1991

No. 2

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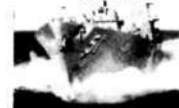
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## OUR FRONT COVER PHOTOGRAPH

Led by the underway replenishment ship **HMAS SUCCESS**, the RAN's four *Gull* warships pose for the camera. *HMA Ships* **ADELAIDE** and **DARWIN** (front left and front right) were replaced by the **DDG, HMAS BRISBANE** (rear left) and the **FFG, HMAS SYDNEY** (rear right) in late 1990. (Photo - RAN)

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# viewpoint

## "A War To End Wars?"

*In an article in this issue of THE NAVY, Naval Affairs writer A. W. Grazebrook refers to lessons that will undoubtedly be learned from Australia's participation in the war in the Middle East: He correctly points out that Australia's predominantly naval contribution is to an essentially offensive operation - dislodging a large and firmly entrenched force from a country it has subjugated - whereas the role of the Australian Defence Force and to that extent its structure is basically defensive.*

Tony Grazebrook is not suggesting the ADF lacks an offensive capability - much of the ADF's equipment, particularly that of the Navy and Air Force, can be employed in either role - but our strategy is "defensive"; our forces are unlikely to be used in the foreseeable future to acquire additional territory or to overcome by force of arms some country with which the government happens to disagree.

The lessons to be learned from the Middle East war will not only be military in nature; the extent of the political repercussions can only be a matter of guesswork at this stage but there can be no doubt they will be felt worldwide. At stake is the viability of the United Nations Organisations as a peacekeeper.

Unlike the Korean War, where aggression was combated by a group of nations, including Australia, operating under the United Nations flag and with a United Nations command, the Middle East war and the events leading up to it involve a large but in some respects loose coalition of nations enforcing a United Nations resolution. It would appear that qualifications placed by some nations on the way their armed forces can be used has made a truly unified command virtually impossible. This is regrettable but fortunately the principal contributor, the United States, and its closest allies including Britain and Australia, have appreciated the folly of disunity and have a viable command arrangement.

It is a tragedy in more ways than one that Iraq, as a result of quite clear United Nations disapproval expressed in the form of warnings, sanctions and eventually a deadline for withdrawal, did not withdraw from Kuwait prior to mid-January, 1991. If it had done so the authority of the United Nations would have been strengthened immeasurably and indeed the course of history may well have been changed. It was not to be so and the consequences of the need to go to war have yet to be faced.

In planning for the future, a factor not as widely recognised as it should be put one that must be taken into account, is the "antiwar" or "peace" movement that exists in one form or another in most Western countries. Vocal and sometimes carrying their opposition to decisions of their governments to extreme lengths, the disparate groups involved create disunity in communities and distracting pressures that national leaders with dispassionate decisions can well do without.

So far as Australia is concerned, war is anathema to most people - especially to those who have been involved in one - but the world and human nature being as they are, it is reasonable to ask those who oppose our involvement in the Middle East, what their attitude would be should some country, envious of Australia's abundant resources and living space, decided to make better use of them. Surrender immediately? Call for assistance? Or resist regardless? A lesson to be re-learned rather than learned from our current involvement is the

need to control the indiscriminate supply of armaments to all and sundry. It can be argued that it is legitimate to supply arms to allies or friends but regrettably history indicates that only too often today's friends become tomorrow's opponents. It will be one of the many problems to be solved if the promised "new order" is to come to pass.

The hardest thing to change will be human nature and one suspects that fear of the consequences will be the main deterrent for potential aggressors for some time to come.

*Geoffrey Evans*

**GEOFFREY EVANS**  
Federal President

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Dear Sir,

I have been reading the book called The Navy about the Navy League.

I was in the RAN from 1938 till 1946 joining for 12 years but paying off with 8 years as a P.O. Cook(S). Now I would like to get in touch with some (one) about the minesweeping ships I served in; one we worked between Sydney and Port Kembla and Jervis Bay, from Monday to Friday.

We coaled ship in Sydney on Saturday before getting weekend leave if you were lucky. I was in NAMBUCCA, (wooden ship) and iron men, made up of trawler men, working with the "HEROS" and "ST GILES". I am sure that these two ships were tugs in Newcastle before and after the War.

Good night. God bless, lights out, pipe down.

LES FENNING,  
Concord, NSW

☆☆☆

Dear Sir,

The Submarine Association of Australia is forming a New South Wales Branch on ANZAC Day 1991. The first election will be held at the reunion, in the Function Room at HMAS PLATYPUS, Neutral Bay.

All submariners retired and serving in NSW are encouraged to

march and attend the meeting. For more information call Peter Smith 02-519 8745 or Peter Davies 043 88 1184.

Yours sincerely,

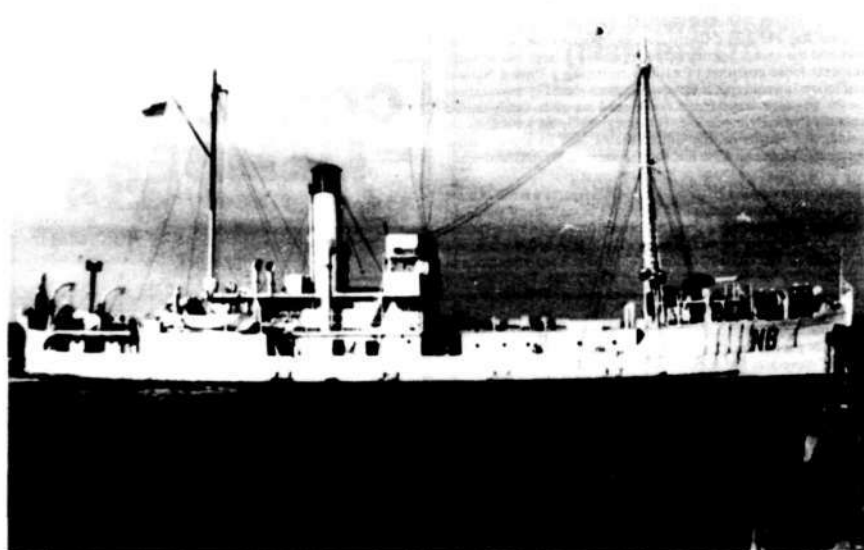
PETER SMITH  
98 Yelverton Street, Sydenham, NSW 2044  
☆☆☆

Dear Sir,

I read with great interest the article in your magazine THE NAVY on the sailing ship SOBRAON and the life of the boys aboard when it served as a boys naval training ship. I was a boy in the RN at HMS GANGES.

For some time now I have been researching the ships of Duncan Dunbar a Scots shipping millionaire who owned 70 sailing ships that traded in tea and also sailed in Australian waters. The most famous of these ships being the DUNBAR which was wrecked off Sydney Heads with one survivor. Another of his ships is being restored at Picton, New Zealand, she is called the EDWIN FOX. The SOBRAON is interesting in this context as it was built for Gellatly the gentleman who took over the Dunbar ships on the death of Duncan Dunbar. He was chief shipping clerk and started the new international shipping company it is today his first new ship was SOBRAON.

The ship was the largest composite ship ever built and she was built at Halls & Co at Aberdeen. The shipyard is still in business and



HMAS NAMBUCCA

### VIEWPOINT FROM OUR READERS - CONTINUED

not far from Duncan Dunbar, birthplace and as a tribute to his benefactor Gellatly had the traditional Lins Head figurehead of the Dunbar ships fitted to the bows of the SOBRAON. Does anyone know if the figurehead still survives.

I receive your magazine from a gentleman in Forster, and I send him the Navy News then your mag is passed to the cadets in my unit based here in Dunbar call T.S. Valiant.

My kindest regards,

Yours aye

LIEUT Kevin A. (SEC) RNR  
Commanding Officer, T.S. Valiant, Dunbar  
39 Springfield, Dunbar, East Gothian, UK

☆☆☆

### DISPLAYING THE SILENT SERVICE



Dear Sir,

A Naval Museum has been set up within the bluestone walls of the first RANC, Osborne House and I have been appointed Hon Curator. Being the President of the Geelong Branch of the Navy League this gives me a great deal of pleasure.

As you know, Osborne House has had a long association with the Royal Australian Navy commencing in 1912 when the Navy first took occupancy. It is now history that these buildings were used as the first Royal Australian College commencing in 1913.

Further associations followed in 1921 when Osborne House was a submarine base with 'J' class submarines being moored alongside HMAS CERBERUS (then named "PLATYPUS II") off North Geelong.

With this background, it is an ideal place to set up a Naval Museum. And excellent supply of artifacts has already been loaned or donated for display, but there is room for more.

Could you please include the attached news item in the next edition of the "NAVY"? It may generate some "attic cleaning"!!

I think it fair to say that a number of our members have been through Naval service and quite a few, through RANC at some stage, (although not at Osborne House!) it means that little pieces of history lie spread throughout Australia! These are the pieces we are looking for!

Wishing all members, you and your family, compliments of the season.

Your sincerely,

BOB APPLETON, Hon. Curator  
Osborne House, Naval Museum

☆☆☆

Dear Sir,

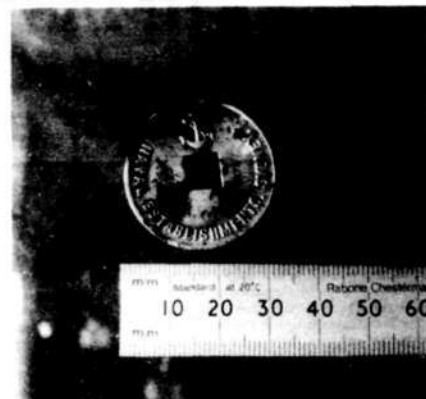
I am an amateur numismatist researching all the tokens used by Australia's armed forces. Recently I obtained two tokens one of which I think was used at Garden Island.

I should be pleased if you could publish in "THE NAVY" the photos along with my name and address and a request for information about the tokens.

Thanking you in advance.

Yours faithfully,

JOHN F. YARWOOD,  
72 Ballie Street,  
Horsham, Vic 3400



### "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

# HMAS YARRA IN IRAQ – 50 YEARS AGO

By JOE STRACZEK, Naval Historian

*The Royal Australian Navy's current operations in support of the United Nations resolutions on Kuwait is not the first time that it has been in the Persian Gulf area. Fifty years ago the Australian built sloop HMAS YARRA saw action with British forces in a war against Iraq.*

HMAS YARRA's involvement in that Iraq conflict resulted from a coup d'état on April 3/4 1941 led by the nationalistic and pro-German Rashid Ali. After assuming power he advised the British that he did not recognise any treaties signed between Britain and the previous government. This the British government viewed with concern particularly as the existing treaty not only allowed for the movement of British forces through Iraq but also committed it to assisting Britain in time of war. There was also the potential for the new regime in Baghdad to interfere with the flow of oil for Britain's war effort.

YARRA was allocated to form part of the escort for a convoy carrying a brigade group and regiment of field artillery from Karachi to Basra. The convoy and its escorts departed Karachi on April 12. The British intended to land these troops in Iraq under the terms of the 1930 treaty.

The seven transports and escorts entered the Shatt-el-Arab waterway on 0230 on April 18 and proceeded to the port of Basra. Whilst travelling up the waterway the convoy passed four Iranian warships and

ceremonial courtesies were exchanged with the neutral Iranians. Once the troops were landed the Iraqi government advised the British that no more troops could be landed until those already in the country had moved on. The British responded by advising the new government that in view of the critical situation in Egypt more troops were to arrive. These additional troops had departed India on April 22 in convoy BP1.

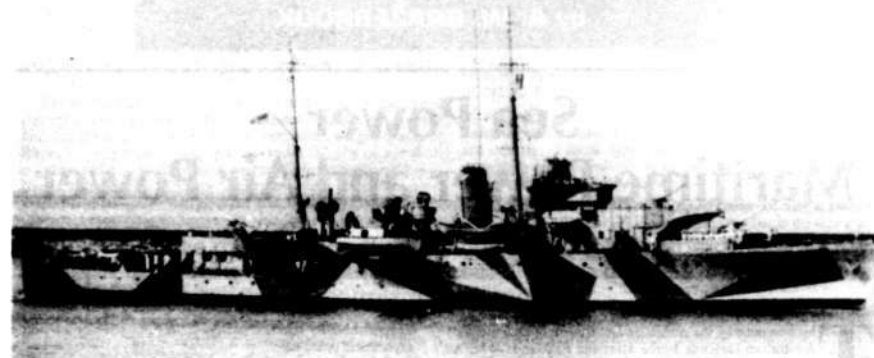
In anticipation of a possible Iraqi attack the Royal Navy prepositioned HM Ships HERMES and ENTERPRISE south of the Shatt-el-Arab waterway so as to cover the arrival of this new convoy. YARRA was dispatched to the head of the Shatt-el-Arab to help escort this convoy to Basra. These additional troops were also landed without incident. However, shortly after the arrival of this latest convoy the Iraqis surrounded the RAF establishment at Habbaniya and on May 2 they opened fire on the British cantonments. War between Britain and Iraq was officially declared at 1430 on May 2, 1941.

HMAS YARRA, commanded by LCDR W. H. Harrington RAN, was at this time

operating under the orders of the Senior Naval Officer Persian Gulf and would for the greater part of the war continue to operate along the Shatt-el-Arab waterway in support of the ground forces.

Early in the morning of May 2, YARRA sailed up the waterway to the Qarmat Ali Bridge, above Ashar, where she was to prevent the southward movement of Iraqi reinforcements. On arrival at the bridgehead it was found that the southern approaches were in the hands of Iraqi troops who were busy mining the bridge. By 1135 the Iraqis had withdrawn their troops from the southern side of the bridge and with the approach of Sikh troops attempted to blow it up.

