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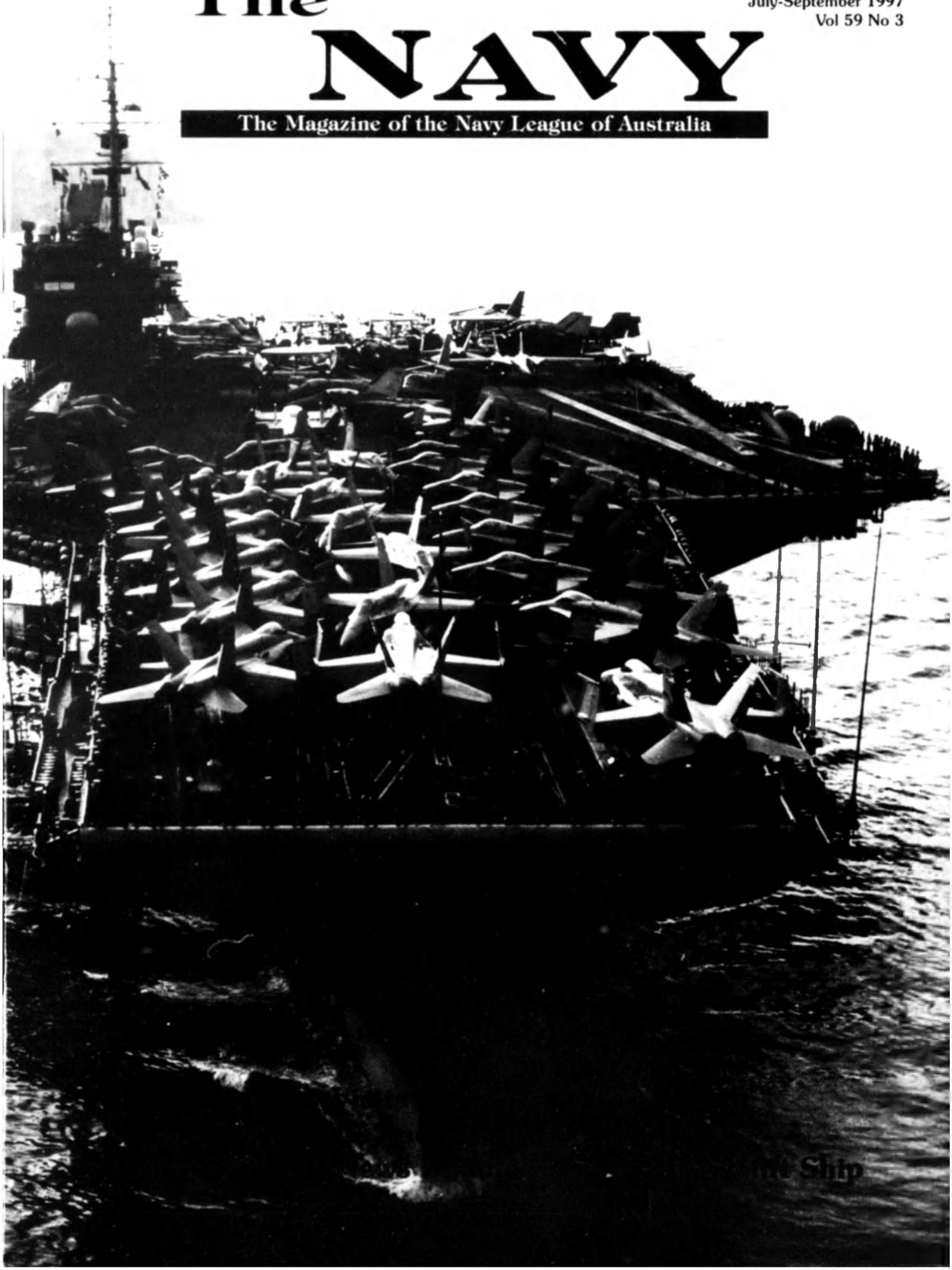
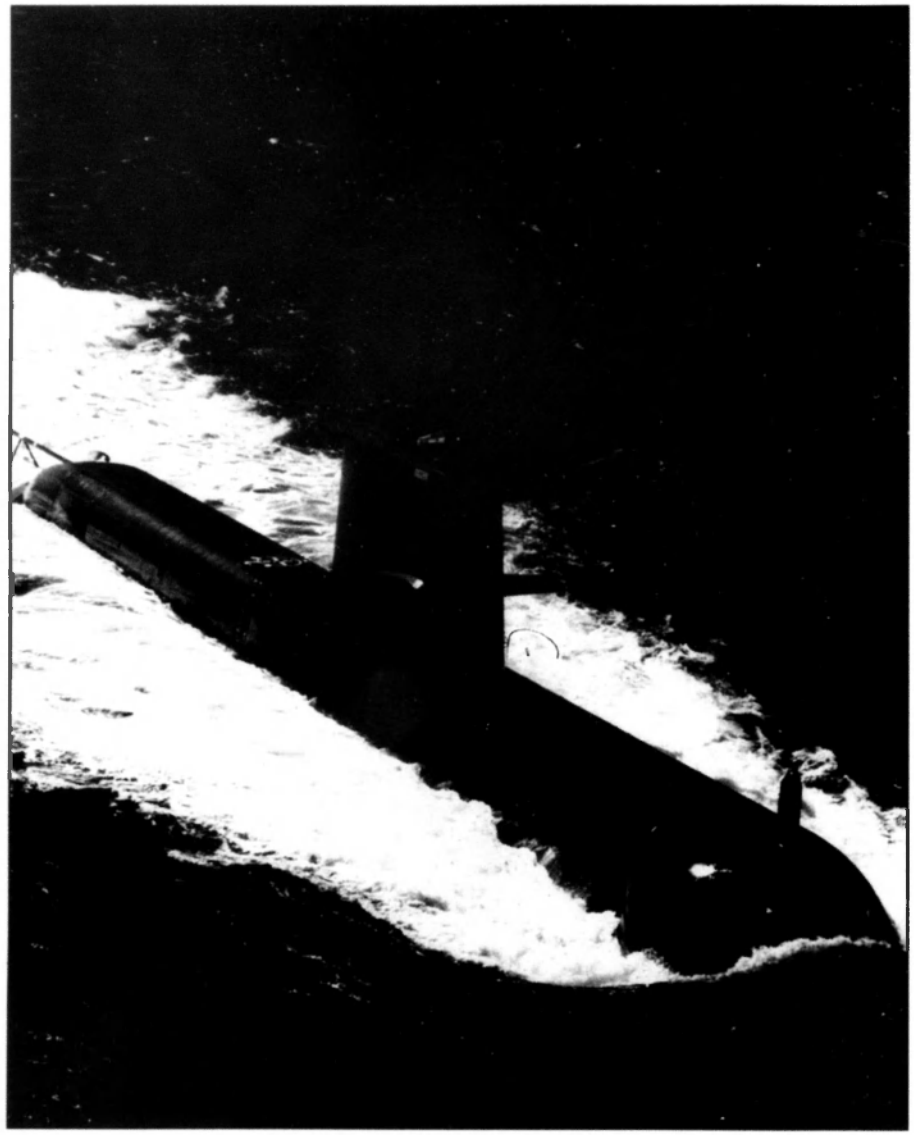
The NAVY

