

The

NAVY

The Magazine of the Navy League of Australia

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**New Fleet Support * All Compass Points
Fighters and the Defence Budget * Veteran Retires
Magic Lantern Slides * Japanese Naval Review**

THE NAVY

OFFICIAL ORGAN OF THE NAVY LEAGUE OF AUSTRALIA

NAVY WEEK SOUVENIR PROGRAMME ISSUE



INCLUDING PROGRAMME of

DISPLAY AT GARDEN ISLAND, 12th OCTOBER, 1957

AND

OPEN DAY AT H.M.A.S. "WATSON" AT WATSON'S BAY, 19th OCTOBER, 1957

1/-

A number of readers asked if the cover depicting HMAS TOBRUK from the October, 1957 edition of *The Navy* (from Vol. 59 No.4), could be reproduced in full colour. So here it is!

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Our Front Cover

HMAS ANZAC October, 1997, enroute to Heard Island. See story page 17 (Photo ABPH David Connolly)

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The Navy

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Viewpoint

The Navy Magazine is sixty-years-old

To mark the event long serving Federal President, Geoffrey Evans has put pen to paper and reflected on the role of this, the official organ of the Navy League of Australia. In his contribution, Geoff highlights the dramatic change in style of the magazine over the six decades, while at the same time, ensuring that both members and readers alike, are kept informed of the current state of play in the Royal Australian Navy, at home and abroad.

This edition also includes a report on one of the major changes to effect the Royal Australian Navy's support structure. Last October the newly created Defence Maritime Services, a member of P&O Maritime Services, signed a contract for the supply of port services and support craft to the Navy over the next ten years. What this means to the Navy is outlined in New Fleet Support.

This year the Fleet Air Arm celebrates its 50th Anniversary. Readers who wish to obtain more information about the Golden Jubilee celebrations and the Australian Naval Aviation Museum can be obtained by contacting the Museum on 044 21 1920 or e-mail anam@ozemail.com.au

The Japanese Maritime Self Defence Force recently held a large Fleet Review to publicise its new capabilities and latest submarines, surface ships and auxiliaries. Photographs taken of the occasion are published in this edition and for the history buffs, a collection of 19th century lantern slides of life in the Royal Navy.

Before closing this edition's "Viewpoint" mention should be made of the service provided by the survey ship HMAS MORESBY, paid off from the naval ranks on 13 November, 1997. The first purpose designed survey ship built for the RAN, MORESBY sailed more than 1.17 million nautical miles during her 33 year career. What the future holds for the ship is still undetermined, maybe a new career in the Mediterranean, like her younger running mate, the former HMAS COOK!

Ross Gillett

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FROM OUR READERS

OUR HISTORY GOING

Dear Sir,

As an Australian and reader of "The Navy", I was disappointed to read about the fate of ex HMAS SWAN. Let's hope that the same does not occur with the soon to be decommissioned destroyer escort HMAS TORRENS, which could be steamed back to Sydney and handed over to the Navy museum and placed in the unused Naval Dockyard graving dock within Sydney Harbour. The NRC could also use the ship for training.

And what about the Hydrographic Survey Ship HMAS MORESBY could be steamed back to her building place in Newcastle, NSW, for her decommissioning and handed over to the Maritime Museum and placed on display there.

There's one more ship soon up for decommissioning, HMAS FLINDERS, when her replacement is commissioned. Australia doesn't have enough naval museums. That's why I say let's save these ships. If we don't another part of our history will be lost.

Yours faithfully
R Genge,
Stockton, 2295

Editor: Some interesting ideas, but I think the Federal authorities have other ideas. See MORESBY article in this issue

FAIRMILES

Dear Sir,

The photo article "Onboard a Fairmile" in the last issue of the magazine

prompted me to write to you to enquire if

a) There are any back issues of the magazine available with articles on Fairmiles

b) If you know of any books available that detail the wartime service of the Fairmile

My late father was on several Fairmiles during the war and I would like to know more about this class of vessel and their service careers

Any information you can provide would be appreciated. Thank you.

Tony Rundle,
Denistone East 2112

Editor: A copy of a recent Fairmile article has been sent to our correspondent. A new book outlining the history of the 35 Fairmiles is expected to be published in 1998 by the Fairmile Association. We will be reviewing it when released.



THE NAVY tender John Mortimer sent in these views of the new survey ships, LEEUWIN (lying alongside) and MELVILLE (on the construction slipway). He also managed to locate the old minehunter CLEW, stripped of most fittings and awaiting a new career. Does any reader know of the future for CLEW? All of the photographs were taken in September.



"Pink Panther" Leaves The Fleet

Vic Jeffery, Navy Public Affairs Officer (W.A.)

An era ended in Royal Australian Navy history when the veteran hydrographic survey ship HMAS MORESBY was decommissioned at HMAS STIRLING in Western Australia on Thursday, 13 November, 1997.

In a 33 year career MORESBY recorded many milestones, the most famous being that of the first RAN ship to reach one million miles in service. MORESBY achieved this on 31 October, 1992 whilst surveying off Arnhem Land whilst under the command of CMDR Mark Hudson, RAN.

At the time of her decommissioning MORESBY had boosted that total to a staggering 1,170,421.7 nautical miles, accumulated during 88,241.8 hours underway. Her last CO, CMDR Paul Spencer, RAN, said in his Decommissioning speech, "it is a sad occasion, but it may be a time to reflect". How very true!

The 2350 tonne, 95.7 metre long HMAS MORESBY was laid-down at the Newcastle State Dockyard way back on 1 June, 1962 as the first purpose built hydrographic survey ship for the RAN. Costing two million pounds, she was at that time, one of the most advanced vessels of her type in the world.

MORESBY was launched by Mrs W. Gatacre, the wife of Rear Admiral G.G.O. Gatacre, Flag Officer Commanding East Australia Area on Saturday, 7 September, 1963.

On 13 February, 1964, MORESBY sailed from Newcastle as an unregistered civilian vessel flying the Red Ensign, and after clearing Nobby's Head headed south bound for Sydney. At the halfway mark of the delivery voyage, off Norah Head, MORESBY was officially accepted by the RAN.

At 1400 on Friday, 6 March, 1964, MORESBY was commissioned into RAN service at Garden Island, NSW, under the command of CMDR J.H.S. Osborn, RAN, in what has become a long and fruitful career.

Initially, MORESBY carried a Westland Scout helicopter which was replaced by a Bell 206B-1 in 1973. During her career, three helicopters have 'gone for a swim' the first being a Scout in 1967, followed by two 206Bs, one totally destroyed in the 1970s after a rotor clipped a cliff and the most recent, a 1985 ditching in the Admiralty Gulf, WA after an engine failure. This helo was rebuilt and was embarked on MORESBY when she achieved the million mile mark. Fortunately there was never a serious injury in any of these incidents.

When commissioned in 1964, MORESBY boasted two survey motor boats (SMBs), FANTOME and HERALD, the 1945 design boat SANDFLY and the all-purpose boat TRINITY. They were later replaced by SMBs ALERT, BEAGLE and DART, who were in turn replaced by FLY, RATTLESNAKE and WATERWITCH. Finally they were in turn replaced by FANTOME, INVESTIGATOR and MEDIA.

For the first decade of her career, MORESBY was based in Sydney, conducting surveys on the east coast, Tasmania, Papua New Guinea, Torres Strait, South Australia and the north west of Western Australia.

HMAS MORESBY, renowned for her teal deck, buff funnel and all white colour scheme briefly sported a blue 'GT' stripe along her length in 1973 until directed by Fleet to remove the

offending stripe and revert to her normal unbroken white appearance.

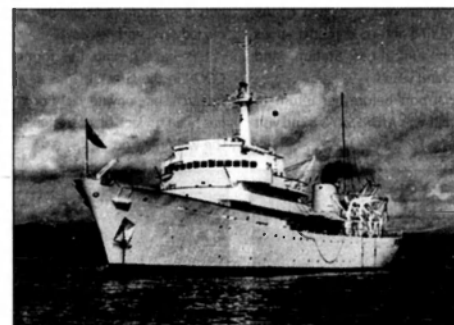
Undergoing a refit in 1973-74, which saw a number of modifications, including the building of a slim forward exhaust stack on the forecastle which replaced the original side exhausts, the heightening of the main funnel, the removal of two 40/60 Bofors guns from O1 deck (although the sponsons remained until her 1991 refit) a new crane (from the old aircraft carrier HMAS

SYDNEY III), which is still on the ship, and a new searchlight sonar and echo sounders.

MORESBY arrived at Fremantle, Western Australia in November, 1974 for homeporting. Five years she later transferred to the nearby recently commissioned HMAS STIRLING in 1979. MORESBY remained homeported at STIRLING for the rest of her service career, completing a record 23 years based on Australia's west coast, and surpassing the legendary HMAS DIAMANTINA's 20 years in the west between 1959-79.

Ironically, MORESBY only ever visited Sydney three times in the next 23 years, in 1988 for the Bicentennial Naval salute, in 1995 for the Hydrographic Service 75th Anniversary, and lastly in November, 1996 for a farewell visit.

Over the years, MORESBY was involved in a number of medivac and rescues. In October, 1975 she departed her survey ground near Rottnest Island, WA, to rendezvous with the Japanese fishing vessel, FUJISAE MARU No. 6, after an altercation onboard has resulted in one death and another crew member with serious stab wounds. A medivac was



Early view of HMAS MORESBY, still with her single 40 mm bofors.

carried out by the ship's helo to transfer the wounded seaman to HMAS LEEUWIN at Fremantle. Just over four years later, MORESBY evacuated a sailor from the yacht SELTRUST ENDEAVOUR. 1985 saw MORESBY's helo rescue two shell divers near Esperance.

Champagne corks popped in Fremantle in June, 1978 when the 17 officers onboard MORESBY learnt that they had won the \$100 000 second prize in a million dollar lottery.

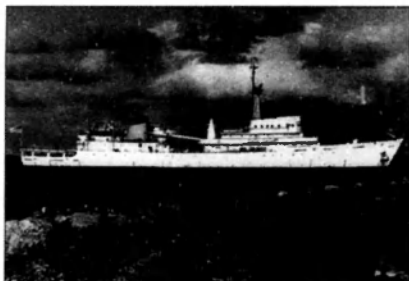
March, 1982 saw MORESBY in a different role when she was ordered to observe a splashdown and recovery of a Russian space vehicle some 300 nautical miles south of the Cocos Islands. The ship also shadowed units of the non-to-friendly Soviet Navy, using the ship's helicopter to fly photographic and surveillance sorties daily. The splashdown and recovery was observed by the aircraft crew and the operation described a complete success, with a 'well done' from CNS.

MORESBY's other diverse activities have included embarking members of the WA Maritime Museum in an attempt to find the missing World War II cruiser HMAS SYDNEY, assisting with her helo during anti-US demonstrations at the HAROLD F. HOLT Communications Station, and arresting an illegal Indonesian fishing vessel.

Darwin was MORESBY's final port before her return to Fleet Base West to decommission. It was MORESBY's 82nd visit to Darwin during her long career.



Assisting refugees from Vietnam.



Resplendent in her hydrographic white colours, MORESBY returns to her homeport at HMAS STIRLING after a survey of the Arifura Sea.

MORESBY was also the first RAN vessel to be slipped in the yards of Australian Shipbuilding Industries at Henderson, WA, for a bi-annual refit.

The ship's RAS tune, the theme from "The Pink Panther", which was fittingly played by the WA Naval Band at the ship's decommissioning, originated when the ship was operating in the Port Hedland area in the 1970s. A dust storm turned the freshly painted MORESBY into a dusky shade of pink, earning it the affectionate nickname of "The Pink Panther". MORESBY has also been known as "The Love Boat", a reference to her graceful lines and livery being similar to P&Os cruise ships.

The departure of MORESBY from the Fleet marks the end of an era. All future survey ships will be based at HMAS CAIRNS in northern Queensland, thus ending a 38 year association between the Hydrographic branch and Western Australia with HMA ships DIAMANTINA and MORESBY writing themselves into local maritime folklore.

After the decommissioning MORESBY was turned over to the Department of Asset Services for sale by public tender with bids closing on 10 December. Who knows where the graceful old lady will end her days?

Perhaps joining the former RAN units STALWART and COOK in the Greek Islands as a ferry, or being fitted out as a research ship, private yacht or as a fisheries mother ship. There has been no lack of interest in the ship and time will tell where she will finally go.



HMAS MORESBY, 1996. The ship is accompanied by three of her survey motor launches. The ship's helicopter deck is visible aft.



Beneath overcast skies the Australian White Ensign is lowered aboard HMAS MORESBY for the last time on 13 November, 1997. (Photo - ABPH Stuart Funnell)

Australia's Strategic Policy

December 2, 1997

THE HON LAM McLACHLAN, AO, MP
MINISTER FOR DEFENCE

Capability Implications

In terms of military capability implications, a key issue is the benchmark against which we measure our own capabilities.

The acquisition of high-technology defence capabilities throughout the Asia-Pacific means we cannot take for granted that our forces will keep their technological edge.

To maintain our relative strategic position, our forces must measure up to two key benchmarks:

- * First, we must have the capability to deny our air and sea approaches to any credible force, and
- * Second, we must maintain a very strong regional presence as a maritime power.

The discipline this imposes on how we shape our forces leads to some tough policy choices.

These involve making decisions on the balance of resource allocations between land, air and naval forces; between current preparedness and future capability; between the scale of forces immediately deployable and the time they can be kept in the field.

Few countries, however, have as clear-cut a strategic focus as Australia when it comes to making these choices.

Our geography dictates a maritime focus for defence.

Maritime Capabilities

Our second priority (number one is the knowledge edge) relates to developing military capabilities to defeat threats in our maritime approaches.

- * We are developing a mix of air, surface and sub-surface forces to create a formidable barrier to any hostile ships and aircraft in our maritime approaches.

* Air superiority is a decisive capability.

Australia faces a difficult set of choices over the next decade, about our future fighter aircraft capabilities.

My Department is examining options on the balance of emphasis we should put between upgrading the sensors and combat systems of the F/A-18 and acquiring new aircraft.

It is likely that a major upgrade of the F/A-18 will be required — what ever the outcome of these studies — as an interim step in modernising our air capabilities.

These decisions are for a later day — and I might add, a later budget context.

- * We are also looking at upgrading our air-to-air refuelling capability.
- * As foreshadowed in the last budget, we will upgrade the survivability, maintenance and habitability of our guided missile frigates (FFGs).
- * That includes upgrading their radar systems, communications equipment, anti-submarine and mine avoidance sonars and an improved defensive missile system.
- * We will enhance the surface strike and underwater defence capabilities of our ANZAC ships, including the acquisition of anti-ship missiles for the ANZAC's new helicopters.
- * We plan to expand and enhance our submarine capabilities, including by the acquisition of more capable torpedoes and a mining capability.

And we will begin work on enhancing the current Collins class design to provide data to guide decision making on future enhancements of the class, or the possible acquisition of additional submarines should that be deemed necessary.

This process will build on the strengths of the Collins, taking full advantage of new technological developments.

We have a continuing requirement to conduct patrol and enforcement operations now carried out by the Fremantle class patrol boats.

The Offshore Patrol Vessel (OPV) had originally been designated for these tasks. Following Malaysia's decision not to award its OPV contract to Tenix, our judgement is that the scale of investment required for an Australian-only OPV is not appropriate for the performance of primarily peacetime patrol tasks.

- * We will extend the life of the Fremantle class boats for as long as economical, followed by replacement with a boat for similar purposes.

Strike Capability

Our third priority is strike, that is, the ability to operate pro-actively against enemy forces in the defence of Australia and our interests.

- * Our plan is to maintain the F-111 in service until 2015 to 2020, to expand the operational fleet by upgrading our existing F-111Gs; and to acquire long-range stand-off weapons as well as improving the electronic warfare and air-defence suppression capabilities of the F-111s.
- * By stand-off weapons we mean something with greater range than the short-range weapons already being acquired.
- * But we are not proposing very long-range weapons, such as the Tomahawk land-attack cruise missile. We do not require this weapon to meet current strategic circumstances.

Priority Focus

Together, the enhanced military capabilities I have outlined – and the rigorous set of priorities against which they have been developed – will give us the most modern, capable force in our immediate region.

This force relies on highly-skilled personnel using high technology and modern equipment to achieve mobility, hitting power and flexibility, exploiting information technology to attain maximum effect from relatively small forces.

These initiatives will bring a comprehensive enhancement of the military capabilities of the ADF over the coming decade, enabling the force to meet the key benchmarks I mentioned earlier.

We will upgrade all our major combat ships and aircraft, restructure and re-equip the land force and invest heavily in technology to promote the knowledge edge.

Of course, such capabilities don't come cheaply. Over recent years, we have spent some \$2.2 billion annually on investment in new equipment.

The Defence Reform Program will, over the next three years, realise a one-off saving of \$500 million and mature annual savings of between \$900 and \$1000 million.

Current defence spending levels will allow us – with the savings from the Reform Program – to substantially modernise our existing defence platforms like the surface fleet, to acquire airborne early-warning aircraft and to give the Army greater mobility.

However, the current budget does not make it possible for us in the medium term to contemplate developing major new capabilities in the form of new fighter aircraft, or a new surface combatant should government decide that such acquisitions were needed.

Anti-Ship Missile Self-Defence Upgrades for Guided Missile Frigates (FFGs)

The six *Adelaide* class guided missile frigates (FFGs) acquired in the early 1980s will remain amongst our most capable and flexible surface fighting ships to around 2015.

FFGs can strike other ships with Harpoon anti-ship missiles, used in conjunction with surveillance and targeting information from Seahawk helicopters. They can also protect military and commercial shipping against attack by aircraft and submarines. Each FFG can embark two helicopters, not necessarily Seahawks, adding to the flexibility these ships offer to a maritime force.

To harness the full potential of these ships the core combat systems are to be upgraded. Radars and command systems with improved capability to detect missiles will be fitted and a new defensive missile system, optimised to engage anti-ship missiles, will also be installed. Crew habitability and self-defence against torpedoes and mines will be upgraded and the ships' ageing machinery systems will be made more reliable.



HMAS ADELAIDE

Based on earlier design studies the Australian companies ADI Limited and Tenix Defence Systems are competing for a contract to upgrade all six FFGs. The ships will be upgraded in Australia in the first half of the next decade.

Missiles for ANZAC Ship Helicopters

Eight ANZAC frigates are being built by Tenix Defence Systems. The first has entered service and the remainder will be delivered over the next several years.

Initially the ships will be fitted with a basic suite of equipment, allowing for more advanced equipment in the future with minimal disruption. A series of upgrades are already in progress including capability to fire Harpoon anti-ship missiles, acquisition of Super Seasprite helicopters to embark on the ships, and additional self-defence capabilities.

As a key element in this progressive upgrade, Penguin anti-ship missiles will be purchased for the Super Seasprite helicopters. These missiles will provide a potent strike capability, particularly in coastal waters, and will allow strikes against other ships while the ANZAC frigate remains safely out of range of a response. Penguin will complement the open ocean longer-ranged Harpoon missile which is carried by other ADF ships, aircraft and submarines.

The Penguin missiles will enter service early next decade in conjunction with the introduction of Super Seasprite helicopters.

Fighters and the Defence Budget

By Navy Leaqueur



F-111C, taxiing at Tindal, June 1977

A significant defence budgeting problem looms.

Although their airframe and engines are only half way through their normal life of time, the RAAF's 71 Hornets F/A-18A/B strike fighters have been found obsolescent in one of their roles.

The Australian Hornets have two roles. Firstly, they are strike aircraft with the ability to attack hostile surface craft in the sea/air gap around Australia's coast and ground forces. In this their primary role in Australia's defence, the Hornets are still very effective with their Harpoon missiles and will be more so after new air to surface missiles are provided under Project Air 5398. This project is to provide the RAAF with a new general purpose stand off weapon, an anti radiation weapon, a weapon to attack area and semi-hardened targets and a multi-purpose stand off weapon.

However, in their air superiority fighter role the RAAF's Hornets were found deficient in exercises with the Royal Malaysian Air Force MiG-29s armed with a new type of Russian made air to air missile. The RAAF plans to provide its Hornets with new air to air missiles under project Air 5400.

The plan had been to modernise the RAAF's Hornets with new radars and combat systems under project Air 5376. With Projects Air 5398 and Air 5400, it was concluded that the RAAF Hornets would be brought up to the full combat capability to keep them in service until about 2015.

However, it is now being argued that it may be more cost effective to replace the Hornets in 2005. This would involve bringing forward by some ten years the most costly Australian defence equipment project ever undertaken. The funds to do this could only be found by increasing the defence budget or by cancelling or postponing by up to a decade one or more other defence projects.

An alternative to is to acquire one squadron of new aircraft as soon as possible, deploy this squadron in the sensitive air superiority role and upgrade the remaining F/A-18A/B for deployment in the strike role.

Into consideration with the strike fighter problem must be taken the question of successors for the strike reconnaissance group's 17 strike F-111Cs, 15 strike F-111Gs and 4 reconnaissance RF-111Cs. The F-111

has a substantially longer radius of action than the F/A-18A/B. Due to the withdrawal of F-111 type aircraft from US service, difficulties are foreseen in obtaining spare parts etc for the RAAF's aircraft.

Looking ahead, no new aircraft will be available to succeed the F-111s in RAAF service. Therefore, it is proposed to replace both the F/A-18 strike fighters and the F-111 strike and reconnaissance aircraft with one type of aircraft. On a one for one replacement basis, some 110 to 120 aircraft would be required.

A further factor is the new types of aircraft available by 2005.

There are the Eurofighter 2000 (Western Europe's new air superiority fighter with some strike capacity), France's Rafale, Sweden's Gripen and the US Navy's F/A-18E/F. All these are in the later stages of development.

Further ahead, the US led multinational Joint Strike Fighter and the US F-22, an air superiority fighter which has just started flight trials. The JSF will come in several versions – land based fighter, land based strike, conventional aircraft carrier based strike fighter and short take off and landing strike fighters for the US Marine Corps and some USAF

roles and British service including carrier borne. At this stage, the JSF is in the early stages development, technologically ambitious and risky. In the longer term, this is the most likely replacement option for the F/A-18A.

Well down the track there will be further alternatives. These include unmanned aerial vehicles, both for combat and reconnaissance. Early versions of the latter have seen service in Bosnia. Ideas for unmanned combat aerial vehicles include operations for relatively small naval surface combatants.

Before Australia undertakes such a stupendous budget outlay, every aspect must be subjected to the most rigorous and objective analysis.

Firstly, the basic question of strategic priority must be addressed. Do we really need to spend so much of our defence budget on the aerial defence of the sea air gap? Do we really need a strategic strike and deterrent capability?

Then, are there better ways of doing it than simply acquiring, at very great cost, the same number of aircraft as we have now?

Then, are fixed bases, whose location an enemy would know and be able to attack, and which are difficult to resupply particularly with fuel, the best way to do it? Would mobile bases – aircraft carriers – operating joint strike fighters and unmanned aerial combat vehicles, with their much greater flexibility in deployment and easier logistic support, be more cost effective and less vulnerable than fixed bases? Or would it be better to acquire air defence fighters and undertake the strike role with naval surface combatants?

Naval vessels – aircraft carriers, submarines and surface combatants offer the advantage pre-positioning in launch areas and a much quicker reaction time than aircraft.

Then, there are the force multiplier benefits of the airborne early warning and control aircraft that will enter ADF service early in the next century. Because AEW & C can make more effective use of strike fighters, we may not need to replace the F/A-18A/Bs on a one for one basis. We may be able to do the same job with fewer strike fighters.

Then AEW&C can greatly improve the attack and defensive capabilities of naval surface combatants. This is important in both defence against air attack against Australian shore facilities and in the use of offensive ship launched weapons. The use of appropriately armed and directed naval surface combatants may well be a more cost effective way of providing defence against air attack than shore based high technology aircraft.

As a strike successor to the strategic deterrent F-111s there is an alternative with substantial attractions. That is Tomahawk land attack cruise missiles and other similar missiles of shorter range. Submarine launched cruise missiles are covert – an enemy will not know where the submarine is or how many there are. With surgical strike capabilities, risk of collateral damage is minimised. This surgical strike accuracy enables a naval force to complete its strategic deterrent mission with a

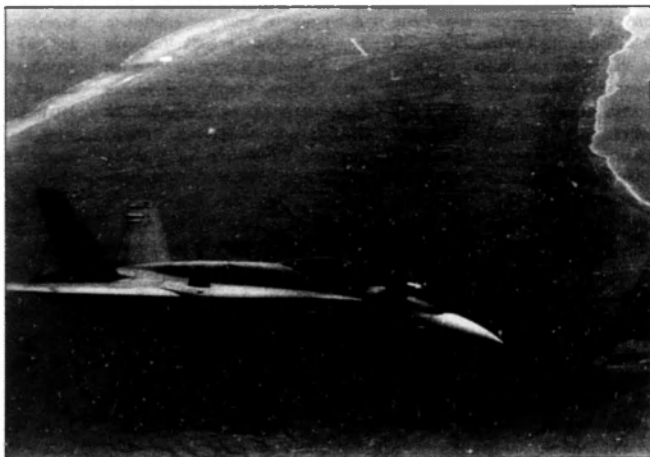
relatively few missiles. There are none of the overflying right difficulties which can inhibit the use of strategic strike aircraft and their inevitable air to air refuelling aircraft.

Because of the long range of Tomahawk, a surface combatant armed with Tomahawk can launch their missiles outside the range of shore based hostile aircraft. This can be used as an implied threat, in place for weeks or months, during diplomatic negotiations.

The RAN's Collins class submarines and ANZAC class frigates already have the mechanical launching equipment required for launching Tomahawk. Some combat system work would be required on missile mission planning, but the cost would be much less than acquiring a whole new class of aircraft.

There is no doubt that there are available to the ADF a number of alternative ways of replacing the RAAF's strike fighter and strike reconnaissance aircraft.

These must be analysed and evaluated without an assumption that the existing aircraft should simply be replaced on a one for one basis or indeed by manned aircraft at all.



F/A-18A over North West Cape, refuelling from a 707 tanker.

NEW FLEET SUPPORT

By Graham Davis



BRITISH MAGNUS, November, 1986.

An historic change for the Royal Australian Navy has occurred with the signing of a \$320 million contract with a new company, Defence Maritime Services (DMS), for the supply of support craft and port services to the Navy.

As a result of the contract officers and sailors of the RAN will soon be operating from a number of new, but privately owned, vessels including a patrol boat, two 2000 tonne multi-purpose vessels and a fibreglass sail training ship.

The contract, to last for ten years, will effect more than 600 craft operated by the Navy.

"It is the greatest change in the history of the RAN," CMDR Warren Smith, the project manager for the changeover commented. The contract between the Navy and DMS was signed at Pyrmont last October by SCA/N RADM Admiral Simon Harrington and the chairman of DMS, Mr Ross Brewer.

Throughout the contract, DMS will be required to plan, provide and manage a wide range of offshore and

inshore afloat support services for the RAN Australia-wide, provide many of the required craft and maintain all craft to operational standards, including by replacement if necessary.

Among the key services that the Navy will require from DMS are tug services, target services, practice weapons recovery, range support, submarine trials and calibration support. It will also require a full range of harbour services, including ammunition embarkation and fuelling of HMA ships. In addition the contract will call for a complete range of training services involving both motor and sailing craft, a full range of logistical services for support craft, including craft embarked in HMA ships, both in Australian waters and when deployed overseas.

The contract means that 210 current employees of the RAN who now operate support craft around Australia will have their billets "disestablished."

"Of the 210, 150 are uniformed defence people. They will be absorbed into the Navy," CMDR Smith said.

"Of the remaining 60 Defence civilians, a significant number of them will be hired by DMS," its general manager, Mr Mark Taylor, said. "DMS will have a permanent workforce of 110," he added.

Both CMDR Smith and Mr Taylor agreed that the most dramatic developments brought about by the new contract included:

a. The purchase of a new Pacific class patrol boat from Transfield WA which will be unarmed. Operated by a DMS crew, the new vessel will replace GPV ARDENT as the navigation training vessel based at HMAS WATERHEN. The boat will have additional navigational facilities to the 22 other Pacific class patrol boats now serving with navies of Australia's Pacific neighbours. She will be in DMS livery, likely to be a black hull and buff superstructure and will carry civilian registration numbers. No name has been decided upon for the new boat. Delivery of the boat is expected around October 1998 at which time ARDENT will be disposed of.



Navagational Training Vessel ARGENT, to be replaced by a new Pacific Island patrol boat in 1998. (Photo - Brian Morrison)

PROTECTOR's duties in Adelaide. **PROTECTOR** will be refurbished to become a sea training vessel based at Jervis Bay

c A 16 metre fibreglass sail training vessel will also be bought and positioned at Jervis Bay. Delivery of the yacht is expected in October of 1998

Virtually all vessels of the RAN including HMA ships, will be effected by the contract

"Even the launches and rubber craft carried on our warships are part of the contract, CMDR Smith said. "Like the workboats and tugs at our ports and facilities they will be maintained and changed over by DMS

"If a warship is up in the Gulf and needs a replacement RIB, its captain will contact DMS. "The sailing boats used by the people at HMAS **HARMAN** on Lake Burley Griffin will also come under DMS."

Implementation of the contract commenced in mid November with the support craft attached to HMAS **CAIRNS** the first to "go private". HMAS **COONAWARRA** in Darwin followed immediately with Sydney changing over in late December 1997. HMAS **CRESWELL** in January and HMAS **STIRLING** in February. Backgrounding the changes, CMDR Smith said he and a temporary staff of five had been working on the Commercial Support Program concept for five years

"Five groups showed interest in seeking the contract," he said. "This was reduced to a short list of two - one was from the Navy, an In House Option and the other was from Defence Maritime Services, an Australian company put together by P and O Maritime Service and SERCO Australia," CMDR Smith said

"DMS got the contract and it was signed recently by RAMD Harrington and Mr Brewer," he said. Mr Brewer, the chairman of DMS, said, "this contract cements further, our relationship with the Government."

PROTECTOR, currently involved in safety and support of the *Collins* class submarines. The second of the two MPV's will go to Fleet Base West. Mr Taylor said he was confident his company would find officers and crew from within Australia to man both MPV's

The 2,000 tonne craft will be multi-rolled and equipped to conduct other tasks such as weapon recovery. Like the new patrol boat, the MPV's will have black and buff livery. No names have been decided upon. Once the Adelaide based MPV has taken over

b The purchase of two second-hand 2000 tonne offshore supply tenders, **BRITISH MAGNUS** and **BRITISH VIKING** from the British company Dramgate. To be called 'multi purpose vessels' the ships are currently involved in oil rig supply and similar duties around the UK. Costing \$15 million each, the vessels will operate with a DMS crew of seven to nine. The first of the two ships is due in Australia to participate in next March's Operation Black Cat, a submarine escape and rescue exercise. The first of the MPV's will be based in Adelaide and replace

NAVAL NEWS



MS(S) KORAAGA will take part in EX HUNTER in April. (Photo - Brian Morrison)

Hunter 98

The Royal Australian Navy (RAN) and the Republic of Singapore Navy (RSN) will conduct a Mine Counter Measures (MCM) Exercise, EX HUNTER 98, in Darwin from 13 to 24 April 1998.