The charges, however, misfired and personnel from YARRA were landed to retrieve the charges and render them safe. After being retrieved the charges were examined and found to consist of gun-cotton manufactured at Waltham Abbey in 1937. The charges had misfired due to the improper fitting of the primer into the gun-cotton. After the withdrawal of the Iraqi troops and the rendering safe of the bridge



HMAS YARRA sailing Fremantle

the Sikh troops crossed and took up defensive positions on the northern side of the bridge. Later that afternoon two RAF aircraft attacked the Iraqi positions and YARRA fired two salvos of HE in support of the British troops.

YARRA weighed anchor at 1935 and proceeded back down the Shatt-el-Arab to an anchorage off Margil Wharves. During the daylight hours of May 3rd and 4th YARRA again proceeded to the Qarmat Ali Bridge to support the British ground forces.

Movement up and down the Shatt-el-Arab was dangerous not only because of the possibility of attack by Iraqi ground and air forces but also because of the large amount of debris in the water. On a number of occasions YARRA's steering was jammed by the debris and the ship was manoeuvred from the hand steering position in the tiller flat, a very unpleasant task in temperatures passing 37 degrees Celsius.

Following a report that the Iraqis had dropped mines, YARRA was moved down river to an area known as Satan's Gap, where at anchor, some of her crew manned two tugs to patrol the anchorage.

At 2330 on the night of May 4 YARRA proceeded to a position near the British Consulate in Ashar where a large crowd had been gathering. On May 7th she covered a Gurkha landing, in the vicinity of the British Consulate. This force eventually occupied the township. Whilst the landing was unopposed, some automatic weapons fire was heard during the morning. Fleet Air Arm Swordfish aircraft also bombed the main road outside Ashar. The township was fully occupied by the morning of May 8.

YARRA then proceeded to Fao where on May 9 she assisted in the disarming of local police and the occupation of the town. On

completion of this operation YARRA conducted boiler cleaning, one boiler at a time, until May 22.

The final stage of YARRA's involvement in the Iraq campaign began on May 22 when six sailors dressed as Arab fishermen manned a native bellum and took soundings of a possible landing area along the Shatt-el-Arab waterway prior to the commencement of Operation SCOOP. The aim of this operation was to clear Iraqi forces from along the right hand side of the waterway in the vicinity of Habib Shawi. About 100 of the enemy were believed to be dug in near the feature known as the Big House. LCDR Harrington was given overall command of the naval forces involved in Operation SCOOP. These included YARRA; the tugs SOURIYA and SHAMAL; an RAF launch and a pontoon. Air support was to be provided by aircraft of 244 Squadron RAF.

The tasks allocated to YARRA and her naval force were to transport two companies of Gurkhas and Battalion Headquarters to the area near the Big House and bombard the area prior to the landing of the troops. A further bombardment of the South village and ground to the east was conducted using embarked mortars. The naval force also provided covering fire for the troops and engaged enemy seen or heard, firing from the north village or the date grove near it. On completion of the operation the troops were re-embarked and the force returned to its normal base.

In preparation for their involvement in Operation SCOOP YARRA's crew worked at various tasks including transporting troops to the waiting ships and mounting two mortars amidships on the Sloop. At 0320 on May 24 YARRA and her flotilla proceeded to their destination arriving about 0400.

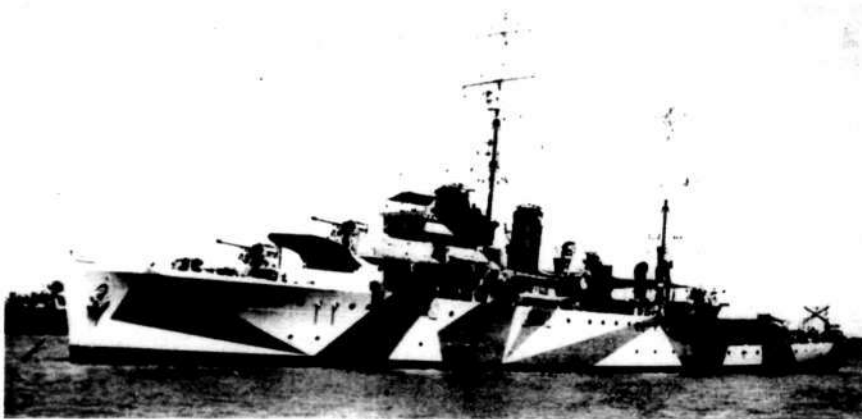
YARRA commenced to engage her allotted targets by firing on the Big House, Bath North whilst the military forces commenced to land.

The British troops were quickly ashore and occupied the Big House for use as a first aid station and communication post. One of YARRA's crew was landed with the soldiers to assist in ship to shore visual communications. After the landing YARRA proceeded up stream to be in position to provide covering fire for the troops if required. Once the troops had achieved their objectives they were re-embarked without incident and by 0942 YARRA had returned to her anchorage off No 1, berth Margil. Ammunition expended by YARRA for the operation totalled 43 rounds of 4 inch HE, 216 rounds of 0.5 inch and 550 rounds of .303 inch machine gun ammunition.

Whilst YARRA was engaged in supporting British troops along the Shatt-el-Arab waterway other British forces were advancing on Baghdad. On May 29 British forces entered the city and the following day Rashid Ali and his senior officers fled to Persia. The Amir Abdul Illah was reinstated as the Prime Minister of Iraq on May 31 and an armistice was declared the next day.

Throughout the period of service along the Shatt-el-Arab the ships company of YARRA had performed very well, though by this stage the number of personnel suffering from malaria was at a point where it was starting to impact on the operational effectiveness of the sloop.

On completion of her Persian Gulf tour YARRA was to return to the Mediterranean, were along with other ships of the Royal Australian Navy, she earned the respect of both friend and foe alike.



HMAS YARRA in the Persian Gulf.

# NAVAL MATTERS

by A. W. GRAZEBROOK

## Sea Power Maritime Power and Air Power

**With the outbreak of war in the Persian Gulf, military professionals will be studying the conflict to derive lessons to apply to their particular national defence circumstances.**

This was done by the Australian Department of Defence and Australian Defence Force after the Falklands War. A number of lessons were perceived and applied. Because of the great difference between the strategic circumstances of Australia and those involving Britain in the Falklands War, the lessons relevant to Australia involved almost exclusively specific modifications to equipment and changes in training methods.

As part of a United Nations force, the ADF has participated in the Gulf War. Therefore, there will be lessons learned which should be applied to improve the effectiveness with which the ADF can participate in any future United Nations sponsored force.

However, the strategic objective of the United Nations sponsored forces in the Persian Gulf War is very different from any which could conceivably be applied to the ADF, either now or in the more distant future.

The United Nations sponsored force is mounting an offensive overseas amphibious and desert land campaign to eject a massive hostile army from a carefully prepared defensive position. The United Nations alliance air forces are applying airpower in support of that campaign.

This is a very different objective, and a very substantially different type of warfare, to that assigned to the Australian Defence Force under Australia's defence strategy.

The role of the ADF is strategically defensive – to defend Australia (both continental and offshore) and her interests (primarily economic).

To achieve this, the ADF is structured to:

- Detect as far away as possible an impending attack, using long range submarines, P3 maritime patrol aircraft and Jindalee over the horizon radar.
- Using the RAN and the RAAF's F111C and FA18 aircraft, destroy any attacking invasion or air strike force whilst it is on or over the high seas.
- Use the Army to deal with any enemy forces which do get through, to defend our vital assets (military, particularly air bases, and economic) and to deal with incursions by hostile special forces.
- Use appropriate forces to deal with attacks on our economic interests. Navy, with its flexibility in situations requiring a graduated response, is particularly suited to this role. Army also has a role to play, particularly in air and water transported forces.
- Rescue, or succour Australian citizens caught overseas in civil or military strife. Again, a capability for graduated response; is particularly appropriate in these circumstances.

- Support friendly regional powers by regular visits and training exercises in peace time.

In so far as this force structure provides equipment and personnel appropriately trained, operate with allied forces where necessary.

In summary, ours is a maritime strategy. The ADF is equipped for that role. The ADF is equipped neither for desert warfare nor for air warfare of the type undertaken in the Gulf War. To equip and train the ADF for that purpose would divert resources away from the primary purpose of the ADF.

Australia cannot afford to acquire and operate equipment for operations with allies alone.

It is right that Australia should support allied military activity where it is in our interests to do so. However, that support should be limited to using forces which we have anyway under our defence strategy.

Clearly, the ADF's role is very different to that of the United Nations sponsored force in the Persian Gulf War. There is no intention, on the part either of the present Australian Government or the Alternative Government, that the ADF should mount an assault overseas.

Overseas peace time involvement in our region takes the form of:

- RAAF aircraft (P3Cs and FA18s) operating from and through friendly regional bases, and participation by the RAAF in the International Air Defence System (IADS) in South East Asia.
- Virtually constant presence of one or more RAN ships, submarines or craft in regional waters. This includes regular participation in exercises.
- Participation both at home and overseas of Army personnel in exercises and training.

There is no real move, by either Government or Opposition, to change the nature of this involvement. Indeed, funding limitations are making it very difficult to maintain the ADF required to fill its current role.

Therefore, we must be very careful to ensure that all the Persian Gulf War lessons applied to the ADF are strictly relevant to the ADF's role.

For example, the force and weapons required to seize control of another country's airspace and mount a major attack on his economic infrastructure and military forces are not required by the ADF. Nor do we require the capability to mount and support an opposed amphibious landing.

The main ways in which air and sea power are being applied to

## NAVAL MATTERS - Continued

the Persian Gulf will not be utilised by the Australian Defence Force in their role in the defence of Australia.

Nevertheless, there are valuable lessons to be learned.

The effectiveness of airborne warning and control (AWACS) aircraft in the Gulf War demonstrates the truth of what both RAAF and Navy have been saying for some years. The ADF needs AWACS (or AEW & C) aircraft and needs them badly.

The helplessness of the navyless Iraq in the face of the United Nations sponsored blockade, in the graduated response phase which followed the Iraqi invasion of Kuwait, emphasises the importance of forces capable of overcoming a blockade. In spite of her short coastline and extensive overland communications with neighbours, Iraq is vulnerable to blockade. Australia, wholly dependent upon maritime methods or carrying her overseas trade, and heavily dependent upon coastal shipping for vital fuel and raw materials, is infinitely more vulnerable to blockade than Iraq.

Again, the United Nations sponsored force has expended considerable effort on sea mine counter measures. The US is weak in this regard and has had to depend on her allies (including an RAN clearance diving team). Australia has no allies who can provide MCM support. Although we are making progress in MCM, more must be done – and with a far greater sense of urgency than is apparent to the outside observer.

The use of Tomahawk missiles has demonstrated their effectiveness in striking only specifically designated military targets. In the longer term, when the modernised F111Cs finally retire, long range weapons of such accuracy as that of the Tomahawk may well fill an ADF need.

The RAN lacks a reserve of close in weapons systems – essential for operations at sea in the 1990s. Only the chance availability of two extra Phalanx systems (already in country for two FFGs under construction) allowed HMAS BRISBANE to sail for the Gulf properly equipped in this regard. The need for these systems was recognised at the time the DDG modernisation was planned. Navy requested Phalanx CIWS for the under way replenishment ship SUCCESS. Funds were forthcoming for neither need.

The installation of BRISBANE's Phalanx systems was only possible because Australian Defence Industries had the equipment and expertise to do so. This is only one example of the vital role of Australian defence industry in getting ready for the deployments. This lesson must never be forgotten.

Another lesson is the importance of training not only at unit level – ships' companies, aircraft crews and so on – but at the senior level as well. A glance at the Navy List shows that we have only a few senior naval officers with the sea experience in command of ships with modern weapons and combat data systems. Appropriately qualified senior Army and Air Force officers are every bit as important. In the increasingly complex management environment of the ADF, the need for officers for senior operational and tactical command (as well as management) must not be forgotten.

Up to the time of writing, Australia's support of the United Nations in the Persian Gulf has been well handled. We have sent the most suitable forces we have – the FFGs, DDGs and afloat support ships, with a clearance diving team, medical personnel and Army close range AAW units. If further effort were required, the RAAF's P3Cs and C130s would have fitted in well.

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# Navy's Oldest Ship Leaves The Fleet

**HMAS PARRAMATTA, the oldest warship in the Royal Australian Navy, ended distinguished 30 year naval career on Friday 11 January.**

The present PARRAMATTA was the largest and most heavily armed of all the ships to proudly carry the name. She was launched by Lady Dowling on 31 January, 1959 and commissioned into naval

service on 4 July, 1961, the Jubilee year of the RAN.

During her 30 years of service PARRAMATTA steamed nearly 750,000 miles, visited 17 countries, and took part in numerous naval exercises throughout the Pacific.

In 1974 she assisted with relief operations in the aftermath of Cyclone Tracy, and in 1976 she was diverted to Bali



On trials, prior to her official commissioning.

for relief work following a large earthquake. Scores of family members joined the ship for a final family sea day off the Heads

## HMAS PARRAMATTA Decommissioning Ceremony Speech

**by RADM GUY GRIFFITHS RAN**

Commander Scott, officers and sailors of HMAS PARRAMATTA, Minister Peter Collins, Alderman Alan Hyam, Lord Mayor Parramatta, distinguished guests, ladies and gentlemen.

Thank you for your invitation to speak at this historic ceremony – Parramatta is a special memory in my naval career as she was my first command. But may I first congratulate you all on the fine turnout this morning – the excellent drill of the guard, and the high standard of your ship – she doesn't look ready for paying off.

In fact I gained a little additional driving time before the ship commissioned by taking her to sea for builders trials in November 1960, – and again in June '61 to join the fleet for a ceremonial entry into Sydney Harbour for the Navy's 50th Anniversary – it was the first time the ship circumnavigated Cockatoo Island and I'm sure this has been done many times since.

4 July, 1961 was a very fitting day for the

builder to handover the ship to the Navy and for the commissioning ceremony – at last we had gained independence from the builders yard – every ship's company is the same – they are keen to get away and get on with working up to the fleet operational standard.