The Magazine of the Navy League of Australia





HMAS "COLLINS" underway off Western Australia (Photo - LSPH Peter Lewis)

In this Issue

Regular Features

Copy deadline for the next issue is 9th August 1997.

Viewpoint

In this edition of The Navy, more than ten naval commentators have put 'open to paper' to provide a balanced coverage of current and regional naval activities. Special attention is again devoted to the United States Navy, with many visits conducted to the major Australian ports following Exercise 'Tandem Thrust' off the Queensland coast.

To mark the arrival in Sydney of the USS *CONSTELLATION*, the recently re-furbished Super Constellation passenger aircraft rendezvoused with the American carrier off Sydney Heads and as she entered the harbour. This event was captured by the Naval Photographic Unit and is featured on the back cover.

Naval airpower developments are discussed in the articles Carriers and Regional Security and The RAN and Maritime Airpower and although she has yet to visit Australia in her new role, the recently commissioned HMNZS *CHARLES UPHAM* is described in detail.

The number of contributors is a good sign for the future, as the magazine approaches its 60th year in 1998. Further 'vintage' copies of *The Navy* from the mid to late 1940s have also been received by the editor for possible publication in future editions.

In one of the most interesting maritime park developments in recent years, the old Tullochs site in Brays Bay in the upper reaches of Sydney's Parramatta River is being re-created as a foreshore park. Some of the types of vessels built in the bay during the Second World War were the long serving 120 foot long steel cargo lighters, more commonly known as Motor Stores Lighters and their Water and Refrigerated variants. As part of the plan, the developers are seeking an example of the lighter, to be placed in the new park as the main attraction from the old Tullochs building yard.

By the time this edition of *The Navy* is published, the first and nameship of six Huon class coastal minehunters building in Newcastle will be launched. Also due for launching, in Cairns in mid July, is the first of two new hydrographic ships, *LEEUWIN*. ■

FROM OUR READERS

Calling All Ex FAA Personnel

Dear Sir,

The Fleet Air Arm Association of Australia is holding their Golden Jubilee Reunions at HMAS *ALBATROSS* - 28 October to 3 November 1998 and are tyring to locate all surviving ex FAA personnel to invite them to this significant occasion. The 50th Anniversary of HMAS *ALBATROSS* is also being commemorated in a joint celebration during the period.

Would you please advise details to your readers for the ex FAA shipmates can make this a worthy and memorable occasion.

Please contact
MIKE LEHAN, SECRETARY
FAA 50TH ANNIVERSARY
COMMITTEE
PO BOX A115
NAVAL PO
NOWRA NSW 2540

Wishing you all the very best of health and we look forward to seeing you in 1998 - or at the Naval Aviation Museum in the meantime.

Yours sincerely,
RADM Neil Ralph AO DSC
RAN (Rtd) President

FBW Honoured

Dear Sir,

His Excellency the Governor of Western Australia, Major General Michael Jeffery, honoured navy personnel in Western Australia on March 25 when he presented them with the Navy League of Australia Perpetual Trophy for Community Services.

The 'Seagrove Trophy' is awarded by the Navy League to a ship or establishment for sustained and significant support of the general community. Commodore Bob Trotter, Commanding Officer HMAS *Stirling* was delighted to accept the award for Navy's support of the WA community and in particular the Rockingham community.

During 1986 HMAS *Stirling* provided financial support and voluntary labour to a wide range of community based organisations with the relationship with the Malibu Special School proving a wonderful experience for many personnel. Malibu provides the special needs of severely handicapped children who cannot be placed in a normal school.

Fleet Base West personnel have assisted Malibu Special School since 1989 with working bees, fundraising which generates about $2000 a year and the Welfare Committee puts on an annual Christmas party and beach picnic at Camp Markham. HMAS *Stirling* continues to get tremendous satisfaction from these activities with many helpers available.

The Governor stated that HMAS *Stirling*'s community service program builds increased cooperation between the civilian and military sectors of society and helps strengthen the community. He also said it was a reflection of the altruism and sometimes personal sacrifice that is a hallmark of naval service.

The Navy League of Australia was also thanked for their continuing support of the Navy, both in the form of this award and in the many other ways it helps sustain Navy throughout Australia.

Rod Salman
Rockingham WA

His Excellency the Governor of WA, Major General Michael Jeffery with Commodore Bob Trotter and Navy League of Australia WA President Mr Arthur Hewitt at the trophy ceremony.

Farewell "AITAPE"

Dear Sir,

In August, 1996, I was in Papua New Guinea and read a newspaper article about the disposal of one of the patrol boats given to PNG by Australia in 1974. The former patrol boat HMPNGS *AITAPE*, decommissioned in 1985, was scuttled as the cost of maintaining the vessel was apparently beyond the resources of the National Museum.

I only recently found the article at home when looking for some souvenirs of my visit to PNG. I hope it is not 'old news'.

The article may be of some interest and hopefully the details included in a future edition of *The Navy*.

Regards,
(name and address supplied)

Editor: We have included a newspaper photograph of the *AITAPE* being scuttled.

Final farewell: the last view of the old patrol boat HMAS/HMPNGS "AITAPE", in August 1996.