The third in the series, EX HUNTER, will include planning for MCM operations and the conduct of such operations at sea. Hosted alternately by the two navies, the last exercise was organised by the RSN in May 97

For EX HUNTER 98 the RAN will deploy up to seven Mine Counter Measure Vessels to Darwin. Currently programmed to participate are the minehunters HMAS **RUSHCUTTER** and HMAS **SHOALWATER** and auxiliary minesweepers **BROLGA**, **WALLAROO**, **BANDICOOT**, **KORAAGA**, and **BERMAGUI**. MCM operations are designed to ensure the safety of navigation by keeping the sea lanes free of mines.

Up to eight RSN officers will participate in Exercise Headquarters planning and command, as well as the

Exercise control and umpiring with their Australian counterparts

Joint Commanders for EX HUNTER 98 will be the Commander of the Australian Mine Warfare and Clearance Diving Forces, Commander Gerry Kelly, and the Commanding Officer of the RSN's 194 (MCMV) Squadron Lieutenant-Colonel Albert Lee

EX HUNTER 98 will provide both 'fleets' with the opportunity to gain experience working together to combat a common maritime mine threat. The two navies mutually benefit from their interactions and will look forward to closer co-operation in the future.

Divers Keep Brisbane Open

More than 250 personnel and seven naval vessels visited Brisbane in mid November to clear mines laid by the mythical enemy of Orangeland which had blocked the approaches to the Port of Brisbane.

The exercise which began on Monday, 10 November and concluded

on the 27th, is the Navy's annual test for its mine countermeasures and clearance diving force. Last year the exercise took place in Mackay

Navy Clearance Divers established a tent city at Scarborough Boat Harbour from where they conducted the mine clearance and clandestine operations in Moreton Bay. Also with them was a US Navy/US Marine Corps detachment of 16 personnel known as the Very Shallow Water Mine Counter Measures Detachment (VSWMCM Det) from San Diego

The vessels operated in Moreton Bay from a forward support unit at Bulimba barracks

Patrol Boat Stranded

The RAN Fremantle class patrol boat HMAS "GAWLER" became stuck in mid-air on Monday, 3 November, when the synchrolift lowering her into Darwin Harbour broke down.

GAWLER had just completed a minor maintenance period when the frame collapsed. No personnel were on the boat

at the time of the incident and a survey of the hull was undertaken to determine the damage

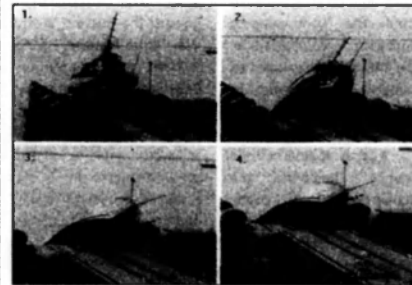
The boat was left suspended, listing to port, until the next day, when an attempt was made to float GAWLER at the high tide. During the lowering process one of the supporting cables broke, the aft section of the vessel taking a five metre plunge into the harbour, her bow still left on the lift. The boat was towed away to be assessed for repairs

The synchrolift was completed in 1982 and was last serviced in June, 1996

Navy Marches Into Coffs Harbour

The close links between the northern NSW city of Coffs Harbour and the Royal Australian Navy were reaffirmed on 1 November, when the Australian Minesweeping Squadron was granted the Freedom of Coffs Harbour City.

With the Freedom of the City previously held by the now decommissioned submarine HMAS **OVENS**, the Council was anxious to retain the close links that had



A montage depicting the plunge of HMAS GAWLER from the damaged synchrolift.

developed between the Navy and the local community

The ships of the Minesweeping Squadron had been regular visitors to Coffs Harbour over the years as they travelled between HMAS WATERHEN and operational exercise areas in Queensland. Accordingly, the City's request to grant the new FOE was forwarded to CANBERRA for approval by the Chief of Navy.

The Squadron, comprising the Auxiliary Minesweepers BROLGA, WALLAROO, BANDICOOT, BERMAGUI and KORAAGA, crossed the Coffs Harbour Bar and berthed alongside the Fisherman's Co-op wharf at 1400 on Thursday, 30 October, to begin a busy four days of activities.

Friday night witnessed a reception hosted aboard BROLGA, with the official guests and a large and appreciative crowd of locals treated to a spectacular Beat Retreat and Ceremonial Sunset ceremony featuring the RAN Band and a guard drawn from all five vessels of the Squadron.

The Freedom of Entry to the City of Coffs Harbour was conferred on Saturday morning by the Mayor, Councillor John Smith, on behalf of the citizens of Coffs Harbour. Personnel from the Minesweeping Squadron, accompanied by the RAN Band, then marched through the streets to exercise their newly gained right of passage.

As they approached the council chambers, the Squadron faced the traditional challenge by the local Police Chief Inspector, demanding to know by what right the Squadron passed through Coffs Harbour with

'swords drawn, drums beating, bands playing and colours flying'. Having passed the challenge, the Squadron proceeded to march in review before the Mayor and other dignitaries in front of the City Council Chambers before continuing on to the Cenotaph.

The ever popular RAN Band followed up its role in the celebrations by performing at a lunchtime concert in the Mall Amphitheatre to the delight of the crowds of tourists and shoppers. The final day of the visit was marked by several hours of open ship, with hundreds of curious locals and tourists taking the opportunity to look over the assembled minesweepers.

The Squadron departed the port early on Monday, 3 November, bound for Moreton Bay in Queensland to rendezvous with other elements of the Mine Warfare force to participate in Exercise Shortscope in Moreton Bay.

Sydney Mourns Sailors Lost at Sea

The Royal Australian Navy conducted its annual commemorative service in memory of the personnel who lost their lives aboard the Second World War light cruiser HMAS "SYDNEY", at the Sydney Cenotaph on Wednesday, 19 November.

During 1939-41 SYDNEY achieved notable victories in the Mediterranean Sea. However, on 19 November 1941 the ship was tragically lost with all hands, off Carnarvon, Western Australia, after sinking the German raider KORMORAN.

The Lord Mayor of Sydney, Frank Sartor attended the service with the Commanding Officer of the current SYDNEY, Commander James Goldrick, providing a short memorial address.

Four SYDNEY's have served in the RAN, the first, a light cruiser, won the Navy's initial battle honour of the Great War when she destroyed the German raider EMDEN on 9 November 1914. Her mast now rests on Bradleys Head in Sydney Harbour. The third ship of the name was an aircraft carrier that operated off Korea and later as a troop transport to Vietnam. The current SYDNEY, a guided missile frigate, was commissioned in 1984 and served during the 1990-91 Gulf War.

Participating at this year's 56th anniversary service were members of the HMAS SYDNEY Association. The service also featured the RAN Band and a Ceremonial Guard of Sailors drawn from Sydney establishments.

RAN Fleet Air Arm Celebrates 50 Years

This year marks the Golden Jubilee of the Royal Australian Navy's Fleet Air Arm and its home base at HMAS "ALBATROSS".

This historic occasion will be marked with a number of special events and reunions. The majority of these will be held at ALBATROSS, 9 km southwest of Nowra, over the period Wednesday, 28 October to Monday, 2 November 1998.

The celebrations will culminate on Sunday, 1 November with HMAS ALBATROSS Open Day and

Air Show commencing at 10.30 am. This Air Show will attract a large variety of historic and contemporary military aircraft.

Also located at ALBATROSS, and playing a vital role in preserving Australia's naval aviation history, is the Australian Naval Aviation Museum. This non-profit institution has one of the finest private displays of naval and other military aircraft. These aircraft are supported by a host of other exhibits and a unique research facility.

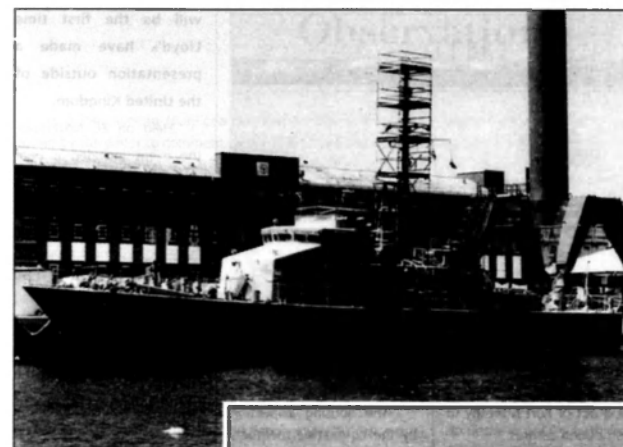
More information about the Golden Jubilee celebrations and the Australian Naval Aviation Museum can be obtained by contacting the Museum on 044 21 1920 or e-mail: anam@ozemail.com.au

First Female Commanding Officer of Navy Ship

The first woman to command a Royal Australian Navy (RAN) ship, Lieutenant Jennifer Daetz, completed her first deployment on 20 November as the Commanding Officer of the survey ship HMAS "SHEPPARTON".

Lieutenant Daetz and the other 16 members of the ship's company returned to Cairns from Australian Navy operations to the south-east of Papua New Guinea.

Equipped with the very latest in survey and computerised hydrographic data processing equipment onboard, HMA ships SHEPPARTON and BENALLA had been proving the safety of the inshore route at Ava Point in conjunction with the PNG Hydrographer.



HMAS FREMANTLE under refit at ADI, Garden Island. (Photo - Brian Morrison)

On 29th November, HMAS TUBROCK sailed from Sydney to transport army elements to Bougainville to assist the recently signed peace keeping agreement.



A recent visitor to the Fleet Base, Sydney, USS STETHEM. (Photo - Brian Morrison)



The two survey ships surveyed the area for potential use for shipping from Port Moresby to the Far East via the China Strait. This work was undertaken during October to December and will be continued in late 1998. It is part of the RAN's three year rolling survey programme, called Hydroscheme.

Women now make up 15 percent of the RAN, 30 per cent of the new recruits and 51 per cent of the current Australian Defence Force Academy intake of Seaman Officers. Women are also being selected for submarine training to serve on the Collins class submarines – of the total 160 volunteers, 40 are women, and probably 12 will join the course to begin early next year.

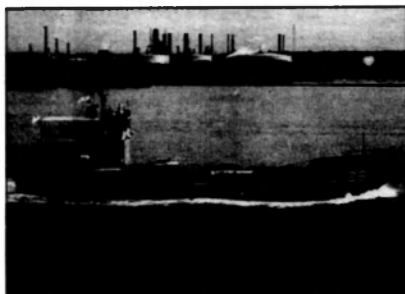
Lieutenant Daetz, aged 29, took up her position as Commanding Officer of "SHEPPARTON" in October after completing her naval command courses in Sydney.

Navy Joins PNG Drought Relief Operation

Two Royal Australian Navy heavy landing craft (LCHs) recently joined the Australian and Papua New Guinea Defence Forces' drought relief operations in Papua New Guinea.

The Cairns-based HMA Ships LABUAN and TARAKAN, capable of carrying up to 90 tonnes of aid each, teamed up with aircraft from the Army and Air Force to distribute aid throughout PNG.

Commander of the ADF Joint Task Force Lieutenant Colonel Norm Cognet said:



HMAS TARAKAN, assisting in the Papua New Guinea relief operations. (Photo - Ross Gillett)

"Our intention was to use the LCHs to pre-position food out of Port Moresby to distribution centres."

The LCH's much larger payload greatly reduces the impact on flying hours, ensuring that the aircraft are used where they are most needed.

The Navy's first job involved moving 50 tonnes of rice and flour, 4600 litres of cooking oil and 2640 gallons of aviation turbine fuel to the principal distribution point of Kerema in the Gulf Province, some 250 kilometres north-west of Port Moresby.

\$69m Upgrade for Albatross

HMAS "ALBATROSS", the Navy's aviation hub, is set for a \$69.3 million upgrade.

Commanding officer, CAPT Geoff Cole, said the expansion of the base would provide work for civilian contractors in the construction stage and jobs for naval personnel in the form of aircrew and maintenance technicians.

It is likely that homes affected by aircraft noise at the northern end of the main runway will be emptied and

about 50 homes in other parts of Nowra acquired.

The housing inspection by the committee members was part of a Defence Housing Authority initiative.

Under the \$69.3 million plan, activities will include the construction of a new "U" shaped hangar complex to house the existing Seahawk helicopters and the 11 new Kaman Seasprite aircraft, installation of new lighting for the base's two runways, construction of a new air traffic control complex on the western side of the north/south runway and a new training centre on the old AJASS Oval.

Provided the Federal Government sanctions the projects, work may begin in mid 1998 and take between two and three years to complete.

First for HMAS "ADELAIDE"

For the first time in its history, the renowned London-based insurers Lloyd's have broken with tradition by presenting a resplendent replica silver Elizabethan arms dish to the Royal Australian Navy guided-missile frigate HMAS "ADELAIDE". This

will be the first time Lloyd's have made a presentation outside of the United Kingdom.

Held on 26 November, the event included a brief handover ceremony at the Transfield Shipyard at Henderson where HMAS ADELAIDE was undergoing a refit.

Mr Geoffrey Cottey, representing Lloyd's, presented the award to the Commanding Officer of HMAS ADELAIDE, Captain Lee Cordner, AM, RAN. The award honoured the ship and the Royal Australian Navy's endeavours in 'saving life at sea', namely the rescue of the solo yachtsmen Tony Bullimore and Thierry Dubois in the Southern Ocean last January.

A similar presentation was also made to the RAAF's Maritime Group at RAAF EDINBURGH in South Australia in December in recognition of their part in the two successful Southern ocean rescues and that of Ralph Dinelli last December. All were competitors in the Vendée Globe yacht race.

With its interest in marine insurance, Lloyd's has a long history of recognising acts of bravery at sea. It is believed this is the first time Lloyd's have honoured the actions of an entire group, traditionally awards being bestowed on individuals, the first way back in 1835.

Observations

by Geoffrey Evans.

As a long-serving Navy League member the writer was invited by the editor to comment on the role of THE NAVY over sixty years. Because he was still at school when the magazine was first published in the 'thirties and did not join the League until after WW2 his comments (reminiscences?) must rely on hearsay for a large part of the period.

Right from the pre-war start THE NAVY appears to have been one of the few – perhaps the only – magazine to keep people informed about Australia's warships and naval happenings. After the war, with naval historian Herman Gill as editor, coverage of the RAN and navies generally was surprisingly wide.

In 1965 under a new editor, Dennis Trickett who the writer remembers well and who died in November 1997 aged 56, the magazine's format changed, additional contributors were found and THE NAVY became a more professional quarterly rather than a bi-monthly publication.

While by no means a "house" magazine, until the 'seventies THE NAVY's content consisted largely of reports on naval and sea cadet happenings and articles of historical interest. In the early 'seventies however due to several factors but notably because it was felt the effectiveness of the RAN was under threat, the Navy League began to use its magazine to express concern about the Navy's situation to the extent that by 1977 the then recently retired Chief of Navy Staff, Sir Richard Peek, was able to write an article for THE NAVY sufficiently critical to receive widespread media attention. This custom of voicing criticism when it was considered to be warranted – has continued and embraces merchant shipping as well as naval affairs.

The present editor, Ross Gillett who succeeded Dennis Trickett in 1978, further improved the format, increasing the photographic content and the number of contributors and perhaps most importantly, achieved a good balance between present day events and the past so necessary for an organisation and readership as diverse as that of THE NAVY.

One can only wish THE NAVY "Many Happy Returns" and best of luck on the overcrowded bookshelves of the nation.

Australian Flag Shipping in Decline

"Despite its population of only 18 million people Australia, situated at the end of the world's trade routes, has the fifth largest sea transport task in the world in terms of tonne/kilometres."

The foregoing quote is from an address by former ANL and Australian shipowners Chairman Mr. Bill Bolitho, to a combined company of Master Mariners – Navy League audience in Sydney in November and repeated at a similar gathering in Melbourne a week later.

Mr. Bolitho, who has been outspoken in his criticism of the actions and inaction of successive governments over many

years to support a viable Australian-owned shipping industry – except in war-related emergencies – was particularly critical of the failure to recognise the risks associated with Flag of convenience (FOC) shipping:-

The existing systems of international regulation and control of shipping built up over centuries have failed to control the FOC ship phenomenon and new ones have not yet arisen to take their place. Despite the best efforts of the international community through the IMO there is in reality no real control over the quality and conduct of international shipping other than the enlightened commercial self interest of individual shipowners. Some good some bad and some very bad indeed.

In its policy of replacing Australian flag shipping in the domestic economy with foreign flag ships the Government is following in the footsteps of the American shipowners when they avoid tax and evade the law by flagging out to Panama in 1917

Disguise it how they will and use whatever bureaucratic euphemisms they may the Government is advocating the avoidance of tax and the evasion of the law and holding these actions up as models of successful economic behaviour.

And indeed they are if the profits remain with the FOC operator and the human, social, environmental and other costs are borne by the public at large.

I have spoken at great length on the origins and development of the FOC vessel in order to emphasise that this phenomenon is not going away. It is a deep rooted and formidable economic force in international ocean transport. The short term profits to shipowners and charterers are great, immediate and certain while any sanctions or penalties are slight, distant in time and unlikely to happen at all. It is therefore going to be impossible to reverse this process until the long term damage to the environment and the structure of ocean transport becomes abundantly clear even to the most doctrinaire economic fundamentalist or more likely it completely overwhelms our established controls and institutions

Of relevance to the Navy, after referring to the FOC oil tanker KIRKI (her bow fell off due to rust) and bulk carrier GIGA2 (corroded bulkhead collapsed) Mr. Bolitho said:-

How is the Navy to protect our sea lanes in an emergency when dealing with vessels like the Kirki and Giga 11 even supposing that the foreign vessels, they do not disappear at the first gun shot as they have on two occasions in the past.

It is going to be hard enough in an emergency to communicate with and exercise control over well-maintained Australian flag ships over which we have some legal control let alone the rag tag and bob tail of international shipping that is likely to be available to us in an emergency after demise of the Australian flag fleet. The standard of seamanship in many of these vessels is so bad that in close company escort vessels will

have to protect themselves from them as if they were the enemy. You will not be able to talk with some of these ships let alone control them.

Under the Government's policy towards Australian flag shipping I suspect that the Navy would be well advised to think long and hard about procedures to deal with unsafe vessels operated by unskilled, incompetent crews with little or no English because these are the only ships likely to be available to Australian industry in any sizeable emergency.

Mr Bolitho concluded his address by saying it was "folly for an island nation to allow the carriage of its commerce and defence of its sovereignty to fall totally into the hands of foreigners" and that on a global scale "the ultimate consequences of this FOC phenomenon cannot be foreseen. They can however be foreseen with respect to the Australian flag fleet and its future. Without an immediate change of policy and strong Government and public support the industry has no future."

One has to say the recent transfer of responsibility for maritimes reform matters from the Department of Transport to Workplace Relations and Small Business supports Mr Bolitho's fears for the future of Australian-flag Shipping.

Sailors despise thieves

The BULLETIN recently highlighted an article on allegations of theft from naval premises and breaches of customs regulations. It was reported that an inquiry was underway.

Because of space considerations sailors serving at sea have very little privacy and mutual trust is essential if the ship is to function effectively. Thieving has always been regarded by sailors as a major crime and woe betide anyone caught pinching his mates' belongings!

Naval establishments are manned by a mix of sailors and civilians, the latter predominating in the vast stores. It is a pity THE BULLETIN smeared the uniform people in the way that it did.

Navy Briefing

A briefing by Navy in November for the Navy League's Federal Council was most enlightening for members, including the writer.

The event took place prior to the League's annual general meeting, held in late 1997 in CANBERRA, and obviously Navy had gone to a good deal of trouble to bring League members up to date with the maritime situation. The Chief of Navy, VADM Don Chalmers introduced the briefing team, Mr John Mortimer, CDRE Paul Kable and CAPT Jack McCaffrie and provided a comprehensive overview.

It is not appropriate to offer comment in this column, but fair to say the writer was agreeably surprised to learn the number of important projects put forward by Defence and approved by the Federal Government. Both deserve credit for striving to maintain the credibility of the ADF, when funds are limited and defence does not seem to have a high priority in the public's "want list".

Book Review

"WINGS AND THE NAVY 1947-1953"

By Colin Jones

Published by Kangaroo Press

Reviewed by Joe Straczek

This is a very timely book coming as it does on the eve of the 50th Anniversary of the establishment of the Royal Australian Navy's Fleet Air Arm. Colin Jones has produced a book which not only succinctly tells the story of the establishment of the Fleet Air Arm but also that of the men who helped create it. He tells the story of this fledgling air arm from birth to its first baptism of fire in Korea.

From the arrival of SYDNEY, the aircraft carrier was to be a central and integral part of the navy for over 30 years. Being so central to the Navy's force structure and operations, it is surprising that the topic has not received greater coverage in the past. The carrier was central to an ambitious naval plan which, like many in the past and future, virtually came to nought. The RAN did operate two carriers and two naval air stations but this was only for a short time. Financial realities would soon halve this.

Perhaps the one element missing from "Wings and the Navy 1947-1953" is a more detailed examination of the internal Navy considerations concerning the development of the post-war force structure. Notwithstanding "Wings and the

Navy 1947-1953" is still a major new contribution in an area of Australian naval history which should attract more serious study.



"Wings and the Navy 1947-1953" provides a good read and is an invaluable history of a period when graduates of the Royal Australian Naval College were starting to shape the destiny of the RAN in a manner not previously possible.

ANZAC in the News

Foreign Fishing Vessels Apprehended

The Howard Government has taken decisive action to protect the sovereignty, fish stocks and unique environment of Australia's remote Heard and McDonald Island Territories in the Southern Ocean.

Last August Cabinet directed the Australian Defence Force to mount an operation against illegal foreign fishing in the sub-Antarctic. As a result, the Navy apprehended two vessels allegedly operating illegally in Australia's Exclusive Economic Zone surrounding the Islands.

The two boats, registered in Belize and Panama, were apprehended on 16/17 October.

The Minister for Defence, Mr Ian McLachlan said this operation showed that we have the capability and will to protect Australia's resources and national sovereignty even in the most remote of our territories.

Unlike the dozens of foreign fishing vessel apprehensions that the Navy has successfully achieved in Northern Australian waters so far this year, the Southern Ocean apprehensions took place under extremely hazardous conditions.

"The Naval Task Group was operating in the far reaches of the Southern Ocean in extremely harsh weather conditions with very low visibility, strong winds and high seas", he added.

Australia's newest frigate, ANZAC, apprehended the vessels, with the RAN working closely with officers from the Australian Fisheries Management Authority (AFMA) in making the apprehensions.

Mr McLachlan said, "The success of



HMA Ships ANZAC and WESTRALIA, with the two illegal vessels. (Photo - ABPH David Connolly)



HMAS ANZAC at Heard Island. (Photo - LS Cheesman)

this operation is proof of the high standards of training and equipment that we possess in the Australian Defence Force."

The Minister for the Environment, Senator Robert Hill said -

Illegal fishing has the capacity to do great harm to marine species in the Southern Ocean. It would also threaten some of the values that have led to our World Heritage nominations for the Heard and McDonald Islands.

"The capture of these two vessels is a positive step towards ensuring the long-term preservation of the environment in the Southern Ocean."

"The operation is a warning to foreign fishing operators: if you fish illegally in Australian waters, you will be caught."

ANZAC returned to Fremantle with the apprehended vessels on 28 October, after which the boats and their crews were handed over to civil authorities for further investigation.

Heard and McDonald Islands are located in the Southern Ocean 4,000km south-west of Perth. This is one and a half times further than where the Navy successfully rescued around the world yachtman Tony Bullimore.



The seized fishing vessel SALVORA. (Photo - ABPH David Connolly)

Berthing 30 minutes before ANZAC was the other ship of the task group, the underway replenishment ship WESTRALIA (commanded by Commander Stewart Dietrich, CSM, RAN) which provided support, including four re-fuellings to HMAS ANZAC during her time in the Southern Ocean.

The navy worked closely with officers of the AFMA in the apprehension of the two boats, ALIZA GLACIAL and SALVORA.



During the operation HMAS WESTRALIA conducted four underway re-fuellings of the frigate HMAS ANZAC. (Photo - ABPH David Connolly)

Japanese Navy Pictorial

Photographs by John Mortimer

In late October (25th) the Japanese Maritime Self Defence Force conducted a Fleet Review in Sagami Bay off Tokyo. The review was attended by Prime Minister Hashimoto and the Defence Chief, Akio Kyuma from the decks of the flagship, the helicopter destroyer SHIRANE. Forty-eight ships and 46 aircraft from the MSDF and Air Self Defence Force participated. Two of the new Murasame class destroyers were on show, as well as submarines and auxiliaries.



Harushio class submarine, one of five boats at the review.



Flagship SHIRANE, with a full load of official guests.



Port side view of the destroyer TACHIKAZE.



HAYAKAZE with a single five-inch gun and two single Phalanx CIWS mounted aft.



Escort ship MINEGUMO. Like many MSDF ships, MINEGUMO carries the ASROC anti-submarine launcher.



A visitor for the Fleet Review sees the new Thai carrier, CHAKRI NARATHET. (Photo - Martin Dunn)

Landing Craft for Royal Brunei Navy

Transfield Shipbuilding WA (TSWA) have delivered a pair of 36.5 metre landing craft for the Royal Brunei Navy.

Launched on 8 November 1996, KDB SERASA and KDB TERABAN are named after districts within Brunei. Each is 36.5 metres long with an 8 metre beam and with a top speed of 12 knots are manned by a crew of twelve.

The contract to build the vessels in Western Australia was won against international tenders. The landing craft are designed for marine transportation and logistic support duties in coastal waters and to carry a variety of deck loads including battle tanks, artillery pieces and combat troops. The vessels have the ability to load through their main bow door or via two side doors, port and starboard.

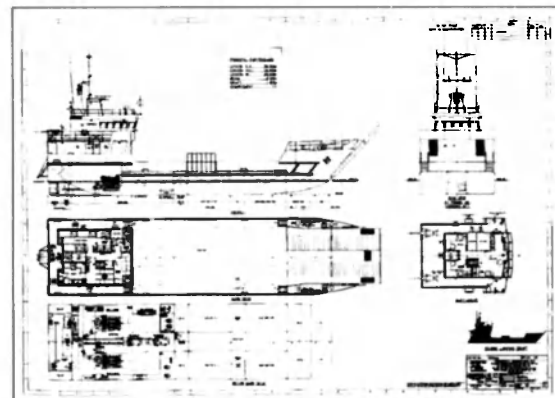
Of all welded mild steel construction, built to international classification society standards, the vessels comply to NATO standards and safety and stability requirements. Very comfortable air-conditioned accommodation and recreation facilities are provided for a ship's complement. The design also incorporates modern navigation and communication systems.

A typical weapon may comprise two 20mm lightweight and two 50 calibre naval gun mounts. Each vessel is also equipped to transfer fuel, water and store to smaller combatants at sea.

The design can readily be adapted for a variety of non-military peacetime logistic roles including emergency disaster relief operations.



The two new Royal Brunei Navy landing craft.



Handover of the craft from Transfield.



Bridge deck of KDB SERASA.

All Compass Points

Tribute to SS CANBERRA

UNITED KINGDOM - The Royal Navy paid tribute to SS "CANBERRA" on her final docking in Southampton in October, at the end of her last cruise.

Five Royal Navy ships and two Sea King helicopters were on hand as a Royal

Goose Green. Later in the day casualties from the assault were transferred to SS CANBERRA.

Later, between 27 May and 2 June, SS CANBERRA was off the coast of South Georgia as reinforcements arrived from the UK. The CANBERRA was also to play a key role in the transfer of prisoners of war from Port William to Argentina.



SS CANBERRA during the Falklands campaign.

Marines band played on the quayside during the nostalgic docking.

The Royal Navy's participation marked the important role played by the CANBERRA in support of the seaborne force sent by Britain to the South Atlantic in 1982 to liberate the Falkland Islands. 846 Naval Air Squadron, which sent the Sea Kings, has a direct connection with SS CANBERRA when aircraft were embarked in May 1982 after the cruise ship's conversion to a troop carrier.

It was at dawn on the 21 May, 1982 when SS CANBERRA entered Falkland Sound and her aircraft were involved in the support of troop landings at Darwin and

Germany and Indonesia sign MoU

JAKARTA, Indonesia - In late September, the German and Indonesian Governments signed a Memorandum of Understanding (MoU) for the sale of five German Type 206 submarines to Indonesia.

The accord will provide for a rapid handover, with the Indonesian Navy Chief of Staff Admiral Arief Kushiardi travelling to Germany to take possession of the boats on 23 September. The first two submarines were scheduled to arrive in Indonesia last November or December. The remaining three submarines

should be delivered to Indonesia this year.

All five boats will be modified for tropical operations before beginning service.

Named KRI Nagarangang 403, KRI Nagabanda 404, KRI Bramastra 405, KRI Cundamani 406, and KRI Alugoro 407, the five boats will more than treble the size of Indonesia's two-strong submarine fleet, comprising the larger Type 209 KRI Cakra 401 and KRI Nanggala 402.

Built in Kiel, the ex German vessels were modernised between 1987 and 1992, including new control, sensor, navigation, and weapons control systems, new periscopes and snorkels.

Navy Christens "CONNECTICUT"

GROTON, Conn. - The United States Navy christened its newest nuclear-powered submarine "CONNECTICUT" (SSN 22) during a ceremony Sept. 1 at Electric Boat in Groton, Conn.

CONNECTICUT is the second ship of the Seawolf class, the most capable attack submarine ever built. With mission and growth capability far beyond previous submarines, the design uniquely supports missions such as surveillance, intelligence collection, special warfare, covert cruise missile strike, mine warfare, anti-submarine and anti-surface ship warfare.

In addition to its formidable open-ocean-

presence, the Seawolf class is also a highly capable shallow water warfare platform, setting the standard for submarine technology into the next century. Its inherent stealth, coupled with state-of-the-art sensors and advanced combat systems, make it one of the world's most advanced weapons systems and the benchmark for underwater excellence. CONNECTICUT's flexibility and impressive capabilities provide the Navy with an undersea weapons platform to operate in any scenario against any threat - from under Arctic ice to shallow water.

Armed with the battle-proven Tomahawk cruise missiles, CONNECTICUT can safely conduct deep strike missions while submerged far off an enemy's coast.

CONNECTICUT also carries the Mark 48 advanced capability torpedo, the most reliable torpedo in the world, for use against surface ships and submarines. With twice as many torpedo tubes and a 30 percent increase in weapons magazine size compared to the Los Angeles class submarines, CONNECTICUT is eminently capable of establishing and maintaining battle space dominance.

This is the fifth naval vessel to be named CONNECTICUT. The last was a battleship which served as flagship for President Theodore Roosevelt's Great White Fleet.

"Just as that ship epitomized Roosevelt's

famous motto 'Speak softly and carry a big stick'," said Secretary Dalton, "this USS CONNECTICUT will patrol the world's oceans, preserving peace and silently protecting our precious freedoms."