It was also quite appropriate that in the Navy's Jubilee Year the third PARRAMATTA should join the fleet 50 years after the first PARRAMATTA a 700 ton torpedo boat destroyer joined the new RAN in 1911.

The second was the Sloop PARRAMATTA, commissioned in 1940 and deployed into operational work in WW2 – unfortunately her career was cut short on 27 November, 1941 when she was torpedoed by a U-boat whilst escorting an ammunition ship to the beleaguered garrison in Tobruk – the ship sank quickly with the loss of 10 officers and 127 sailors – including her Co Lieutenant Commander Jefferson Walker. The convoy arrived safely. The ship was presented with a map of Tobruk by the rats of Tobruk Association in August 1961, and representatives of the Association are present at this ceremony.

Back in '61 the new ship – the first of class – brought new weapon systems and challenges to the ship's company – the present ship's company is being posted out to other ships of fleet so that a crew can be organised to man the new frigate HMAS MELBOURNE next year – another new ship which will present new challenges.

During her 29 years service PARRAMATTA has served Australia well – she has steamed some 744,000 nm – there have been 16 deployments to the SE Asian Area – the first was from May - October 1962 in company with her sister ship YARRA.

The ship has participated in 4 RIMPAC exercises in the Hawaiian area – and in '76 provided earthquake disaster relief to Bali – then Commander Geoff Furlong was in command – he is present this morning.

In early 1963 on 4 January the ship became leader of the frigate squadron and then Captain Brian Murray shifted his command from HMAS QUEENSBOROUGH. Rear Admiral Sir Brian Murray, could not be present this morning, but he's with us in spirit having attended the CO's last supper last night.

In her last year in service – 1990 – the ship has been deployed away from her home port for 262 days – of which 167 were outside Australian waters.

Indeed the ship has remained in operational condition until this final event. In the last five years Parramatta has carried out an important training role – the training task must be spread around the fleet.

Decommissioning is always a sad occasion for navymen – it takes such a long time to get a ship, but the disposal takes no time at all, it's very impersonal. It is also sad that an operational ship has to be paid off

NAVY'S OLDEST SHIP LEAVES THE FLEET – Continued



Handover day. Sir Garfield Barwick, Senator John Gorton and Rear Admiral George Oldham on the bridge.



Enroute to Vietnam, 1966, with HMAS SYDNEY. PARRAMATTA's pendant number has been painted out.



Late 1970s, prior to modernisation.

The Navy, April-June, 1991 11



Commissioning ceremony at Garden Island, 4 July, 1961.



Inspection by FOCAF. Commander Griffiths is in the background.

## NAVY'S OLDEST SHIP LEAVES THE FLEET – Continued

because manpower shortages dictate that this must be done to man a new ship – presumably these shortages are caused by policy decisions outside Navy control. One could be excused for thinking that this is an inappropriate time to pay off a running ship.

The role of the Navy in the protection of the nation's security doesn't change – Australia will always be a maritime nation positioned in the largest maritime environment in the world – the stability of the region around Australia is a key factor in our security and the Navy is the flexible force to be deployed throughout the region to help maintain peace.

We continually see examples of rapid change without warning in the international relations. The facts run counter to the theory often postulated that Australia will have time to assess threats to its security.

The recent example is of course the Gulf crisis and the flexibility and mobility of the Navy was amply demonstrated by the rapid



Top: After her modernisation, HMAS PARRAMATTA leads three other Type 12 frigates in Port Phillip Bay.



deployment of naval ships in answer to Government policy. I think the politicising of the arrival and departure of the ships is unfortunate.

And as we stand here this morning I am sure that we join with countless others throughout Australia and the rest of the world in hoping that a peaceful solution can be found. War is the least satisfactory method of solving disputes – history presents us with many examples – on the other hand it is not necessarily a case of achieving peace at any price.

As the first commanding officer of the third PARRAMATTA it was indeed a very proud day to take over ones first command – and I had assumed you still have the original ships bell in which my son's name is inscribed as the first to be christened on board – it is with some regret that I hear that the original bell was mislaid during the modernisation – presumably someone somewhere perhaps in Victoria has a conscience – it is probably a good time to return it.

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## NAVY'S OLDEST SHIP LEAVES THE FLEET – Continued

Joining you this morning are seven ex commanding officers and we all deeply remember our time in the ship and the value of the dedicated work of the officers and sailors in our respective commissions.

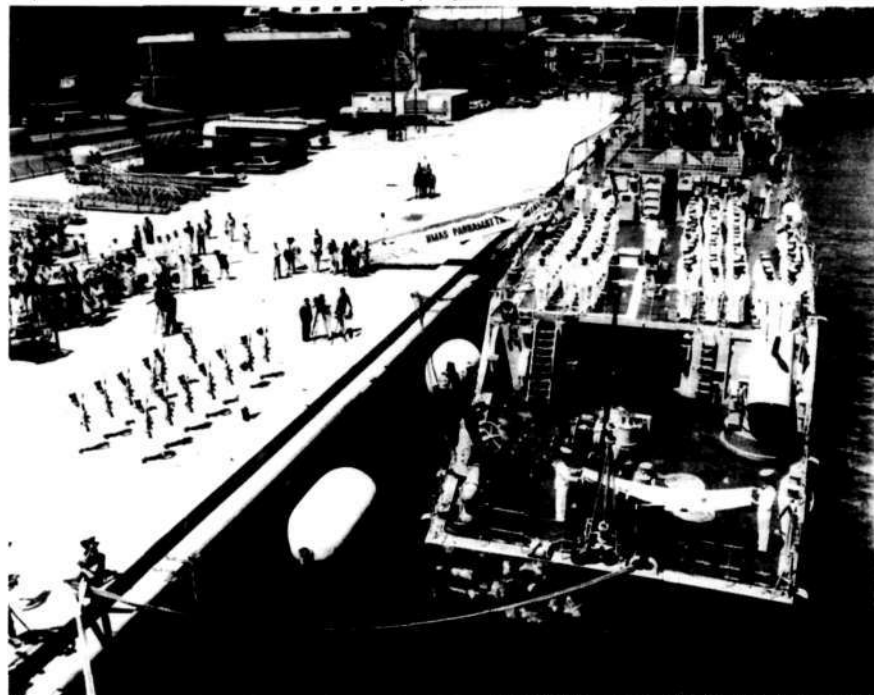
We readily acknowledge the high standards you are maintaining in the fleet at the present time.

Decommissioning is unfortunate and sad but we must look forward to the future – and here we are confident you will all continue to uphold the traditions and high standards of the Navy wherever you may serve in the future.

You are doing an important job for Australia – keep up the good work.

My wife Carla joins me and all other commanding officers and their ladies in wishing each of you and your families a very Happy 1991 and the years beyond.

Today the Third PARRAMATTA ends a distinguished service career – we look forward to the day when the fourth PARRAMATTA is commissioned.



Decommissioning ceremony at the Fleet Base, 11 January, 1991.



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# Australia's Maritime Defence Strategy

## AN INDEPENDENT VIEW

### Background

Sweeping changes that have taken place in Eastern Europe have not been reflected in the Asian Region and the easing of tension between the Superpowers has already caused reductions in the United States presence within the general region.

We are now faced with the fact that regional powers will, of necessity, be obliged to accept "self-reliance" aspects for their own security and which was espoused by the former Minister for Defence, Mr Kim Beazley at the Vernon Parker Oration in September, 1989.<sup>1</sup> Briefly, this concept demands closer co-operation between "friendly" powers, more jointly exercises, more personnel interchanges, and it also demands a greater common knowledge of the Region and its specific problems. Intelligence gathering being accorded a priority.

Potentially dangerous tensions within the Asia Pacific Region cannot be denied to exist today against a background of increased economic achievement and development thrusting the region forward as the future "hub" of a global economy. Peace therefore, cannot be taken for granted.

Air Marshal David Evans stated<sup>2</sup> that it is imperative that Australia must control the sea-air gap between its Northern shores and "the archipelago to our North" and if necessary, "to strike swiftly and strike hard" at enemy home bases. To take battle away from the shores of Australia, we have the means at hand – the RAN's new generation Collins Class Submarines and the RAAF's Orions, F/A 18's and mostly essentially, the F11C Strike Reconnaissance Force.

Additionally, the premise that it would take an enemy 10 years to develop a regional capacity to threaten us with regional assault, shares disagreement by many in the Profession of Arms, least of all Professor T.B. Millar, founding head of the Strategic and Defence Studies Centre, ANU, if his quote in relation to the above premise is correct that "its absurdity doesn't warrant comment."

David Evans calls this 10 year key concept to our Defence planning as "dangerous and irresponsible" citing the capability of Indonesian Assault "in force" within 48 hours – "now!" I personally am inclined to believe that in warfare, the side

**A. G. CRACIUN-KING, F.I.  
Diag. E. Officer Candidate  
RANR (AUR) Second  
Engineer Officer M. V.  
ARAFURA Australia Japan  
Container Line**

taking the initiative generally has the greater advantage.

### Regional Overview

The Indian Sub-continent remains one of the world's most volatile regions – relations between India and Pakistan are as fragile as ever, the Mid-East crisis notwithstanding, has only exacerbated the situation. India has embarked on a programme designed to make it the Superpower of the Indian Ocean and thus has become some cause for concern. Overtures by the South Korean President, Rho Tae Woo to North Korea on reunification has met with little result and is still a potentially explosive situation.

As the democratic reforms that have occurred in Eastern Europe and within the Soviet Union hastened the reunification of the two Germanys, it has caused a major shifting of alliances whereas China has pursued and "isolationist" position in an attempt to halt the "bourgeois – liberalism" that recently affected its internal politics and has effected a return to the Mao-Stalinist past causing an uncertainty on the part of its neighbours.

There is a real possibility of a trade war between Japan and the United States looming and the offshoot is again concern for regional neighbours who can foresee a possible militaristic "expansionist" role for Japan and although a "thawing" of relations between it and the Soviets have occurred, there still exists no peace treaty between the two nations and the Sakhalin question still lies unanswered; let alone resolved.

The Philippines have rattled their sabre and United States bases are overshadowed as unfeasible within the near future. This alone gives serious implications towards regional uncertainty in terms of security. Added to that the posturing of China, Taiwan, Vietnam, the Philippines and Malaysia over conflicting claims for what promises to

become one of the world's last great reservoirs of oil in the South China Sea (especially in light of the Mid-East crisis), we have the makings of a "kettle on the boil."

Closer to home, Papua New Guinea's agony still persists.

Although the European theatre has come into "sunlight", improvements in the Geopolitical weather as it affects our region have still clouds of concern. The Mid-East crisis at present is over-shadowing events occurring in Asia. We have multiple threats in existence, Soviet troop withdrawals along the China border and a subsequent noted reduction in strength from Cam Ranh Bay (Vietnam), lessening their blue-water naval activities does not alleviate the Japan-Soviet question. The Chinese supply of arms to the North Korean military is exacerbating the tension as felt by the reduction also of the United States strength in Japan, repositioning itself as a supportive role only for the Republic of Korea and the eventual evacuation from the Philippines is causing regional stability to be somewhat shaky.

There is also the real threat of a Communist victory in Cambodia, and ASEAN neighbours may have reason to fear, especially Thailand, Malaysia, Singapore and Indonesia, who have all made dramatic and real economic progress since 1975 and the post Vietnam invasion of Cambodia in 1979 – They have all become dominant regional powers. This economic growth taking place on the Pacific Rim, and Westward of Australia poses difficult security problems. These problems are specific to the region as potential for trouble exists in numerous areas with Australia being caught in a "maelstrom" if it doesn't look to its Maritime Strategy close enough.

### Basis for Maritime Strategy

Reviewing the Vernon Parker oration given to the Australian Naval Institute by the then Minister of Defence, Mr Kim Beazley, late 1989, and which was based on the Defence White Paper, we are in the process of observing two distinct though inter-related aspects.

Firstly, that of self-reliance in the matter of defence of our maritime approaches and secondly, the co-operative promotion of maritime interests. I believe to date that our primary strategic interest is now in a state of



AS3051, JOHN MONASH in Port Moresby

"flux", viz: our involvement with naval personnel and equipments in the Gulf theatre.

However, in relation to logistics and maritime strategy as based on the concept of self-reliant defence – of critical importance is the effectiveness of interdiction operations in our air-sea approaches to conduct and sustain such operations there to enable manageable defence of the mainland at an in any level of conflict.

This is particularly true when we discuss logistics, since our surveillance and intelligence capabilities must enhance the naval patrol and response forces against credible forms of military pressure. I other words a reactive and tactical offensive. This in turn calls for a flexible and responsive logistical support operations in the ASEAN/Pacific and Indian Ocean areas. In fact, the increasing requirement of drug interdiction operations closer to home require a focused and flexible support. So too, are the patrolling requirements of our fishery and offshore natural resource developments cause for concern for we do fall short. We fall short due to the fact that our logistic infrastructure is sparse.

On the extreme scenario that

sophisticated weapons find tenure in "unfriendly Third World Nations" and terrorist groups, the term "immediate readiness" takes on a new importance.

Since the release of the Policy Information Paper in 1987, our focus has shifted from direct defence of Australia to that of Regional security. Developments within the Pacific Rim Area (Vanuatu, Fiji, Papua New Guinea) now suggest seriously that the more credible contingencies may involve off-shore deployments into areas where logistical infrastructure is, at the best limited or at the worst, non-existent, and where host nation support is unavailable.

Serious deficiencies may occur in attempting to support any regional deployment unless full planning is carried out.

Taken to effect, the Policy Information Paper was predicted on a 3% real growth – growth to date not achieved. Currently it is estimated that 2.4% GNP is being spent on Defence. This level can not satisfy both equipment purchases as outlined in DOA 87 and maintain present manning and activity levels. The variables being in fact, force structure, manning and activities to fit the argument for a balanced force in relation to

the new direction, not an unbalanced one.