Motor Lighters

Dear Sir,

In the October-December, 1996, issue of '*The Navy*', D. Ley of Potts Point wanted to know the details of some photographs, one of which was the launching of MWL 256.

I installed the radio equipment onboard MWL 256 and served as Telegraphist in the crew when she was commissioned in mid 1947. Her commanding officer was LEUT Guyatt, RAN. She was built at the State Dockyard, Newcastle, and as far as I can recall was launched in March, 1946.

Sorry for the delay, but have only recently seen the October-December issue of the magazine.

Yours faithfully,
N. Doyle,
(Ex Telegraphist RAN)
Randwick 2031.

Indonesia

Dear Sir,

I read the Indonesian Naval Profile with interest. I would like to make it known that the correct name for the navy is Tentara Nasional Indonesia - Angkatan Laut, or TNI-AL, the last two words' literal translation being 'sea force'.

Yours faithfully,
Paul Pelczar,
Nowra Hill 2540. ■

CARRIERS and REGIONAL SECURITY

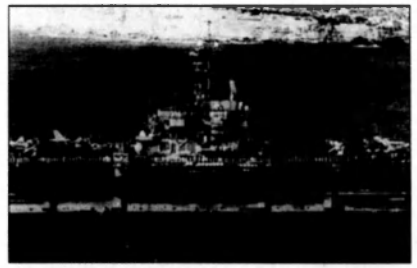
After taking part in the combined Australian-American Exercise Tandem Thrust, the oldest commissioned warship in the United States Navy, the aircraft carrier USS "Independence" visited Sydney. A few weeks later the USS "Constellation" lead her battlegroup in. Richard Jackson reports on the US carriers and their role in regional security.

Arriving in Sydney Harbour, the USS "CONSTELLATION", being welcomed by the restored Super Constellation. (Photo - Brian Morrison)

Independence Day

It's a familiar image, from countless CNN news reports and movies like *Top Gun*. The angular bulk of a US aircraft carrier has become a modern icon, but this morning, in the Tasman Sea approaching Sydney, the USS *Independence* is overwhelmingly real. The 80,000 ton carrier is at ease, her aircraft neatly arranged on deck, the immense steam plant held to a fraction of its power, the crew in their whites lining her sides, as the ship slips quietly past Sydney's famous heads.

Over the previous three weeks, the carrier has been battling both the exercise enemy and the elements. Cyclone Justin had won this battle of the Coral Sea and forced the naval commander, Rear Admiral Charles Moore USN, to take his task force of Australian and American ships far to the south and east of the exercise area until the storm eased. "We can fly in rough weather", Moore explains, "but we train with a margin of safety". As Justin eased (but still with deadly force, it later sank the Kiwi yacht *Queen Charlotte*) the *Independence* and her escorts steamed west, flying off air strikes, seeking battle with the "enemy" RAAF Hornets and fending off the ship-hunting F-111s, so as to cover the combined amphibious force landing at Shoalwater Bay.



Detailed view of the island structure of the USS "INDEPENDENCE". The ship's number, 62, is painted on the island, with a Phalanx 20 mm CIWS just forward. (Photo - Brian Morrison)

For the flight deck crews, this was simply another three weeks of their familiar yet dangerous routine. "Its the most dangerous job in the world", the sailors boast; nearly seventy aircraft, mostly high performance jets, have to take off, land, be refuelled and maintained on the crowded 320 m flight deck. *Independence* may be one of the largest warships in the world, but standing on the flight deck amid the closely parked array of planes, with APUs shrieking and the diesel engines of the flight deck tractors roaring, it is suddenly a very small base for a frontline air force. Just three nights after leaving Sydney, this fact was proved once more; an FA-18 smashed its undercarriage during a catapult take off, but got airborne – despite losing an engine from the damage – and headed for an emergency landing at RAAF Williamtown. The accident sent chunks of metal flying across the flightdeck, hitting one of the catapult crew, who subsequently had to be flown to Sydney for emergency surgery.