CONNECTICUT with a crew of 14 officers and 120 enlisted personnel, is 353 feet long, a beam of 40 feet and displaces approximately 9,138 tons submerged and 8,060 tons surfaced. It can operate at depths greater than 800 feet, and its nuclear reactor powers the submarine to speeds in excess of 25 knots when submerged.

Anti-Missile Missile Scores Hit

SINGAPORE - The Republic of Singapore Navy (RSN) successfully carried out the first firing of its Barak Anti-Missile Missile (AMM) during a live firing exercise conducted in the South China Sea on 10 September 1997.

Launched from RSS VALOUR, a Missile Corvette (MCV), the Barak (meaning "Lightning") AMM scored a direct hit against an airborne target simulating a modern Anti-Ship Missile (ASM) both in terms of size and speed. The fully automated Barak AMM fire control system on board RSS Valour was able to detect and track the target and launch the Barak missile, intercepting the target at a range of about six kilometres.

The successful firing demonstrated the effectiveness of the Barak AMM point defence system. The Barak missile, together with the MCV's 76mm Oto Melara Super Rapid gun and

Electronic Countermeasure equipment, provide the RSN MCVs with a comprehensive capability to counter airborne threats such as sea-skimming missiles and low flying aircraft.

The Barak AMM system was acquired by the Navy in 1996, and is currently being fitted on board all six RSN MCVs. Armed with eight Harpoon ASMs, six Whitehead anti-submarine torpedoes and a sophisticated Electronic Warfare suite, the MCV is fully capable of carrying out multi-dimensional maritime operations to contribute to fulfilling the RSN's missions of providing for Singapore's seaward defence and protecting Singapore's Sea Lines of Communications.

The Republic of Singapore Navy conducts regular live firing exercises as well as rigorous training programmes under realistic conditions to hone the proficiency and professionalism of its personnel as well as to ensure that its equipment is always at the highest state of operational readiness. Such exercises include successful Harpoon ASM and Mistral Surface-to-Air missile firings conducted earlier in the year.

Barak Anti-Missile Missile System

The Barak (Lightning) Anti-Missile Missile (AMM) point defence system is designed to protect ships against airborne threats. The system consists of a vertical launch unit housing eight missiles per launcher, and a fire control system that can be integrated with the ship's existing warfare suite. The RSN's six MCVs are in the process of being fitted with two launchers.

A key feature of the Barak AMM is that it is fully automated with the fire control system capable of calculating the level of threats, allocating missile(s) and launching them automatically upon acquisition of the target(s) by the ship's radar.

Specifications:

Weight - 98 kg, Warhead - 22 kg, Length - 2175 mm, Diameter - 170 mm, Wing span - 685 mm, Range - 10 km, Velocity - In excess of Mach 2.

Super Hornet 1,000th flight

PATUXENT RIVER, Maryland - The F/A-18E/F Super Hornet flew its 1,000th flight on 12 September at Naval Air Warfare Center Aircraft Division, Naval Air Station Patuxent River, Md.

"The Super Hornet is a great airplane - one that will prove its value to naval aviation in the years ahead," said CAPT Gib Godwin, F/A-18 Program Manager. "But it is the people of the Super Hornet - government and contractor, F/A-18 program and entire Naval Aviation System Team - who have contributed so much to make the F/A-18E/F a success. The credit for this achievement is all theirs."

Nearly two years into the three-year flight test, program development of the Super Hornet is on schedule and on budget with the aircraft still well under specified weight.

This month, prime contractor Boeing begins initial production of Super Hornets for fleet replacement squadrons.

BATAAN

PASCAGOULA, Miss. (NWSA) - The United States Navy commissioned its newest amphibious assault ship, USS "BATAAN" (LHD 5), on 20 September in a ceremony at Litton's Ingalls Shipbuilding, Pascagoula, Miss.

BATAAN is the fifth of seven Wasp-class amphibious assault ships authorized by Congress. Her mission will be to serve as a primary landing ship for assaults from the sea to defend positions ashore.

BATAAN is the second U.S. Navy ship to bear this name, and commemorates the heroic defense of the Bataan Peninsula on the western side of Manila Bay in the Philippines by U.S. Navy, Marine Corps, Army and Filipino forces during the early days of World War II.

The new assault ship will be homeported in Norfolk as an element of Amphibious Group TWO. The crew consists of a ships company of 1,200 and a Marine Detachment of 2,000.

NR-1 Returns

GROTON, Conn. - Naval Research Vessel (NR) 1, the United States Navy's smallest and only research submarine, returned to her home at the Naval Submarine Base Groton, Conn. on 20 September.

During a five-month deployment to the Mediterranean Sea, NR-1 and a research team from the National Geographic Society discovered a large concentration of ancient shipwrecks while exploring off the northwest coast of Sicily.

The discovery was a major breakthrough in marine archaeology. Eight sailing ships, spread over 20 square miles, were lying 2,300 feet beneath the surface of the Mediterranean. The oldest ship, dating from about 100 BC, is one of the earliest Roman shipwrecks ever discovered.

Three of the ships were of relatively modern origin, including two from the 19th century and an Islamic ship from the 18th century.

NR-1 also assisted the Israeli navy in searching for the submarine *INS DAKAR*. The ex-British World War II-era diesel submarine sank in the Mediterranean Sea on 25 January 1968. *DAKAR* was on its maiden voyage with the Israeli Navy when she went down with all 69 crew members aboard.

NR-1 searched in several locations in international waters requested by the Israeli Navy, but the submarine still was not located.

A Smart Ship

WASHINGTON (NNS) – Secretary of the Navy John H. Dalton gave "Smart Ship" a grade of excellent during a September visit to the cruiser *USS "YORKTOWN"* (CG 48), the platform chosen to test and evaluate new ideas and technologies.

Secretary Dalton toured *YORKTOWN* anchored off Annapolis, Md., and spoke with all hands. "I want to stress to you that I recognize what is truly smart about the Smart Ship program. It is our smart Sailors," he said. "Most importantly, Smart Ship is about working smarter, not harder."

The Smart Ship allows Sailors to test ways to increase their readiness by freeing them from daily repetitive tasks. Workload and manpower requirements are reduced while combat readiness and quality of life are greatly enhanced.

YORKTOWN was converted to create a testbed for increased readiness,

reduced life cycle costs and enhanced safety improvements for Sailors. Some of the experiments involve decreasing the crew of a normal *Triconderoga* class cruiser from 350 to 306 and spending less time on maintenance and repairs. This is done by using a touch-screen console running off-the-shelf technology like Microsoft Windows NT on a fiber optic local area network. The test also eliminated 10 people from the normal 13 on bridge watch. This allows the crew to focus on the task at hand – warfighting.

"Because of your efforts and innovation, we will begin to implement Smart Ship concepts in the fleet as soon as possible," said the Secretary.

The Navy intends to incorporate the ideas and technologies from Smart Ship into all 27 of its *Triconderoga* class cruisers and 25 *Arleigh Burke* class destroyers, starting with DDG 83.

These ideas bring automation to maintenance, engineering, damage control,

and bridge functions, saving the Navy money.

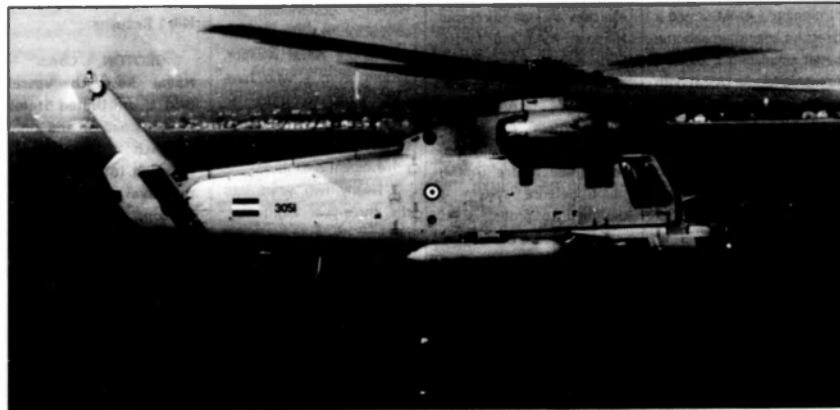
"A one time investment of up to \$8 million per vessel on the four internal systems could save maybe \$75 million, equating to \$2.5 million a year over each ship's roughly 30-year life," said RADM Daniel Murphy, Director, Surface Warfare.

Chief of Naval Operations ADM Jay L. Johnson calls the Smart Ship "the first step down the path" of a more efficient Navy.



First International Super Seasprite

BLOOMFIELD, Connecticut – In mid October Kaman Aerospace Corp. rolled out the first of 10 SH-2G(E) Super Seasprite helicopters for delivery to the Arab Republic of Egypt, the first international customer for the aircraft.



The new Egyptian Navy SH-2G(E) Super Seasprite helicopter. (Photo - Kaman)

The Egyptian government is acquiring the advanced maritime helicopters through the US Navy as a foreign Military Sale. Value of the contract to Kaman Aerospace is more than \$150 million for aircraft and support.

Charles H. Kaman, chairman and chief executive officer of Kaman Corp., said, "This is a milestone event for the SH-2G and we look forward to have Egypt as the lead international customer for the SH-2G and we look forward to supporting this aircraft for the life of the program."

Kaman Aerospace will continue deliveries of the aircraft at the rate of one a month through July 1998. The first three aircraft will be sent initially to the Pensacola Naval Air Station in Florida for use in flight training of Egyptian pilots. In-country deliveries of the aircraft are scheduled to begin in April 1998.

Other international customers for the SH-2G include Australia and New Zealand, which signed contracts in June for a total of 15 aircraft and support valued at \$785 million. Deliveries of 11 aircraft ordered by Australia will begin in the year 2001. Deliveries of New Zealand's four SH-2Gs will begin in the year 2000.

The SH-2G is the most recent helicopter to complete US Navy Operational Evaluation and is currently in service with the US Naval Reserves performing long-range surveillance, anti-surface warfare, anti-submarine warfare, mine warfare countermeasures, search and rescue, and utility service.

Project 15 Commissioned

INDIA – The Indian Prime Minister I. K. Gujral formally commissioned the Indian Navy's new indigenously built destroyer *INS "DELHI"* at Bombay on 25 September. "DELHI" is the first of three Project 15 ships. The other two, "MYSORE" and "BOMBAY", are currently fitting out and will be delivered in 1998 and 1999 respectively.



INS DELHI in new trials.

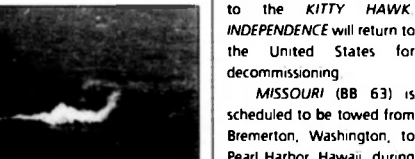
Each Project 15 ship is a multi-role destroyer with additional flag facilities for task group command. Displacing 6,300 tonnes, *DELHI* adopts a CODAG machinery arrangement with two AM-50 gas turbines and two KVM-18 diesels. Her maximum speed is 32 knots.

Laid down in 1987 and launched in February 1991, *DELHI*'s completion was a protracted affair, caused by delays in the supply of Russian-manufactured equipment.

DELHI's principal weapon suite comprises a single AK-100 100mm gun forward, 16 Zvezda Kh-35 Uran (NATO SS-N-25 'Switchblade') surface-to-surface guided weapons (in four quad launchers), two single-arm launchers (each with a 24-round magazine) for the Altair Shitl medium range area air defence missile system (NATO SA-N-7 'Gadfly') and four AK-630M close-in weapon systems (two on either beam).

For anti-submarine duties, her armament consists of two RBU-6000 rocket launchers (fitted just forward of the bridge) and a quintuple 533 mm torpedo launcher amidships. Russian-supplied PK-2 decoy launchers are fitted on either beam.

The destroyer's hangar and flight deck facilities sited aft, provide for the operation and support of two GKN Westland Sea King Mk 42B helicopters. Both A/2445 lightweight torpedoes and



Sea Eagle anti-ship missiles are carried.

The sleek looking *DELHI* has a complement of 40 officers and 320 ratings.

American Bids and Pieces

The United States has become the first of 13 nations to sign an agreement for future production of the Evolved Sea Sparrow Missile (ESSM) on 10 August. ESSM will be an improvement on the current RIM-7P Sea Sparrow surface-to-air point defense missile; it will be capable of being

launched from the MK 29, MK 41, and MK 48 launching systems.

The USN announced on 12 August that the carrier *KITTY HAWK* (CV 63) would replace the *INDEPENDENCE* (CV 62) as the Japan-based forward-deployed carrier. *KITTY HAWK* is scheduled to depart her current homeport of San Diego on 15 July 1998, to arrive in Yokosuka, Japan during August 1998. Carrier Air Wing 5 (CVW-5), currently assigned to the *INDEPENDENCE*, will transfer to the *KITTY HAWK*. *INDEPENDENCE* will return to the United States for decommissioning.

MISSOURI (BB 63) is scheduled to be towed from Bremerton, Washington, to Pearl Harbor, Hawaii, during April 1998. Following a three-week tow, current plans are to berth her initially at Ford Island's Pier F-5, then move her to Pier F-3 after that site is developed as her permanent location. It is hoped to have the ship ready for visitors in her temporary location by January 1999. The permanent location is to be ready during 2001.

The decommissioned tank landing ship *SCHENECTADY* (LST 1185) has been authorized for transfer to Thailand, while her sistership, *BARBOUR COUNTY* (LST 1195), will be transferred to Malaysia (previously approved for Venezuela and subsequently cancelled). ■



USS MISSOURI

New Ship but Old Memories

Graham Davis

When, after a multi-million dollar renovation, HMAS MANOORA, slides back into the Hunter River at Newcastle, she will carry on her funnel the Combined Operations Crest – a naval anchor crossed by a sub-machine gun and surmounted by an eagle in flight.

For those watching the ship's return to the water there will be a wave of memories, memories which will take them back 50 years, to Australia's "first" HMAS MANOORA and to HMAS ASSAULT, a naval/military training establishment which operated during World War II at nearby Port Stephens.

The crest is the legacy of HMAS ASSAULT, the ships assigned to it and those who trained there.

Today there is little left of HMAS ASSAULT apart from its sick bay which is an arts centre, its sport field which is now Nelson Bay Oval and the Little Beach slipway which is heavily used by commercial boat operators and even the Army.

The Port Stephens Lighthouse, now under the control of the Royal Volunteer Coastal Patrol has a room set aside as a museum to HMAS ASSAULT. The patrol through its Chief of Staff, John McInerney and his volunteers from Port Stephens have provided some details about the vital base.

They come as MANOORA and sister ship KANIMBLA near completion in Newcastle during 1998/99.

In mid 1942 following the successful naval battle in the Coral Sea when allied forces had halted the southward push of the Japanese, General MacArthur decided an amphibious warfare strategy for Australian and US forces to go on the offensive against the Japanese and regain the territories they had occupied.

First move was to get amphibious ships and support craft with trained crews and then train troops from the US and Australia on how to strike from the sea.

In June 1942 Commander F. N. Cook DSC RAN with a Royal Marine and

a Royal Artillery officer made an aerial survey of the east coast to find a location for a training base. Port Stephens was selected. At the end of a peninsula, with only one access road, it was an easy spot with which to maintain security. At the time there were only 420 people of whom only two were aliens.

CMDR Cook was authorised to buy a square kilometre of land at Nelsons Bay's Fly Point on which to build an Amphibious Warfare Training Establishment. The armed merchant cruiser HMAS WESTRALIA which had been earmarked for conversion to an amphibious operations role as a Landing Ship Infantry (LSI) was sent to the port arriving on September 1, 1942. She was accompanied by HMAS PING WO, an ex-Chinese river steamer to act as tender.

In addition 12 launches were commandeered as instructional craft while 24 assault landing craft were built. Funds were also allocated to build a landing craft pound, wharves and a workshop. At the same time the Army commandeered the Shoal Bay Country Club for its headquarters for soldiers undergoing the amphibious training.

General MacArthur directed the establishment of a "Joint Overseas Operations Training School" (JOOTS) on

the eastern side of Fly Point and the RAN's training school to go on its western side.

The mission of JOOTS was to conduct 20 day courses in combined operations for officers of both nations.

HMAS ASSAULT under the command of CMDR Cook in HMAS WESTRALIA was officially commissioned on September 1 with an initial intake of 24 officers and 280 sailors. The mission of the base was to instruct officers and sailors to man and maintain assault landing craft and to form Beachmaster teams.

The task of the teams was to land with the first wave of assaulting troops, check the beach and mark the area with flags for following waves of incoming craft, troops and materials.

The teams also trained to maintain ship to shore communications. One of the officers at ASSAULT in 1942 was LEUT V A T Smith a Fleet Air Arm observer who was to become Admiral Sir Victor Smith, Chief of Naval Staff and then Chairman of the Chiefs of Staff.

The new establishment had only been operating a few weeks when MacArthur told the Australian Government he thought training should be conducted in Queensland.



HMAS MANOORA (II) (Photo - URP/1.1. Alderforth)



HMAS PING WO.

The Naval Board (AUS) countered by saying Port Stephens was ideal. The Australians won the argument and the base remained.

In January 1943 the first of the three Australian merchant cruisers selected for conversion to LSI's, HMAS MANOORA, arrived. At 11,000 tons and a draft of 7.3 metres she is believed to have been the largest vessel to have anchored in Port Stephens.

At this time there was an odd situation with HMAS ASSAULT teaching British/Australian amphibious doctrine on one side of Fly Point while on the other side at JOOTS, US procedures were being taught. In February of 1943 those of the SW Pacific Command HQ changed their mind regarding the role of Port Stephens and closed down JOOTS. In its place came an amphibious training centre under the command of CAPT K J Christopher USN.

The new set up was to comprise HMAS ASSAULT, a facility to train troops in landings and a USN Landing Force Equipment Depot. The depot was to amass 94 USN landing craft to be used in training across the beaches of Port

Stephens. Meanwhile LSI's HMA ships MANOORA, WESTRALIA and KANIMBLA had been assigned to Admiral Barbey's amphibious force.

In the eight months till October 1943 the Port Stephens training area was to see 22,000 soldiers and marines training in ship to shore warfare. HMAS ASSAULT had by then trained 100 RAN officers, 100 landing craft coxswains, 453 landing craft crewmen, 250 stokers, 120 beach commandos (beachmasters) and 40 signalmen. In that month Admiral Barbey closed down the training centre and ordered that future training be done in Queensland.

The three Australian LSI's sailed together on October 11.

HMAS ASSAULT remained in commission for another ten months, her landing craft providing training for sailors and a holding depot for operations trained personnel. By this time it had also acquired a small fleet of its own, HMA ships PING WO and GUM LEAF (commandeered trawler), two auxiliary patrol boats FLYING CLOUD and KWEENA, nine locally built landing craft and 19 built in the US. In August of

1944 all training stopped with an officer and 24 sailors held to carry out care and maintenance.

In April of 1945 it was handed to the Royal Marines to be used by them for amphibious training.

What remains of the base today?

The site of the main huttled camp at Fly Point is now a grassy, tree studded public reserve with just a few scattered concrete foundations. A covered stage has been built in the park as a memorial to those who served at ASSAULT and aboard MANOORA, WESTRALIA and KANIMBLA.

The US has built a memorial at Little Beach to the 20,000 who trained in the area while at Salamander Bay three roads have been named after the three LSI's.

But according to John McInerney, "the best legacy of HMAS ASSAULT is her Combined Operations Crest – a naval anchor crossed by a sub-machine gun and surmounted by an eagle in flight, all in red on a royal blue background – which continues to be displayed as the funnel badge of the RAN's amphibious ships and craft of the 1990's".

"The NAVY" Revisited

In 1998, The Navy celebrates its 60th year of publication. In this issue we feature the last of the earlier editions, in this issue some of the more interesting pages from the month of February 1948

THE NAVY



at Sea and Ashore

VR) is engaged on the task in connection with the search expedition. She reached Heard Island accompanied by the cutter, and having completed her work there, proceeded on to Kerguelen. The landing on Heard Island was made on 26th December when the Australian flag was raised ashore. The Minister for External Affairs (Dr. Ewart) announced a few days later that 1350 included a bulldozer, 50 tons of lighter stores, and more than 200 drums of oil, which were for change of stores and equipment conditions experienced at Heard Island, and in consequence difficult circumstances. The issue of the crepuscular in the shape of pen guins, blue gulls, and sea lions.

On her return from Kerguelen Island, LST 1301 arrived at Melbourne on 18th January and proceeded to Williamstown Naval Dockyard for refit before continuing her programme.

A London report states that, on the same day that the party from LST 1301 landed the Australian flag on Heard Island, an expedition from South Africa landed on Prince Edward Island, some fourteen hundred miles west by those named the Union flag. Both islands will be used as meteorological stations, and it is suggested that as a link in Commonwealth air hemisphere.

Landing Ship Infantry
HMAS Kanabie (Captain A. P. Goss, DSO, RANVR) arrived in Sydney in December and after effect carrying on interviews and placed persons between Melbourne and Fremantle. She is now the

General
HMAS Kent (Lieut. W. A. Kent, RANVR) is in Sydney. HMAS Kent (Lieut. W. A. Kent, RANVR) is in Sydney. HMAS Kent (Lieut. W. A. Kent, RANVR) is in Sydney.

Letters to the Editors
Dear Sir,
I am writing to you to express my appreciation for the article in your issue of 15th January, 1948, regarding the "The Navy" magazine. I have been a subscriber for some time and I am very pleased to see that the magazine is still being published. I am sure that it will continue to be a valuable source of information for all who are interested in the Royal Australian Navy.

Contents
The Navy magazine is a quarterly publication which contains a wide range of articles on naval subjects. It is a valuable source of information for all who are interested in the Royal Australian Navy. The magazine is published by the Royal Australian Navy and is available to all members of the Navy.

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Subscription Information
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WHAT THE NAVY IS DOING

SINCE the last issue of this series of notes in the January number of the "The Navy" there have been only minor changes in personnel and in disposition. The main ship of the Australian National Antarctic Research Expedition, the *Warrant*, after some delay due to weather, has left Hobart for the southwards but suffered damage to the second ship of the Expedition, the *ESR 350*, has been carrying on the usual list of promotions came forward at the New Year. At the time of writing these notes in January, the personnel and disposition are as follows:-

SQUADRON DISPOSITIONS
The Cruisers
HMAS Australia (Captain H. J. Dickson, DSO, RANVR) is at sea. HMAS Australia (Captain H. J. Dickson, DSO, RANVR) is at sea. HMAS Australia (Captain H. J. Dickson, DSO, RANVR) is at sea.

10th Destroyer Flotilla
HMAS Batson (Captain D. D. Batson, DSO, RANVR) is at sea. HMAS Batson (Captain D. D. Batson, DSO, RANVR) is at sea. HMAS Batson (Captain D. D. Batson, DSO, RANVR) is at sea.

10th LST Flotilla
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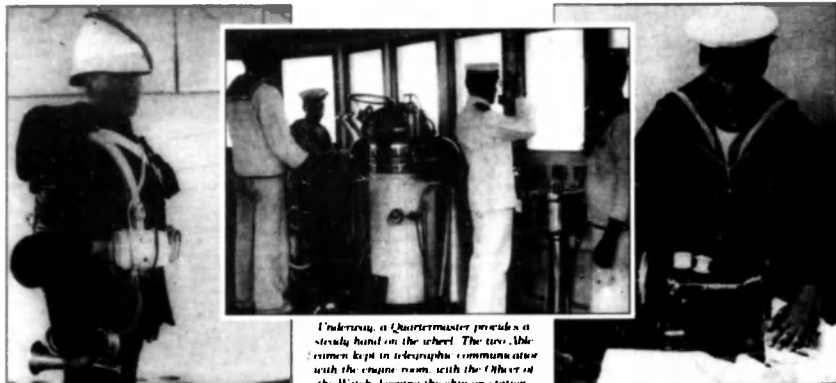
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Magic Lantern Slides 1895

This set of facsimiles from original Magic Lantern Slides are taken from a series comprising a lecture about the Royal Navy, dated 1895. The editor wishes to thank The Tree Factory of 136 Railway Parade, West Leederville, WA. 6007, for permission to reproduce the vintage images.



Marine Hughes in landing kit

Underway, a Quartermaster provides a steady hand on the wheel. The two Able seamen kept in telegraphic communication with the engine room, with the Officer of the Watch, keeping the ship on station.

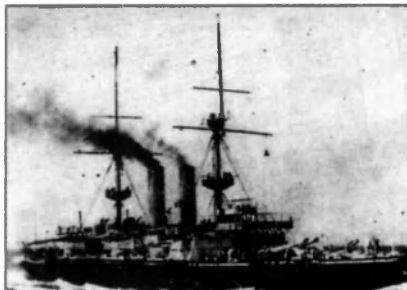
'Make and mend'



'Sailors of the Queen', the title slide to the lecture.



'Cleaning the small arms and cutlasses.'



HMS EMPRESS OF INDIA.



Members of the Naval Brigade about to embark in their ships, lying at anchor in the Grand Harbour, Malta.

? WHAT IS A . . . WRITER ?

The 'What is a ... navy people series was originally written in the late 1950s. The set of eight will be re-produced in 'The Navy' during 1997-98.

A Writer is not, as the name implies, a writer, but is a person who sits all day typing and making lots of work out of pieces of paper. A Writer can sit in one of three places - Pay Office, Accounts Office, or Captain's Office. Some Writers are even capable of sitting in all three (though not at the one time) but these species are rare - they invariably stick to the one.

PAY OFFICE In this section the Writer is trained to create payment queries, the answering of which keeps him busy for 13 days. Much time is spent by the Writer in this section in keeping stationary. Pay Office Writers have an air about them - generally conditioned.

A favourite expression used by the Pay Office Writer is "come back tomorrow, we're putting up pay", when in actual fact, they are creating still more payment queries.

Careful training in the Supply School enables this type of Writer to appear busy at all times. This impression

is created by the duty writer each morning. He attends the office early and carefully places folders, pencils, sheets of paper, rulers, rubbers and payment queries in position. When the rest of the staff arrive, they are busy straight away - clearing it all away again.

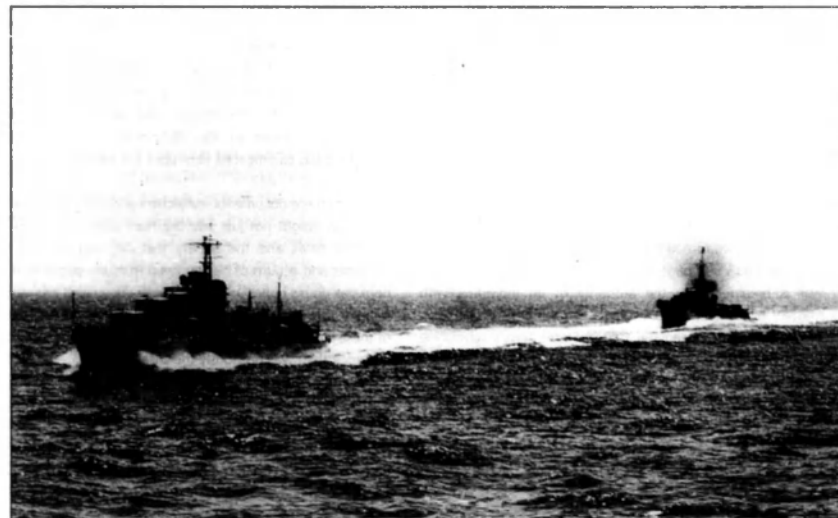
The bible of the Pay Office Writer is the pocket size ready reckoner. This is used to calculate pocket size payments.

ACCOUNTS OFFICE This type of Writer is a lonely type. He is chosen for his ability to remain seated for long periods in an air-conditioned office with one or two Supply Officers. Apart from this duty, the Account's Office Writer keeps the travelling expense records travelling. Because of this continual travelling (from office to office, for signature and checking, and back again for more signatures and more checking) this type of Writer's favourite expression is "come back three months from tomorrow, your expenses haven't travelled far enough as yet".

CAPTAIN'S OFFICE The main duty of this type of Writer is to see that the notation of swimming test passes is not recorded on the sailors' service certificate. A lesser duty (but still very important) is the duty of confusionalisation. All the Writer does in answer to questions regarding advancement, removal requests, etc., is to quote Australian Navy Order numbers, correspondence file numbers, Advancement Regulation article numbers, etc., with such rapidity that the listener leaves the office confused.

NOTE BENE Writers are assured that no slight is offered on this page. No-one works better. No-one works longer. No-one works harder than a Writer.

(Well, it must be remembered that Writers do carry out the duty of posting, so a good word must appear somewhere. Perish the thought of another 12 months in MELBOURNE!)



HMA Ships TOBRUK and RUTLEY, early 1950s

Hitler's U-Boat War - Volume 1: The Hunters 1939-1942

By Clay Blair

Published by Weidenfeld & Nicolson

U-Boat Operations of the Second World War - Volume 1: Career Histories, U1-U510

By Kenneth Wynn

Published by Chatham Publishing

Reviewed by Joe Straczek

Both of these books essentially deal with the same subject but tackle it from different perspectives. The Second World War saw the greatest undersea battle ever. All the major belligerents deployed submarine forces against their opponents. The submarine forces of the German and American navies were probably the most successful of those engaged in the war. Remarkably there are also a number of similarities between the earlier operational experience of these submarine forces, but more on that later.

The war against the U-Boats was, for the Allies, the crucial battle of the war. Defeat of the U-Boats did not guarantee victory but it did ensure that the Allies, and in particular Britain, would not be defeated. Clay Blair in his book, *Hitler's U-Boat War - Volume 1: The Hunters 1939-1942* covers the first part of this important battle. He recounts how the U-Boat arm was established and operated.

Of the many interesting points to come out of this book is the lack of submarine numbers, and the technical problems faced, in the early stages of the war. Like the United States in the Pacific, the Germans had major problems with their torpedoes. Part of the solution to the problem came from the capture of a British submarine and her torpedoes. These problems were offset, however, thanks to the British concentration on the 'battle line' which helped result in too few escorts available to marshal the merchant ships and hunt the U-Boats. Despite the small numbers available, the Germans were able to cause substantial damage to the British merchant marine. This situation did not change until the arrival of additional escorts, new technologies and new tactics. The culmination of these factors and the increasing number of submarine losses turned the hunters into the hunted.

Clay Blair's 800 page study on this first half of the U-Boat war is prepared with the authority of an individual with mastery of his subject. One of his earlier books was *'Silent Victory'*, which detailed the United States Navy's submarine campaign against Japan in the Pacific. Though written a number of years ago it is still the classic book on the subject. *Hitler's U-Boat War* is destined to follow as being the classic reference on the battle against the U-Boats. It is easy to read, packed with information and detail.

Kenneth Wynn's book *U-Boat Operations of the Second World War - Volume 1: Career Histories, U1 - U510*, though on the surface dealing with the same subject, takes a different

approach. Wynn's book is a history of individual boats. Each boat from U1 to U510 is listed. The entries consist of basic dates for the U-Boat, builder, laid down, commissioning, etc. Which flotillas the boat served in, who commanded it and how many patrols it made. A short narrative is then provided giving details on the various patrols. In the case of many of the U-Boats the final entry is "There were no survivors, 54 dead".

The research and effort that has gone into producing *U-Boat Operations of the Second World War* is surely commendable and will ensure that this book becomes an indispensable reference for any naval library.