The core exists around our concept of maritime defence and obviously we must build on our existing resources, with integration of the defence "arms" to a common aim. We require a "cost effective" mix of vessels, submarines, land based aircraft (with seaborne conversion capabilities), embarked rotary-wing aircraft, associated sea-platforms (both Naval and Merchant Marine) suited to operations in the most critical areas.

There is no denying the fact that the Australian Northern Territories, their approaches and surrounds occupies that premise of criticality. Our Northern approaches are dominated by a massive archipelago that stretches from Sumatra to the East of Papua New Guinea. It poses a difficult region to fight through and we can complement that environment by the utilisation of small fast vessels, incorporating protection for our Sea Lines of Communications (SLOC's), direct Anti-submarine warfare and full mine warfare capability, a submarine presence, Advanced Logistic Support Sites and Forward Logistic Sites (thus in reality negating the requirement for a specialised sea-air



platform). That debate within the logistic concept has been finalised.

Throughout history, logistic planning has been largely reactive in nature. World War I was fought far from our shores and we enjoyed a relative feeling of security, yet, World War II came far too close! Lessons received through the raider Emden in World War I were not learnt. Distance, initially permitted the luxury of time to build up a fighting capability along predictable lines of communication.

forced to create a "mobile train" of logistic ships due to the fact that its closest staging area (the Ascension Islands) was approximately 3000 miles from the theatre of operations - Merchant ships were modified and utilised as transports, assault vessels, minesweepers, tankers, ferries, air platforms and repair platforms plus many other associated logistical roles. In fact, the modified fleet outnumbered the combatants and it was this timely support that enabled the "Fleet" to remain "on station".

Our own maritime strategy attempts to deal

airlift for readiness, and its reliability from day ONE - and prior to that day one, to move pivotal cargoes to keep operating forces, their daily readiness at a peak. This includes a resupply function and technical support for high-tech weapon systems and sensors, meshing with adequate intra-theatre airlift for any chance of success to emanate. An airlift in support of unexpected crisis has proved essential in any theatre of operations, and example to the resupply of our Naval force in the Gulf theatre today would be extremely



JEPARIT.

However, in World War II, the luxury of time was not available in the latter stages and we were hard pushed to maintain our lines of communication.

Now, today even more so, we can no longer assume that time will be available. Technology in the form of supersonic travel and "directed energy weapons" can shift the balance of power overnight. To this, Australia's importance is underlined by the developments in the Asia-Pacific Region, and the strategic situation is now more fluid and complex, let alone Australia being classed as a substantial power in military terms. This "classification" alone creates certain expectations and responsibilities.

The emergence of Pacific Nations' submarine forces as well as those growing to our West, must not be overlooked. It is a fact that the wartime endurance and sustainability of ships at sea is at least on par with Anti-submarine, Anti-air and anti-surface, but none of these could be accomplished for very long without logistics. The Falklands conflict reinforces this axiom and illustrated clearly the importance of the Merchant Fleet to sea-lift during periods of conflict. Great Britain was

with the possibility of a rapidly changing military balance - but in the concept of self-reliance, we must not overlook the flexibility to carry the fight to the enemy. Speed, sustainability and flexibility must be part of our Nation's maritime strategy and while not espousing it an operational plan within itself, I believe it to be a *foundation* on which plans and operational options must be approached.

### Logistic Elements

There are six vital elements of logistics in support of a maritime defence strategy.

First, while many and varied material shortfalls exist, none is more important as *munitions*, especially the right type of ordnance for the required tactics. They are the most critical and time sensitive commodity in the heat of battle and the single most critical war stopper. It is common knowledge that today, lead times for "smart weapons", compared to those of World War II vintage are so long, that even production surges will not immediately affect the outcome of an intense conflict.

We can see a "come as you are war", is the only possibility.

Secondly, is the availability of *strategic*

difficult without a responsive airlift.

The third vital element of logistics in support of our maritime strategy is the *strategic sealift*. Simply put, sealift is the lifeblood of sustainable operations. More supplies can be carried by sea for less cost than air transportation. Sustainability in recent conflicts required extensive use of sealift. During the Vietnam conflict priority air shipments of munitions carried 1% of the total tonnage whilst the remainder arrived via sealift. Our commitment to that self same theatre was via the sealift efforts of AS 3051 John Monash, the Motor Ship Jeparit and HMAS Sydney.

Our ability to sustain a protracted, if not massive operations within our sphere of self-reliance, specifically the ASEAN Basin area, is vital. To do this we need a sufficient and capable combat logistics force - combat stores and ammunition ships, replenishment oilers, tenders and what I term, "theatre repair platforms".

Mainly - we need access to *civilian owned* and/or manned commercial cargo vessels, including ships that can be speedily modified and/or who have the integral onboard

equipment for basic replenishment capabilities. To this end, the deregulation of the Australian coast would basically dismantle our Merchant Fleet. This is cause for concern because it jeopardises the long term sustainment capability.

Overall, our nation is vulnerable for a major conflict in terms of national sealift capability even though I presume that current sealift strategic programmes may give us a *modest* early surge capability. We must ask ourselves the question whether we have the necessary transportation assets, and if we can ensure their proper integration into the defence structure. Yet, most important, whether we have the capability to form a unified transportation command structure, *without* depleting the existing command structures specific to their own integral commands. Maybe we must look to a *formation* of a Regular/Reserve Transportation Command Cell in future defence planning.

As the fourth element vital to our maritime strategy logistical support premise, I see a focused and integrated mix of *host-nation support, advanced base functional components, pre-positioned assets and trained Reserve Forces*. The emergence of approximately twenty-seven new nations within the Pacific Rim Region alone is "meat for the sandwich". It is essential to establish early a responsive logistics pipeline capability for the advance repair and staging bases for our ships and aircraft, concurrent with an initial deployment of specific naval forces. This also includes the ability to tend to wounded in areas where our military support infrastructure is limited or virtually non-existent.

The fifth vital element of logistics in support of our maritime strategy is *training*. Training of the Fleet, the Reserve, the possible

integration and training of our now "volunteer" Coast Guard and the Cadets linked to the Forces.

We must as of necessity exercise our Fleet in parts of the ASEAN theatre and Indian Ocean area, not visited on a daily basis in peace-time, but essential for any and all sustained conflicts. We must draw from and promote our Merchant Navy Officers to fill specified training and teaching "billets" as part of the maritime strategy. After all, these are the personnel that have vast and daily experience of the areas in the probability scenario. The Equatorial latitudes are but one example - we must understand how to operate and fight in this tropical climate, the Antarctic Circle, another area to also understand how to operate and fight in this cold climate. Many issues relating to heat and cold weather extremities must be resolved. How does heat affect performance of our newest weapons, let alone the manpower? For example, air conditioning vital to the functioning of high-tech equipment is suddenly lost - what price the microchip?, overheating of weapons in a protracted fire-fight - a remedy readily available?, how will the weather affect the crew?, the requirement for special rations, extra quantities? How does sub-zero weather affect the performance of weapons and sophisticated equipments?, and again, the question of crew health and demeanour rises. Realise that the Atlantic lessons taught during the Second World War were over forty years ago!

The sixth element vital to logistics in support of a maritime strategy is *planning*. This includes pre-conflict transportation requirements, the refinement of logistic data and planning factors, and the establishment of host-nation agreements for support of the operational commander's tactical options.

In addition - logistic plans and capabilities must be validated in wargames and fleet exercises. It is most important that shortfalls be identified to the operational commanders to facilitate proper tactical decision making. K 89 could be taken as either a failure or a success. That question is dependent upon an individual viewpoint and at what level that incumbent was operating at. Was it a failure in terms of actual ground operations and a success in the planning and the lessons learned, or the reverse?

We, as a nation, must aggressively pursue a *forward logistic strategy* in the event of war. Such a strategy will be essential to support operations in areas where we have limited or no peacetime infrastructure, such as the ASEAN and Indian Ocean areas of responsibility. Political changes in our immediate theatre as stated above notwithstanding, remains important for Australian integrity. I doubt that there exists an infrastructure setup in either area for peacetime training or for sustaining operations in the event of war. Only planned and arranged logistics can provide our forces with a rapid and credible support structure.

### References:

1. The Vernon Parker Oration - "Key Concepts in Australia's Strategy", Speaker, Mr Kim Beazley to the Australian Naval Institute, at Canberra, 6th September 1989. (As printed in Journal of the Australian Naval Institute, November 1989, Pp 13 - 25.)
2. Air Marshal David Evans, RAAF, "A Fatal Rivalry, Australia's Defence At Risk", (MacMillan: Australia, 1990).
3. The Defence White Paper - 1987, "Defence Of Australia", (DOA87).
4. VADM. Edwin Bedford Hooper, USN (Ret.), "Mobility Support Endurance", (Washington: US Government Printing Office, 1972), p 225.

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## Navy training facility upgrade

The Royal Australian Navy's training capability will be significantly improved with the addition of a new facility at HMAS Watson on Sydney Harbour.

A contract worth \$9.5 million has been awarded to British Aerospace Australia for the supply of simulation equipment for the tactical training of the crews of the RAN's three modernised guided missile destroyers (DDGs), HMA Ships PERTH, BRISBANE and HOBART.

The simulator will be based on a replica of the ships' operation rooms. Computer-driven displays and instruments will provide a lifelike atmosphere based on a variety of realistic situations. Naval personnel will be able to gain a working knowledge of combat operations before going to sea.

A spokesman said that the new facility, due to be completed early in 1994, would provide improved training in the complexities of modern naval warfare at a much lower cost than sea training.

The three DDGs have been brought up to the latest standards and will serve well into the next century.

## Warships sail for big exercise

Several warships involved in a major maritime exercise sailed from Sydney on Monday morning, 11 February 1991.

Called Tasmanex 91, the two week-long

exercise was held in the Tasman Sea involving nine Australian and New Zealand ships, a submarine and a wide variety of aircraft from Australia, New Zealand and Canada.

Australian ships taking part in the Tasmanex 91 include the guided missile destroyer HMAS PERTH, the guided missile frigates HMAS DARWIN and ADELAIDE the destroyer escort HMAS SWAN, the submarine HMAS OTWAY and the patrol boats HMA Ships FREMANTLE and WARRNAMBOOL.

Australian aircraft involved in the exercise included the RAAF's Orion P3C maritime patrol craft, F/A-18 Hornet fighters and F111 strike aircraft, and the Navy's Seahawk and the Squirrel helicopters. They exercised with New Zealand P3K Orions and A4 Skyhawk fighters, as well as an Aurora maritime patrol aircraft from the Canadian Defence Forces. New Zealand ships included CANTERBURY AND ENDEAVOUR.

Apart from practising anti-submarine warfare, Exercise Tasmanex 91 developed the ability of the maritime forces to work together effectively.

## Sword of Excellence to top Navy Officer

The Royal Australian Navy bestowed one of its most prestigious and sought after awards The AWA Sword of Excellence to the dux of the Navy's Principal Warfare Officers' course at HMAS Watson.

The winner this year was Lieutenant Philip Spedding, originally from Belmont in Geelong, now living in Sydney. Graduates from this elite course conducted at the surface warfare school are entrusted with control of a modern warship's sensors and their crews.

Recent events in the Persian Gulf have highlighted the importance of the principal warfare officer. Only the prompt employment of a warship's array of high-tech weaponry will ensure the ship survives a missile attack and delivers an appropriate response.

Only officers of the highest calibre are selected for training. To be selected an officer would typically have completed a degree at the Australian Defence Force Academy or the naval college. In addition, the officer would have had several years sea experience, possibly including a stint as second in command of a minor war vessel.

Officers can only be nominated for this course by a frigate or destroyer captain, and only the best are capable of passing this final test before being considered for ship command.

The dux of these graduates is undoubtedly the "best of the best".

## Navy flight receives service award

The Governor of NSW has presented a community service award to the Navy's Hawker Siddeley 748 Flight for its work in the Australian Defence Force's



HMAS WESTRALIA sails from Geelong for the Gulf.

## Operation Immune Relief programme during the 1989 civil pilots' strike.

Rear Admiral Peter Sinclair, who more recently led the flood relief effort in Nyngan in western NSW, presented the Navy League of Australia's Community Service Award to the Officer-in-Charge of the Flight, Lieutenant-Commander Neil McQueen, at the Naval Air Station, Nowra.

The two HS748 aircraft, normally used for electronic warfare training, flew a total of 692 hours in 423 flights. Crews from the flight airlifted more than 9000 passengers without incident between August and December, 1989. The flights were between Sydney, Canberra, Melbourne, Hobart and Launceston.

Launceston City Council formally adopted the Navy flight on 6 December for "its vital contribution in maintaining a link between Tasmania and the mainland".

## Gulf ships scoop the pool

Ships in Australia's Gulf deployments have scooped the pool in annual efficiency, proficiency and sporting awards.

The Chief of Naval Staff, Vice Admiral Michael Hudson, announced the results of 17 separate awards of trophies for performance of RAN Fleet units over the past 12 months.

Ships which are either in the Gulf now or have recently returned from Gulf duties have received 19 mentions as either winner or runner-up in 11 of the awards.



HMAS SUCCESS refuels the FFG DARWIN in the Gulf of Oman.

HMAS BRISBANE had two wins and was runner-up in three other awards; HMAS ADELAIDE won three awards, HMAS SYDNEY won one award and was runner-up in two other events; and HMAS DARWIN had three wins.

It was the supply ship, HMAS SUCCESS, however, under the command of Captain Graham Sloper, which took out the coveted Duke of Gloucester Cup for best general efficiency, seamanship, equipment reliability and technical training.

Admiral Hudson emphasised that the awards were judged on the basis of performance over a full 12 months of operations and the fact that ships had served in the Gulf had not influenced the result.

"Rather, the results reflect that the very

high standards achieved by the ships we have deployed in the Gulf," he said. "They, and all the other winners in the other divisions of submarine operation, aviation, patrol boat operation and mine warfare, have performed exceptionally well and I congratulate them."