On the Front Line

Independence and her crews have been on the front line, both literally and metaphorically, since 1959. The ship's log records the raw facts of history of much of the cold war. *Independence*, currently the oldest active ship in the US Navy, was the fourth of the supercarriers; designed in the first

An F/A-18C Hornet launches an air to air missile off the coast of Sydney (Photo - ABPH Simon Metcalfe)

decade of the cold war to launch the big Skywarrior jet bombers on long range strikes into the Soviet Union, back when the jet bomber was the ultimate weapon and atomic war was thinkable. But, when *Independence* first entered service, the Polaris submarine and ICBMs were making that mission obsolete, instead the super carriers were to prove their enduring versatility in many cold war crises.

In 1962, when the Soviets attempted to install ballistic missiles in Cuba, Independence was part of the naval force that directly imposed the blockade on Cuba and forced the missile-carrying Soviet freighters to turn back. Three years later Independence left the her Atlantic fleet duties for the Pacific and operations off Vietnam. In 100 days on Yankee Station the carrier launched Phantoms, Intruders, Skyhawks, and some of the big Skywarriors and Vigilantes, on strikes against the North. Six naval aviators died during these strikes and nine became prisoners of war – to endure the brutality of the Hanoi Hilton for over eight years. *Constellation*, completed three years after *Independence* and with a number of improvements to her design, played a major part in the Vietnam War, spending three years deployed to the war zone. Her aircrew gained 9 air combat victories for the loss of two killed and two prisoners.

Back with the Atlantic Fleet, Independence stood guard in the Mediterranean during the tense years of the Arab/Israeli wars, and took part in a variety of NATO exercises. The Atlantic was NATO's lifeline, and the US carriers had a key role in deterring and defeating the growing Soviet submarine fleet. Her airgroup changed as the little Skyhawks were taken out of service and the Viking sub-hunters joined the naval air wings, increasing the versatility of the big carriers.

Still active into her third decade, *Independence* took part in the 1983 Grenada operation and then in December that year she launched Intruders and Corsairs at terrorist camps in the Beka Valley in the Lebanon. This strike was a turning point for the attack squadrons, losses to the Syrian air defences convinced the Navy that they needed a practical school, like the famous Top Gun, for strike training. "Strike U" was set up in Nevada and ever since has provided tough and realistic training for carrier airgroups.

Life Extension

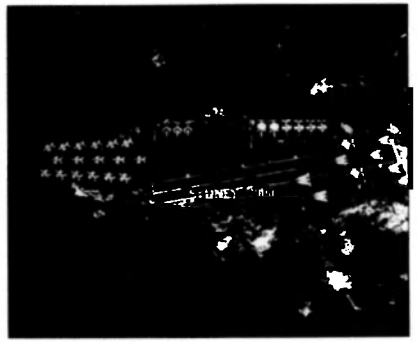
But *Independence* herself was nearing the end of her designed life. The value of the big carriers was unquestioned, yet the cost of new ships was enormous. Even though the USN had the Nimitz-class nuclear powered carriers entering service, it was still cost effective to refit the older carriers. After a long SLEP (service life extension program) *Independence* emerged from the Philadelphia naval ship yard in 1988 refitted and ready for another decade of service. This time she was deployed to the Pacific, home ported in San Diego. In August 1990 Indy (as she is inevitably nicknamed) was at sea in the Indian Ocean when Iraq invaded Kuwait. She was the first carrier into the Arabian Gulf and her airgroup enforced President Bush's "Line in the sand" during Operation Desert Shield.

In September 1991, Indy and all her families moved to Japan. The United States Seventh Fleet has a carrier battle group and air wing home ported in Japan, under the recently reaffirmed US/Japan defence treaty. "We are made welcome there", says Admiral Moore. "The Japanese people are keenly interested in us, and we have no problems like the Marines have experienced on Okinawa". The US Navy's presence in

Photograph taken inside the hangar aboard the USS "INDEPENDENCE". In the foreground are two F-14D Tomcats (left and right) with an F/A-18C Hornet (centre). (Photo - ABPH Simon Metcalfe)

Japan, including visits by nuclear powered ships, is set to continue; when the *Independence* retires next year, the USS *Constellation* will replace her in Yokosuka. *Constellation* is just three years out of her SLEP; she will continue in service beyond 2003.