If a criticism can be leveled at the book it is in two minor areas. First is the lack of any photographs or illustrations, apart from maps at the back. The second concerns the lack of technical description, and again illustrations, of the various U-Boat types. Though it must be said that this is readily available elsewhere and does not detract from the overall quality of the work.

Both Clay Blair's *Hitler's U-Boat War - Volume 1: The Hunters 1939-1942* and Kenneth Wynn's *U-Boat Operations of the Second World War* are highly recommended and do in fact complement each other to the extent that the purchase of both would be fully justified and provide many hours of interesting and informative reading.

THE DESPATCHES AND LETTERS OF LORD NELSON VOLS. 1 AND 2

Edited by N. Nicholas

Published by: Chatham Publishing

Reviewed by Joe Straczek

During the 1840s Sir Nicholas Nicholas, a retired naval officer, commenced to gather together the despatches and letters of England's greatest sea captain, Vice-Admiral Viscount Lord Horatio Nelson. These documents were published between 1844 and 1847 and ran to seven volumes.

To the delight of this reviewer and I am sure to any naval historian interested in the Nelsonian period, Chatham Publishing has commenced to re-print this invaluable reference work.

From these documents researchers and historians alike can obtain an insight not just into the man that was Nelson but also the times and the society that he lived in. The very thoughts and actions of Nelson jump from the pages of these books as do his hopes and fears. These documents represent a living history and are an important research tool. The reprinting of these volumes make them more readily accessible to a wider audience than was previously the case.

Volume 1 covers the period from the American Revolution to the Siege of Calvi, where Nelson lost the sight of his right eye in July 1794. Included in this period is Nelson's first meeting with Emma Hamilton. The second volume, covers the Battle of St Vincent through to the attack on Tenerife. This volume is supplemented by a number of documents which were omitted from the first volume in its original printing.

Although these volumes are not provided with an index, they do have a comprehensive table of contents which lists each individual document. The documents themselves are arranged in chronological sequence.

All-in-all the reprinting of these volumes make available, an invaluable history resource, a resource for which many will be grateful.

"TAKEN BY STORM"

The true story of HMAS MANOORA's experiences in the South West Pacific

By Mervyn Eather and Bill Galmes

Published by Port Phillip Press

Reviewed by Greg Swinden

Several years ago I wrote that ship history's had a tendency to be either well done or poorly done and there was very little middle ground. This is an example of a well written and interesting ship history.

Mervyn Eather and Bill Galmes both served in HMAS MANOORA. Mervyn was an RANR Signalman and Bill an AIF Sapper (part of the ship's Dock Operating Company). Together they have produced a highly readable and interesting history of MANOORA's time as a Landing Ship Infantry (LSI) in the Pacific Theatre. The story of the ship is uniquely told by a central fictional figure, one Ordinary Seaman 'Shorty' Blake, whereas all other characters mentioned were actual members of the ship's company.

The ship's history starts with 'Shorty' Blake joining MANOORA and then follows their fortunes, and misfortunes, through eight amphibious landings from Tanahmerah Bay (Dutch New Guinea) in April 1944 to Balikpapan (Borneo) in July 1945. MANOORA's last three assault landings were in Borneo where she landed AIF troops at Tarakan Island in May, Labuan Island in June and Balikpapan in July. When not employed as an LSI she was used as a troopship conveying Australian and American reinforcements to Dutch New Guinea, the Philippines and Borneo.

"Taken By Storm" is well set out, lavishly illustrated and contains a number of appendices detailing those who served in MANOORA, details of assault landings, honours and awards, and other snippets of information about the ship and those who served in her. One appendix describes in detail MANOORA's only casualty of the war, the unfortunate Sick Berth Attendant Alec Hill, who went for a joy ride in a RAAF Beaufighter involved in an attack on Japanese positions on Celebes (Netherlands East Indies) in February 1945. The Beaufighter was shot down and Hill became a Prisoner of War. He was executed by the Japanese in June 1945.

"Taken by Storm" is an A4 size paperback of 252 pages available for \$30 (including postage) from the HMAS MANOORA Association (c/o 21 Royalty Ave Highett VIC 3190 or J. Wilson 146 Bay Road Sandringham VIC 3191).

A recommended purchase for Naval historians and those with an interest in HMAS MANOORA.

"BUILDING AND DETAILING SCALE MODEL SNIPS"

The Complete Guide to Building, Detailing, Scratchbuilding and Modifying Scale Model Ships

By Mike Ashey

Reviewed by Vic Jeffery

I think most of us have tried our hands at building model ships somewhere along the line and I often wondered how some people seemed to have that innovative ability to create superbly lifelike models out of a model kit.

This 112 page softcover book is possibly the most comprehensive book on building and detailing scale model ships ever written. It documents with step-by-step, both in text and in hundreds of close-up photographs, how to turn an average ship model kit into a highly detailed masterpiece.

There are hundreds of simple techniques that will teach you how to assemble and add detail to ship hulls, decks and superstructures, add real chains, and bore out kit-supplied gun barrels. It also shows you how to scratchbuild guns, masts, propeller shafts, superstructure parts and railings; how to display models, create water dioramas, the list goes on ...

Amongst the 238 photographs included are 28 in colour, including views of the superb models of the battleship USS ARIZONA and the German submarine U-505.

Published by AirLife Publishing Ltd, Shrewsbury, England, this commendable book is distributed in Australia by Peribo Pty. Ltd., 58 Beaumont Road, Mount Kuring-Gai, NSW. Retailing at \$39.95, it is a must for model builders, old and new.

"THE GERMAN NAVY 1939-1945"

By Cajus Bekker

Published by Chancellor Press

Reviewed by Joe Straczek

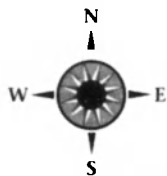
"The German Navy 1939-1945" is not the most authoritative book published on the German Navy of the Second World War, nor does it pretend to be. What the book is, is a concise and very informative book which includes a brief history of the German Navy and its war at sea. Of particular interest are the author's comments concerning the shortcomings of various German warships.

As a former member of the German Navy, the author writes with the authority of a person who witnessed the events he describes.

The publication is profusely illustrated with photographs covering almost every aspect of the German Navy's war. Unfortunately many of the photographs were reproduced too dark to be able to see any details. The photographs alone provide the reader with a clear understanding of the naval war in the North Atlantic and Arctic; fog, ice, sleet and generally rough seas.

"The German Navy 1939-1945" is an excellent book and provides an insight into the history of the German Navy during its six years of conflict at sea.

Army Moves North



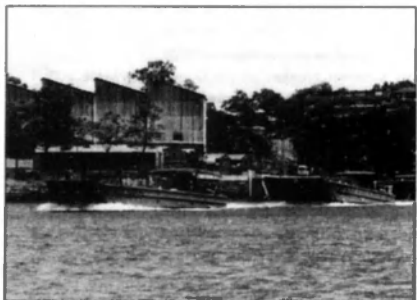
On 11 November, seven landing craft (LCMs) from the Wisbech based 48 Water Transport Squadron sailed from their home base of the Lest 40 years. This 1975 visit of the Wisbech Dock, depicts Army Medium Landing Ships, smaller LCMs and the cargo ship JOHN MONASH (Photo - Ross Gillett)



Water level raise of the dock complex, with LCMs at rest. Four of the seven craft sailed to Townsville and the site of these new operating facilities. Nine in Townsville the men and LCMs will support the Ready Deployment Force



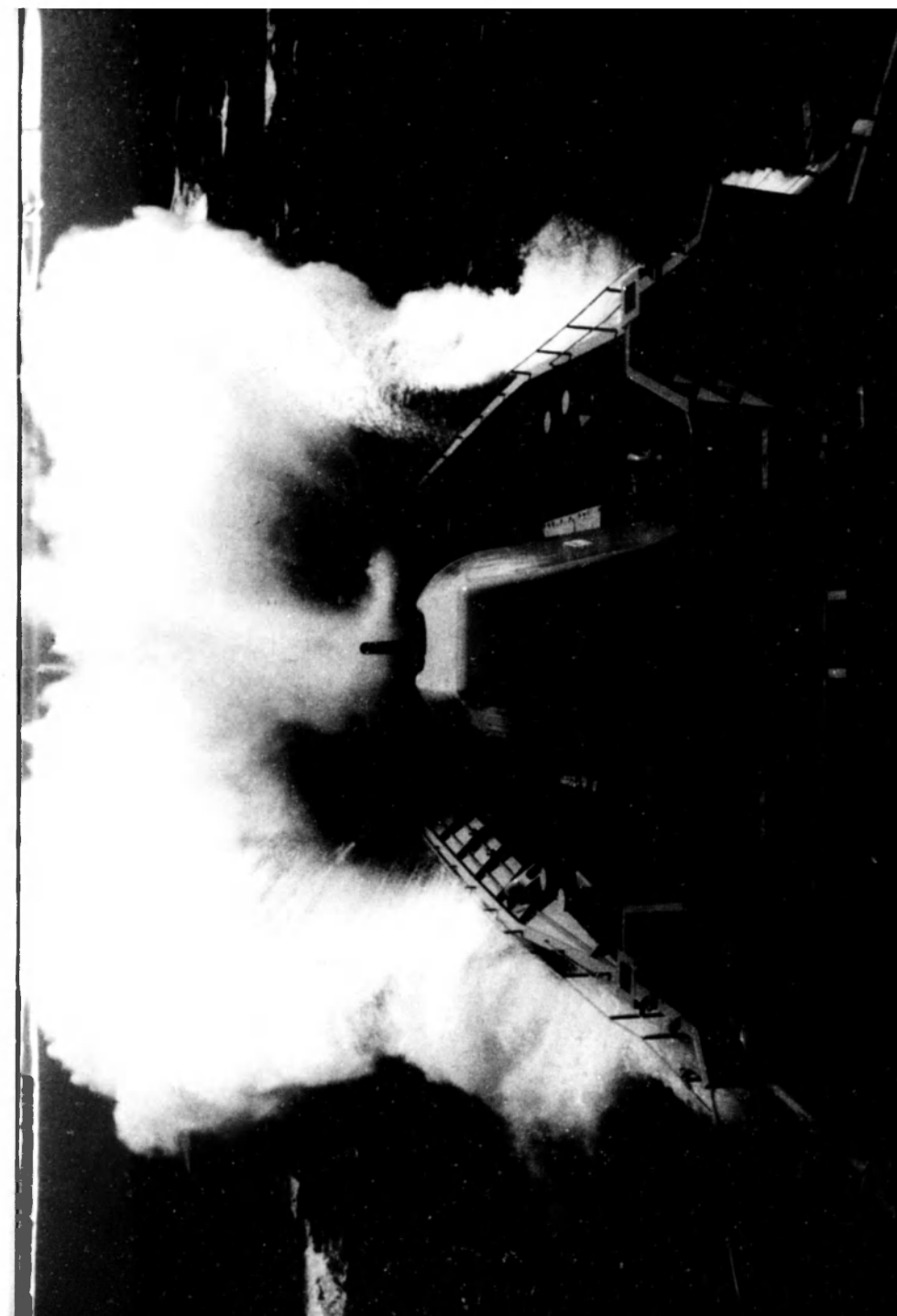
Proceeding down Sydney Harbour, line astern formation. The voyage to northern Queensland took 12 days. (Photo - Brian Morrison)



Departing for the final time, LCMs 1055, 1067, 1058, 1050, 1066, 1061 and 1063 sail for Townsville - on 11 November 1967. (Photo - Brian Morrison)



"The Last Farewell". (Photo - Brian Morrison)





Egyptian Navy SH-2G(E) Super Seasprite helicopter. (Photo - Kaman)

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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 \$22 (which includes the four quarterly editions of *The Navy*), to the Hon Secretary of the Division of the Navy League in the State in which you reside, the address of which are as follows:

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

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Application for Membership

To: The Hon. Secretary
The Navy League of Australia

..... Division

Sir or Madam,

I wish to join the Navy League of Australia, the objectives of which I support, and I enclose a remittance for \$22 being my first annual subscription to 30 June next.

Name:

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(Mrs)

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PLEASE PRINT CLEARLY

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JOIN THE NAVAL RESERVE CADETS

If you are between the ages of 13 and 18 years:

The Naval Reserve Cadets provide for the spiritual, social and educational welfare of boys and girls and help to develop them in character, a sense of patriotism, self-reliance, citizenship and discipline.

Uniforms are supplied free of charge.

Cadets are required to produce a certificate from their doctor to confirm they are capable of carrying out the normal duties and activities of the Cadet Corps. If injured while on duty, Cadets are considered for payment of compensation.

Parades are normally held during a weekend day or on Friday evening.

The interesting syllabus of training covers a wide sphere and includes seamanship, handling of boats under sail and power, navigation, physical training, rifle shooting, signalling, splicing of ropes, general sporting activities and other varied subjects.

Instructional camps are arranged for Cadets and they are also given opportunities, whenever possible, to undertake training at sea in ships of the Royal Australian Navy.

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

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

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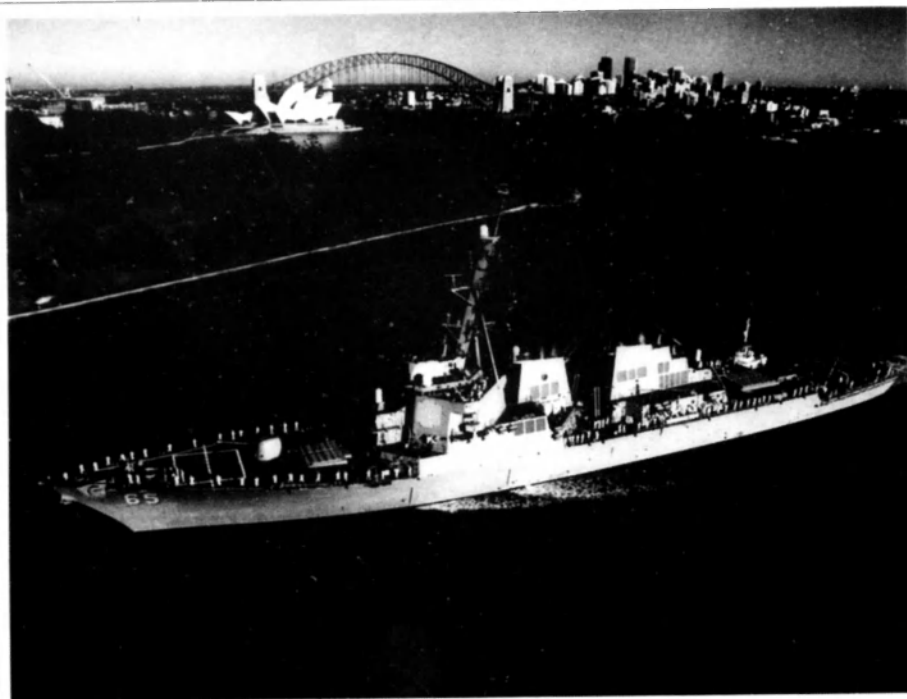
VOLUME 60 NO.2

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THE NAVY

The Magazine of the Navy League of Australia





Above:
A recent visitor to Australian ports. The USS
BENFOLD is pictured arriving at the Fleet
Base East on 28 January for a five day
goodwill stopover. (Photo - NPU)



Front Cover and right:
After thirty years of service, the RAN's
guided missile destroyers still form an
important part of the Navy in 1998. Here,
HMAS HOBART leads HMAS BRISBANE
during fleet exercises.
(Photo - Naval Photo Unit)

In this ISSUE

The Asian Financial Crisis and Defence
The Royal Malaysian Navy
The Future New Zealand Navy
Australia's Strategic Policy
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Copy deadline for the next edition is
9 May 1998.

VIEWPOINT

The second edition of *The Navy* in 1998 examines two major topics, the Royal Malaysian Navy in the 1990s and in a semi-naval area, the fleet of vessels operated by the Royal Australian Air Force from the early 1920s until 1993.

Many readers will be unaware of the existence of the RAAF's 'Navy'. Over 1,300 vessels of different types and sizes flew the RAAF Ensign, the majority during the Second World War in support of flying boat and seaplane operations in Australian, New Guinea and South East Asian areas.

Back to current events, sections of the recent New Zealand Defence Report are reproduced in this edition, with emphasis on the Royal New Zealand Navy and maritime assets of the RNZAF. This edition also presents an overview of the RAN's new Penguin anti-ship missile.

Upcoming Naval events for the calendar include the Oceans Governance and

Maritime Strategy Conference at the Lakeside Hotel in Canberra over 18-19 May. The aim of the conference will be to highlight the greatest challenge facing mankind, the management of the oceans and its resources. For further details readers should contact the Maritime Studies Program on 02 6266 6116 or by fax on 02 6266 6754.

Later, during August, 1998, at the Naval Air Station, HMAS ALBATROSS will host the major 50th Anniversary Air Day, with dozens of aircraft and helicopters expected on show. The era of naval aviation on public display will span the five decades, with numerous flying museum and static displays.

Ross Gillett

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

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FROM OUR READERS

Hornets and F-111s
Dear Sir, *Bob*
Congratulations on an informative and very topical article about the replacement for the Hornets and F-111s. The comments regarding the use of cruise missiles to replace the F-111s were quite interesting, and the summary of the various fighter replacement options was well done.

However, the YF-22 was merely described as "an air superiority fighter which has just started flight trials" and nothing more, and to balance the discussion, I felt a few extra facts should be put before your readers.

Firstly, the YF-22 is a stealthy fighter, and this, combined with its unusually long range for a fighter, and its very agile performance makes it capable of replicating the F-111's ability to undertake long-range strike missions unaccompanied by a fighter escort. It also has the ability to perform in the Defensive Counter Air and Close Air Support roles as well or better than any current fighter. Whereas the JSF, and particularly Eurofighter are pure air superiority platforms, with short range and single engines, the YF-22 is a better all-round choice, as its potency in air-to-air combat is enhanced by the tactical advantage of stealth, enabling it to close and engage in optimal position.

The outright cost of acquisition should be balanced against the huge savings in logistics which are achievable by having the one aircraft in both air superiority and strike roles. The F-111 is a notoriously expensive platform to maintain, whereas the YF-22 will be cheaper to maintain. In addition, where the F-111 has around 2500 components that provide potential safety hazards both on the flightline and at a crash site, the YF-22 will have less than 500.

We should also not forget that the F-111 came to us eight years late, millions over budget and with a reputation as a white elephant, yet has been the most potent conventional strike aircraft in service for nearly thirty years. With impending delivery of 70-odd Su-30 Flankers to Indonesia (forget the Malaysian MiGs) we should again buy the best, and maintain our edge over the region.

Fight Lieutenant Michael Vagg
RAAF Williams, Laverton.

Australian Yachtsmen's Scheme

Dear Sir,

I am seeking the assistance of your readers with a project I have to record the active service lives of some of the recruits to the Australian Yachtsmen's Scheme which was introduced in 1940 to help the UK war effort.

More than 450 men went from Australia to serve as officers with the RN under this scheme, with a large proportion being in the 30 to 40 age group. These were appointed at once as officers, the younger participants entering first as ordinary seamen. Whilst all Australian states were represented under the scheme, a total of more than half of the men in fact came from Western Australia and New South Wales.

As some readers may be aware, the first group of volunteers (now well over 70 years of age) had its 50th anniversary in Sydney in September 1990.

Bernard Bayly Wests (deceased) and I were among the first to volunteer for the scheme. We trained for sea service at HMS COLLINGWOOD, in Hampshire. Bern served in the North Atlantic on HMS CAIRO, then HMS KING ALFRED in Sussex. He was appointed first Lieutenant of a Fairmile ML operating out of Stornaway in the Hebrides, and responsible for co-ordinating air/sea rescue between there and the UK. After being appointed Captain in his own ML, Bern served in the Mediterranean on convoy and escort duties during the height of the desert campaign. After the landings in Italy he was sent back to Australia and served in the RAN in command of a coastal vessel transporting stores and materials to Borneo and the islands to the North of Australia.



Plated foredeck of the destroyer VOYAGER, under construction at Cockatoo in 1955.
(Photo - M. Koczmarowski)

I was drafted to the destroyer HMS QUORN operating between the channel and the Orkney Islands and conducting escort duties in the Western Approaches. I was later in command of my own ML which was sent to the port of Freetown in West Africa to act as escort to incoming convoys and for relief escort work. Later again I took part in D Day landings based at Arromanches before training as a pilot in the Fleet Air Arm, hoping to provide support against the Japanese in the Far East. Soon after completing my flying training the atom bomb was dropped on Japan and our planes were grounded.

I have some details of another Western end Australian, Roy Hall, and sparse details of others such as Ted Thomas, Ken Hamblett, and Jack Moppett just to name a few.

I am anxious to record as much detail as possible of the Scheme and the men who served under it, and I hope publication of this letter may prompt others to record their experiences and send them to me, or let me have information regarding others to whom I may write. I would be very happy to collate the information in a small booklet, should there be sufficient response.

In conclusion I would like to say how much I enjoy receiving and reading The Navy magazine with its excellent coverage of world-wide matters Naval.

Yours faithfully
G A Negus
Laurel Nursery, Green Lane,
Fleet End Road
WARSASH
Hants SO3 9JJ
England



A number of readers have enquired about the current condition of the ex HMAS WHYALLA, preserved ashore in Whyalla, South Australia. The four views, supplied by Ron Mead, depict the ship overall, her new four inch gun, the bridge deck and commemorative plaque.

Trawler Record

Dear Sir,

As a regular reader of The Navy I thought you may be interested in the recent exploits of the patrol boat TOWNSVILLE. The attached article by SBLT Stephen Taylor, RAN, covers the apprehension in December last year of what is believed to be the largest fishing vessel apprehended inside the Australian Fishing Zone (AFZ). The vessel was chased by TOWNSVILLE under the rules of 'Hot Pursuit' from inside the AFZ and only stopped when it had crossed the 'dividing' line. Even then she only came to a complete halt after volleys of rifle fire and having the TOWNSVILLE crew prepare the main armament for use.

The TOWNSVILLE story may complement the earlier piece on HMAS ANZAC and the even more recent HMAS NEWCASTLE apprehension in February.

Our own plans are to capture more of the same, sending a big message to unlicensed fishermen: "If you fish illegally in Australian waters, the RAN will be there to sort you out".

Yours faithfully,
Piers Chatterton
LCDR RAN
Commanding Officer
HMAS "TOWNSVILLE"

Editor: The "TOWNSVILLE" story is included in this issue. (See page 27)

Old Ships

Dear Sir,

One of your correspondents in your January-March 1998 edition of The Navy expresses his concern at the loss of part of our Navy history, with the disposal of its ships.

Your readers may be interested in the activities of several groups in Western Australia regarding two vessels, currently still in RAN service. The Naval Heritage Centre (WA) is a small but active group of former RAN personnel, who are seeking a vessel to be the basis of a navy heritage facility, to be located in Fremantle. The group has been active for several years and made a comprehensive and respectable submission regarding the former HMAS SWAN, when she was decommissioned in September 1997. However, such was the program of regarding undertaken by the RAN that all that was left of SWAN was a hulk, an impossible basis on which to develop a heritage centre, with almost all fittings, equipment and furnishings being removed. SWAN as your readers now know, lies in Geographe Bay, Busselton, in the south-west of WA, as a dive wreck.

Notwithstanding this temporary setback, the Naval Heritage Centre regrouped and is now actively seeking another vessel, probably the guided missile destroyer HMAS PERTH - the name giving the ship special relevance for WA. By the time you read this, the group will have met with the WA Minister for Tourism, with a view to get local support for the project.

Western Australia, without being too parochial, is arguably one of Australia's major maritime States. It has also played a significant role in Australia's naval history and it would be fitting if a navy heritage facility was established here. The Naval Heritage Centre group received wide community support for its SWAN proposal, plus considerable interest from local authorities.

Survey Ship Article

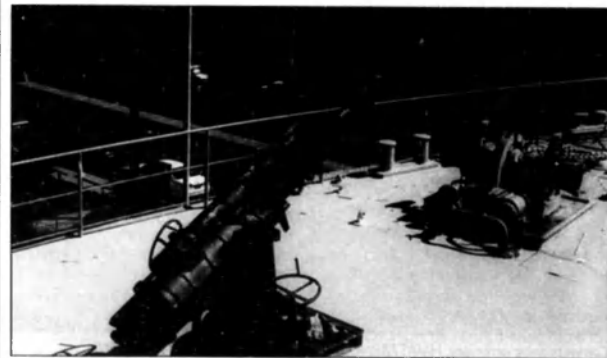
Dear Sir,

With reference to the excellent HMAS MORESBY story in the last edition of The Navy, I can recall as a teenager, before the Second World War, also a white painted survey ship.

I would like to know if you or any of your readers could provide a photograph and/or information on the earlier ship of the name.

Regards,
H. Terry
Perth 2745

Editor: A brief description of the first HMAS "MORESBY" and photograph of her in survey white have been forwarded to Mr Terry.





As far as HMAS *FLINDERS* is concerned, a local independent maritime training institute is seeking her for use as a sea-going training vessel. The institute trains ships' masters, marine engine drivers, deckhands and coxswains, etc., for work in the maritime industries. The ship has been visited, inspected, and a business plan has been prepared, outlining how the ship can be deployed after her RAN life, making a further contribution to Australia. This plan includes making the vessel available for training purposes for naval reserve cadets, in training establishments up and down the WA coastline.

However, unless arguments other than economic are considered by the Commonwealth Government when it disposes of its assets, including RAN ships, both of these worthwhile proposals may not succeed. While it is understandable in these times of "economic rationalism" that both the private and public sector wants to get the best return on its assets, there are still many other reasons to retain these ships. It would be sad to see *FLINDERS*, for example, go to overseas interests, and end up catching dolphins on long-lines. This ship is an Australian asset and should be retained in Australia's interests, not sold off like a used government computer, ministerial car, or office furniture.

VAMPIRE, alongside at the Australian National Maritime Museum, attracts 60,000 visitors annually. Certainly its ideal location in Darling Harbour helps to make these figures healthy. *DIAMANTINA* in Brisbane, and *CASTLEMAINE* in Melbourne are two more success stories about naval heritage vessels.

All of these heritage centres have several things in common. They all rely heavily on a dedicated band of volunteers – to act as guides, and to help with some maintenance. *VAMPIRE* also gets considerable government support via the ANMM, and I understand it also received assistance from the RAN in establishing its current role. Private sponsors also make an important contribution, in cash and in kind.

It is stating the obvious that the establishment and continued operation of such naval heritage centres are expensive undertakings. HMS *BELFAST*, the Royal

Navy's former cruiser now lying in the Thames between London and Tower bridges, reportedly costs the Imperial War Museum in Britain approximately Stg. £5,000 per day to stay open. Of course Australia's naval heritage ships cost much less than this.

But what is the price one should pay for the nation's heritage? Australian Governments have, for example, quite rightly funded the Australian War Museum for decades. Other more modest heritage facilities and establishments around the country should also be considered for official government support.

Readers of *The Navy* serving RAN personnel and members of the Navy League of Australia might like to help retain this nation's naval heritage by writing to Federal Government Ministers, expressing their support for such facilities – and urging government support for the creation of some new ones.

Yours Faithfully,
Roy Stall
Naval Heritage Centre (WA)
PO Box 198
Mosman Park WA 6012
0149 042 468 (m)



Commissioning ceremony, HMAS *FARNCOMB* at Fremantle, March, 1998. (NPU)

THE ASIAN FINANCIAL CRISIS AND DEFENCE

By Navy Leaguer

Over the last few months, both print and electronic media have carried extensive reports, opinion and conjecture on the financial crises that have beset South Korea, The Philippines, Thailand, Malaysia and Indonesia.

As neighbours and important trading partners, the difficulties of these friendly powers are of great importance to Australia.

Defence is an important aspect of this. These powers have had to make extensive cuts in government expenditure. These include cuts in defence. Some decisions are already clear. Others have yet to be finalised. Many of them involve the cancellation or postponement of defence equipment purchases.

Thus Indonesia has postponed indefinitely the purchase of new fighters, military helicopters and naval vessels from Russia.

Thailand is seeking ways of minimising the consequences of a purchase of F/A-18D strike fighters from the USA. This purchase, for which Thailand has a very tight contractual obligation, is difficult to avoid. It is suggested that Thailand may accept delivery of the aircraft and try and re-sell them elsewhere.

Recognising that it is very difficult to avoid a purchase already contracted, Malaysia is reviewing all its planned defence purchases. Some will be postponed. Those to which the greatest priority is attached will proceed.

Practical experience has shown that it is very difficult to cut defence expenditure in the short term. The opportunity to make cuts is limited to personnel training and operational readiness. Cuts in equipment can generally only be achieved by canceling projects for which contracts have not yet been placed. These cuts necessarily take time to show up in a nation's financial performance.

Nevertheless, it is inevitable that the cuts now being determined by regional powers will result in a weakening of their defence in the medium term.

There are those who argue that a weakening of regional powers' defence capabilities diminishes the need for an increase in Australian defence funding.

This argument is wrong – fundamentally wrong. Australia needs to increase its defence expenditure to maintain its technological edge in the broad region generally, particularly compared to those larger powers who are as yet at least unaffected by the financial crises besetting some countries to our near north.

These near northern countries are Australia's friends. It is not in Australia's interests for our friends to be forced to weaken their defences. With strong defences, in defending themselves our near northern neighbours act as a barrier for Australia. More likely, and very significantly, these near northern neighbours play an important part in ensuring the security of vital sea lanes through and near the Indonesian archipelago.

The security of maritime trade transiting the Malacca, Sunda and Lombok Straits and other constricted waterways is of vital importance to Australia's economy. This aspect of Australia's defence planning and force structure needs more attention than it has received in the unclassified version of Canberra's recently published "Australia's Strategic Policy". This major policy statement pays most attention to the defence of the sea/air gap.

There is no doubt that this is important providing, as it does, the means of defence against invasion of continental Australia. However, although if it were to eventuate such a threat would be truly terrible for the Australian people, that threat is also the least likely threat to Australia.

Threats to our economy through hostile action against our overseas and coastal maritime trade are far more feasible, particularly recognising the growing maritime strength of larger regional powers (as distinct from regional powers to our near north).

Our combat maritime forces, and plans to update them, are:

- Three guided missile destroyers, due to be paid off in the next few years.
- Six Adelaide class FFG7 class frigates, due to be modernised early next century.
- One Anzac class frigate, with seven more on order, due to undergo a major war fighting improvement programme.
- One River class frigate, due to be paid off shortly.
- Two Collins class submarines, with four more building.
- Two Oberon class submarines due to be paid off shortly.
- Six Huon class minehunters on order.
- A number of smaller mine counter measures craft.

- Sixteen Seahawk S-70B2 helicopters for the frigates
- Eleven Super Seasprite SH-2G(A) helicopters on order for the frigates.
- Eighteen P-3C Orion aircraft, being upgraded.
- About thirty five F-111 strike aircraft, being upgraded.
- About seventy F/A-18A/B strike fighters, which it is planned to upgrade.

The new construction and upgrading programme represents very substantial expenditure and a significant portion of Australia's defence budget. The first concern is the numbers of ships and aircraft. Many units will be very well equipped when they enter service. However, the numbers may be insufficient to fulfill the defence duties required.