## Politician performs naval service

Australian naval reservists played an important role during the Gulf crisis, both locally and overseas.

The Royal Australian Naval Reserve (RANR) traditionally attracts people from a wide variety of trades and professions, even politicians.

The NSW Health Minister, Mr Peter Collins, has the distinction of being the only politician in Australia who was involved in a hands on role as a naval reservist during the Gulf crisis.

Mr Collins, who is a Lieutenant-Commander attached to the Sydney Port Division of the naval reserves, worked in the Navy's maximum security Maritime Intelligence Centre in Sydney from 7 January.

He is one of several specialist reserve officers whom the Navy called in to provide up to the minute intelligence briefs and information.

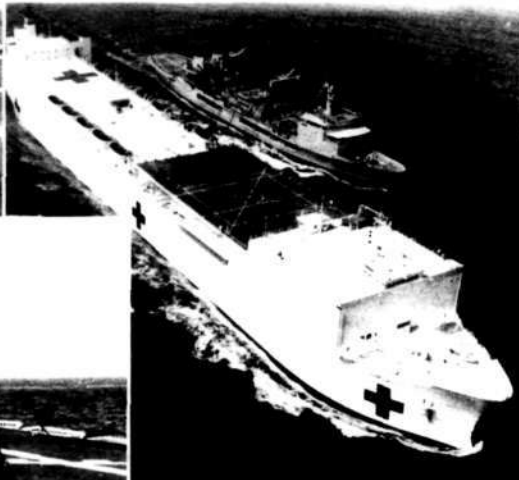
The Maritime Intelligence Centre is playing a vital role during the Gulf crisis by processing information from a wide variety of sources into a composite maritime surveillance picture. This information is used by senior military officials and analysts at the headquarters of the Australian Defence Forces in Canberra.

The role of reserve naval intelligence officers has never been more important, and reflects Navy's commitment to fully integrating them with the permanent naval forces.



HMAS BRISBANE in the Arabian Gulf.

# Pictorial Update from the Gulf

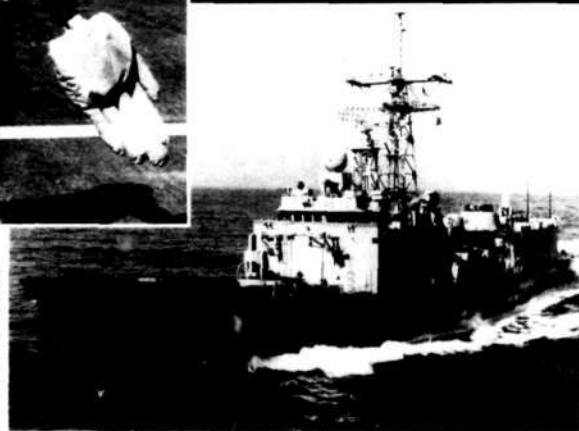


Top left: Navy Seahawk conducts a stores replenishment task from the deck of HMAS SUCCESS to other units of the Task Group.

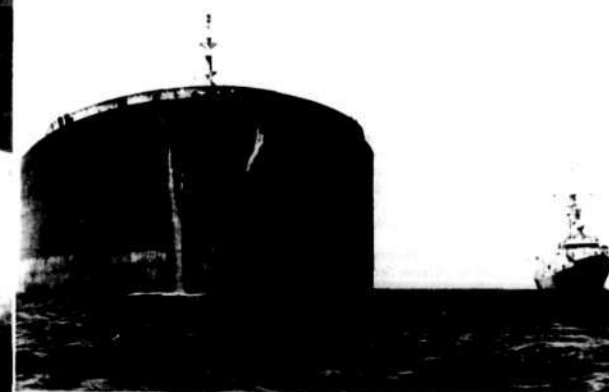
Above: A POATA demonstrates his marshalling for the cameraman.

Top right: The American hospital ship USNS COMFORT is refuelled by HMAS SUCCESS. Australian defence force medical teams are embarked in the COMFORT.

(Right) HMAS SYDNEY on patrol.



Below: Passenger transfers by HMAS SUCCESS' Squirrel helicopter onto HMAS BRISBANE.  
Bottom Left: RAN diver at work.  
At right: Stern view of the tanker HMAS WESTRALIA with her new flight deck and additional container capacity.  
Centre right: HMAS DARWIN intercepts the Iraqi supertanker AMURIYAH, prior to the landing of a boarding team.  
Bottom right: HMAS BRISBANE, Mount 51 gun crew.



# US Surface Fleet Will Continue Decline Despite Gulf Conflict

by ROBERT HOLZER

**WASHINGTON** — Despite the war in the Persian Gulf, the overall number of surface ships in the US Navy will continue to decline in the next five years, according to Defense Department and industry officials.

With more than 100 ships deployed in the Persian Gulf region, Navy planners will have difficulty determining how to retire a number of ships when such a large portion of the fleet is actively engaged in combat operations.

The Navy now deploys 203 surface ships in the active and reserve forces. Budget cuts will force that number to drop to between 160 and 165 surface ships by 1995, a Navy official said. He noted, however, that all cuts beyond the 1992 budget are still subject to change.

In its Six Year Defense Plan submitted to Defense Secretary Dick Cheney, the Navy has preserved annual funding for four DDG-51 Arleigh Burke-class destroyers, down from five, officials say.

However, they caution that the program will average four ships per year over the six-year plan, meaning that in some years the annual buy could dip as low as two ships and in other years increase to five. In 1992 the Navy will propose funding four ships each year, sources say.

In those years when the buy of DDG-51s are reduced, the excess money will fund a new aircraft carrier or an amphibious assault ship, sources say. It is unclear what effect this will have on the DDG-51 program, Navy officials say.

"It will not decrease the price of the vessel, but we do not have a firm view of what impact it will have on cost," a Navy official said. He noted that Cheney's decision to reduce the annual buy of the DDG-51 from five to four, following last summer's Major Warship Review, forced the Navy to eliminate competition between the two shipyards competing for production contracts.

Bath Iron Works, Bath, Maine, and Ingalls Shipbuilding, Pascagoula, Miss., are the shipyards building the DDG-51. To date, the Navy has issued contracts to construct 15 DDG-51s.

In an interview last July, Rear Adm. J. T. Hood, direct reporting program manager for Aegis systems, said that a reduction to four ships would result in some cost increases to the program. Cutting even deeper to fund only three ships per year could have dire consequences, Hood predicted.

"It's my view that we are going to put one of these shipbuilders out of business," Hood said.

The DDG-51 is regarded as the centerpiece in the surface Navy's ability to project power and maintain its combat capability at sea into the next century. Current Navy plans envision the construction of 33 ships at an estimated cost of \$27 billion.

Despite the critical role of battleships in Operation Desert Storm as cruise missile carriers and long-range fire support, the Navy still intends to retire its remaining two ships, the USS Missouri and the USS Wisconsin, in 1992. "The battleships will be kept as long as Desert Storm goes on, but they will not be saved," a Navy official says.

The high operations and maintenance costs of the World War II battleships, currently running about \$60 million per year, plus their crew of more than 1,500 men, are the principal factors against their continued service, officials say.

However, an analysis of the direct operational and support costs of US Navy Ships performed by Ron O'Rourke, a naval analyst at the Congressional Research

Service, reveals that the \$60 million cost to operate a battleship is equal to the cost of operating a nuclear-powered cruiser and only marginally more expensive than the \$47 million cost to operate a cruiser equipped with the Aegis battle management system.

"Cuts are being driven by end strength (reductions), not military value," says O'Rourke. "End strength (manpower) should not drive force cuts."

"Projected surface combatant numbers will not be sufficient to meet the requirements explicit in the Maritime Strategy, but may suffice in a post-Cold War era," says Scott Truver, a naval analyst with Information Spectrum, Inc., a consulting firm based in Arlington, Va.



USS ARLEIGH BURKE

## Calling All NAVALMEN

### NAVAL MEMORABILIA WANTED

*The Headquarters of the Shire of Corio is sporting a nautical atmosphere for the third time in its Naval history.*

A Naval Museum has been established within the bluestone walls of Osborne House on the shores of Corio Bay.

Built in 1858, Osborne House has had an association with the Royal Australian Navy which commenced in 1912, when the Navy first occupied the premises. In 1913, the first Royal Australian Naval Officers' Training College was opened by the Governor General, Lord Denman, accompanied by the Prime Minister, the Right Honourable Andrew Fisher.

Amongst the very first intake of cadets was a young lad named John Augustine Collins who retired as Vice-Admiral Sir John Collins K.B.E., C.B.

He achieved two firsts by becoming the first graduate from the College to become First Naval Member as well as Chief of Naval Staff. When in command of HMAS "Sydney" he won fame by sinking the "Bartolomeo Colletton" and later the destroyer "Espero".

Promoted to Vice Admiral in 1950, he was knighted by the Queen in 1951.

Not a bad record for the lad from the first intake at Osborne House!!

Another cadet to gain fame was Hector MacDonald Laws Waller who entered Osborne House in 1914. He quickly established himself as a leader by becoming Cadet Captain and later, Chief Cadet Captain.

As Midshipman Waller, he served in HMS "Agincourt". Promoted to Commander in 1934, he served in HMS "Resource" and then commanded HMS "Brazen" in the Mediterranean during the Spanish Civil War.

From 1934 to 1936 he was Commander of the RANC and when War broke out in 1939, he was appointed to command HMAS "Stuart" as Commander (D) of the "Scrap Iron" Flotilla. Awarded the DSO and Bar

plus being Mentioned in Despatches on three occasions, he was lost with his ship, HMAS "Perth" when she was sunk in a battle against an overwhelming Japanese Naval force in March 1942.

In 1921, Osborne House was used as a submarine base with 'J' class submarines being moored alongside, firstly the submarine depot ship, HMAS Platypus, then later alongside the turret ship, HMAS Cerberus (which was then named "Platypus II") off North Geelong.

With this historical background, it is an ideal place to set up a Naval Museum.

A good supply of artifacts has already been loaned or donated for display, but there is room for more.

Should readers have ANY item of Naval memorabilia, equipment, items of uniform, photographs, relics, in any shape, size or condition, in fact, absolutely anything that can be associated with the Navy, that they would like to lend, or donate to the museum, they are requested to contact the honorary curator of the museum.

The address of Osborne House is: Swinburne Street, North Geelong, 3215. Further information can be obtained by phoning Bob Appleton, the Honorary Curator, on (052) 79 5244 or after hours, (052) 43 1066.

No doubt there are a number of ex-servicemen who have memorabilia tucked away where no-one can see it. In the museum it will be on public display for all to see, with the donor's name attached if requested.

For those people who do not wish to donate the item, it can remain their property by means of a loan agreement and yet be withdrawn from the museum at a week's notice.

*Bob Appleton*

BOB APPLETON, Hon Curator

## HISTORY OF THE BOATSWAIN'S CALL

THE Boatswain's Call, or whistle, was once the only method other than the human voice of passing orders to men on board ship. Today more sophisticated communications systems exist but the Royal Navy, always believers in tradition, still use the Boatswain's Call.

The boatswain was the officer in charge of rigging, sails and sailing equipment. He therefore needed to issue orders more often than other officers and so the whistle was named after him.

In the old days men were rigidly trained, almost like sheepdogs, to respond immediately to the piping of the Call. At sea, in moments of danger — particularly in storms — they could be counted on to hear the high-pitched tones of the Call, and react without delay. A shouted order may not have been heard above the sound of howling winds and lashing waves. Instruction to hoist sails, haul or let go ropes were conveyed by different notes and pitches.

It was first used on English ships in the thirteenth century, during the crusades, and became known as "The Call" about 1670 when the Lord High Admiral of the Navy wore a gold whistle as a badge of rank. This was known as the "Whistle of Honour".

The ordinary whistle of command was issued in silver and often each officer had his own Call decorated with rope designs and ship's anchors.

Each section of the Boatswain's Call has a nautical name. The ball is the buoy; the mouthpiece is the gun; the ring is called a shackle and the leaf is called the keel.

### USING THE BOATSWAIN'S CALL

The call should be held between the index finger and thumb, with the thumb on or near the shackle. The side of the buoy rests against the palm of the hand and the fingers close over the gun and buoy hole in position

position to 'hurtle' the exit of air from the buoy to the desired amount. Care should be taken not to touch the hole of the buoy or the end of the gun, or the sound will be choked.

There are two main notes, the "low and the high" and there are three tones, the "plain", "the warble" and the "trill".

The plain note is made by blowing steadily into the mouth of the gun with the hole of the buoy unobstructed by the fingers. The plain high note is produced by partly throttling the exit of air from the buoy. This is done by partly wrapping the fingers around the buoy, taking care not to touch the edges of the hole. Intermediate notes can be obtained by throttling to a greater or lesser degree.

The warble is obtained by blowing in a series of jerks, with the result like a call of a canary. The trill is produced by vibrating the tongue while blowing, as if rolling the letter "R".

### PIPING THE SIDE AS A MARK OF RESPECT

The best known use of the Boatswain's Call is for "Piping the Side", the signal of respect which, in the Royal Navy, is reserved for the Sovereign, senior Royal Navy officers and for all foreign naval officers. A corpse when being brought on board or sent out of a ship is also piped, but the Side is never piped at any shore establishment.

This mark of respect owes its origins to the days when captains used to visit other ships when at sea. On such occasions the visiting captain was hoisted aboard from his own boat in a chair slung on a whip rope from the lower yard-arm, to the accompaniment of the pipe of the boatswain giving orders to the men manning the whip.

Reprinted from Calgary, Canada Navy Veterans' Association



# Satellite Navigation

by Capt. HUGH HAWKINS

## INTRODUCTION

Navigation through modern technology has come a long way these past twenty years. Although the sextant is still in use, Satellite Navigation has made navigation easy to those unfamiliar with the principles of navigation and like automatic cars, which are designed for one-legged people. Satellite Navigation is for the lay man.