Since joining the Seventh Fleet, *Independence* has deployed three times to the Gulf to enforce the UN sanctions against Iraq and last year she operated off Taiwan in response to Chinese intimidation during Taiwan's elections. Her career shows the typical demands on America's remaining carriers; it is claimed that the first question from the White House, each time there is an international crisis, is "Where are the carriers?"



An impressive overhead view of the aircraft carrier USS "INDEPENDENCE" as she steamed towards the Port of Sydney. Members of the ship's company have formed the Olympic logo and beneath it, SYDNEY 2000. (Photo - Courtesy USN)

Maritime Battle

On this deployment, *Independence* is flagship of the battle force commander and centre of a powerful and versatile battlegroup. Admiral Moore commands his battle group from an operations room just below flight deck level on the carrier. He also has his own Flag Bridge, four decks above the flight deck, but the battle is managed from the radar scopes and computer screens of the tactical centre. There, Moore, and his Australian counterpart, (Commodore Tim Cox), who embarked with his Australian staff, fight the maritime battle of Exercise Tandem Thrust. Once clear of the Cyclone Justin, the battle group turned west and steamed towards the landing area. Moore explains that the carrier needs sea room: "We stand off some 200 miles, reaching out to the battlefield with our aircraft. We build a sanctuary for the carrier, free from submarines or other threats. Then as we roll back those threats, we can move in closer to cover the land operation."

Submarines are a very serious threat to an aircraft carrier, but Indy's S-3 Vikings and SH-60 Seahawks play a vital part in building that submarine-free sanctuary. The Vikings provide distant anti-submarine cover beyond the escort screen, using sonobuoys to listen for an approaching submarine. Then within the battle group, searching the inner zone, are the Seahawks, with their dipping sonars. During Tandem Thrust they faced HMAS *Otama* and the nuclear-powered USS *Salt Lake City*. The high speed of the carrier is part of her defence, if a submarine wants to attack, it will have to move fast, creating noise that can be picked up by the Vikings. And within the battlegroup, the confusion of undersea noise from the carrier and all her escorting destroyers and frigates, means that the submarine CO will want to come to periscope depth for a visual check; it's then that the Seahawks can pounce.

ASW takes hours, indeed days, of patient teamwork between ships, aircraft and helos. It's one of the warfare areas that smaller navies like the RAN can bring their skills and make a valuable contribution. And it's not a one-sided struggle; the submariners rarely boast, but they have their successes too. At Pearl Harbor in the submarine force HQ, they proudly display a

USS "CONSTELLATION", 23 April. (Photo - ABPH Simon Metcalfe)

trophy from one major exercise a close-up periscope photograph of two carriers and another major warship, taken obviously from well within the screen. Perhaps after Tandem Thrust *Otama* or *Salt Lake City* can add their own photos?

Fast Moving Air War

The air war is the opposite of the ASW battle: fast moving, wide ranging, demanding instant decisions amid the "noise" of information overload. Far ahead of the battle group an E-2C Hawkeye patrols, its powerful radar looking inland and seeking out hostile aircraft. From inside the crowded cabin, air controllers direct the F-14s into long range interceptions.

"This thing is a dinosaur", says Lieutenant Commander Dave Richter, one of the "Black Knights", the aviators of Fighter Squadron VF 154. He's talking about his F-14A, the long range, heavily armed interceptor that has been the mainstay of USN air defence since 1973. With three types of

Post "Tandem Thrust" the command ship, USS "BLUE RIDGE" also visited Sydney. (Photo - Brian Morrison)

missiles and a rapid fire cannon, the two-seat F-14A is well able to take on any opponent. There is a better version, the F-14D, but post-Cold War defence cuts have meant the USN has not been able to reequip all its fighter squadrons with the later model. Constellation's air group is one of the few operating the D-model Tomcats. Richter remarks that he would like to be flying something a lot newer, like the planned Joint Strike Fighter.

The F-14As have an additional vital task. Carrying the TARPs (tactical reconnaissance pods) under their centreline, F-14s provide the battle group commander with up to date aerial photographs of the battlefield. TARPS imagery is always in demand, but only a few of the Squadron's twelve fighters are wired for the reconnaissance pods.