However, there are gaps. Looking ahead, there will be further gaps unless rectifying action is taken soon.

Firstly, the best and most modern equipment is ineffective unless sufficient fully trained personnel are on line with that equipment. The ADF's shortage of personnel in some categories reduces operational readiness. This is exemplified by the RAN's Seahawk helicopters. Although we have enough aircraft in inventory, not enough of them have achieved sufficient operational qualifications to equip those Adelaide class frigates which are operational.

Another example is the P-3C Orions. The ADF will not reveal how many crews are provided. That very reluctance implies that there are not enough P-3C crews available. Secondly, insufficient flying hours and sea going time are allowed to bring ADF maritime units up to a satisfactory level of operational training. Thirdly, more needs to be done to develop the integrated use of weapons and sensors already available in individual air and maritime units. Fourthly, plans to build new generation destroyer type ships, to succeed the Adelaide class are repeatedly postponed. At first, the first of these ships was stated to be required by 2005. Now that date has slipped to 2013. One lesson the RAN has already learned is that, however good the maintenance, old ships and aircraft cannot last forever. Fifthly, plans for a new generation of underway replenishment and maritime support ships need to receive prompt attention.

Above all, it must be recognised that weaker defence forces for our near northern friends do not permit a weakening of the ADF. On the contrary, the ADF must be strengthened to fill the gap.

THE ROYAL MALAYSIAN NAVY

New Ships, Capabilities and Challenges
By Mike James

The Royal Malaysian Navy (or *Tentera Laut*) is responsible for some of the busiest waterways in the world, with much of the bulk freight and oil traffic of the South East Asian region passing through Malaysian waters for at least part of its journey. In addition the Federation of Malaysia encompasses the mainland States and the States of Sabah and Sarawak, located on the island of Borneo some 700 nautical miles across the South China Sea. The combined Exclusive Economic Zones of these widely separated areas takes in the disputed territory of the Spratley and Mischief Reefs, claimed in whole or part by Malaysia, Indonesia, Brunei, Vietnam, The Philippines and China. The potentially vast energy reserves believed to lie under these coral reefs ensure that their ownership will remain a hot topic for the foreseeable future. Establishing a claim to the area, and enforcing it, requires an ocean-going navy, and it is not surprising that most of the claimants are engaged in building up naval forces to allow them to better support their territorial ambitions.

The Royal Malaysian Navy (RMN) is engaged in a far reaching upgrade, acquiring new vessels and introducing new capabilities into the fleet. The purchase of new ships from the UK and Germany, together with second hand vessels from Italy and the United States, have strengthened the Navy's abilities to patrol Malaysian territorial waters and reinforce Malaysia's maritime claims in the disputed waters of the South China Seas. Malaysia is engaged in developing the capabilities to allow it to grow from a coastal or "brown water" navy, to one



Malaysian frigate LEKIR. (John Mortimer)

capable of operating in its closer littoral waters, so-called "green water" operations.

SUBMARINES

The RMN has expressed a desire to acquire submarines for at least ten years. At one time or another interest has been shown in submarines from Germany, Sweden, France and the UK. Unfortunately for the RMN the necessary financial resources have not been made available to allow a purchase to proceed. In late 1990 an announcement was made that two Swedish Kokums A19 class submarines would be purchased, modified to suit Malaysia's tropical conditions. Two decommissioned Swedish Navy *DRAKEN* class boats would be acquired for training. However, this statement was followed early the following year by an announcement that the submarine purchase would be deferred to concentrate on surface ships.

Realistically, a Malaysian submarine requirement would be for a number of smaller boats capable of operating in the shallow, reef-cluttered waters off the Malaysian peninsula and out into the South China Sea. Neighbouring countries have opted for similar small submarines,

as evidenced by Singapore's purchase of three ex-Swedish Navy *SJOORMEN* class boats and Indonesia's decision to acquire five ex-German Navy Type 206 coastal submarines. A final decision is still some distance off, especially with the onset of the Asian economic crisis.

MAJOR WARSHIPS

The core of any navy is its surface combat force of frigates and corvettes. Able to operate far from land in adverse weather conditions, they provide the centrepiece of a nation's maritime strategy.

Malaysia currently operates a single frigate, the 1600 tonne *RAHMAT*, which was commissioned in 1971. Originally armed with a single 4.5 inch and three Bofors 40mm guns, a single Limbo anti-submarine mortar and a SeaCat aircraft missile launcher (since removed), *RAHMAT* is today realistically capable of only limited coast guard and training duties.

The RMN has recognised *RAHMAT*'s limitations and in 1992 ordered two *LEKIU* class frigates from the UK shipbuilder Yarrow The ships, *LEKIU* and *JEBAT*, are 2300 tonne frigates which bring a new level of sophistication to the RMN. With a complement of 146 and armed with eight Exocet surface to surface missiles (SSM), 16 SeaWolf vertical launch surface to air missiles (SAM), six anti-submarine homing torpedo tubes, a Bofors 57 mm gun and two rapid fire 30 mm cannon, they are by far the most capable ships in the Malaysian order of battle. In addition both ships are fitted with a hangar for a single helicopter, making them the only front line warships in the fleet so equipped. Both ships were commissioned in August 1997, however, problems with their sophisticated combat data systems delayed their departure and they remain in the UK undergoing further trials and testing.

To supplement the new frigates, Malaysia operates two classes of corvettes. The two ships of the older German built *KASTURI* class commissioned in 1984. Until the commissioning of the *LEKIU* class, *KASTURI* and *LEKIR* were the most capable warships in the fleet. Displacing 1800 tonnes with a complement of 124, each ship is armed with four Exocet SSM, a single Creusot-Loire 100 mm gun, a Bofors 57 mm gun, two twin mounts for 30 mm rapid fire cannons and a Bofors anti-submarine mortar. While not fitted with a hangar, both ships have a platform allowing them to operate a single Westland Wasp helicopter.

Rumours began circulating in 1995 that Malaysia may have been interested in purchasing several ex-Iraqi missile corvettes that had been completed by Italy's Fincantieri in the early 1990s but not paid for or delivered. These rumours were confirmed in 1996 when a contract was signed for the delivery of two of the *ASSAD* class corvettes in 1997 following a short refit. A further two were subsequently acquired for delivery in 1998.

At 62 metres in length and displacing 700 tonnes, the ships are heavily armed for their size. They mount six Otomat Tesco 2 SSMs, a four cell mount for Selenia Aspid SAM, an Oto Melara 76 mm gun, one Breda turret mounting two 40 mm rapid fire cannon and six anti-submarine torpedo tubes. Capable of 37 knots with a complement of 47, the ships have more in common with fast missile attack craft than normal corvettes.

The *ASSAD* class share almost no commonality with ships currently in service, introducing a completely new set of electronics, weapons, engines and design philosophy into the fleet. This will undoubtedly result in difficulties in maintaining these ships, at least in the early years. Indonesia found itself in a similar predicament when it purchased a number of former East German warships, bringing with them a new set of spares requirements, resulting in problems with reliability and interoperability with existing systems.

Despite these problems, the new corvettes will add a potent strike capability, and it can be expected that efforts will be made to refit the ships to allow them to better interact with other units. Communication and electronic warfare equipment will probably be the first items to be replaced with RMN standard gear.

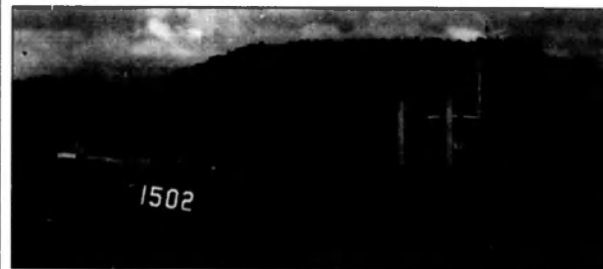
PATROL FORCES

The RMN operates a large number of smaller patrol craft to undertake the twin roles of ocean patrol and sea control of Malaysian territorial waters. The classes broadly break down into two groups, the small missile and gun armed fast attack craft for coastal patrol amongst the numerous small islands that litter Malaysia's coastline, and larger offshore patrol vessels (OPVs) capable of long periods on station, enforcing the 200 nautical mile Exclusive Economic Zone.

The offshore patrol role has been filled by the two *MUSYTARI* class OPVs. The name ship was built in Korea and commissioned in 1985, with the second, *MARIKH*, built in Malaysia, commissioning in 1987. Armed

features and would, when fully fitted with armament, helicopter and sensors, be a very capable asset. Information from within the RMN suggests however that for reasons of economy the first batch of six ships will be fitted "for but not with" a large proportion of the intended weapon fit. Amongst the missing equipment will be the surface to air and surface to surface missiles and possibly the anti-submarine homing torpedoes.

Indeed, given the depths of Malaysia's current economic crisis, there must be a question mark over the number of ships to be built and their final armament. It is hard to imagine that all 27 OPVs will be completed, and that they will be armed to the full specifications originally envisioned.



One of the oldest ships in the Malaysian Navy is the former USN tank landing ship *RAJA JAROM*. Built in 1945 she was transferred to the Royal Malaysian Navy in 1974. (John Mortimer)

with a single Creusot-Loire 100 mm gun and two twin turrets mounting 30 mm rapid fire cannon and capable of speeds up to 22 knots, they are simple but efficient long range patrol vessels. Their effectiveness would be enhanced by an embarked helicopter however no hangar facilities were incorporated, although the flight deck can land a single medium sized helicopter.

The requirement to operate at greater distances to patrol the EEZ and enforce Malaysian claims to areas of the South China Sea required more OPV class ships. The Navy issued a request for tenders in 1994 outlining a requirement for 27 OPVs to be built in Malaysia. Almost every naval shipbuilder in the world offered a design, including Australia's Transfield (now Tenix), builders of the ANZAC class frigates, with a joint project to satisfy the Malaysian requirement and to fulfill the Royal Australian Navy's need for a replacement for the Fremantle class patrol boats.

Following numerous delays the Blohm and Voss proposal was selected in October 1997. This vessel, the *MEKO A-100*, incorporates a number of stealth

The remainder of the patrol force comprises gun and missile armed attack craft. The oldest are the 18 boats of the Vosper designed *SABAH* and *KRIS* classes. Basically identical, these patrol boats displace 110 tonnes full load and are armed with two Bofors 40 mm cannon and two machine guns. Capable of 27 knots with a complement of 22, these ships are adequate for coastal patrol, although their age, (commissioned between 1964 and 1967), must be a cause of concern.

The next class to be commissioned were the four fast attack craft – missile of the *PERDANA* class, built in France to a modified *LA COMBATTANTE* design between 1972 and 1973. These are armed with two Exocet SSMs, a Bofors 57 mm and a single Bofors 40 mm gun. Capable of 36 knots, they each have complement of 30. The *PERDANA* class were followed by the six strong *JERONG* class of fast attack craft – gun commissioned between 1976 and 1977. Built in Malaysia to a German design, they displace 244 tonnes, have a complement of 36 and are armed with a Bofors 57 mm gun and a single Bofors 40 mm.



Missile patrol boat, *KAKSAMANA HANG NADIM*, originally ordered for the Iraqi Navy but never delivered. (John Mortimer)



Displaying hull number 1504 is the logistic support ship MAHAWANGSA, built in South Korea and completed in 1983 (John Mortimer)

The most recent class is the HANBALAN class of fast attack craft – missile, four of which were built in Sweden, commissioning in 1979. Displacing 240 tonnes they are armed with four Exocet SSMs, a Bofors 57 mm gun, and a single Bofors 40 mm gun. Maximum speed is 34 knots, with a complement of 40.

The fast attack craft squadrons are aging, with the force ranging from 20 – 30 plus years old. In addition, experience in the 1991 Persian Gulf War demonstrated the vulnerability of fast attack craft to helicopters armed with anti-ship missiles. A point defence missile system is now seen as a requirement for modern warships, and incorporating just such a system, plus the associated radars and fire control systems, was a major reason for the increase in size of modern fast attack craft, as seen in the ASSAD missile corvettes, which weigh over 700 tonnes. The OPV competition was seen as a way to procure a large number of larger, more capable and more seaworthy vessels to replace the fast attack squadrons. The question will be the ability of the Malaysian defence budget to support the construction of all the proposed 27 OPVs and their associated weapons and equipment.

NAVAL AVIATION

The RMN operates 11 Westland Wasp helicopters, however, no more than five are in operation, the remainder providing spares to maintain the aging machines in service. While acquired second hand in 1988, the Wasp is a 1950s vintage helicopter and is well overdue for replacement. A decision is due to be made between the Westland Sea Lynx and the Kaman Super Seasprite. Australia, New Zealand and Egypt selected the latter, while several other navies have gone with the Super Lynx. A decision is expected before the end of the year.

While none of the current ships in service are fitted with more than a platform for helicopters, both the new frigates and offshore patrol vessels will be fitted with hangar facilities for embarked helicopters.

MINE WARFARE AND AMPHIBIOUS FORCES

The RMN showed an early awareness of the threat a mining campaign could pose to Malaysia's maritime trade and accordingly took steps to establish a dedicated mine warfare capability. This culminated in the commissioning of four 610 tonnes Italian LERICI class minehunters in 1985. Known as the MAHAMIRU class, they are similar in many respects to the Royal Australian Navy's HUON class minehunters and are equipped to locate and clear mines using remotely piloted underwater vehicles and divers. It was originally intended that a second group of minehunters would be procured in due course. However, it has been determined that a larger and more capable vessel should now be acquired.

A number of amphibious vessels are maintained to support the army, providing transport between the mainland and the states of Sabah and Sarawak, as well as the outlying islands. Another requirement is to support the Malaysian Army on United Nations deployments, Malaysia having participated in a number of major UN peacekeeping forces worldwide.

The largest vessel in the amphibious force is the former USS SPARTANBURG COUNTY, a NEWPORT class landing ship tank (LST). Purchased in 1994 and commissioning the following year as the SRI INDERAPURA, she can transport some 400 troops and up to 500 tonnes of vehicles. The most striking feature of these ships are the protruding bow horns, which support a ramp which can link the ship to a beach or causeway, allowing direct landing of troops and

vehicles. This unusual arrangement was required to enable a maximum speed of 20 knots, impossible to achieve with the traditional bow doors of older LSTs.

For situations where disembarking via the bow doors is not possible, SRI INDERAPURA carries three Landing Craft Vehicle / Personnel (LCVP) and a single Landing Craft Personnel / Logistics (LCPL), all of which can be loaded via the stern door. Displacing some 8500 tonnes with a complement of 257, SRI INDERAPURA can operate helicopters from her flight deck but has no support facilities. A single Vulcan Phalanx 20 mm anti-missile system is fitted for defence.

The RMN also operates two Second World War vintage LSTs. SRI BANGGI (ex-HENRY COUNTY) and RAJA JAROM (ex-EDGEWICK COUNTY) were transferred from the US Navy in 1974. Displacing 4080 tonnes at full load, they can transport up to 125 troops and 2100 tonnes of stores. If they are required to beach to deliver their cargo a maximum of 500 tonnes of stores can be embarked. The blunt bow formed by the bow doors limits their maximum speed to 11 knots while their antiquated systems require a complement of 128 each. Each is armed with four Bofors 40 mm guns.

Two small logistic support ships are operated by the RMN. SRI INDERA SAKTI and MAHAWANGSA commissioned in 1980 and 1983 respectively and are particularly versatile assets, combining the capabilities of military transport, landing ship, replenishment ship and cadet training ships. Armed with a Bofors 57 mm gun (two in MAHAWANGSA) and two 20 mm cannon, they are capable of 16 knots and have a range of 4000 nautical miles. Displacing 4900 tonnes at full load both can embark up to 17 tanks and 600 troops, and are fitted with command and control facilities to control small military operations. To replenish army vehicles or small patrol craft, 1200 tons of diesel fuel is carried, with facilities fitted to allow underway replenishment at sea.

In addition to the normal complement of 136, up to 65 cadets may be embarked for training cruises. These ships have supported deployments by other units outside Malaysian territory, with MAHAWANGSA providing logistic support to the corvette LEKIR on their 1991 deployment to south eastern Australia. At various times both have acted as mother ships to detachments of patrol craft and mine warfare vessels, as well as ammunition transports. Given the versatility demonstrated by these ships they should be seen as excellent value for money.

AUXILIARIES

A number of smaller auxiliaries are operated by the RMN on a range of tasks. These include survey, general transport, salvage and cadet training.

The largest auxiliary is the 1900 tonne survey ship MUTIARA, commissioned in 1978. Built in Malaysia, she is fitted with a comprehensive range of survey equipment and operates six smaller survey launches. Armed with two 20 mm cannon, MUTIARA is fitted with a platform to operate helicopters. A complement of 155 includes numerous survey specialists. A second survey ship of generally similar capabilities is under construction.

To supply the military in the states of Sabah and Sarawak a number of various small supply ships are operated, including dry and liquid stores carriers and fuel tankers. Eleven harbour tugs of various sizes and origins are operated to provide support at RMN naval bases on the peninsula and in Sabah and Sarawak. Clearance diving support is provided by the diving tender DUJONG, a 140 tonne vessel commissioned in 1971. DUJONG is fitted with a recompression chamber and facilities to support the operations of up to a dozen divers.

Training for cadets is undertaken on board the former frigate HANGTUAH and the sail training ship TUNAS SAMUDERA, supplemented by training cruises on board the small logistic ships SRI INDERA SAKTI and MAHAWANGSA 2.

HANGTUAH is a 2500 tonne former frigate now used in the training role. Originally ordered by President Nkrumah of Ghana, the deal collapsed following his unseating in a coup. Completed in 1968 the ship was reluctantly commissioned into the RN in 1973 as HMS MERMAID but saw little service. Transferred to Malaysia in 1977 she was for many years



Survey ship MUTIARA. (John Mortimer)

the largest warship in the RMN. In 1991 a decision was made to refit her for her new role as a training ship, a role she continues to fulfill. In addition to her training role HANGTUAH carries out coastal patrol duties, for which her armament of a Bofors 57 mm gun, two Bofors 40 mm and a Limbo anti-submarine mortar is more than adequate. Recently undergoing a major re-engineering with Wartsila diesels, she is capable of 24 knots. Complement is 210.

TUNAS SAMUDERA is a 239 tonne two masted brig built in the United Kingdom and commissioned in 1989. A complement of 10 is supplemented by up to 26 trainees from the Navy, merchant marine and maritime wing of the police.

FUTURE

The Royal Malaysian Navy is at a crossroads. It is engaged in the transition from a green water coastal navy to one capable of extended operations out from the waters of the Malaysian peninsula into the South China Sea. The acquisition of new frigates, the ex-Iraqi corvettes and

the offshore patrol vessels signals the emergence of the RMN as a navy with ambitions to play a larger maritime role within the region. While useful steps have been taken to upgrade the capabilities of the RMN, some elements remain a concern. Block obsolescence of the patrol boat squadrons is a real threat, one with major implications for Malaysia's ability to patrol its substantial EEZ from the threat of poaching, smuggling, piracy and illegal immigration. With funds likely to remain tight for some time, the chance of the additional offshore patrol vessels being procured to replace the older patrol boats seems unlikely, at least in the short term.

The potentially vast oil and natural gas resources believed to lie under the Spratley and Mischief Reefs and the numerous claimants to those resources suggests that the RMN will continue to receive funding, despite Malaysia's current economic difficulties. A firm foundation has been laid for the building of a navy for the 21st century, now we must wait to see what is built on that foundation.

BOOK REVIEW

Warship 1997-1998

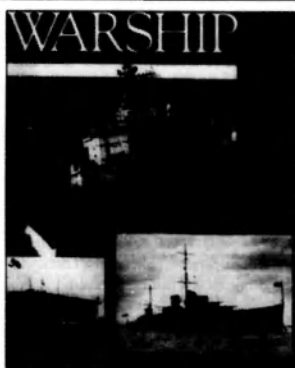
Edited by David McLean and Antony Preston
Published by Conway Maritime Press
Review Copy from DLS Australia
Reviewed by Ross Gillett

The Warship annual is prepared for the naval enthusiast, featuring a diverse number of topical and historical, technical and historical articles.

For Australia, the coverage in this edition begins with the story of the Royal Navy's Flying Squadron world cruise of 1869-70, its various port visits and a commentary on the success or otherwise of the time and effort put into the deployment.

In a book such as this, Conway, has successfully provided a good overall historical coverage of the different eras of naval warfare, including early kite balloons of the US Navy between 1915 and 1922. Another excellent article describes the final era of Canadian naval aviation, up to the demise of their last carrier, BONAVENTURE in 1969.

Warship 1997 also includes a world round-up of naval comings and goings, and the most notable naval books since the last edition. Ironically, one of the book reviews actually describes Jane's Battleships of the 20th Century, as a poor investment in funds, not really fitting the title of notable in any way.



THE FUTURE NEW ZEALAND NAVY C N S (RNZN) SPEAKING

(From New Zealand Naval News and the Defence Plan for the Future)

When I took over as your Chief I said that my first aim was to deliver certainty to you.

Certainty in our policies, certainty in our processes, and certainty in our force structure. Behind this undertaking was my belief that you deserved a clear and unambiguous indication of the future of the Navy so that you could plan your own individual career according to your personal circumstances. This briefing is designed to tell you directly of the outcome of the Defence Assessment and what it means to the Navy and to you.



The new frigate TE KAHA, with HMAS DARWIN, February, 1998. (Brian Morrison)

Because there has been speculation on the issue, I will first touch briefly on the widely reported prospect of acquiring second-hand FFG7 frigates from the USN. The evaluation of this proposal showed quite conclusively that it would not be a sensible decision. Apart from the inherent difficulties of operating two distinct classes of ship in a small navy, the analysis of the purchase, modification and through-life operation costs showed that it would not be an affordable option. While the synergies of operating a mixed ANZAC and FFG7 fleet with Australia were considerable, so were the costs, and the proposal will not be pursued.

It will be no surprise to any of you that the capital cost of frigates loomed large in the government's deliberations on the

Defence Assessment. They are significant items of expenditure for any nation. Throughout the Defence Assessment process it has been consistently represented by me that, based on our analysis, four ANZAC frigates are required to meet current output requirements and fully meet the defence policy objectives. Three frigates cannot guarantee that all tasks can be met and sustained.

The government is committed to maintaining a Naval Combat Force of not less than three surface combatants. It has decided, however, that only three ships are appropriate to New Zealand's present circumstances.

As a consequence, the option for two further ANZAC frigates will not be exercised. Additionally, the reduction to three frigates is to be implemented immediately to meet other NZDF funding requirements over the next five years.

The following will therefore occur:

- WAIKATO will pay off in July 1998;
- WELLINGTON will pay off when TE MANA becomes operational; and
- CANTERBURY will pay off when the third replacement ship becomes operational.

Clearly three ships cannot meet the commitments previously fulfilled by four ships, and there will be some readjustment required in operating patterns, exercise commitments, and representation and sovereignty tasks to avoid longer peacetime deployments. The transition to the new combat force will also require adjustment to recruitment, training and employment patterns as steam and other old systems are phased

out. These issues, and the introduction of the Seasprite helicopters will require careful management. I pledge to deliver that careful management.

The other significant change in force structure terms is that the long-planned modifications to CHARLES UPHAM will be deferred again and the ship leased out temporarily, probably for about three years.

On the capital equipment front in the immediate future, the Defence Assessment has confirmed that the proposal to acquire a Bridge Simulator will proceed, and, subject to the outcome of the Real Estate Review, the refurbishment of the Kauri Point armament complex will be initiated. Other issues, notably Project Wakakura and additional New Entry accommodation, remain subject to Real Estate Review consideration.

The outcome of the Defence Assessment for Navy then is that uncertainties over force structure remain. What the decisions mean to you as individuals will undoubtedly vary, but I would encourage you to look for the positive aspects in the blueprint that has now unfolded. The commitment to an ocean-going combat force of capable vessels remains. Long overdue modern and effective helicopters are appearing. Service 21, as you will hear shortly, is poised to deliver real benefits. These developments should temper the disappointment that many will feel in the reduction in the size of the Navy and the role it will now play. Our task is to ensure that reduced role is fulfilled positively and professionally with real purpose.

Rear Admiral Fred Wilson
CNS

EXCERPTS FROM THE 'DEFENCE PLAN FOR THE FUTURE'

The rebuilding of New Zealand's defence capabilities will take shape over the next five years. Funding increases will have to be limited in the immediate term while other government priorities are addressed. The most significant investments in the forces in the short and long term are outlined below.

Royal New Zealand Navy

The naval combat force will move from four frigates to three in 1998. The government has decided that it will not take up the current option under the ANZAC Ship Treaty to purchase

additional ANZAC frigates. A fifth Seasprite maritime helicopter will be purchased. Other major investments over the next ten years include upgrading the existing torpedoes, purchasing an upgraded Seasparrow air defence missile, and acquiring a towed array sonar that will improve protection from submarines.

The major investments in the naval support force include the acquisition of a remote sea minehunting system.

Total capital investment over the next five years is estimated at \$355.5 million. With the change from a naval combat force of four Leander frigates to three ships, the average paid personnel strength of the Navy will decrease from 2,075 to 1,861. The annual operating budget of the Navy will increase from \$283 million to an eventual steady state of about \$292 million.

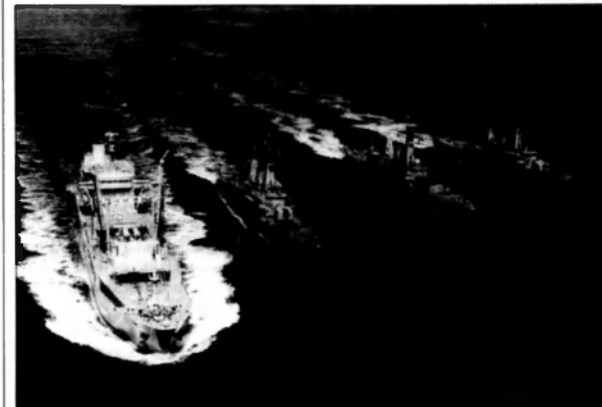
Royal New Zealand Air Force

The current fleet of A4 Skyhawk fighters, while old, has been upgraded to provide an effective platform for their key roles of support for land forces and anti-ship missions well into the next decade. To capitalise on this investment, the fleet's weapon delivery capabilities will be upgraded. A new anti-ship missile will also be acquired to permit the aircraft to release its weapons from a safer distance. Most of these upgrades can be transferred when a decision is eventually taken on a replacement for the A4s.

The most pressing Air Force requirement is to upgrade the capabilities of the P3 Orion fleet. The airframe is undergoing a life extension that will permit it to remain in service for a further twenty years, and the sensor equipment, some of which dates back to 1966, needs to be updated as well. The Orion's surface-surveillance capabilities are seriously degraded, and its sub-surface capabilities are almost gone. These deficiencies will be addressed as a priority over the next four years through an investment programme known as Project Sirius.

Maritime Helicopters

These are an integral part of the naval combat force. No modern frigate can operate without a helicopter. Moving as much as a hundred nautical miles ahead of a ship and with modern radar and forward-looking infrared surveillance systems, they greatly extend the ship's area of control, and thus its safety when faced with a threat. Armed with stand-off anti-ship missiles and torpedoes, they also considerably enhance the surface vessel's



1993 view of HMNZS ENDEAVOUR (left) with three of the then four strong frigate force (RNZN)

ability to engage surface and sub-surface targets. After careful consideration New Zealand has chosen to equip its ships with the Kaman Seasprite SH-2G, as have the Australians. The present contract is for four aircraft, two for outfitting the two ANZAC frigates currently ordered plus two more for training and maintenance. An additional helicopter will be acquired to outfit a third ship.

Naval Support Force

Other maritime surface capabilities required include military sealift, a maritime mine counter-measures unit, naval control of shipping organisation, a replenishment-at-sea capability for long deployments, a hydrographic service, and an oceanographic research capability.

Modern armed forces have a large logistical tail. Troops can be moved by air but their kit and supplies must come by sea. New Zealand has not traditionally maintained a military sealift capability. Instead, it has relied on others, most recently the United Nations, to provide transport for our heavy equipment. The risks of continuing to do so are rising. The demands of the Gulf War taught everyone the value of having a dedicated sealift capability for rapid deployment and subsequent sustainment.

New Zealand has acquired HMNZS CHARLES UPHAM, a roll-on roll-off merchant vessel which, when converted to a military sealift ship, will provide New Zealand with adequate sealift to deploy an Army force and a greatly improved capability to assist with disaster relief in the South Pacific. The government will consider whether to convert HMNZS CHARLES UPHAM in about two years time.

The threat of sea mines is not a current concern, but New Zealand, with its heavy dependence on shipping from a few harbours, is especially vulnerable to this threat. Mining the approaches to New Zealand's harbours would be cheap, unobtrusive and deniable. A few mines laid covertly or even the threat or claim to have laid there been would divert shipping and send up freight and insurance rates. This is why almost every nation considers it necessary to maintain a counter-mine capability. In New Zealand's case, we do not need deployable minehunters to clear large areas; but rather inshore vessels with remote mine clearing systems to ensure that the approaches to our harbours can be kept clear of mines. This capability is the responsibility of the Royal New Zealand Naval Volunteer Reserve (as is the naval control of commercial shipping at a time of crisis).

HMNZS ENDEAVOUR provides an excellent replenishment-at-sea capability, and it does not need replacement for twenty years. The diving support vessel HMNZS MANAWANUI should also meet the mine-clearance and other diving needs for another fifteen years. The Navy currently has a contract from Land Information New Zealand to undertake hydrographic survey and the production of nautical charts. For this, the Navy has recently acquired HMNZS RESOLUTION and also operates a number of smaller in-shore survey craft. HMNZS RESOLUTION can also be used for military-related oceanographic research. Any spare capacity can be made available to others for research work through a coordinating mechanism known as the Research Vessel Committee.



THREE NAVIES PACK GARDEN ISLAND

Fleet Base East (FBE) recently played host to one of the largest concentrations of warships seen since the 1988 Bicentennial Naval Salute as ships from three navies packed the Woolloomooloo wharves.

Joining the RAN alongside at FBE over the weekend of 7 - 8 February were two Royal New Zealand Navy ships and three United States warships, to bring the total number of ships alongside to thirteen. HMA Ships PERTH, HOBART, BRISBANE, CANBERRA, DARWIN, and NEWCASTLE had gathered to take part in the Fleet Concentration Period (FCP), where they were joined by HMNZ Ships TE KAHIA and WELLINGTON.

Already at FBE were HMA Ships SYDNEY and SUCCESS with three USN ships arriving on 6 February.

USS LAKE CHAMPLAIN, USS KINKAID and USS FORD were visiting Sydney en route home to San Diego in California after five months in the Persian Gulf. Altogether more than 60,000 tonnes of grey metal packed the wharves of FBE and Garden Island, prompting some to suggest hanging out a "Full House" sign.

The start of the FCP witnessed a mass exodus with a total of eight ships departing on Monday, 9 February to commence several weeks of grueling exercises in the waters off southern NSW.

POWER FOR THE NEW FRIGATES

The diesel engine builder MTU has recently completed the cruising engines for the sixth Anzac class frigate STUART.