Satellite Navigation was first developed for the US Navy and is generally referred to as Navsat. It is a highly accurate, passive, all-weather, worldwide navigational system, suitable for sub-surface and surface navigation as well as for use in aircrafts. Navsat became operational for Polaris Submarines in 1964 and was released for Civilian use in 1967. It is suitable for use on vessels of any size, including yachts.

## DOPPLER SHIFT

The measurement of radio signals transmitted by Navsat is based on the Doppler Shift phenomenon – the apparent change in frequency of the radio waves received when the distance between the source of radiation (in this case the Satellite) and the receiving station is increasing or decreasing because of the motion of either or both. The amount of shift in either case is proportional to the velocity of approach or recession. The frequency is shifted upward as the satellite approaches the receiving station and shifted downwards as the Satellite passes and recedes. The amount of this shift depends on the exact locations of the receiving station with respect to the path of the Satellite.

Accordingly, if the Satellite positions (orbits) are known, it is possible by a very exact measure of the Doppler Shift in frequency to calculate the location of the receiver on Earth. The Doppler Shift is also affected by the Earth's rotation, but this effect is allowed for and corrected by a computer in providing the fix.

The accuracy obtained by using this Doppler Shift technique is possible because the quantities measured, frequency and time, can readily be determined to an accuracy of one part in a Billion.

## COMPONENTS OF THE SYSTEM

The Navsat System consists of one or more Satellites, ground tracking stations, a computer centre, an injection station, Naval observatory time signals, and the shipboard receiver and computer.

## SATELLITE DATA

Each Satellite is placed in a nominally circular polar orbit at an altitude of about 600 miles, orbiting the Earth in approximately 105 minutes. Only one Satellite is used at any given time to determine position. The Satellite stores data which is updated from a ground injection station approximately every twelve hours; it broadcasts the following data every two minutes:

- Fixed and variable parameters describing its own orbit.
- A time reference.

The Satellites, sometimes referred to as "Birds" are completely transistorised; they are octagonal in shape, and have four windmill like vanes which carry solar cells. They are gravity-gradient stabilised, so that the directional antennas are always pointed downwards, toward the Earth.

## POSITION FIXING

A Satellite fix may be obtained when the Satellite's maximum altitude relative to the observer is above 15 degrees and less than 75 degrees. As a general rule, each satellite will yield four fixes a day – two on successive orbits and two more on successive orbits some twelve hours later. Ideally, a Navsat Fix could be obtained about every 90 minutes. However this sequence may be disturbed, as the Satellite, while above the horizon, may pass at too great or too small an altitude relative to the observer to permit obtaining a position.

The Fix determined by the ship's computer system is based on the Doppler Frequency Shift which occurs whenever the relative distance between a transmitter and a receiver is changing. Such a change occurs

whenever a transmitting satellite passes within range of a radio receiver on Earth and consists of a combination of the motion of the Satellite in its orbit, the motion of the vessel over the surface of the Earth and the rotation of the Earth about its axis. Each of these motions contributes to the overall Doppler Frequency Shift in a characteristic way. Four or five two minute doppler counts are obtained during a typical Satellite pass.

The Doppler counts and the Satellite messages are fed to a digital computer. The computer then compares calculated range differences from the known satellite position to the estimated ship's position with these measured by the Doppler counts. The Navigation Fix is obtained by searching for and finding those values of latitude and longitude which make the calculated range differences agree best with the measured range differences.

## NAVSAT ACCURACY

Navsat Fixes have a higher order of accuracy and repeatability.

For a fixed location a dual-frequency receiver can be expected to give a fix within 150 yards (46 m) and a single-frequency receiver within 100 yards (91 m).

Accuracy of fix for a vessel underway is dependant upon precise and accurate knowledge of own ship's motion. Typically, a transit fix of a moving vessel can be as accurate as 0.1 mile (185 m).

## NAVSTAR GLOBAL POSITIONING SYSTEM (GPS)

A second generation satellite navigation system under development is known as the Navstar Global Positioning System (GPS). When operational, the Navstar System will ensure the accessibility of updated navigation signals worldwide. Navstar Satellites, orbiting 10,898 miles above the Earth will broadcast continuous time and position messages. This highly sophisticated tri-service project is designed to provide extremely accurate instantaneous position (three-dimensional), velocity and time information with lower cost user equipment of reduced size and weight and with considerably improved performance and reliability.

Signals are received from any four Navstar Satellites. These are demodulated, time correlated, and processed to derive precise time, position and velocity information.

*The Global Positioning System is composed of:*

- Satellites** – Twenty four in all, that complete two revolutions of the Earth per day, transmitting continuously.
- Control Stations** – Consisting of a master station and a few monitor sets located in the US that control and fine tune the Satellites when they pass over each day.
- User Equipment** – Light weight, small and relatively inexpensive receivers that may be installed on ships, aircraft and ground vehicles or carried as a man-pack.

The Navstar Program is divided into three phases, depending upon the number of Satellites orbited. In phase I six "Birds" will provide periodic three-dimensional coverage for the United States. During phase II additional Satellites will be launched providing a worldwide, two-dimensional navigation capability with position within 300 metres (328 yards) and velocity within 2 knots. The phase III configuration, consisting of 24 Satellites in three orbital planes, will supply real time, three dimensional navigation information to users around the world.

## SUMMARY

Satellite Navigation is practical and advantageous for vessels of all types when militarily or economically justifiable. It is available worldwide and is not affected by weather conditions, including local thunderstorms. It requires shipboard equipment which is relatively expensive and complex, but which is not difficult to operate. It provides positional information to a high degree of accuracy and precision if supplied with the correct information of own vessel's motion with respect to the bottom.

# The Defence Force And The Community

## AN OVERVIEW

by Vice Admiral DAVID LEACH AC CBE LVO RAN (Retd) Chief of Naval Staff 1982-1985

**The "Defence Force and the Community" Report to the Minister for Defence by Mr Alan K. Wrigley, published in June 1990, in response to a Ministerial Directive, is a thought provoking, well researched piece of work that deserves careful examination.**

That Australia should become involved in the Gulf War less than six months after the Review was published, places an interesting perspective on some of the arguments and assertions made.

The first chapter traces the changing public and political attitudes to Australia's defence from World War I, through to World War II and Vietnam. Rightly, the Review concludes that the general public is not well informed on Defence issues and that while there have been differences in political doctrine and a lack of consensus, the rhetoric has not resulted in vastly different defence programmes.

The Review asserts that the community is unpersuaded by the emphasis on Readiness. Readiness with all its aspects of equipment, training and ammunition reserves is vital to an effective Defence Force and it is believed that the public generally understands this. There would be great concern if once a decision was made, ships took months, rather than a week, to deploy to the Persian Gulf at the start of the present crisis. There would be a lack of morale, too, in the Defence Force if they felt they weren't ready to act swiftly and effectively.

The Review correctly identifies the need for a broadly based public information programme, but has perhaps an optimistic view of what can be achieved by public relations.

The need is seen for political consensus and while this has been elusive in the past, the Gulf War has shown consensus in the decision for Australian involvement and, at the same time, has raised opposition doubts about some tenants of the "1987 White Paper". In particular on Australia's strategic interests and that the ADF should be structured predominantly in the defence of Australian sovereignty.

Chapter 2 precise with the assessments of Australia's strategic outlook from the 1976 White Paper, the 1981 Katter Report and the 1986 Dibb Report, which essentially

became a reworked 1987 Defence White Paper.

The Review suffers in this Chapter from interpretations on Readiness and Warning Time and also in the assumptions made on the Force Structure which doesn't allow for a contribution to the United Nations for more than a peace keeping force.

The statement that the Defence Forces must be structured for either sovereignty defence or force projection is not necessarily true.

Chapter 3 traces the changes in the Australian Defence Force from the 1960s. The important changes in capital equipment, in force structure, Confrontation, Vietnam and the move to an all volunteer force are discussed, with comment on overseas experience. The Review records that we have come a long way particularly in a greater joint approach to defence matters.

The claim that MCM Mine Counter Measures, broad area surveillance and army mobility continues to be ignored is not correct.

The Review strikes at the professional full time serving personnel and this unfortunate theme is carried through subsequent chapters.

An attempt is made in Chapter 4 to identify ADF elements that might be used in credible contingencies, through the examination of contingency planning documents.

This is an interesting approach, however, in listing the more important force element groups in credible contingencies, the Review omits, amongst others, tactical fighters and strike/reconnaissance forces, destroyers and submarines. It is conceded that these force elements are in the ADF as insurance against uncertainties of the future. This surely is what Defence is all about – insurance, and it shows the danger in trying categorise contingencies or readiness requirements.

The Chapter has some very sensible comment on possible sources of manpower

and equipment to expand force element groups, should the need arise.

Having set the scene in previous chapters, the Review in Chapter 5 discusses a different kind of Defence Force! It concludes that Australia suffers serious penalties in cost, efficiency and expansion capability because we have not adapted from an expeditionary force tradition to a sovereignty – defence posture.

The main features of the proposed alternative model is 32% fewer regular military personnel, 92% more part-time military personnel, 43% fewer public sector Defence civilians and double the private sector civilians, mostly in service industries.

The concepts of passing civilian-type tasks to civil infrastructure, expansion of reserves and making greater use of the national training infrastructure are sensible.

For the Navy's part, to transfer 4 destroyers and 1 submarine to the Reserves with only 20% of the total crew being full time shows a complete lack of understanding of the interdependence of crew members in minimum manned ships like the FFG's and the need for constant training together to achieve battle efficiency and readiness. This is particularly so in submarines where one wrong action by a crew member could hazard the whole ship.

The costing is also questionable. Admiral C. A. H. Trost, USN, when reporting to Congress as Chief of Naval Operations, said: "It is a fact that Naval Reserve force ships are only 10% less expensive than fully active, immediately deployable, fully maintained front-line ships".

Chapter 6 looks at some overseas experience and has some interesting comparisons. There is always the danger of importing solutions where problems are different and the country has, for example, different strategic circumstances and compulsory military service.

In Chapter 7, the Review provides a



critique of the current Reserve organisation and proposes improvements. Many of the proposals have merit and these could be considered in expanding the Reserve forces.

A number of reforms are proposed, such as to:

- \* give clear and meaningful roles
- \* provide sufficient equipment
- \* provide better pay and incentives
- \* encourage former service personnel to join
- \* provide sufficient full-time training staff
- \* improve training methods with more use of simulators.

Not all of these are easy and last year in response to approximately 2,250 questionnaires to RANEM and RAFR personnel only 300 indicated an interest in further active service.

Also the suggestion that the ADF is out of step with the employment of women, is not borne out by recent RAN and ADF policies.

Chapter 8 looks at areas where Defence Force activities can be civilised. This is already happening as evidenced by the creation of Australian Defence Industries to run Garden Island Dockyard and the sale of

Williamstown Dockyard to commercial interests.

There is no doubt that other areas such as apprentice training, maintenance and repair, supply and transport and communication are worthy of further detailed examination.

Chapter 9 argues for a more involved public sector and the need for greater attention to national planning for defence emergencies.

## SUMMARY

The Review acknowledges that its implementation would take 6-9 years and in some suggested areas for reform, the ADF is already moving.

The positive aspects of the Review area:

- \* The need to encourage greater public awareness on Defence issues and the Gulf War, through the medium of television has already helped in this regard.
- \* The transfer of some functions such as depot level maintenance, supply and transport to the civil infrastructure.
- \* The need for restructuring of the Reserves

\* Greater support for the School cadet system to strengthen defence links with the community.

\* Examination of some training, eg apprentices, being transferred to the civil sector.

\* The review of some legislation for call out of reserves and commandeering civil assets.

The Review has some negative aspects:

- \* The denigration of military professionalism, the discounting of Readiness as a proper Defence principle, and Recognition of the advance that has already been made in civil-military relations, mine countermeasures to mention but a few.

The Review also seems to dismiss any significant requirement for overseas forces.

Frequent reference is made to overseas experience and in particular the United States. There is an assumption that overseas practices and concepts can be readily translated to Australia. There are important differences of relative size, geography and conscription that makes this difficult in a lot of cases.

# ROYAL NEW ZEALAND

# Navy

## – 50TH ANNIVERSARY –

### Early Years

From the year 1887 to 1909 New Zealand's interest in Naval Defence was expressed in a practical way by contributions to assist in maintaining an Imperial Naval Force in Australian and New Zealand waters. From 1887 the sum contributed amounted to £20,000 per annum. In 1903 it was raised to £40,000 per annum; and in 1908, it was enacted that it should be increased to a sum of £100,000 per annum for 10 years as from 12 May 1909.

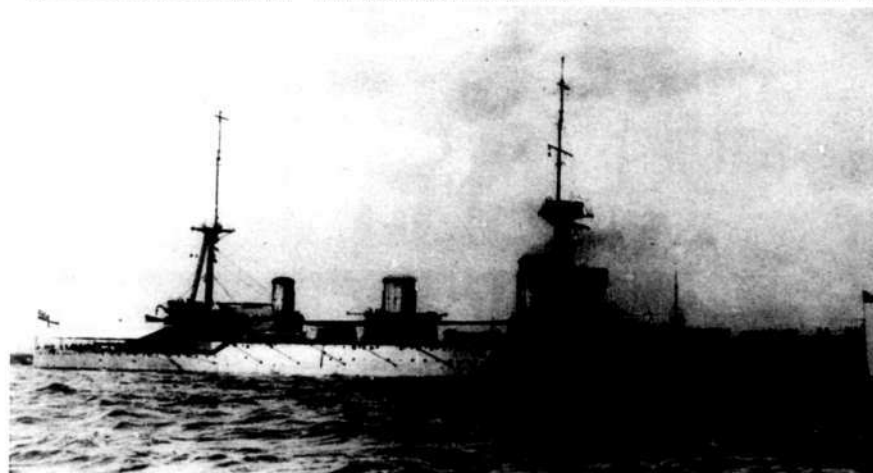
The proceedings of the Imperial Conference held in London in 1909 has the effect of focusing greater public interest on the Naval Defence problem, with the result that New Zealand undertook to present the battle cruiser NEW ZEALAND to the Imperial Government. This vessel was

commissioned in 1911. She served with the battle cruiser squadrons of the Grand Fleet throughout the war, and took part in the naval actions of Heligoland Bight, Dogger Bank and Jutland.

In 1911, consequent on arrangements agreed upon at the Imperial Conference of 1909, the Imperial Parliament passed the Naval Discipline (Dominion Naval Forces) Act. This statute provided for the application of the Imperial Naval Discipline Act to Naval Forces raised by any Dominion with such modifications and adaptations as might be found necessary to conform to the law of the Dominion. In 1913 New Zealand decided to prepare a naval organisation for the express purpose of manning ships to be employed in New Zealand waters. The Naval Defence Act of 1913 was passed to give effect to this decision. This Act empowered the Government to raise and maintain Naval Forces and to govern them

by regulations issued under authority of Orders in Council. Transfers of ships and personnel as between the New Zealand Government, the Imperial Government, and other Dominion Governments was authorised. The Imperial Naval Discipline Act and the Admiralty Regulations were applied to the New Zealand Naval Forces, subject to any modifications necessitated by local conditions. The Act provided that whenever Great Britain is engaged in hostilities the Naval Forces of the Dominion pass automatically under the control and disposition of the Government of Great Britain. During periods of strained relations or emergency the Governor-General may be Proclamation place the Naval Forces under Imperial control.

In 1913 HMS PHILOMEL, a light cruiser of 2575 tons, was detailed as a sea-going training ship, while a Naval Adviser to the New Zealand Government was



HMS NEW ZEALAND, battlecruiser  
The Navy, April-June, 1991 27

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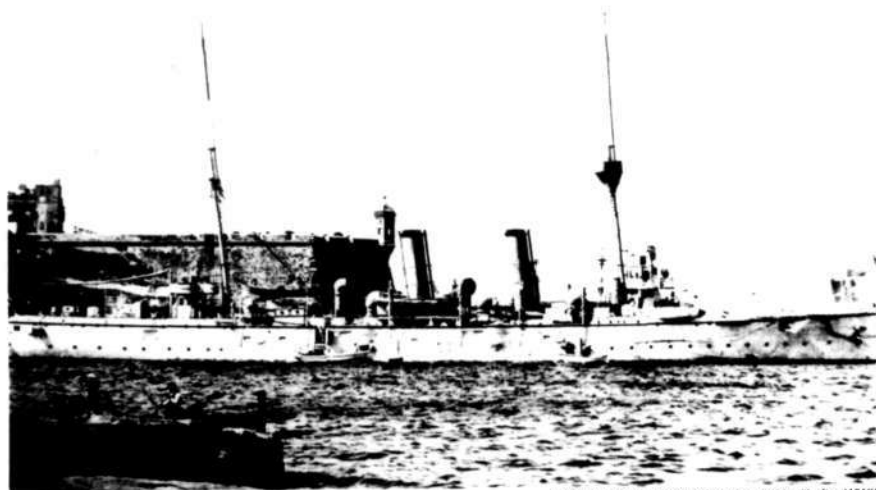
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HMS PHILOMEL, survived as depot ship till after WWII.



HMS CHATHAM, light cruiser on station.

appointed. War broke out in 1914 before any other executive action could be taken to give effect to the statute. HMS PHILOMEL was withdrawn for escort duty and for service in naval operations in the Red Sea and Persian Gulf until, at the end of the war, she was presented by the Admiralty to the Government of New Zealand as a training ship. Subsequent she became the nucleus of a Dominion Naval organisation. PHILOMEL was stationed at Auckland as a stationary ship until 1946 when she was disposed of to ship-breakers.

In the meantime, in 1917, the question of Naval defence was reconsidered in London, but no effective decisions were taken beyond recognising that the administration of all Naval Forces in the Empire should follow the same lines in matters of maintenance, armament, methods and principles of training, and organisation. At the Imperial conference held in 1919 the Dominion representatives lost no opportunity of impressing on the Government of Great Britain the importance of Naval defence to New Zealand. At the request of the Dominion representatives, Admiral of the Fleet, Viscount (later Earl) Jellicoe, flying his flag on board HMS NEW ZEALAND, visited the Dominion to report on matters affecting Naval defence. Having considered Lord Jellicoe's report, the Government decided to give effect to the Act of 1913. HMS CHATHAM was lent by the Imperial Government in 1920 for service under the New Zealand Government and the first batch of New Zealand recruits joined HMS PHILOMEL the following year.

New Zealand, therefore, having followed a consistent attitude towards the problem of



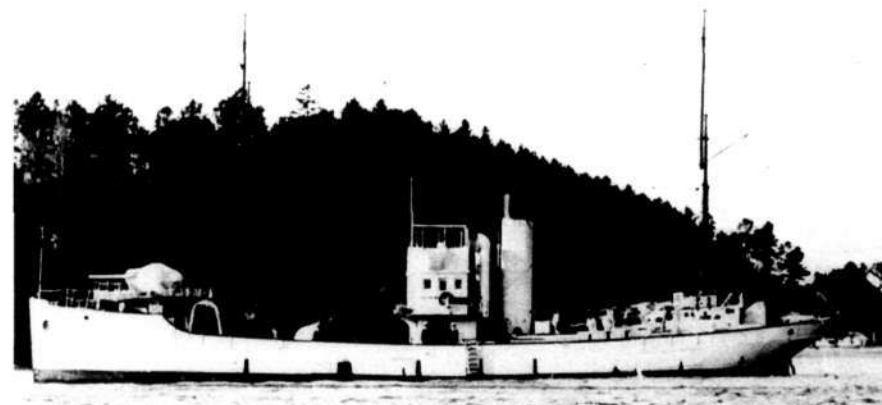
HMS DUNEDIN, one of two D class cruisers based in New Zealand waters.

Naval defence, by a natural process of evolution departed from the policy of subsidies, and thereupon assumed responsibility for a definite share in the material organisation of Naval defence. The country undertook to maintain a sea-going Naval Force and a training centre under her immediate control. It was provided by Order in Council dated 20 June 1921, that the official designation of this force should be "The New Zealand Division of the Royal Navy". In September 1941 the King graciously approved the proposal that the New Zealand Naval Forces should be designated the Royal New Zealand Navy.

Another step was taken in fulfilment of

Naval obligations by an enactment passed in 1922 to authorise the formation of a Naval Volunteer Reserve force offered by and recruited from volunteers who do not follow the sea as a profession. This Naval Volunteer Force has headquarters at Wellington, Auckland, Christchurch and Dunedin.

Parliament passed an Act in 1927 binding the Dominion Government to the cost of construction of the Imperial Naval Base in Singapore. This contribution took the form of an annual subsidy to provide for a total sum of £1,000,000. The last instalment of this sum was paid during the year ended 31 March 1936. At the same time (in 1927) the Government announced that New Zealand



Reserve training vessel, HMS WAKAKURA

would undertake responsibility for the maintenance of modern cruisers when the Singapore subsidy had lapsed.

Between the years 1921 and 1937 the Royal Navy Cruisers CHATHAM, DIOMEDE and DUNEDIN were active in New Zealand waters as part of the New Zealand Division of the Royal Navy.

During 1924 and 1925 HMS CHATHAM was relieved by HM Ships DUNEDIN and DIOMEDE and the oil tanker NUCULA was hired from the Admiralty to attend them. Because of the progress made in the formation of the Naval Volunteer Reserve, HMS WAKAKURA (a minesweeping trawler) was purchased in 1926 for instructional work with the volunteer Reserve Division.

Two Royal Navy escort vessels were also employed on the New Zealand Station, HMS VERONICA, arriving from England in 1920, and HMS LABURNUM in March 1922. They were maintained by the Admiralty but were under the operational control of the Chief of Naval Staff, New Zealand. In February 1934, HMS VERONICA was relieved by the newly completed escort vessel, HMS LEITH. HMS LABURNUM remained on the New Zealand Station until February 1935 and HMS WELLINGTON arrived in May 1935 to take her place. HM Ships LEITH and WELLINGTON reverted to Admiralty control on the outbreak of hostilities in September 1939 and passed to other spheres of operations.

In October 1935, because of representations made to the New Zealand Government by Great Britain relating to the



HMS LEITH

international situation consequent on the Italian invasion of Abyssinia, HMS DIOMEDE was placed under the control of the Imperial authorities for service on the East Indies Station. Having served for six months at Aden and in the Red Sea, the ship proceeded to England, where she paid off on 31 March 1936 and transferred her New Zealand crew to HMS ACHILLES. This vessel was then commissioned for service in the New Zealand Division. HMS LEANDER was commissioned on 29 April 1937 and replaced HMS DUNEDIN in the New Zealand Division.

## The Second World War

Upon the outbreak of war in September 1939, the Government organised available private tonnage for quick conversion to minesweepers and established a flotilla and three groups. The flotilla comprised COASTGUARD, GALE, MATAI, MURITA and PURIRI. The first group (based at Auckland) included WAKAKURA, DUCHESS and HUMPHREY, the second (at Wellington) SOUTH SEA and FUTURIST and the third JAMES COSGROVE and THOMAS CURRELL.

The need for an independent naval force, as distinct from Royal Navy ships on loan to the Division, was satisfied in July 1941 when the RNZN was formally established by Royal Decree.

As a first step, all ships currently serving with the New Zealand Division and those ordered and active with the Government for war service, were integrated into the new Navy. These included all built-for-the-purpose and requisitioned craft.

During the period up to 1945 the navy remained a small ship force, equipped with numerous locally-built patrol and minesweeping vessels. As with RAN, the Fairmile B motor launch was produced locally, although all Harbour Defence Motor Launches were imported.

From only six active units in September 1939 and 29 in July 1941, the fleet operated 81 warships and auxiliaries by late 1945.

In September 1939 the New Zealand



HMNZS LEANDER, hero of the River Plate.

division of the Royal Navy comprised the following ships:

**LEANDER** – Light cruiser, eight 6 in, eight 4 in guns.

**ACHILLES** – Light cruiser, eight 6 in, four 4 in guns.

**WAKAKURA** – Minesweeping trawler, one 4 in gun.

### Achilles, Leander and Gambia

HMNZS ACHILLES, which had been detached for service in South American waters with HM ships EXETER and AJAX, won fame in the Battle of the River Plate, which resulted in the defeat and self-destruction of the German pocket battleship ADMIRAL GRAF SPEE.

HMNZS LEANDER was employed on patrol duties in New Zealand waters during the first four months of hostilities. In January 1940 she was one of the escorts for the six transports which carried the First Echelon of New Zealand troops for service in the Middle East. Subsequently, LEANDER spent some months on patrol and convoy escort duties in the Red Sea. During that time she steamed nearly 31,000 miles and assisted in escorting without loss 18 convoys totalling 396 ships of 2,500,000 tons. While operating in the Indian Ocean in February 1941, LEANDER intercepted and sank the Italian raider RAMB I, from which 11 officers and 92 ratings were taken prisoner. Later in the year she took an active part in naval operations off the coast of Syria in support of the army. LEANDER arrived back in New Zealand in September 1941 after an absence of 16 months.

After hostilities against Japan began on 8 December 1941, HMNZ Ships ACHILLES and LEANDER – operating under the United States Commander, South Pacific Area and the South Pacific Forces – were employed as escorts for convoys



HMNZS KIWI

transporting personnel and supplies for the United States task forces in the Solomon Islands area. On 5 January 1943 a task force covering the passage of reinforcements to Guadalcanal was attacked by Japanese aircraft. One bomb hit HMNZS ACHILLES on a gun turret, her casualties being 13 killed and eight seriously wounded. She subsequently went to England for a long refit and paid off on 21 September 1943.

Operating as a unit in a United States task force of cruisers and destroyers, HMNZS LEANDER took part in the night action of 12-13 July 1943, known as the Battle of Kolombangara, against two groups of Japanese destroyers and one cruiser. In this action two American cruisers – HONOLULU and ST LOUIS – and LEANDER were damaged by torpedoes. A United States destroyer was also torpedoed and later had to be sunk. LEANDER'S

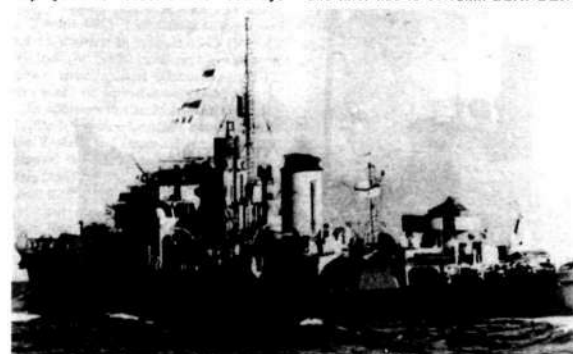
casualties were 28 killed and 15 injured – the Japanese lost one cruiser, three destroyers were sunk, and one destroyer was severely damaged. LEANDER subsequently proceeded to the United States for permanent repairs and arrived at Boston on 23 December 1943, having completed seven and a half years' service in the Royal New Zealand Navy.

The officers and ship's company of HMNZS ACHILLES turned over to HMS GAMBIA (8,000 tons with twelve 6 in guns and eight 4 in guns) which was commissioned as a unit of the Royal New Zealand Navy on 22 September 1943. She joined the British Eastern Fleet at Trincomalee in February 1944 and took part in operations against Japanese bases at Sabang and Surabaya from April to July.