To date, the engines of eight ANZAC class frigates have been assembled at the company's King Park headquarters in western Sydney. The Series 1163 engines are triple-turbocharged V-12s of 139.56

litres ... or about 90 times the size of the average household car.

Each frigate is driven by two cruising diesels, developing a combined 9600 horsepower, to take the ships to about 12 knots. The main gas turbines are required for high-speed work.

The engines, nearly two storeys tall, are imported from Germany in a "partial knockdown" form with their crankcases, crankshafts and pistons in place. The assembly, plumbing and electrical wiring are completed at the Kings Park plant by a two-man team, brothers Tony and Scott Newport.

The completed engines are fitted into modules for transport to Williamstown dockyard where they are positioned ready for fine tuning when the ship is launched, about two years down the track.

HMAS "CANBERRA" - THE NAVY'S TOP SHIP

The Royal Australian Navy's guided missile frigate HMAS "CANBERRA" was awarded the Navy's top award for efficiency, the Duke of Gloucester Cup, on 6 February 1998.



HMAS CANBERRA (RAN)

His Excellency Sir William Deane AC KBE, Governor General of the Commonwealth of Australia presented the RAN's most coveted prize in a ceremony on board CANBERRA.

The Gloucester Cup is presented annually to the most efficient ship in the RAN, and is fiercely contested amongst all ships in the fleet. Selected as the best ship overall in the areas of operational efficiency, seamanship, administration, training, morale, reliability and resourcefulness, the winning ship has the privilege of displaying large gold stars, representing the Gloucester Cup, on the ships bridge wings for the next 12 months.

CANBERRA emerged as the winner of a hard fought contest, her crew also winning the fleet award for excellence in marine engineering. CANBERRA also performed well in a number of other

categories, including sharing top honours in damage control and combat operations and taking second place in electronic warfare.

FINAL FRIGATE REFIT

The Royal New Zealand Navy frigate WELLINGTON has completed her last refit, a 15 month update to keep the ship in service until the commissioning of the second ANZAC class TE MANA, at the turn of the century. The main machinery was overhauled, galley refurbished, helicopter hanger enlarged for the Seasprite and a Phalanx CIVS installed as a replacement for the old Seacat missile launcher.

HMAS "PLATYPUS" IN SPOT-LIGHT

The Sydney establishment HMAS "PLATYPUS" was the focus of media interest recently due to the re-release of the 1982 Academy Award winning film "DAS BOOT" (The Boat).

As a lead up to the film's premier in Sydney on 16 January at the Open Air Cinema at the Royal Botanic Gardens, the media was keen to see what real live submarine life was all about.

The film, originally shown in the United States in 1982 was the most successful foreign film ever released there. It had recently undergone extensive enhancement by the director, including new 8 track digital sound and never before seen footage.

Following its original release, some critics said it would forever change audiences'



expectations of an action film. According to them it set a new standard for high-wire suspense and broke fresh technological ground.

The promoters of the new film believe that a new generation of moviegoers will be stunned by the added footage and re-designed digital sound which bring this action classic to state-of-the-art standards for today's audiences.

WWII VETERAN FOR SALE

The former patrol boat MIRIMAR which served with the RAN in the Second World War, is reported up for sale for \$494,000. Built as a ferry in 1934 and operated as a passenger and charter boat in recent years, the MIRIMAR spent most of its working life on the Brisbane River. During her RAN career she operated as a patrol boat and examination vessel.

GOLF COURSE WITH A DIFFERENCE

Golfers, both professional and amateurs, played on a course with plenty of water hazards earlier this month.

The tee off was the helicopter deck of HMAS SYDNEY, the fairway was the waters of Woolloomooloo Bay and the pin was a flagged buoy several hundred



Teeing off aboard the guided missile frigate HMAS SYDNEY on 16 February (LSPH Steve Gurnett)

metres from the stern. There were even "ball boys" - three safety-helmeted sailors aboard a RIB and armed with scoops, who retrieved the re-surfacing golf balls once they were hit into the harbour.

In an unusual competition, players had to get as close to the pin (flagged buoy) as they could. Participating in the event were professionals Peter Senior and John Sendon as well as HMAS SYDNEY crew members, Leuts Peter Keay and Bob Walker and seamen John Carter and Mark Ottaway.

For the two professionals it was an ideal opportunity to practice for the Canon Golf Challenge which started on Thursday, 19 February at the Terrey Hills Golf and Country Club, Sydney.

To everyone's surprise, seaman John Carter won the nearest to the pin competition, the prize, two VIP passes to the golf tournament.

FORTY YEARS

On February, HMAS CRESWELL celebrated its 40th anniversary since commissioning on 20 January, 1958. As part of the ceremony, staff and trainees from the first intake were on hand for celebrations. Recently, the Jervis Bay site became the home of the Navy's Leadership and Management Training branch.

FOURTH LAUNCHING

The fourth COLLINS class submarine, DECHANEUX, was launched at Adelaide on 12 March. She is scheduled to commence sea trials later in the year, prior to commissioning at the close of 1999.

KIWI HELICOPTERS

The RNZN has received the first of its interim Kaman SH-2F Seasprite helicopters. Four of the aircraft will be on strength by late 1998, prior to the delivery of the four SH-2G models in 2000. Both models will be flown from the Leander and Anzac class frigates.

"OTAMA" DAMAGED

The submarine OTAMA was damaged at 7.50 am on Friday, 13 February during the Fleet Concentration Period (FCP). The boat struck the seabed off Botany Bay. After surfacing, OTAMA returned to Sydney under tow from a civilian tug for repairs to her rudder. No injuries were sustained aboard OTAMA, which was carrying 81 crew, trainees and instructors.

SOUTH AFRICAN TON CLASS MINESWEEPERS

The South African Navy is to examine the life extension of its four Ton class minesweepers, for a further 15 years service. All built in the mid to late 1950s, the vessels would be retired in 2015. Six of the class were once operated by the RAN from 1961, the last survivor, CURLEW paid off in 1990.

SINGAPORE NAVY BREAKS NEW GROUND

On 10 January 1998, Singapore's Minister for Education and Second Minister for Defence, Rear Admiral (RADM) (NS) Teo Chee Hean, drove the first pile into the sea to symbolise the breaking of ground for the Republic of Singapore Navy's (RSN) new Changi Naval Base (CNB) project.

Situated on newly-reclaimed land east of Changi, CNB has a total land area of 86 hectares, comprising 79 hectares of operational base and 7 hectares of training base. The new naval base was conceptualised to replace the RSN's naval base at Pulau Brani, in view of the expanding operational and support requirements of the RSN. At the same time, the re-location of Brani Naval Base is in line with Ministry of Defence's (MINDEF) policy of releasing MINDEF/SAF land identified to have higher economic potential.

The extensive use of information technology and automation is an important feature of CNB. A modern and extensive Office Automation System will enable faster and more effective work and administrative processes with lower manpower overheads. In the area of logistics, Automated Storage and Retrieval Warehouses will provide automatic sorting, storage and retrieval of all the RSN's equipment and spares, resulting in more efficient and responsive logistics support while optimising available manpower.

CNB will also be environmentally friendly with efficient water and energy saving systems. These systems include the use of rainwater collected in ponds and rooftop containers for the washing of base compounds, the use of sea water for cooling systems and the use of energy saving lighting facilities.



Interesting view of the submarine OTWAY, now preserved ashore at Holbrook in southern New South Wales (A & R Street)



USN Frigate USS TAYLOR operating with the Royal Fleet Auxiliary (T.G. Holtham)



Dutch Frigate Tjerk Hiddes in the Mediterranean Sea, late 1997. (T.G. Holtham)



An old WWII Harbour Defence Motor Launch, now named BIBEL TARIK. (T.G. Holtham)

The CNB project is planned to be carried out in two phases. The first phase, to be completed by year 2000, is the construction of the base's main operational and maintenance facilities. These include a wharfage space of 6.2 km, automated storage and retrieval logistic warehouses, and a base automation system allowing round-the-clock remote monitoring of all the base's mechanical, electrical, lighting, fire alarm, and security systems. The second phase will see the development of a training base, and sports and recreational facilities, and is scheduled to be completed by 2003.

When fully completed, CNB will be equipped with the full range of modern operational, training and support facilities to meet the RSN's needs into the 21st century.

LAUNCH OF HMS "PEMBROKE"

On 15 December, 1997 the Royal Navy's new HMS "PEMBROKE" was launched by Mrs Stephanie Gretton, wife of Vice Admiral Gretton, at the Vosper Thornycroft Shipyard, Woolston, Southampton.

The ship is the second vessel of a batch of seven single role mine hunters ordered in July 1994 and will enter service in 1999.

The Hunts are designed for hunting and destroying mines and are able to operate in deep and exposed waters. They are constructed from Fibre Reinforced Plastic (FRP) and mainly non-magnetic materials.

This batch of seven ships is being adapted to incorporate female accommodation for one officer and five ratings.

Rear Admiral Peter Spencer, Director General Surface Ships and Controller of the Navy, who was present at the ceremony said: "This launch is a very happy occasion which marks another milestone in the progress of the programme to enhance the Royal Navy's mine-hunting capabilities."

He added: "I am also delighted that the MoD and Vosper Thornycroft have been able to adapt the design of this second batch of ships in order to incorporate a number of enhancements including accommodation for female officers and ratings. The flexibility shown by the company in order to adapt to the MoD's revised requirement is an excellent example of the co-operations between the two organisations."

USS "COMSTOCK" VISITS PORT BLAIR, INDIA

The American dock landing ship USS "COMSTOCK" (LSD 45) visited Port Blair, India, Jan. 19 to enhance relations between the United States and the Indian military.

COMSTOCK is the first U.S. Navy ship to visit Port Blair, located in the Eastern Bay of Bengal.

Vice Adm. Harinder Singh, fortress commander of the Andaman and Nicobar Islands of the Indian Armed Forces and other Indian officers toured the ship. They visited the well deck area, engineering spaces, combat information center, medical/dental facilities and the bridge.

Many of the officers that toured our ship were very impressed with the bridge. COMSTOCK crew members also gave tours to more than 1,000 Indian natives. For some Indians, this was the first time they had ever seen Americans.

All were very interested in how the USN integrated Marine personnel and equipment aboard amphibious ships and, once deployed, with the ability to sustain the employment of combined arms assets.

"The visit to Port Blair was a thrill for the ship," said COMSTOCK's commanding officer, CDR Gregg S. Jackson. "Not only was it a unique cultural experience, but it was an opportunity to show off the United States Navy-Marine Corps team and increase understanding between the Indian and United States militaries. It was a visit that none of us will soon forget."

AIRBORNE EARLY WARNING AND CONTROL

The Minister for Defence Ian McLachlan MP, announced on 28 January, the signing of three contracts each valued at \$8.5 million, for initial design work on the Airborne Early Warning and Control Project (AEW&C).

Under the contracts, companies will provide detailed designs and plans of the AEW&C system they are proposing for the Australian Defence Force. The project, approved by the Minister in December 1997, is for the purchase of six or seven aircraft, the number

depending on the supplier, simulators included, overall support and other facilities.

"Major Australian aerospace and electronics companies are taking leading roles in the work, which will result in three advanced designs for new, cost effective AEW&C types," the Minister said.

"A large number of small to medium enterprises in the defence industry sector across Australia are involved, with the number set to increase as the project develops."

The three contracting teams are headed by large US defence companies - Boeing, Lockheed Martin and Raytheon.

"The teaming approach to the project will ensure Australia has the technology and industry ability to develop and support the AEW&C system here," Mr McLachlan said.

The final decision on the type of AEW&C will be made in 1999, after initial design work is completed and assessed.

NEW HYDROGRAPHIC SHIPS FOR CAIRNS

The Minister for Defence, Ian McLachlan, announced on 12 February that Cairns would be the home port for the two new Hydrographic Ships, LEEUWIN and MELVILLE, now being built for the Royal Australian Navy.

"These ships will significantly increase the capabilities of the Hydrographic Survey Force that currently operates from Cairns," said the Minister.

"The basing decision involves deploying an estimated additional 115 Defence personnel to Cairns to crew and support the new vessels. It also means that local industry will benefit through providing follow on support to the vessels. A five year contract for this support will be undertaken by NQEA, the builder of the vessels. This contract is worth \$34.4 million, of which Defence estimates some \$27.4 million will be spent in the local area."

"A further \$8.8 million is planned to be spent on HMAS CAIRNS, the base supporting the vessels, to establish additional office and accommodation facilities used by the ships' crews, support staff and their dependants."

ADI ACOUSTIC MINESWEEP

A state-of-the-art acoustic minesweep recently developed by ADI Limited, Australia's major defence, systems and engineering

company, has been exhibited for the first time at the UDT '98 (Undersea Defence Technology).

The ADT Acoustic Generator is a water driven, turbine, powered sweep which can be programmed to emulate the acoustic signatures of specific classes of ships. It will be incorporated into ADI's minesweeping and support system (AMASS).

Recent evaluation by the Royal Australian Navy and the Australian Defence Science and Technology Organisation (DSTO), including shock trials, has proved very successful.

The generator has been developed to complement the ADI Dyad influence sweep which is based on a series of large permanent magnets that can be configured to emulate the magnetic signatures of specific vessel classes. The combined magnetic and acoustic sweep becomes an acceptable target to the most sophisticated mines.

Seven countries including the US, UK and Denmark have purchased Dyads and the generator has attracted strong interest from many of these customers.

UDT Pacific, a major undersea defence technology exhibition was held at the Sydney Convention Centre at Darling Harbour from 24-26 February.

FISHBUSTERS

Fisheries poachers in the Great Southern Ocean have been put on notice by the RAN that their illegal activities in Australian waters will not go unpunished.

The guided missile frigate *NEWCASTLE* delivered the message when a boarding party arrested the Seychelles owned but Honduran registered trawler *BIG STAR* inside Australia's 200 km Exclusive Economic Zone surrounding Heard Island on Saturday, 21 February.

NEWCASTLE kept the 60 metre long fishing trawler under surveillance during the night and moved in at first light. As *NEWCASTLE*'s Seahawk helicopter closed in crewmen on board the *BIG STAR* were videotaped throwing illegally caught fish over the side.

Once aboard the boarding party discovered 90 tonnes of the protected Patagonian Toothfish packed in the ships freezers. Estimates of the size of the illegal catch of the Toothfish range up to more than 100,000 tonnes per year, attracted by high prices in the world's fish markets.

The arrest, which took place some 4300 km south west of Perth, was the third in the area in the last five months with ANZAC arresting two foreign fishing boats

in the first anti-poaching operation in October last year. In that instance ANZAC arrested the Panamanian registered *ALIZA GLACIAL* and the Belize registered *SALVORA* less than 50 km from Heard Island.

The French Navy has also been active in countering poachers in the Great Southern Ocean with several illegal fishing boats being arrested in the French Exclusive Economic Zone waters off Kerguelan Island, which lies north east of Heard Island.

BIG STAR and her crew of 38 were escorted to Australia where the ships owners faced court on several counts of violating Australian fishing regulations.

NAVY RESCUES MERCHANTMAN

For *HMAS "WOLLONGONG"* the year 1998 started the way 1997 ended for her, with the hard worked patrol boat once again in the headlines.

WOLLONGONG was called in to provide assistance to a stricken merchant ship some 200 km north of Nhulunbuy in the Northern Territory early on the morning of 25 February. *MV LAURA*, bound from Jakarta to Port Vila, suffered engine trouble in rough weather. While drifting the freighter's cargo of concrete and bitumen shifted, causing *LAURA* to develop a dangerous list to port and take on water.

WOLLONGONG was requested to go to the stricken vessel's assistance by the Rescue Coordination Centre in Canberra after *LAURA*'s crew were forced to take to life rafts and activate rescue beacons. The 11 crew members, three from Malaysia and eight from New Caledonia, were reported to be in good health when rescued.

WOLLONGONG's crew then attempted to tow the 1283 tonne merchant ship to the port of Gove, however conditions worsened and the ship sank some 60 km north east of Cape Wessels. The survivors were transported back to Darwin.

This latest emergency for *WOLLONGONG* comes on top of her winning the 1997 Kelly Shield for Minor War Vessel Efficiency.

A WATERY FAREWELL

The former Royal Australian Navy destroyer escort "*SWAN*" was scuttled in Geographe Bay on Western Australia's southern coast on 14 December, 1997. Resting in 30 metres of water, "*SWAN*" is sitting upright 1.3 nautical miles off Point Piquet, Dunsborough.



Stripped of all frills, the old *SWAN* is moored in position to await her final 'resting' place. (ABPH Stuart Farrow)

Decommissioned at HMAS *STIRLING*, Fleet Base West, on 13 September, 1996, *SWAN* was gifted to the WA State Government as a dive wreck by the Commonwealth Government.

After close examination of a number of submissions, the steering committee, consisting of environmental, industry and marine safety and transport representatives, unanimously agreed the Geographe Bay Artificial Reef Society's proposal best addressed the criteria.

SWAN spent 12 months in Bunbury Harbour where it was cleaned to meet strict Commonwealth and State



After the explosions, *SWAN* slipped below in less than three minutes. (ABPH Stuart Farrow)

environmental standards. During that time its 44 tonne twin 4.5-inch gun turret was removed and transferred by road to the south coast town of Albany. There it was re-located at the historic Princess Royal forts complex located on the slopes of Mount Clarence overlooking picturesque King George Sound from where the Anzac convoy sailed in 1914.

Fittingly it was Navy divers from Australian Clearance Diving Team Four who laid the charges which sent the old warhorse to the bottom. *SWAN* steamed 775,850 nautical miles during her 26 year naval career.



Divers 'eye' view of the now fish breeding reef *SWAN*. (RAN)

AUSTRALIA'S STRATEGIC POLICY

RADMA J Robertson AO DSC RAN (Rtd)

Federal Vice-President Navy League of Australia

The latest publication on Australia's Strategic Policy, released early in December 1997, contains a fairly comprehensive outline of the present government's defence policy and priorities. It is the first such review by a Liberal-National Party Government since 1979, in a world which has been subject to great political, economic and technological change.

The policy, which takes into account the recent white paper on foreign and trade policy in the National Interest, attempts to reflect the full extent of our security interests and, while still placing much emphasis on the defence of continental Australia itself, acknowledges that our strategic interests do not begin and end at our shoreline. It is much concerned with the security of our region as a whole (though this is not fully reflected in the proposed priorities).

Notwithstanding their present economic problems, as the economies of East Asia recover and grow, the paper opines that Australia's relative economic standing in the region will decline, and with it our strategic weight and ultimately our ability to defend ourselves in the future.

Australia's strategic policy is not directed towards meeting any particular threat or contingency but rather to addressing the enduring fundamentals of our strategic situation. The focus of our strategic attention is now more than ever the Asia Pacific region comprising the countries of East Asia, Southeast Asia, the South Pacific, the United States and perhaps increasingly in the future, South Asia.

The paper postulates the special importance for the security of the whole region of the relationships between China, Japan and the United States. Strangely neither Russia nor India are mentioned in this context, though (despite Russia's present economic troubles) both can be major players, and both can be expected to gather economic and military strength in the future. Russia has retained much of its military power and it seems unwise to neglect its probable future increasing influence in the power balance of the vital NW Pacific area.

The unique place Indonesia, which could be one of Asia's 4 great powers in the 21st century, has in shaping our strategic environment is especially recognised.

Within the wider region focus Australia's most direct strategic interests continue to include the stability, safety and friendly disposition of the countries closest to us — the inner arc of islands from Indonesia in the West through to Papua New Guinea, the Solomon Islands and the South West Pacific. Any substantial military attack on Australia could most easily be mounted from or through these islands.

The paper asserts that by any measure our most important strategic relationship remains with the United States. Relations with New Zealand are also covered, with some disappointment that NZ is not planning a higher level of naval capability. Relations with Britain too are canvassed, including our close historic relationship and our co-operation under the Five Power Defence arrangements with Malaysia.

We aim to maintain our role as Papua New Guinea's key defence partner and as the key strategic power and primary defence partner of the island countries of the South Pacific. We also aim to support and develop a sense of shared strategic objectives with as many of the countries of SE Asia as possible.

So far as Indonesia is concerned, the focus of our defence relationship will be on a high-level strategic dialogue. Other issues include practical co-operation in developing capabilities — especially in the maritime area, 'where our key interests lie' — and the development of a degree of interoperability.

The paper examines the tasks for which we need military forces, stating that we must have the military capability to prevent an enemy from attacking us successfully in our maritime approaches, gaining a foothold on our territory or extracting political concessions from us through the use of military force.

So far as the Region is concerned, while Australia would have a range of non-military options in any major crisis, our defence planning recognises that the government may decide that a military commitment would be warranted. Such a commitment would be undertaken with regional friends and allies.

The ADF will be developed to defeat attacks against Australia, and provide substantial capabilities to defend our regional interests. Priority will be given to the first of these tasks, but decisions will be influenced by the ability of forces to contribute to both tasks.

In examining the type of forces Australia needs for its defence the paper supports a maritime concept — concentrating on

defeating any aggressors in our maritime approaches, before they reach our territory. This concept would rely heavily on air and naval forces. Land forces would also have an important role including the crucial one of the defence of command, communications and intelligence facilities and air and naval bases.

Combat aircraft, submarines and surface combatants with their overall support facilities would be our first line of defence and our highest priority. Naval and Air Forces will be capable of both defensive and offensive actions. Based on the military capabilities likely to exist in the region over the next 15 years, the benchmarks which the government aims to ensure are that:

- we have the capability to deny our air and sea approaches to any credible regional force, and
- we maintain a strong regional presence as a maritime power.

The paper outlines measures being taken over the last few years to maximise the capability we get from the Defence Budget and states that with careful management and rigorous prioritisation, the necessary capabilities can be achieved without major increases in defence funding in the shorter term. But rising costs and requirements will place pressure on defence funding. The current budget does not make it possible to contemplate developing major new capabilities in the form of new fighter aircraft or new surface combatants.

In conclusion, the paper comes out with four priorities for Force Structure Development:

Priority 1

The highest priority is 'the knowledge edge' — effective exploitation of information technologies to allow us to use our relatively small force to maximum effectiveness (by integration of surveillance, command and targeting, intelligence and communications).

Priority 2

Defeating threats in our Maritime Approaches. Priorities will be to ensure our air superiority aircraft have a clear advantage over systems they are likely to encounter increase the maritime interdiction capability of our combat aircraft, submarines and major surface combatants by upgrading our Air to Surface Missiles

expand our submarine capabilities make cost-effective investments in the defensive and offensive capabilities of our

present fleet of major surface combatants.

Priority 3. Strike

Longer-range stand-off strike weapons for the F-111 and perhaps other platforms will be acquired, but not very long-range weapons such as the TOMAHAWK land-attack cruise missile.

Priority 4. Land Forces

Defending air bases in northern Australia would require a significant effort from the defence force. Protection of key facilities would require regional force surveillance units, fixed-wing aircraft, unattended ground sensors and possibly unmanned aerial vehicles (UAVs).

The army will maintain a brigade group at a high level of readiness for short-notice operations, including overseas. At least part of the land force will be capable of conducting amphibious operations and garrisoning to support the defence of offshore territories. The Army will rely heavily on air transport with a mix of helicopters and light transport aircraft. Priorities would be:

- the development of highly mobile joint task forces,
- the development of a limited amphibious capability,
- the development of a land surveillance system to cover key targets in northern Australia and
- acquisition or improvement of aerial fire support, reconnaissance and troop lift capability.

The Strategic Policy document is well laid-out and readable to the layman with few of the tedious and offputting acronyms and jargon so common in official documents.

It takes the nation a step further towards a rational defence policy but still has what many observers would consider some serious omissions and a failure to carry forward the sound strategic overview into logical conclusions.

The pillars of our past defence policy remain but with it a willingness under some circumstances to go forward and play a role in regional defence. The examination of this possibility however seems limited and seems to lead to a distortion of Australia's defence priorities.

In World War II our first action in the Pacific was to send some forces forward to assist allies, to buy time, and to use defence in depth to the full.

In today's world there is usually a rapid international reaction to any aggression by middle or small powers and UN, US or

NATO led forces have been rapidly organised on a number of recent occasions. It seems inconceivable that any external assault on say, Indonesia,

PNG or Malaysia/Singapore would not be followed by an immediate call for Australian military assistance and major international pressure on Australia to provide such aid. Similarly it would seem in our own long-term self-interest (and we should not forget our membership of the 5 Power Defence arrangements) to assist neighbouring friendly countries to resist aggression. There is a strong argument that this scenario is much more likely to occur, even as a precursor, than is a direct assault on continental Australia.

In army priorities the paper includes a capability for short notice operations overseas and a limited amphibious capability but the paper contains no consideration of what might be required for the support and protection of such deployments. One question which must be asked is how the naval and ground forces will obtain air support for deployments into the region. There are few airfields in the island chain to our north capable of operating FA-18 aircraft and support from airfields in Australia even with in-flight refuelling could be desultory at best. Major army resources would have to be devoted to the ground defence of any available overseas airfield and resupply with fuel munitions and stores would be a major task. But the alternative of providing air support from small aircraft carriers carrying V-STOL aircraft does not appear to have been examined, though it has been adopted by a number of maritime nations and is a major strength of the US Marines.

Nor has this alternative been examined for the defence of offshore territories or for the defence of essential shipping and naval forces when outside effective range of Australian air bases. It would be expensive, yes, but there is a trade-off in frigates and other air platforms, and in any serious war situation without local air superiority any deployment of naval and army forces overseas could be fraught with danger.

While the paper predicated that a Maritime Concept should be adopted as the most appropriate concept for the Defence of Australia and that we should maintain a strong regional presence as a maritime power, it does not then proceed to examine the most appropriate size and composition of naval forces required for the task.

Indeed it is astonishing that there is no mention, for instance, of the vital role of

the defence of essential merchant shipping in both continental and regional defence situations. If we are facing serious attacks in the north then any enemy must possess significant maritime power, in which case he would consider launching attacks elsewhere against our important centres and shipping, as happened in both world wars.

While there is some welcome recognition of the need to enhance our small submarine capabilities, there is no consideration of the great advantages possessed by appropriately armed submarines in precision strike warfare against land targets, as demonstrated in the recent Gulf War. There may well be an argument to base much of our strike capability in submarines as well as in F-111s.

Overall, despite acknowledgment of the necessity for a Maritime Concept the paper gives scant attention to the resulting needs and priorities. While the land-based air element of Maritime Warfare seems to be at reasonable strength, the naval side of the balance seems inadequate. Given the huge distances involved, a surface destroyer/frigate force of a mere 14 vessels often without air cover and spread between 2 major coasts, will be hard-pressed to escort essential shipping while supporting, resupplying and defending an overseas deployment and undertaking offensive and defensive action against even a modest maritime power.

Adequate forces for the effective defence of Australia even against a modest level of threat clearly cannot be provided with the present level of spending, and risks must be taken, but at least the requirement should be known and decisions taken, with resources gradually being allocated, to work towards the requirement.

As the nation moves steadily towards self-reliance and independence in foreign policy, and as the countries in the Asia Pacific region recover and increase their economic and particularly maritime strengths, Australia's possession of significant maritime and air power backed by a small but highly mobile army will become of increasing importance for our defence, for the stability of the region and for our national standing and influence, including as an ally.

While the need for strong air power has been acknowledged for many years, it is time now to look more closely at the role and relevance to Australia of naval power in all its forms.

"THE RAAF'S FLEET"

by Jim Allen

Not many people are aware that the Royal Australian Air Force ('RAAF') ever had its own fleet. In fact most publications on the subject do not even acknowledge the existence of the maritime force. This is astounding when one considers that during the peak of Second World War the marine section had no less than 600 powered craft and 700 unpowered boats.

The history of the RAAF marine section goes back as far as the days of the Australian Flying Corps (AFC). On 21 August 1914 the Chief of the General Staff wrote a minute to the Secretary of Defence requesting authority to purchase a small boat for the establishment of the Central Flying School at Point Cook, Victoria. This craft was required to rescue officers undergoing flying training who may be blown off course over the bay. From this humble beginning, the marine section grew to the impressive force of the Second World War.

On the 7 November 1921, after a period of seven years of evolution from the AFC via the Australian Air Corp (AAC) and Australian Air Force (AAF), the Royal Australian Air Force (RAAF) decided that with the arrival of the Fairy IIID seaplane, marine craft were required for duties other than rescuing pilots from the bay. Boats were essential at Point Cook to assist in the mooring and removing of planes from the water each night in order to store them in the hangars.

As the flights of seaplanes expanded around Australia, so did the requirements for further boats and marine section personnel. Marine Section coxswains and motor boat crews found themselves being posted all over Australia to service the seaplanes. Examples of some of the duties that marine section personnel undertook included supporting the Fairy IIID and the Supermarine Seagull Mark III on a mapping survey of the Great Barrier Reef and also at the RAAF experimental section, La Perouse, NSW, where Squadron Leader Wackett and his staff developed and trialled the Widgeon seaplane.

During the years between the two world wars, marine craft were purchased and then disposed of as they, in turn were replaced. At the end of 1934 the Government announced a three year program of increased spending to make up for the neglect that had occurred within Defence during the depression.

This amount was again increased in 1938 when the threat from the north was recognised.

In 1939 further bases were built including two that would require marine craft. These establishments were situated at Rathmines on Lake Macquarie in NSW and at Darwin in the Northern Territory. Prior to this, only Point Cook had required marine craft. When war was declared against Japan by the allies on the 8 December 1941, the RAAF found itself unprepared, having not yet completed its expansion program.

The outbreak of the Second World War caused the expansion of the marine section, for not only did the RAAF require marine craft to rescue downed aircrew, but also needed boats to transport stores, fuel and personnel, along with many other specialist tasks. To meet these demands, the United States Air Sea Rescue Service and Royal Australian Navy assumed many of these requirements, while the RAAF underwent a program of seconding and requisitioning civilian craft. Requisitioned naval craft such as SEEKA, TONGA, BOONOROO, KAZEMBE and AMOHINE undertook some of the air sea rescue tasks, with just one boat lost during the war years. On 16 May 1945, FAURO CHIEF was sunk when the jetty she was moored alongside at Milne Bay collapsed.

Meanwhile, RAAF was undergoing a large boat building/buying program to obtain craft specific to satisfy specialist tasks. One of the first of these specialist types was the Armoured Target boat, obtained from the Royal Air Force and delivered in Australia in February 1939.

As the RAAF did not operate many marine craft in the early stages, the authorities saw little need to number them. However, as the number and types of boats grew a simple numerical system was instituted, running from the first craft to the last. In late 1942/early 1943, a class of craft system came into being which remained in use until the disbandment of the Marine Section in 1993.

This article describes the craft in that system. There were however, occasions where class numbers were used twice during the war, and post war, an example of this being the 02 type.

Former members of the section may question the titles I have given different the various classes of craft. However, it should be remembered craft were retitled, from era to era, as their specific tasking changed. What follows is a list of the craft employed during Second World War.



01 Class Armoured Target Launch, Point Cook. (J Gay)

01 CLASS ARMOURD TARGET LAUNCH

Length: 40'
Beam: 8'9"
Draught: 3'
Speed: 20 knots
Engine: 3 x power meadows - 100 horsepower

Manufactured by: British Power Boat Company UK

Number in RAAF Service: 7 (01-1 to 01-7)

The superstructure on 01-03 was rebuilt at a later date so she could perform Air Sea Rescue duties.