After refitting in New Zealand, GAMBIA joined the British Pacific Fleet which, as Task Force 57, carried out operations against the Japanese in the Sakashima Gunto and Formosa during March to May 1945. She also took part in operations against Japan in July and the first week of August 1945. HMNZS ACHILLES was recommissioned on 23 May 1944, and at the end of that year joined a cruiser squadron of the British Pacific Fleet. She took part in the operations against Sakashima Gunto on 24-25 May 1945, Truk (Caroline Islands) on 14 June, and Japan in July-August. Both GAMBIA and ACHILLES took part in the final operations against the Japanese.

### Monowai

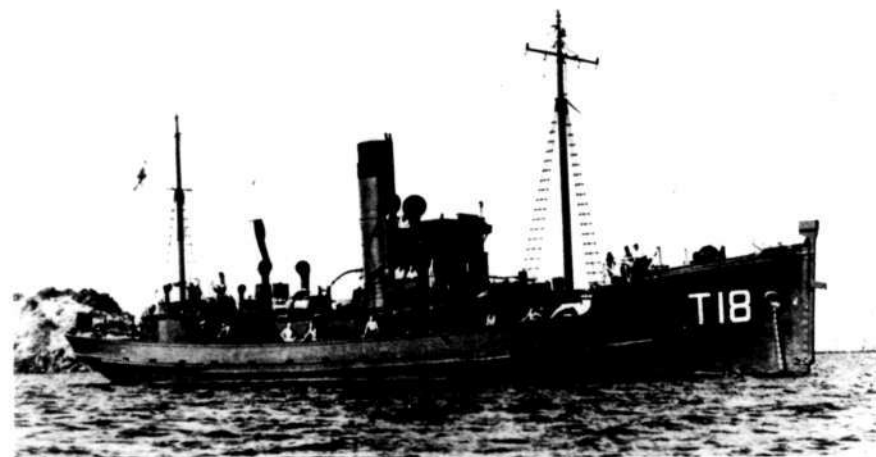
The Liner MONOWAI (10,850 tons gross register) was fitted out as an armed merchant cruiser. She was commissioned on 30 August 1940, and during the next two and a half years was employed on patrol, escort and transport duties in the South



HMNZS ARABIS, commissioned during the war with ARBUTUS.



HDML 1183



HMNZS RIMU, magnetic minesweeper

Pacific. She was in action in January 1942 in Fiji waters against a Japanese submarine, which submerged after a brief exchange of fire.

### Arabis and Arbutus

The corvettes ARABIS and ARBUTUS were additions to the Royal New Zealand Navy during 1944. The former joined the 25th Minesweeping Flotilla at the beginning of 1945, and ARBUTUS served with the British Pacific Fleet during the final stages of the war.

### Minesweepers

During 1940-41, a number of coastal ships and fishing trawlers had been fitted out as minesweepers. Several of them, operating as the 25th Minesweeping Flotilla, were employed in June-September 1941 in sweeping a considerable minefield that had been laid in June 1940 by a German raider in the eastern and northern approaches to Auckland. Up to 16 September 1941 the flotilla accounted for 130 mines. HMNZS PURIRI was sunk through hitting a mine, with the loss of her officer and four ratings.

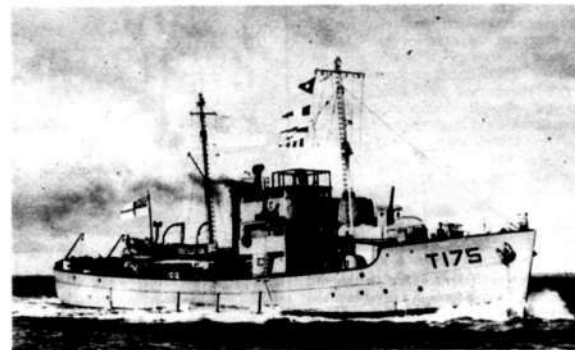
During 1942 the anti-submarine and minesweeping forces of the Royal New Zealand Navy were strengthened by the arrival of seven new vessels from Great Britain.

During the night of 29-30 January 1943 HMNZ Ships KIWI and MOA, two anti-submarine vessels of the 25th Minesweeping Flotilla then serving in the Solomon Island area, fought a gallant and successful action against the large and powerfully armed Japanese submarine, I-1. Forced to surface after being depth charged, the submarine was engaged by gunfire from the two small ships. A fierce action lasted more than one hour and KIWI thrice rammed the submarine, which finally struck a reef and was wrecked. One Japanese survivor was picked up. HMNZS MOA was sunk at Tulagi, Solomon Islands by enemy air attack on 7 April 1943, five ratings being killed and 15 injured. In August 1943 HMNZS TUI took part, with aircraft, in the sinking of another large Japanese submarine, the I-17, from which six survivors were picked up.

In addition to the 25th Minesweeping Flotilla, 12 motor launches constructed in New Zealand and commissioned in 1942-43 operated in New Zealand waters, and from early 1944 in the Solomon Islands area where they carried out anti-submarine patrol and escort duties. Sixteen harbour defence motor launches, commissioned during 1943-44, did duty principally at Auckland and Wellington, one being detached for service in the Fiji Group. Eleven anti-submarine minesweeping trawlers were constructed in New Zealand and commissioned during 1942-44.

### Training Establishment

By 1940 it was apparent that there was



Minesweeper HMNZS SCARBA



Armed merchant cruiser, HMNZS MONOWAI



Minesweeper HMNZS HUMPHREY.





Requisitioned minesweeper HMNZS MATAI

no longer sufficient space in the old Admiralty Reserve for both a naval base and a training establishment. When, on 9 September 1940, the Admiralty asked New Zealand to expand its training facilities, the institution of a new establishment became imperative. On 11 December, the Navy received Cabinet approval for the occupation of the old quarantine station on Motuihe Island in the Hauraki Gulf, and on 14 January 1941 the station was commissioned as HMS TAMAKI.

Training began almost immediately with 178 men under training and a ship's company of 42. A building programme was begun which was designed to give TAMAKI a training capacity of 600 'hostilities only' men a year and 120 'continuous service' ratings. This programme was completed within 18 months.

On 1 October 1941 TAMAKI became an establishment of the new Royal New Zealand Navy as HMNZS TAMAKI, and by the end of 1943 more than 1,000 men a year were being trained. Of the 10,000 men who served in the Royal New Zealand Navy or on loan to the Royal Navy during the second World War, 6,000 passed through TAMAKI,

a creditable record when the initial difficulties, the limited accommodation, and the small staff are considered.

### Naval Wireless Station

In 1942 the Royal New Zealand Navy established a naval wireless telegraphy station at Waiouru - on a high plateau in the centre of the North Island. It was known for some years as the Waiouru W/T Station, but on 30 October 1951 it was commissioned as HMNZS IRIRANGI.

During its wartime peak, IRIRANGI had an establishment of about 150 officers and ratings. There were more than 80 Wrens who did most of the transmitting. The station's major achievement was in broadcasting for the British Pacific Fleet off Japan when it was found that the American circuits were too heavily loaded to handle traffic for the Admiralty. In addition, a large proportion of the messages between Admiral Earl Mountbatten, then Commander-in-Chief South-east Asia, and the British Government passed through the station.

### Wartime Expansion

In September 1939 permanent New Zealand Naval personnel then serving

totalled eight officers and 716 ratings, together with 74 officers and 541 ratings on loan from the Royal Navy. In addition, there was in New Zealand a Royal Naval Volunteer Reserve organisation totalling 70 officers and 600 ratings.

As at September 1944, the permanent New Zealand naval personnel serving in the Royal New Zealand Navy comprised 27 officers and 899 ratings, together with 80 officers and 643 ratings of the permanent Royal New Zealand Volunteer Reserve. In addition, there were 1,565 temporary officers and 5,966 'hostilities only' ratings. Of the total personnel of the Royal New Zealand Navy in September 1944, some 3,200 New Zealand officers and ratings were serving in ships and establishments of the Royal Navy, including about 650 in the Fleet Air Arm.

The Women's Royal New Zealand Naval Service, established in 1942, totalled, in September 1944, more than 500 personnel.

(Part II - The RNZN 1946 - 1991 will appear in the next issue.)



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## FLUSH DECKS and FOUR PIPES

by JOHN D. ALDEN, USN (Rtd)  
Published by Naval Institute Press  
Reviewed by ROSS GILLET

The technical, historical and photographic history of the United States Navys' famous flush deck destroyers is graphically reproduced in the reprint of this 1965 book by John Alden.

For readers new to the book and its subject matter, Flush Decks and Four Pipes traces the 273 "four stackers", classes of destroyers originally built for service in the Great War, but which operated throughout the mid-war years only to provide further use in the Second World War.

With the advent of many new construction ships during the SWW use was still found for the old destroyers. These included modifications to minesweepers and minelayers, landing ships, escort vessels and support craft for flying boats. Another fifty of the type were transferred to the Royal Navy to help ease that Navies lack of escorting ships for the convoys to Great Britain.

Each destroyer is listed by number to include all relevant statistical information and then cross indexed by name and number.

The quality of photographs in Flush Decks and Four Pipes provides an excellent insight in the design of the class, with each one providing clear, unusual or action views of the ships and personnel. Also depicted are the fates of those ships transferred to England and Canada, the post-war sales and scrapings and any ships wrecked or damaged in battle.

A major point to arise from the reading of this book was the sensible approach by the US' to the retention of a large 'mothball' fleet, able to be quickly recommissioned for war duties, unlike any new construction which normally took several years to complete. With the arrival of the new ships the old 'four stackers' were still of use, with some serving in Australian waters during the Second World War. The same policy of retaining Australian ships in reserve could have seen the recommissioning of the five S class destroyers, the leader ANZAC and even the cruiser BRISBANE to provide a ready response to the enemy naval threats in local waters.

Flush Decks and Four Pipes is thoroughly recommended to all readers of The Navy magazine. Good value and good reading.

## WARSHIP 1990

Published by Conway Maritime Press  
Reviewed by JOE STRACZEK

Conway Maritime Press continue to impress with their dedication to producing quality publications on maritime subjects. This years edition of Warship is no exception.

This is the second year that Warship has been issued as an annual and it shows an evolutionary development on the first

## BOOK REVIEWS



edition. Both editions are divided into two sections the first containing a number of feature articles and the second a review section. In the new edition of Warship this review section has been increased in size. Though the format remains unchanged. Contained in the Review section are: Warship Notes, Naval Books of the Year and The Naval Year in Review.

The section on Warship Notes I believe should be part of the Feature Articles. This could then be used as a forum not only for short articles but also as a venue for passing on small snippets of information. The Review Section would then contain two parts. One covering naval books and the other looking at the year in review. Both chapters are extremely useful, though I would rate the one on naval books first. This is one of the few areas where a listing of naval books published can be found. As time

progresses this may be expanded to include a larger number of books on the more esoteric aspects of naval history and science.

The main section of the annual consists of twelve feature articles these range in topics from a discussion on ramming through to the provision of aircraft to Malta and the attack on the TIRPITZ. Each of these articles is of the high standard that is expected from Warship. However, with the shift to an annual there is the question of how the editor would have dealt with Campbell's excellent series on British naval guns, previously published in the quarterly magazine. Will the readership lose such informative articles because they cannot be condensed into between 15 and 20 pages or do we wait 12 months for the next instalment. A simple solution of course would have been to publish it as a book (hint!).

Overall Warship 1990 continues the high technical, historical and photographic standards set by its predecessors. It occupies a unique position as a naval annual covering historical as well as contemporary issues and should form the centre piece or any historical library.

## ARMoured SHIPS

Paintings and Text by IAN MARSHALL  
Published by Conway Maritime Press  
Reviewed by ROSS GILLET

Over the last few years numerous issues of The Navy magazine have featured the paintings of naval artists John Bastock and later Phil Belbin as well as some from the Australian War Memorial, including Charles Bryant. Many of the paintings of Belbin appeared during the RAN's 75th anniversary year while those of Bastock now hang in the wardrooms of various HMA Ships.

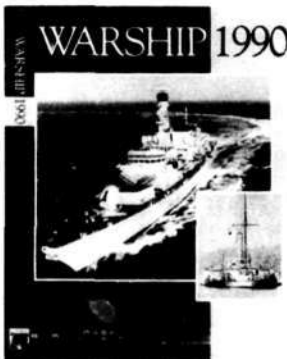
In his book Armoured Ships, author and illustrator Ian Marshall has assembled within one volume the ships, their settings and the ascendancy that the armoured warships of the world's navies enjoyed for so many decades.

During peacetime and wartime, the ships are portrayed from 1843 to 1984. In some cases the backgrounds overpower the actual vessels, with HMS IRON DUKE at Malta in 1924 and ALMIRANTE LATORRE in Chilean waters in 1929, being two prime examples.

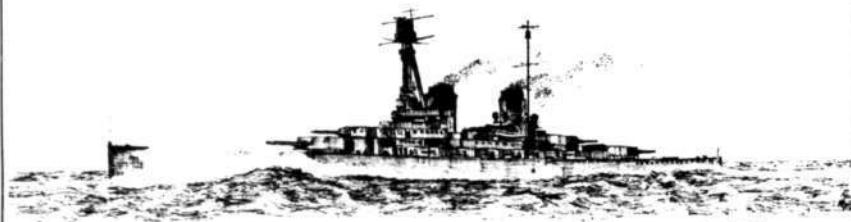
The artist has presented his paintings chronologically, with the examples supported by relevant events in the history of each Armoured Ship. Brief statistical data is provided for every painting in the book.

Although not all of the paintings are up to the standards established by the Australian artists described earlier, many are worthy of framing and for modellers are of reference value.

In 180 pages Ian Marshall has assembled a unique collection of the world's armoured ships, showing them in a light that few today could imagine. Recommended.



## Naval Pen Drawings by Alan Morgan



Battlecruiser SMS HINDENBURG (ALAN MORGAN)



Destroyer Leader HMAS ANZAC (ALAN MORGAN)



Guided Missile Destroyer HMAS BRISBANE (ALAN MORGAN)

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