02 Class Launch Rescue 481, Darwin, 1957.

02 CLASS LAUNCHES RESCUE

Length: Came in two lengths 46.1' and 48.1'
Beam: 13'
Draught: 7'
Speed: 17 knots
Engine: 2 x Chrysler Royal Marine 8 petrol engines

Manufactured by: Botterill and Fraser Melbourne VIC 7 x 46.1 craft and Spring and Denard Brisbane QLD 8 x 48' craft

Number in RAAF Service: 15 (02-1 to 02-15)



03 Class Torpedo Recovery Launch. (K Kerle)

03 CLASS TORPEDO RECOVERY LAUNCH

Length: 60'
Beam: 14'3"
Draught: 3'9"
Speed: 12 knots
Engine: 3 x Chrysler Royal Marine 8 petrol engines

Manufactured by: Crowley and Sons of Brisbane QLD

Number in RAAF Service: 13 (03-1 to 03-13)

These craft were also used for air sea rescue duties but were not as fast as the 02 and 08 classes. There is also evidence to suggest that 60' Torpedo Recovery Launches from the UK were used in Australia during the Second World War.



04 Class Launch Refuelling. 04-05, 45'. (K Kerle)

04 CLASS LAUNCH REFUELLING (2,600 GAL)

Length: 45' and 46'
Beam: 11'
Draught: 7' for craft of 45', 3'6" for craft of 46'
Engine: 2 x Chrysler Royal Marine 8 Petrol engines

Origin/ Manufacture: RAF UK and the Department of Munitions

Number in RAAF Service: 14 (04-1 to 04-10 were 46 footers and 04-11 to 04-14 were 45').

Note 04-15 and 04-19 were not launched or completed prior to the end of the war.



05 Class Refuelling Launch. 05-22, Maggie, ex Shell Co Melbourne. 5 January, 1944 (K Kerle)

05 CLASS REFUELLING LAUNCHES (1,500 GAL)

Length: 38'
Beam: 11'
Draught: 4'9"
Engine: 2 x Chrysler Ace Marine 6

Manufactured by: Norman Wright Brisbane and Spring and Denaro Brisbane

Number in RAAF Service: 22 (05-1 to 05-22)
MAGGIE (05-22) a refuelling launch with a capacity of 1,000 gallons of fuel/40 gallons of oil was powered by a cletrac tractor engine. She was impressed from the Shell Oil Company of Melbourne, Victoria.



06 Class Motor Lightening Steel. 06-13 (K Kerle)

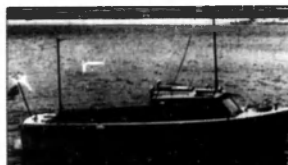
06 CLASS MOTOR LIGHTENING (STEEL)

Displacement: 350 tons
Length: 122.3'
Beam: 24.6'
Draught: 8'
Range: 3,000 miles at 8 knots
Speed: 9.5 knots
Engine: 2 x 180 horsepower Fairbanks Morse Diesel's

Crew: 12
Manufactured by: Purpose built craft, Johnson's Tyne Foundry, Melbourne

Number in RAAF Service: 19 in class

The first 11 being seconded boats. The next 5 were purpose built and their specifications are shown above. The final 2 craft were the refuelling launches RENOWN and PENRITH, on hire to the RAAF from Shell for the duration of the war. Interestingly all similar type purpose built boats held by the Army Class had names starting with E, for example ELSPEITH and EUNICE.



07 Class Marine Tender. 07-02 at Port Macquarie, NSW (R Pitt)

07 CLASS MARINE TENDER

Length: 26'
Engine: Single Chrysler Royal Marine 8

Manufactured by: Lars Halvorsen and Sons Sydney

Number in RAAF Service: 11 (07-1 to 07-11)
07-4 was known as GAYLESS JNR. Four craft had their classes changed as follows 07-4 to 011-87, 07-05 to 011-92, 07-6 to 011-88, and 07-7 to 011-93.



08 Class Crash Boat. 08-34, Jervis Bay (J Romain)

08 CLASS CRASH BOAT

Length: 38'
Beam: 10'3"
Draught: 3'6"
Speed: 20 knots
Engine: 2 x Chrysler Royal Marine 8

Manufactured by: Lars Halvorsen and Sons of Sydney NSW

Number in RAAF Service: 45 (08-1 to 08-45)
08-8 was used as a fire tender. 08-15, 08-16, 08-17, 08-18, 08-19, 08-20, and 08-21 were used as seaplane tenders.

09 CLASS AIRCRAFT MAINTENANCE SCOWS

Length: 33'
Beam: 8'9"
Draught: 2'4"
Engine: 2 x Meadows Chrysler Ace Marine 6

Manufactured by: Impressed by Ministry of Munitions from private owners

Number in RAAF Service: 6 (09-1 to 09-6)
09-1, 09-4, 09-5, and 09-6 were Aircraft Maintenance Scows. 09-2 and 09-3 were bomb scows.



010 Class Bomb Scow. 010-07. (K Kerle)

010 CLASS BOMB SCOWS

Length: 32'
Beam: 8'9"
Draught: 2'4"
Engine: Chapman 10 horsepower and Gray Sea Scout

Manufactured by: Botterill and Fraser, Spring and Denaro Brisbane

Number in RAAF Service: 34 (010-1 to 010-34)
All of this class were 32 foot bomb scows with the exception of 010-35 which was a 30' re-arming scow.

011 CLASS WORKBOAT

Length: 16 - 26'
Beam: 9'
Draught: 2' 9"



011 Class Work boat. 011-29.

Engine: Chapman Super Pup 4 1/2 horsepower, Chapman Grey, Chrysler Ace Marine 6, Rover, Thornycroft, Continental, Rugby, Penta, Gray 4 cylinder, Ford V8, Chrysler marine 8, Universal 45 horsepower, Chevrolet, Dodge, and Power Meadows 100 horsepower.

Origins: Pritchard Brothers Sydney, Botterill and Fraser Brisbane, Qantas Empire Airways, Robinson Invincible, US Small Ships, Spring and Denaro Brisbane, Lees Sydney, British Power Boat Company UK, 2 Flying Boat Repair Base Rathmines.

Number in RAAF Service: 124 (011-1 to 011-128 less 011-78 to 011-85 which were not delivered)

This series was an assortment of purpose built craft and seconded, requisition craft. A number were transferred to the 026 class.



Number in RAAF Service: 295 (13-01 to 13-339)
The following craft were canceled 217 - 238, 286 - 297, 303 and 327 - 329. The following boats were never commenced 261 - 266. 013 craft were supplied with and carried by larger craft.



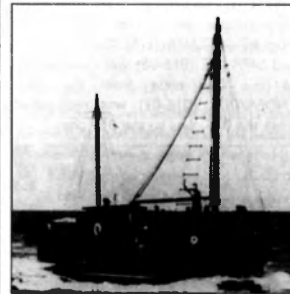
014 Class Dinghy Sailing

014 CLASS DINGHY SAILING

Length: 8 - 14'
Manufactured by: Purchased from private owners

Number in RAAF Service: 12 x Dinghy Sailing (014-1 to 014-12)

Carried aboard larger craft. Those not disposed of, were transferred to Point Cook Sailing Club.



015 Class General Purpose Launch - Medium 015-73, TURTLE (K Kerle)

015 CLASS GENERAL PURPOSE LAUNCH (MEDIUM)

Length: 56'
Beam: 16'
Draught: 4'7"
Speed: 8 1/2 knots
Engine: Gray Marine Diesel, single screw, 180 horse power

Manufactured by: Slazengers Aust Pty Ltd of Sydney.

Number in RAAF Service: RAAF 71 (015-01 to 015-60, 015-66 to 015-75 and 015-91). Impression of private craft 015-61 to 015-65 cancelled Purpose built craft 015-76 to 015-90, 015-92 and 015-93 not completed prior to the end of the war.

The majority of this class were seconded craft. However, from 015-72 onwards they were purpose built craft as described above. Two of these vessels *TORTOISE* (015-75) and *TURTLE* (015-72) were returned to the Navy in 1962 for use as diving tenders.



016 Class General Purpose Launch - Large
016-01 ENDEAVOUR at Port Moresby, later reclassified as 015-70. (R Pitts)

016 CLASS GENERAL PURPOSE LAUNCH (LARGE)

Number in RAAF Service: 12 (016-1 to 016-12). This class comprised craft impressed from private owners. Their sizes ranged from 60' - 85'. *MYRTLE BURGESS* (016-06) and *SAPPHIRE* (016-08) were reclassified to the 016 class from the 015. *ENDEAVOUR* (016-01) was reclassified from the 016 class to the 015 class.



017 Class General Purpose Launch - Small,
017-29. (K. Kerle)

017 CLASS GENERAL PURPOSE LAUNCH (SMALL)

Length: 40'
Beam: 12'6"
Draught: 5'6"
Speed: 9 knots
Engines: Varying engines both diesel and petrol

Manufactured by: Built by various companies

Number in RAAF Service: 32 (from 017-1 to 017-32)

017-01 to 017-28 were seconded craft of varying sizes and dimensions. Some of the launches were transferred from the 015 class. From 017-29 to 017-32, the craft were purpose built and their dimensions are shown above. Several craft were reclassified from the 011 and 015 classes to the 017 class.



018 Class Barge Powered, RAAF Depot
Melbourne near TMO and Duke and Orrs Dock.
(R Pitts)

CLASS 018 BARGES POWERED
Length: 54'
Beam: 14'
Draught: 6' 6"
Engine: Ford V8 Mercury converted by Ford

Manufactured by: Ford Company Geelong

Number in RAAF Service: 59
This class comprised a mixture of ALCM - MK2 (54') LCM, ACL, MK 5 and LCM MK3 (50') under the classification of Barges powered 40' - 60'. 018-45 was a salvaged Japanese landing barge. Specifications for ALCM - Mk2 shown above.



019 Class Barges Towed Work Barge at Brisbane.
(R Pitts)

CLASS 019 BARGES TOWED
Manufactured by: Spring and Denare, Ex Forces and transferred from RAN

Number in RAAF Service: 33 (019-1 to 019-33)
This class comprised an assortment of barge dumb, flat topped lighters with derricks, and barge pontoons of varying sizes and dimensions.



020-1 designed for fire fighting duties (RAN)

CLASS 020 FIRE FLOAT
Length: 38'
Beam: 10'
Draught: 6'
Manning: 3-4
Engine: Chrysler Royal Marine 8

Manufactured by: Seconded Department of Munitions

Number in RAAF Service: 7 (020-1 to 020-7)
These craft were based on the 08 class hull.

CLASS 021 BARGE REFRIGERATOR FREEZER
Displacement: 300 tons
Length: 100'
Beam: 27'
Draught: 6'6"

The RAAF operated only one of these former Army craft, AB 2043, named *SNOW DRIFT*



026 Class Work Boat - Small. (K. Kerle)

CLASS 026 WORK BOAT SMALL
Length: 15 - 20'
Beam: 6'
Draught: 2'
Engine: Chapman 5 - 10 horse power, Morris Vedette, Gray, and Simplex.

Manufactured by: US forces, Chapman and Sharack, Halverson, Kopson and Sons (the last three located in Sydney).

Number in RAAF Service: 73 (026-1 to 026-73)
This class comprised a variety of craft, some being impressed. Additionally, this class had a number of craft transferred from the 011 class.

UNCLASSED AUXILIARY CRAFT LAUNCH
Length: 25'
Beam: 6'9"
Draught: 1'6"
Engine: Thornycroft RA 4 Star Thornycroft Sydney, Marine by Cockatoo Dock Sydney

Number in RAAF Service: 2 (CA 23 and CA 24)
These craft were on loan ex department of Civil Aviation *KARUMBA* (CA 23) and *GROOTE ISLAND* (CA 24) They both retained their Departments numbers.



Mine Yawl (K. Kerle)

CLASS MINEYAWL
Length: 26'
Beam: 8'6"
Draught: 3'4"
Engine: Continental 6
Origin: Ex US Small Ships
Number in RAAF Service: 2 (MY 12 and MY 13)

These craft were received from US Small Ships. All retained their former numbers.

WANAKA

Although the large *WANAKA* did not fit into the class system, she should be duly recognised in this article.

Built as a motor vessel, *WANAKA* was employed by the RAAF as a stores carrier, flying the RAAF ensign during the war. She was requisitioned from the Union Steamship Company of New Zealand, her crew including Merchant Navy Officers and Seaman, RAN Gunners, and RAAF medical attendants, wireless operators, storekeepers and mess stewards. She is possibly best remembered for having survived a cyclone and having been recovered in time to return for the war effort.

On 16 December 1943 whilst returning to Australia from New Guinea, *WANAKA*'s Master Captain J. Dawson decided that due to bad weather and reefs in the area, the ship would anchor in the vicinity of Wharton Island off the Queensland coast. At the time of making this decision there had been no advice of cyclonic weather, the master treating the weather as a bad storm. As the night progressed

the weather became worse. By 12.00 am on 17 December the wind had reached an estimated 120 miles an hour. The ship was swept upon a reef and by dawn it was discovered that ten members of the crew had been lost. Help reached the scene that evening at 8.00 pm with the arrival of an American tanker.

Whilst initially it was thought that *WANAKA* may not be recovered, she was towed to Sydney two months later and repaired in time to resume her duties just prior to the end of the war.

Summary

Many RAAF craft experienced a hard life during the war. Often maintenance sections were not available and crews had to make do with whatever was available to keep their craft in action.

Such was the case with *ALMA*, a work boat numbered 011-25. On the 8 May 1945 a report stated she was completely unserviceable. Her hull had opened up badly, she was nail sick with the coaming deck, rubbing strake, and seats needing replacement. *ALMA*'s motor was also in poor condition. Sadly the *ALMA* ended up being written off, considered not practicable or economical to ship her south for repairs.

A number of vessels were also lost due to enemy action. One of the better known incidents was the loss of 08-05. On 29 August 1942 the Battle for Milne Bay was imminent. The crash boat had been ordered to proceed from Milne Bay to Mullins Harbour to observe and report on possible enemy shipping. As the launch was making its way across the harbour it was observed by the Japanese destroyer *URAKAZE* which turned her spotlights on the launch and sunk the craft with the fourth shell. Two of the crew were killed outright and of the other three, only two made ashore. On this occasion the crew of 08-05 were a mixture of RAAF and Army personnel.

At the conclusion of the war the RAAF, like the Navy and the Army, found itself with a large surplus of unwanted craft. Accordingly, a massive disposal operation was undertaken by the Commonwealth Disposal commission with the assistance of the Navy. As well, orders for craft to be built and drafts of new vessels on the drawing boards were cancelled.

During the period up to their ultimate disposal, some craft some sank at their moorings. This was due in part to wear and tear that had occurred during the war and the fact that maintenance could not be kept up to them before they were transferred to their new owners.

A plan formulated on the 25 November 1948 listed the craft required to be retained post war. These included:

02 - 10	013 - 43
04 - 12	014 - 6
06 - 3	015 - 12
08 - 11	020 - 3
010 - 16	026 - 3
011 - 21	

This provided the RAAF with a total of 140 vessels, 91 powered and 49 unpowered craft.

Classes Introduced Post War



02 Class Air Sea Rescue Launch, 02-109 1983
(H Irwin)

CLASS 02 AIR SEA RESCUE LAUNCHES

Length: 63'
Beam: 15'3"
Draught: 4'
Engine: 2 x Hall Scott Defender V12 petrol engines 1260 horsepower

Manufactured by: Miami Shipbuilding Company with the exception of 02-113 which was built by Lars Halvorsen and Sons

Number in RAAF Service: 13 (02-100 to 02-113)
The Air boats were initially commissioned for the RAN and served during the Second World War. Twelve were transferred to the RAAF postwar, and of these, three were returned to the RAN in the 1960s. Whilst most were sold to the public after being decommissioned, several were stripped and sunk as targets by the Navy.



07 Class Immediate Response Craft (Sharkcat).
(H Irwin)

CLASS 07 IMMEDIATE RESPONSE CRAFT (SHARKCAT)

Length: 23'
Beam: 18'

Draught: 8'
Speed: 55 knots
Engine: Twin Evinrude
Outboards 175 Horse Power

Manufactured by: SharkCat Pty Ltd of Labrador QLD

Number in
RAAF Service: 1 (07-001)
07-001 came into service in 1981 and was broken up on a reef at Point Cook.



08 Class Immediate Response Craft (Sharkcat), AIR SWIFT 08-001, off Nabys, Newcastle, NSW (H. Irwin)

CLASS 08 IMMEDIATE RESPONSE CRAFT (SHARKCAT)

Length: 27.21
Speed: 42 knots
Engine: Twin Evinrude
Outboards 235 Horse Power

Manufactured by: SharkCat Pty Ltd of Labrador QLD

Number in
RAAF Service: Air Swift 08-001, Air Eagle 08-002, Air Condor 08-003

Named AIR SWIFT, AIR EAGLE and AIR CONDOR. AIR SWIFT was destroyed in a storm at Point Cook on 1 December 87 and written off.



011 Class Search and Rescue Vessel, 011-001, AIR HAWK (H. Irwin)

CLASS 011 SEARCH AND RESCUE VESSEL

Length: 11 meter
Crew: 5
Range: 350 nautical miles
Speed: 30 knots
Engine: Twin 375 horsepower diesel Caterpillar turbocharged with after cooling

Manufactured by: Steber Craft
Number in
RAAF Service: 1 (011-001)
Accepted by the RAAF in October 1989 AIR HAWK became redundant and was paid off with the closure of the Marine Section in 1993.

CLASS 011 SEARCH AND RESCUE LAUNCH

Length: 20'
Beam: 7.8'
Draught: 2.2'
Speed: 35 knots
Engine: Twin Mercury
Outboards 155 Horse Power

Manufactured by: J.J. Savage and Co of Williamstown Merlin style hull.

Number in
RAAF Service: 1 (011-201)

This craft was nicknamed "Little Toot"

CLASS 013 DINGHYS - PULLING

Length: Varying sizes 9', 10', 10'6" and 15'

Manufactured by: J.J. Savage, Thornycroft, BBC Fiberglass, J. Rowe and Brooker

Number in
Service: Post war, there is evidence of at least 10 Dinghies pulling having been purchased.

Due to incomplete records it is hard to determine what is Second World War or post war.

CLASS 014 WHERRY SAILING DINGHY

Construction: Cavel plankd, 014-107 Bondwood.

Length: 15'
Beam: 5' (some variation craft to craft)
Draught: 18"

Manufactured by: Service Personnel
Number in
Service: 15 (014-100 to 014-115)

Carried on board corresponding numbered post war 02 class craft. All were disposed of in 1960s.



016 Class Search and Rescue Craft, 016-100 WARANA

CLASS 016 SEARCH AND RESCUE CRAFT

Length: 76'
Beam: 16'6"
Draught: 5'
Speed: 22 knots, cruising speed 16 knots
Engine: Twin General Motors V16 Diesel

Manufactured by: Millcraft of Brisbane

Number in
RAAF Service: 1 (016-100)

WARANA was originally operated by the Department of Civil Aviation at the Cocos Islands. She was purchased by the RAAF and moved to Townsville in 1975 for search and rescue duties.

Conclusion

Another two types of craft without class numbers should also be mentioned. The first was the long range rescue craft MAX ELSE II. This vessel was not a RAAF craft but was hired from the National Safety Council for use by the RAAF Marine Section at Newcastle in 1985. With a length of 15 metres she was powered by twin 570 horse power diesels which gave her a top speed of 21 knots. With her sophisticated radio, and radar, MAX ELSE was capable of providing a rescue capacity in all weather.

In 1981 the Newcastle section obtained two rubber duckies. Designed by Beaufort, these inflatable craft were 14 foot in length and powered by 25 horsepower outboard motors. Their purpose was for use in close to shore work around bays and islands. In 1983 one was used in an attempt to quell a fire that occurred aboard the police launch MACKAY after it caught fire in Newcastle Harbour.

Post war there was not the requirement for air sea rescue. Sections and units that had played a prominent part during the war at locations such as Rathmines, East Arm (Darwin), and Sale were no longer required, disestablished, then closed down. By the 3 November 1960 the marine section had shrunk to 45 craft and 99 personnel. By 1989 Marine Sections were only retained at Point Cook, Newcastle, and Townsville.

On 17 February, 1992 the final blow came when the Chief of the Air Staff directed the disbanding of the Marine Sections at Base Squadron William and Operational Support Squadron Townsville. An administrative instruction followed in July giving details for the disposal of the final three craft, 08-002 AIR EAGLE, 08-003 AIR CONDOR, and 011-001 AIR HAWK. Whilst the RAAF marine section was disbursed in 1993 many of its former craft can still be found around Australia's coastline. Boats such as the OOMOOBAH (015-03) at Port Macquarie and BATAAN (02-08) at Surfers Paradise are still giving stirring service in their capacity as civilian pleasure craft. Personnel who were in the Marine Section have either changed mustering or taken their discharge.

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USS VINCENNES arriving in Sydney, 18 March, 1998. (LSPH S. Gurnett)

NAVY GETS THE DRILL ON NEW SAFETY DEVICE

By Graham Davis

A device which bores through the steel deck of a ship in seconds then injects a fire suppressant at the throw of a lever, has been demonstrated to armed service fire officers, senior naval personnel and civilian fire chiefs, at the RAN's ship safety and survivability centre at Jervis Bay.

Called the FireDrill-2, the device was developed by RJE International in the United States of America. Chubb Fire, the Australian agents for the equipment are seeking to sell it to the armed services and fire brigades across Australia.

Driven by regulated compressed air supplied from a cylinder or fixed system, a motor rotates a tubular rod tipped with a hardened steel bit. Along the tube are a number of holes. A 38 mm fire hose with an easy-to-operate "on/off" lever, is attached to the base of the device.

"The FireDrill is aimed at use in suppressing fires in confined spaces, such as aboard ship, aircraft passenger compartments or sealed shipping containers," Mr Ken Whyte, the defence manager of Chubb Fire, said.

"They are already used widely in the United States."

At the Jervis Bay demonstration an operator was able to bore through the steel deck of one of the mock ships at the fire training facility in just 33 seconds. Once through the metal, the operator



With AB Tony Scornis of Nowra standing ready with his tanker, RAAF Sgt Tony Hastings bores a hole in the aircraft cabin while WO Tom Kinnear supports him with the air cylinder and hose line. (LSPH Steve Gurnett)



WO Tom Kinnear, a Navy firefighter from HMAS ALBATROSS and SGT Tony Hastings an airforce firefighter from RAAF Richmond, move in with the FireDrill 2 to bore into an aircraft cabin and suppress a fire at SSS Jervis Bay. (LSPH Steve Gurnett)

opened the valve allowing high pressure water to cascade from the holes in the bore tube and extinguish the fire burning below. Suppression took seconds. The manufacturers say foam, dry powder or inert gas can be used instead of water. The demonstration on the mock warship was followed by an exercise using aircraft type metal attached to the centre's mock helicopter.

With water supplied by a Navy Fire Service fire appliance and air for the pneumatic motor supplied from a hand-held cylinder, service firefighters were able to bore through the metal in just seconds and inject the fire suppressant.

FireDrill 2 comes with varying sized shafts and drill bits and sells for \$15,500 in the shipboard mode.

OBSERVATIONS

From Geoffrey Evans

Foreign Affairs – Trade and Defence

Two important policy documents were issued in the second half of 1997 – a White Paper on Foreign and Trade Policy titled "In the National Interest" (issued by the Foreign Affairs and Trade Department in August) and a "Strategic Policy paper" (issued by the Defence Department in December). The trade paper looks forward some 15 years while Defence's paper understandably covers an indeterminate period but certainly no less.

Although issued separately the documents are complementary, in fact the strategic paper is admittedly based on assumptions canvassed in the trade paper. The latter document is extremely detailed and examines trade opportunities – and possible pitfalls – in virtually every significant country and region in the world; one must assume the picture that emerges reflects the outlook of both the Coalition Government and the Opposition – the Strategic Policy appears to be in many respects a natural development of Labor's 1994 Defence White Paper.

The trade paper said to be the first of its kind, is particularly interesting not least for its scope and summary of conditions in various parts of the world. If the writer has reservations they concern the overall optimism of the forecasts which do not appear to have taken into account the as yet unknown extent of fall-out from financial instability in major Asian countries. The fall-out could include resentment in countries receiving financial aid with severe conditions attached; they may well feel their hard-won struggle for independence from European Powers after World War 2 was under threat. (The Prime Minister of Malaysia has already expressed similar misgivings).

Also, while it is always risky quoting selectively, the following passage caused the writer some concern: "For Australia, security also means preserving its capacity for independent decision-making, thereby ensuring it can pursue national objectives without external coercion."

How does this square with reports (in February) that Australia is among a number of countries negotiating a multinational agreement that would preclude national governments from regulating foreign investment in their countries?

The White paper canvasses various aspects of increasing globalisation and concludes "The power of national governments may become more circumscribed in the future but the nation state is far from dead, and sovereignty is still cherished. This is unlikely to change significantly over the next fifteen years."

Australia's Strategic Policy

The policy is presented in an easily-read three parts: dealing with:-

- Strategic objects and environment.
- Factors determining capability priorities for the ADF.
- Force structure priorities.

Like its Trade counterpart the Defence document attaches priority to concluding bilateral agreements, especially with S E Asian neighbours, but not neglecting wider regional and multilateral alliances and relationships such as the Five Power Defence Arrangements, APEC and the ASEAN Regional Forum.

Although the "Fortress Australia" concept of defence never really took off and was comparatively short-lived, a refreshing element of the latest strategy paper is the frankness with which forward defence is discussed – not in the sense of raising and deploying sizeable forces for service abroad but rather by contributing limited forces to United Nations tasks and military operations such as those in the Middle East etc. "Strike" forces (air and sea) are also discussed as a possible option.

Given the great importance given to Australia's world-wide trading relationships in the Trade departments – White Paper, it is rather surprising that merchant shipping – without which there can be no trade – is scarcely mentioned in either of the government papers.

The Navy League has for years maintained that a major weakness in Australia's well-being is virtually complete dependence on overseas-owned shipping to transport goods in and out of the country. The present government is no exception in its failure to recognise Australia's vulnerability in this regard.

With the foregoing qualifications, the Strategic Policy objectives and priorities appear to be reasonable and capable of achievement – the latter provided that government and the community accept that the world abounds with armed forces, a fact recognised in both policy papers, and provide the necessary funds

Letting off Steam Overseas

The writer is invariably left with a sour taste in his mouth whenever he reads of some organisation or group of Australians airing grievances overseas.

Surely there are enough courts, tribunals, commissions, ombudsmen and people of goodwill in Australia, capable of preventing injustice without dissatisfied people seeking foreign intervention?

Quite apart from the slight to national pride, most foreigners have enough problems of their own to worry about without adding those of Australians.

Recognition for Service

During the last two years this column has contained reports on efforts by former naval personnel to obtain recognition and consequential benefits for service in Australian ships involved in the Malayan Emergency in the nineteen-fifties.

Despite the seemingly irrefutable evidence put forward by the former sailors to support their case, both Labor and Coalition governments have refused to accede to the request.

Angered by official insensitivity, a group of the Navy's former most senior officers – including no less than 14 admirals – has sent a letter of protest to the Prime Minister, a move which must surely be unprecedented in our military history. This matter seems unlikely to 'go away'.

Launch Postponed

The HMAS WARRAMUNGA Association has been advised by Tenix (former Transfield Defence Systems) that the launch of WARRAMUNGA MK2, scheduled for 18 April 1998, has been postponed until 23 May due to industrial problems – not a new experience for the Williamstown dockyard!

The Association's office bearers have a busy time re-scheduling arrangements for the various functions planned for the event, not least re-booking accommodation for interstate visitors.

(The writer joined the first WARRAMUNGA prior to commissioning on 22 November 1942 and spent almost 2 years in what was regarded as a "happy ship", most of the period under the command of her greatly admired Captain, E.F.V. Dechaineux, who shortly after leaving WARRAMUNGA was killed in HMAS AUSTRALIA while taking part in the landings in The Philippines).

THE NORTHERN SPECIALIST

On the recent patrol to bolster surveillance strength in Northern Australia HMAS "TOWNSVILLE", commanded by LCDR PSND Chatterton, RAN, apprehended the largest illegal fishing vessel ever taken in Australian waters.

TOWNSVILLE, a Cairns based patrol boat sailed early December for the Gulf of Carpentaria apprehending a pair of Type III traditional Indonesian fishing boats. These were given to HMAS WHYALLA to tow back to Darwin. After a weekend in Gove, and the traditional naval transit of Hole in the Wall (Gugari Rip), TOWNSVILLE headed towards the Australian Fishing Zone (AFZ) line. This proved to be a frustrating few days investigating suspect contacts, eventually feeling that they were chasing their own wake.



VANINDA No. 18 under escort to Darwin in December.

Ending this monotony was the eyes in the sky of Coastwatch, spotting a fleet of about 14 stern trawlers, all working near the AFZ line. TOWNSVILLE proceeded to investigate, and radar plotted one of the contacts 4 miles inside the line, as it tried to escape northwards. Once about 2 miles past the line, the boat slowed in



VANINDA No. 18

ALL COMPASS POINTS

Spotlight on the United States Navy

Aircraft Carriers

The decommissioned carrier AMERICA (CV 66) was moved from the Norfolk Naval Shipyard on 22 September to the Philadelphia Inactive Ships Maintenance Facility. AMERICA had been laid up at Norfolk since her August 1996 decommissioning.

Associated Press reported on 23 November that a "senior military official" revealed that a Russian "OSCAR II"-class nuclear-powered missile submarine maneuvered close to the super-carrier CONSTELLATION (CV 64) off the coast of Washington State in late September. The AP quoted the official as saying: "The United States knew about it, it was tracked. There was no danger" to the carrier. "If we'd been at war, we wouldn't have let it get even closer." The Washington Times also reported that the same boat had cruised off the Washington State coast, practiced "attack operations" against the CARL VINSON (CVN 70), and shadowed the NIMITZ (CVN 68) before returning to Petropavlovsk-Kamchatsky on 1 November.

The keel of the new RONALD REAGAN (CVN 76) was laid at Newport News Shipbuilding & Drydock Company, Newport News, Virginia on 9 February.

Museum Ships

MISSOURI (BB 63) was opened for public tours at Naval Shipyard Puget Sound, Washington, during January, after which preparations began for the ship's planned tow to Pearl Harbor, Hawaii, in April. The Secretary of the Navy was expected to sign a formal contract during January to transfer custody of the ship to the USS Missouri Memorial Association.

In early November the USN has proposed berthing WISCONSIN (BB 64) at the Nauticus sea exhibit in downtown Norfolk, Virginia. The battleship is currently lying mothballed at the Norfolk Naval Shipyard, where she is occupying valuable space. The proposal, backed by CINCLANT, would open WISCONSIN's topsides and selected interior spaces to the public, much in the same manner as the MISSOURI was open during the summer of 1995. The Navy would retain ownership of the battleship and pay for preparing a berth at Nauticus, moving the ship, and the \$200,000 in annual maintenance costs. The source of the Navy funding was not identified; the Navy



Mid section of trawler's main freezer.

speed, feeling they had escaped to freedom. Little did they know that the small grey shadow on the horizon was the long arm of the law reaping justice.

The unlucky boat which had been tracked was the 'VANINDA No. 18', a 53 metre, 750 tonne member of the Handoo Fish Co. After firing rifle volleys across their bow the ship stopped, and was boarded. The Korean master, Indonesian registered vessel had 2 GPS, 2 radars, 2 colour digital display echo sounders, DF and autopilot, making the patrol boat's navigational fit look somewhat inferior.

The live fish on the deck and on the processing table below made for a relatively easy apprehension, and the long trip to back to Darwin commenced. The steaming party welcomed the change of maintaining watches on an air conditioned bridge, instead of with shark fin on the roof of a Type III in the midday sun. The arrival into the port of Darwin saw TOWNSVILLE conduct a lead through, 250 yards ahead of the VANINDA, while media crews ducked in and out of the wakes to "capture the moment". These images would be in the papers the following day, and beamed nationally that night, which ironically may have been watched by the crew of the VANINDA itself on the TVs scattered throughout the ship.

The fishing boat was subsequently handed over to the Fisheries Representatives, allowing TOWNSVILLE to proceed alongside Darwin Naval Base for a well deserved weekend of rest.

proposal to berth "WHISKEY" at Nauticus is unique, and may not fit into current guidelines. Initial reaction from the city was favorable. Groups in Norfolk have been seeking to acquire the IOWA (BB 61), but the WISCONSIN proposal may put an end to those efforts.

The last surviving Independence class light carrier, the long-stricken CABOT (CVL 28), ex-Spanish DEDALO, was taken in from New Orleans to Port Isabel, Texas, arriving on 18 October. The sad and confused state of the ship, which failed to open in New Orleans as a tourist attraction, saw the Coast Guard declaring her a menace to navigation, and her arrival at Port Isabel likely presages her eventual scrapping. In late 1997, the Commandant of the Coast Guard made public an appeal by former President Gerald Ford to save the ship, and the American Academy of Industry in Chicago is continuing its efforts to acquire CABOT and tow her to Chicago for eventual display.

The Governor of Minnesota announced on 26 November that the State and the City of Duluth had agreed on a location for the stricken DES MOINES (CA 134), now lying at the Naval Inactive Ships Maintenance Facility at Philadelphia PA. The announcement included the prediction that the ship would arrive at Duluth during mid 1998. Navy approval of a preservation group's application for the ship, and Minnesota state legislative approval for the project, have yet to be secured.

One of the last examples of a WWII destroyer escort, the SLATER (DE 766) was towed from New York City to Albany, New York on 26 October, ending attempts to establish the ship as a museum/memorial in Manhattan. The Destroyer Escort Association acquired the ship in 1991 from Greece, where she served as HIERAX from 1951 to 1991. A new non-profit organization has been formed to operate the ship at Albany. SLATER was first commissioned on 1 May 1944.

Cruisers

ARKANSAS (CGN 41), the last of the "VIRGINIA"-class nuclear-powered cruisers, was deactivated 18 October at Puget Sound Naval Shipyard. After entering drydock for stripping, she will be fully "re-cycled" (scrapped), unlike her sisterships, which have all been stripped, but are still awaiting final scrapping.

Frigates

The United States has approved the sale of three additional Knox class frigates to

the Taiwanese Navy. Total cost of the sale is \$300US for the former USS AYLWIN, PHARRIS and VALDEZ. Six of the type currently serve with the fleet. The last of six French built La Fayette class frigates, CHENG DU, has also been delivered, on 16 January.

Amphibious Ships

Following successful tests aboard ASHLAND (LSD 48), the Ship Self Defense System (SSDS) was recommended by Commander, Operational Test and Evaluation Force in mid-October for fleet introduction. SSDS is a distributed, open architecture combat system for point defense that links RAM missile launch systems, Phalanx gun mounts and decoy chaff launchers to detect, track and destroy incoming targets. According to the USN Navy, SSDS destroyed all of the 200+ targets it engaged during the summer tests. The system will initially be installed aboard LSD-41 and LPD-17 class amphibious ships, and selected aircraft carriers.

BONHOMME RICHARD (LHD 6) is planned to be commissioned on 15 July 1998, while IWO JIMA (LHD 7) had her keel laid on 3 November at Ingalls Shipbuilding, Pascagoula, Mississippi. Her commissioning is scheduled for February 2001.

GUAM (LPH-9) is scheduled to return to Norfolk on 3 April, then decommission in



USS AMERICA

September 1998. Previously, NEW ORLEANS (LPH 11) was decommissioned at San Diego on 31 October 1997.

CLEVELAND (LPD-7) recently installed the Pioneer Unmanned Aerial Vehicle (UAV) system and tested it off the coast of Southern California. A UAV can cross into hostile areas for surveillance, targeting and battle damage assessment. A full UAV detachment and civilian engineers from the Naval Air Warfare Center Aircraft Division, Lakehurst, N.J., embarked on the LPD to test the system. The UAV detachment and CLEVELAND's Air Department conducted numerous briefs, walk-throughs, rigging and unrigging practices and aerial vehicle engine system checks. "I think we are

stepping into the 21st century here" said Airman Wesley S. Knowles, of Taft, Calif. "This UAV provides for safer acquisition of vital information in a potentially hostile environment."

USCG

HEALY (WAGB 20) launched 15 November at Avondale Shipyards, New Orleans, Louisiana. The sideways-delivery launch created a wave that inundated a number of people on a viewing stand, causing several minor injuries and sending eleven people to a hospital for treatment. Meanwhile, a dispute over the character of the ship's namesake, who served in the 19th century as the captain of the cutter BEAR, is unlikely to result in a name change. The icebreaker is scheduled for delivery in February 1999.

Department of Defense Budget for FY 1999

Secretary of Defense William S. Cohen recently released details of President Clinton's Fiscal Year (FY) 1999 defense budget. It requested \$257.3 billion in budget authority and \$252.6 billion in outlays for the Department of Defense (DoD).

Release of this budget is the culmination of intense scrutiny of the U.S. defense posture carried out during Secretary Cohen's first year in office. The new budget begins full implementation of

the Department's comprehensive Quadrennial Defense Review (QDR). The QDR examined the security threats and opportunities facing the U.S. and developed far-reaching recommendations for the post-Cold War era.

The budget includes \$48.7 billion for procurement of more modern weapons. Procurement is projected to reach \$61.3 billion in FY 2001, achieving the \$60 billion goal previously set by the Clinton Administration. DoD leaders consider this higher modernization spending to be essential to the future readiness and battlefield superiority of U.S. forces.

While highlighting the importance of weapons modernization, Secretary

Cohen stressed that the long-term readiness of U.S. forces was threatened by the budgetary drain of excess infrastructure. The Department of Defense is burdened with facilities and bases that it neither needs nor can afford. To remedy this, Secretary Cohen again urged Congress to approve two more base closure and realignment (BRAC) rounds.

Transforming the U.S. Defense Posture

The FY 1999 budget begins implementation of the QDR's plan for transforming U.S. defense strategy and military forces.

Shorthand for the new defense strategy is Shape, Respond, Prepare. It calls for the U.S. to work to shape the international security environment in ways favorable to American interests, be willing and able to respond to the full spectrum of crises as needed, and prepare now for an uncertain future. The FY 1999 budget supports this strategy primarily by ensuring continued American military superiority, high readiness, and extensive overseas deployment of U.S. forces. It also advances the transformation of U.S. forces and the organizations and activities supporting them so that together they can best guarantee America's long-term security.

The transformation of U.S. military forces seeks to maximize their effectiveness across the full spectrum of future crises and conflict scenarios. While we will transition to forces that are different in character, the hallmarks of America's military will continue to be top quality people, high readiness, and superior doctrine and technology. The FY 1999 budget includes strong funding for all these.

Transforming U.S. forces also requires implementation of Joint Vision 2010, the Department's new conceptual framework for how future U.S. forces will fight and achieve "full spectrum dominance." At the heart of Joint Vision 2010 is the ability to collect, process, and disseminate essential information to U.S. forces, while denying the enemy the ability to gain and use battle-relevant intelligence. Support of Joint Vision 2010 in the FY 1999 budget is primarily for funding relevant new technologies.

The QDR recommended end strengths and force levels that are only slightly below those already planned as a result of the Department's earlier post-Cold War adjustments. It called for additional cuts of about 60,000 active military personnel;

55,000 in Selected Reserves; and 80,000 DoD civilians. End strength trends and goals are shown below:

Modernization of U.S. Forces

One of the QDR's most important contributions was to detail a plan to ensure that the Department could fulfill its ambitious and essential plans to modernize U.S. weapons. The QDR endorsed the importance of increased procurement funding both to prepare for future challenges and to upgrade aging systems. It also recommended numerous changes to specific major modernization programs and proposed ways to reduce



USS MISSOURI (NPU)

the future likelihood that the Department would need to shift funds out of investment accounts to cover must-pay costs like unbudgeted operating expenses.

To support implementation of the QDR, procurement is funded as follows:

Department of Defense Procurement

Among its major modernization initiatives, the new budget emphasizes the advanced information-technologies needed to fulfill Joint Vision 2010. It accelerates acquisition of new command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) capabilities.

For example, funding was added to accelerate by two years the fielding of the Army's first digitized division and corps. Numerous such advances will enable military commanders to more effectively direct forces, transfer information between them, and dominate future adversaries. Also funded are key surveillance assets such as unmanned aerial vehicles and critical navigation aids like the Global Positioning System.

Modernization of ground forces will stress upgrades of primary combat platforms like the Army's Abrams tank, Bradley Fighting Vehicle, and Apache Longbow helicopter. Major development efforts include the Comanche helicopter and Crusader artillery system. Marine Corps modernization features the V-22

tilt-rotor aircraft, the Advanced Amphibious Assault Vehicle, and the 4BN/4BW helicopter upgrade.

Modernization of naval forces includes procurement of the DDG-51 Destroyer, LPD-17 amphibious transport dock ship, and New Attack Submarine (NSSLN). The tenth and final Nimitz-class carrier (CVN-77) is fully funded in FY 2001, a cost-saving acceleration of one year. The budget also supports development of the next generation aircraft carrier and the destroyer.

The QDR confirmed the need for, but made major adjustments to DoD's three major programs for modernizing U.S. tactical aircraft. New budget plans reflect DoD's decision to reduce and delay some planned procurement of the Joint Strike Fighter (JSF), F-22, and F/A-18E/F. The JSF will continue in its concept demonstration phase into FY 2001, in preparation for procurement to commence in FY 2005. Funds for the first two production F-22s are requested for FY 1999, leading to a gradual buildup to procurement of 36 aircraft per year by FY 2004. Production should soon increase for the F/A-18E/F, which has greater survivability and weapons payloads than earlier F/A-18 models. For the longer term the Navy plans to transition from F/A-18E/F to JSF procurement at a time based on the pace of JSF development.

The new budget supports the QDR's emphasis on munitions of superior precision. Substantial funding is provided for ATACMS/BAT, Longbow Hellfire, SADARM, and Javelin for the Army; Sensor Fuzed Weapon for the Air Force; and JSOW, JDAM, and AMRAAM for both the Air Force and Navy. The Navy will continue to improve its inventory of Tomahawk missiles and convert anti-ship Harpoon missiles to SLAM-ER land attack missiles.

The QDR stressed America's ability to project military power to distant regions, and the new budget continues the Department's airlift and sealift investments. Some 120 C-17 aircraft will be procured by FY 2003. All KC-135 tankers will receive major avionics upgrades. To improve sealift, FY 1999 procurement includes the last LMSR transport vessel, needed to move early-deploying Army divisions.

FY 1999-2003 Major Defense (navy) Modernization Programs (Procurement \$ in billions):

F/A-18E/F Aircraft 15.0, DDG-51 Destroyer 14.1, New Attack Submarine 7.5, LPD-17 Amphibious Transport Dock Ship 6.5, V-22 Tiltrotor Aircraft 5.8.

'THE OLD NAVY'

? WHAT IS A ... SBA ?

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

A Sick Berth Attendant is a sort of a male Florence Nightingale who uses an electric torch instead of a lamp when searching for the dreaded mechanised dandruff.

Sick Berth Attendants are an exclusive set – they wear white dresses back to front and are usually sterilised. They are often referred to as "untouchables" but it is pointed out however, that many of these patients are more untouchable (particularly following a visit to some mystic port). During this latter period it requires an experienced sick Berth Attendant to be able to put his finger on the trouble.

At Childers, the SBA is fully trained in the use of the APC. This is known as the APCD School (Aspirin Phenacetin Caffeine Dispensing School). Contrary to popular opinion the technique of APCDing is involved.

For example:-

- Ascertain patient's trouble
- Disregard it
- Approach APC bottle and withdraw cork.
- Pause (for full medical effect wait 30 seconds)
- Remove three tablets
- (Remembering naval economy measures) replace one tablet
- Search for measure glass and fill with water
- Dispense – with/of patient.

At Flinders where the SBA is trained, he undergoes an extensive course in the art of needle fencing. This course comes in two parts or methods ... "the dart" and "the direct". The latter however has little to recommend it and has little glamour about it. It is designed purely to reveal to the patient that that he did after all have a muscle there! However, "the dart" method smacks of the theatre with its dramatic unexpectedness (real Alfred Hitchcock stuff) - slap! slap! dart - you got it pal!

There is a method in an SBA's madness. For you see, the SBA has the game sewn-up, so if they appear distant and not quite with you, remember that they are really thinking about their patients (patience) and are not just in the ether.

BOOK REVIEWS

AUSTRALIAN MARITIME PATROL AIRCRAFT

Published by: Topmill

Reviewed by Joe Straczek

Cost: \$12.95

Maritime Patrol Aircraft is a detailed examination of the seaplanes, flying boats and land based patrol aircraft of the RAAF since 1922, as well as the carrier borne anti-submarine aircraft of the Fleet Air Arm from 1948.

Twenty-five aircraft types are discussed, including eighteen RAAF and seven naval models, with 130 black and white and 30 colour illustrations. The story of the maritime aircraft is related through well researched narrative and data, plus some interesting large format (full page) tables which describe through figures, dates and data, the chronological history of these unusual aircraft. As well as the better known types, the book also features the small batch of land planes converted quickly by the RAAF to serve in the maritime role, mostly in the mid war period from 1919 to 1939. Each aircraft entry is presented via an introductory squadron table, an historical background (design origin, overseas development/orders and RAAF or RAN acquisition/career history), technical data, armament notes, special facts and final disposal.

For the naval enthusiast, the seaplanes and flying boats operated by the 'senior service' from its seaplane carrier, cruisers and survey ships are included in the RAN chapter, along with the Fairey Fireflies, Fairey Gannets and Grumman Trackers flown by the light fleet carriers between 1948 and 1980.

All of the photographs have reproduced well, with an colour section mainly

devoted to the RAAF's Neptunes and Orions and the Navy's Gannets and Trackers. This 100 page book is right up to date, with the AP-3C Orion section correct to March, 1998. Australian Maritime Patrol Aircraft comes highly recommended and at only \$12.95, will not set back the finances too much.

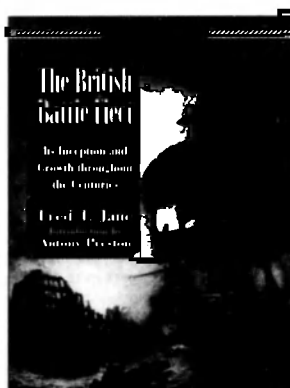
THE BRITISH BATTLE FLEET: ITS INCEPTION AND GROWTH THROUGH THE CENTURIES

By Fred T. Jane

Published by Conway Maritime Press

Review Copy from DLS

Reviewed by Joe Straczek



Within the area of naval history a number of names are instantly recognisable as having made a contribution to the wider knowledge of national or international naval affairs. This publication brings together two such names. One Antony Preston is such name, a renowned authority on naval affairs and contributor to a number of international journals. The second name virtually needs no introduction, Fred T. Jane, perhaps one of the most famous navalists of the late 19th and early 20th centuries. His name continues to be associated with the international naval scene through *Janes Fighting Ships*, which he founded and the series of journals published by the *Janes* group.

The publication which has bought these two names together is the re-print of *Janes The British Battle Fleet: Its Inception and Growth through the Centuries*.

Published in 1912 this book was one of the first to analysis the development of the British warship. Though this book may not by today's standards be considered as an academic work it is none the less an important work and one which will continue to be sought out and referred to by students of the period.

In *The British Battle Fleet: Its Inception and Growth through the Centuries*, Jane traces the development of British warships and their associated technologies. The book succinctly describes the development of the ships as well as some of the social changed which occurred during the period. One of the more revealing points is how during the 1680s the lot of the seamen began to deteriorate after the supply of provisions and clothing was passed into contractors hands, something akin to today's Commercial Support Program. Hopefully after 310 years things have improved.

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

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

THE MARITIME DEFENCE OF CANADA

By Roger Sarty

Published by The Canadian Institute of Strategic Studies

Reviewed by Joe Straczek

Unlike Australia, Canadian defence concerns have historically been linked with its land border with the United States. The maritime elements have tended to take a back seat. However, this does not mean that they were unimportant. *The Maritime Defence of Canada* by Roger Sarty provides a brief, but informative, overview of the maritime dimension to the Canadian security problem.

The author, Roger Sarty, is the senior historian at the Canadian National Defence Headquarters and is currently working on a new three volume official

history of the Royal Canadian Navy in the Second World War. This publication should be available in about two years.

The Maritime Defence of Canada is a collection of essays dealing with a variety of aspects of Canada's maritime defences and makes for an interesting comparison to similar issues in Australia. The essays cover such topics as rearmament, mobilisation and coastal fortifications through to anti-submarine warfare in the Atlantic and help place into context the Canadian maritime experience.

In common with Australia, Canada was an integral part of the British Empire and many of the decisions which impacted heavily on Canadian security were taken in London. As Australia has found out not all of these decisions were made with the best interests of Canada in mind. This is the disadvantage of a nation being part of a collective security regime where it has very little say and no control over external elements. In this context the book adds to the available literature on Imperial Defence and helps to provide an insight to various local issues and opinions.

There is much in *The Maritime Defence of Canada* which would be of interest to Australian readers. Not only is the book informative but it is also a good read and highly recommended.

(*The Maritime Defence of Canada* may be purchased from the publishers, The Canadian Institute of Strategic Studies, Suite 402, 2300 Yonge St. Toronto, M4P 1E4 Canada, for \$CAN20.00)

ISLAND NATION A HISTORY OF AUSTRALIANS AND THE SEA

By Frank Broeze

Published by Allen & Unwin

Reviewed by Vic Jeffery

This is the tenth book in the series "The Australian Experience" examining aspects of Australia's history and heritage. It explores the important role of the sea in Australia's history and shows how it acts as a highway, spanning those vast distances between ourselves and overseas neighbours, rather than acting as a barrier.

Every aspect of our maritime history from national security, trade and maritime unions through to surfing, boating and fishing is included in this well thought out book. The book is divided into three sections. They are: Part One – Controlling

Sea Space: Geopolitics, War and Naval Policy; Part Two – Overcoming Distance; Shipping Settlement and Ports; and Part Three – Living with Seas: Work, Culture and Lifestyle.

I do not subscribe to all of Mr Broeze's views, but overall feel he has achieved an enjoyable and thought provoking book in trying to cover all aspects of our maritime history, past and present. Broeze's comments describing Collins-class submarines as "controversial because of their cost and dubious strategic value" and describing the former aircraft carrier HMAS MELBOURNE as "bought second-hand from Britain" shows a degree of ignorance and naivety on naval matters. In the author's defence it must be pointed out that he cannot be expected to produce a book of this magnitude and be an expert on every topic.

Just released, this well researched 291 page soft cover book is supported by 48 photographs and illustrations plus six maps. Retailing at \$24.95, it is a worthy read for anyone with an interest in Australia's maritime history.

BATTLECRUISERS

By John Roberts

Published by Chatham

Reviewed by Ross Gillett

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

So reads the first narrative in the new Chatham publication *Battlecruisers*, describing HM Ships *TIGER*, *PRINCESS ROYAL* and *LION* steaming in company during the later stages of the First World War.

Designed with the speed of a cruiser and with the firepower of a battleship, the British Battlecruisers spanned an era from 1908 to the late 1940s, this new work concentrating on their origin, design, the ship's early years in service and the all-important technical side of the various classes, from *INVINCIBLE* (1908) to *HOOD* (1920). Also included in this timeframe are the large light cruisers *COURAGEOUS*, *GLORIOUS* and *FURIOUS*.

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

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

JANES WAR AT SEA 1897-1997 100 YEARS OF JANES FIGHTING SHIPS

By B. Ireland and Eric Grove

Published by Harper Collins

Reviewed by Ross Gillett

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

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

The book features hundreds of high quality photographs and numerous colour profiles, all printed on glossy paper. Unfortunately, for this reviewer, the narrative was found to be too small for any period of long reading.

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

AUSTRALIAN SEAPOWER PHOTOFILE NO. 6 - FRIGATES

Published by Topmill

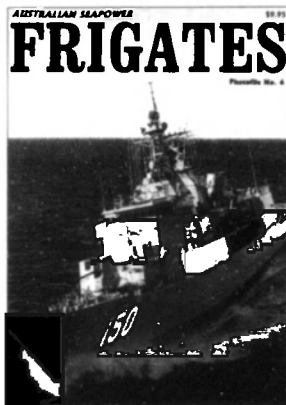
Reviewed by Mike James

Cost: \$9.95

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

FRIGATES continues this worthy tradition, covering the many and various classes of escorts that have operated in Australian and New Zealand waters. From the first sloops of the pre-World War One era up to today's technologically sophisticated Anzac class frigates, all are covered in detail.

Each class is broken down into individual ships and the highlights of each ship's career is detailed, in peace and wartime.



supported by a wealth of photographs. Many of these photographs have never been published before, a boon to the serious student of naval history and the model maker.

The book is laid out in three sections. The first covers the Royal Australian Navy while the second examines the ships of the Royal New Zealand Navy. The third section is made up of 16 pages of colour photos, including a rare 1950s colour view of HMAS *QUEENBOROUGH* following her modification to an anti-submarine frigate.

FRIGATES would be a welcome addition to the bookshelf of any ship lover and continues this excellent series. The next book is planned to cover the corvettes, anti-submarine and mine warfare ships. *FRIGATES* is available through better newsagents for a recommended retail price of \$9.85.

SHIPMATES ILLUSTRATED TALES OF THE MASCOTS CARRIED IN RAN SHIPS AND ESTABLISHMENTS

By Vic Cassells

This book tells of the trials and tribulations of the mascots carried in the ships and establishments of the Royal Australian Navy – and a few RN cases where their story is pertinent in some way to this country.

The most eye-opening thing found by the author during his research was the extent to which these mascots contributed to the morale of the men. In the hundreds of conversations conducted by Vic Cassells, the strong affection they'd had for

Digger', 'Smoky', 'Wheels', 'Tiddles', 'Durbo' and all the other remarkable creatures in this book, comes through just as clearly 50-odd years on.

Some of the stories are funny – even bawdy, and others are sad. A bit like life, really. But, at least, to the best of the author's knowledge, they are all true. Nevertheless, it is understandable that there may be differences of opinion about exactly what did happen all those years ago. Most of the contributors were recalling events which took place in their teenage years, with all now in their 70s, some in their 80s, and even a few in their 90s. It would be surprising, indeed, if they all still retained perfect, unclouded memories of events.

A paperback, laminated, 205 page book, *Shipmates* is illustrated throughout with more than 280 black and white photographs, with a bibliography and index. The book will be available in April, 1998, direct from the author.

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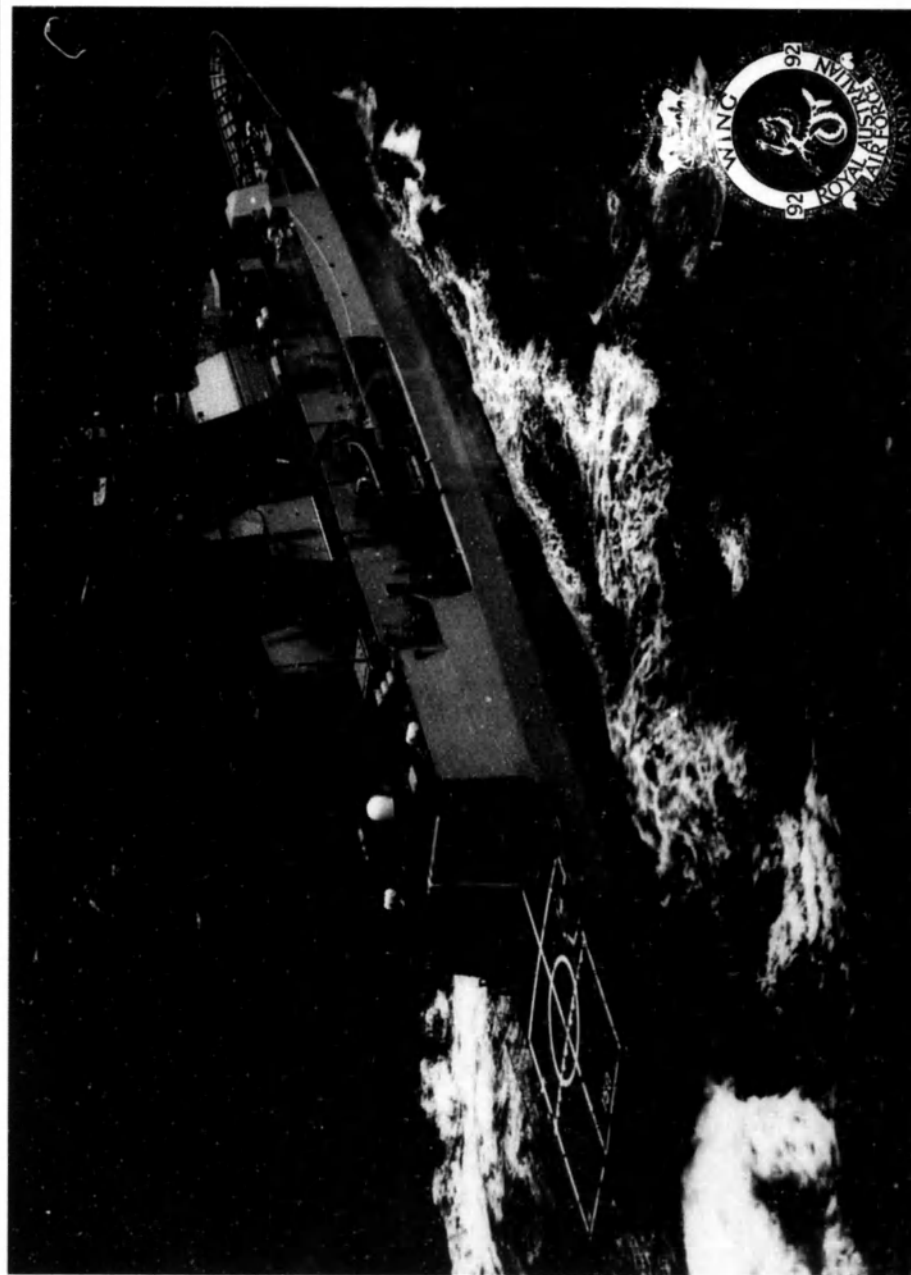
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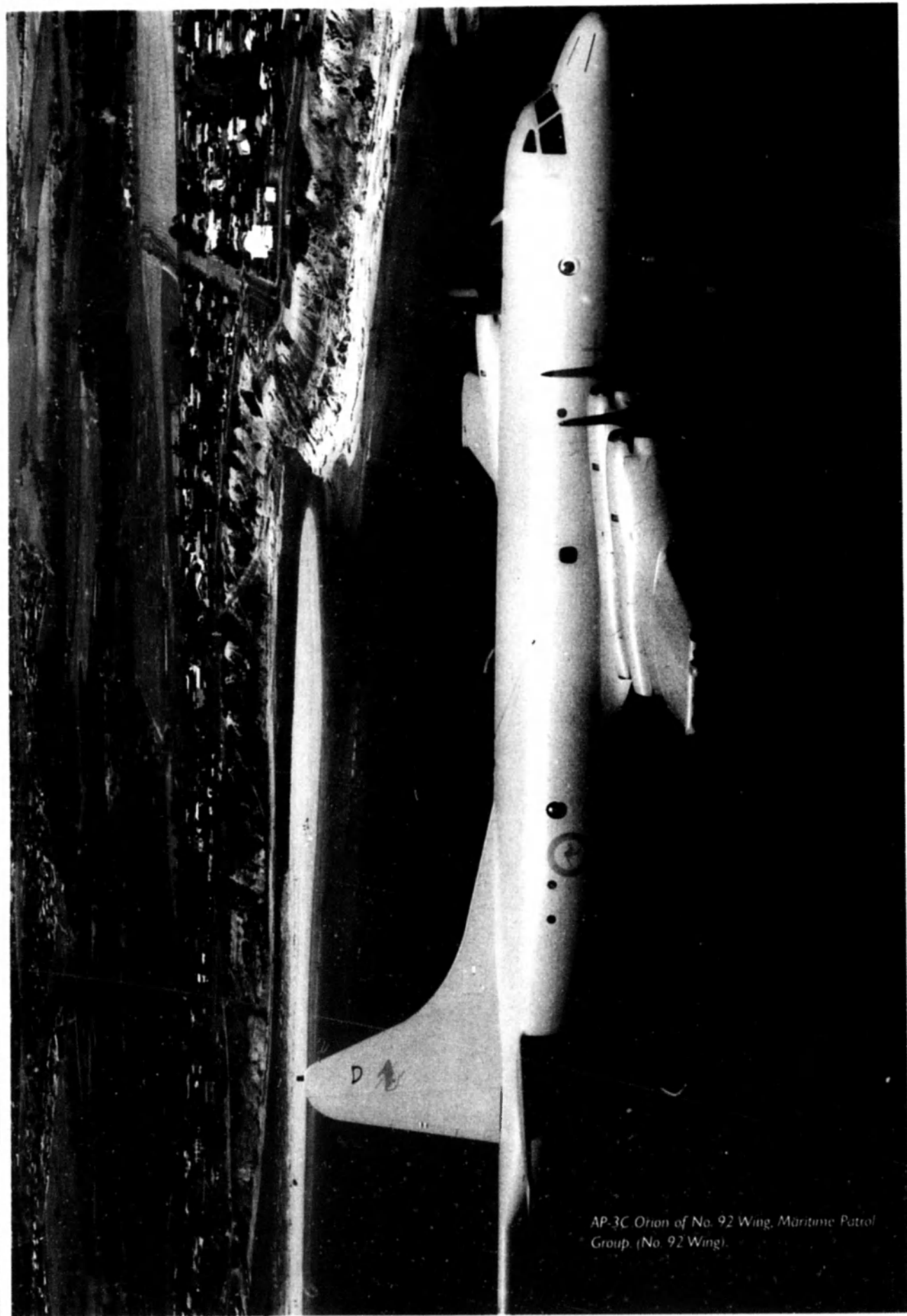
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