When a target ashore is identified, it is Indy's three FA-18C Hornet squadrons that take centre stage. The thirty Hornets on board the carrier can undertake both fighter and strike roles, but in keeping with their Strike U training, the attack pilots won't go in without an array of aerial support. EA-6B Prowler electronic warfare aircraft will accompany a strike; they will jam and disrupt enemy air defence and firecontrol radars. Hawkeyes will keep a watch over the strike and warn of enemy interceptors; Vikings carrying buddy refuelling systems will be available as tankers to top the strike squadrons, other Vikings from detachment VQ-5 will have conducted the electronic reconnaissance so the Prowlers and Hornets can be fully briefed on enemy defences. In Tandem Thrust the enemy were USAF Eagles and RAAF Hornets, but Indy's pilots have to keep up to date about the capabilities and tactics of a range of potential opponents across nearly half the globe.

Tandem Thrust took place just five weeks into a four month deployment which will take the carrier into the Indian Ocean and then north for a series of port visits throughout South East Asia. "Our goal is visibility", says Admiral Moore, "our mere presence at times helps to stabilise situations".

Building for the future

Today the USN has 12 super carriers in service, eight of them nuclear powered with the most recent being commissioned in December 1995. The *Nimitz* class carriers will be the heart of the US Navy's battlegroups for the next 50 years, two more are under construction and a tenth ship of the class is planned for building by 2008.

This huge investment in sea/air power means that the manned aircraft will also play a key part in the US Navy's future. Despite the growth in small robot reconnaissance drones, the US Navy is committed to a new generation of naval aircraft, with the FA-18E/F being the first of a new series of versatile and stealthy fighters.

But the end of the Cold War has meant major force reductions too; since 1991 the United States has taken six super carriers out of service, with the *Independence* due to retire next year. *Constellation* will serve for nearly ten more years. It will be 1999 before the next new carrier commissions, the US has ordered only sufficient new ships so as to maintain its sole carrier building yard.

And the US is not alone in maintaining a carrier force. France has launched its first nuclear powered carrier, the *Charles de Gaulle*, while Russia, amid the whole-sale scrapping of much of the former Soviet Navy, has still maintained its one large-deck carrier, *Admiral Kuznetsov*. Britain, of course, went to smaller Harrier-Carriers; one of its three, HMS *Illustrious*, is leading this year's Ocean Wave task force which is presently deployed to the Asia Pacific region.

By the time this is published, *Constellation* will be near the end of her Indian ocean deployment, having operated in the Gulf and around the Arabian Sea. *Independence* will be heading north from her South East Asian duties. Between them, the two carriers provide the proof of America's commitment to regional security; the embodiment of the Seventh Fleet motto: "Ready Power for Peace".

Sidebar: The Value of Port Visits

This year Sydney will host over a dozen US warships, including *Independence*, *Constellation*, and the huge amphibious ship USS *Essex*. Other ships, including the nuclear-

A busy day! USS "ESSEX" arrives as two RAN FFGs sail from harbour. (Photo - Brian Morrison)

powered carrier USS *Carl Vinson* and nuclear-powered cruisers, have visited Melbourne and Hobart, while Fremantle frequently sees ships from the US Navy's Indian Ocean task forces. After Exercise Tandem Thrust every major port on Australia's east coast had at least one US warship visit, in fact with the disruption to commercial shipping by Cyclone Justin there were barely enough berths available for all the visiting ships.

For the Americans, port visits mean rest and recreation for the crew and a chance for families to fly out and join their spouses for a few days during an otherwise long, lonely deployment. Some 50 wives had come to Sydney from Japan to met the *Independence*, others were there for the accompanying destroyers. But the port visit also means a round of diplomatic and official visits – the Flag Officers and Captains face an intense program of calls and receptions. Then there are the community activities, sports, visits to the ship by community groups and service clubs, and support by the sailors for local charities.

Constellation has a group of clowns, who are in demand from childrens' hospitals and orphanages wherever they go. On Anzac Day, 200 sailors from *Constellation* and her escorts marched in the Sydney Anzac day parade, many young

AO200, the other USS "TIPPECANOE". (Photo - Brian Morrison)

American sailors are now better aware of Australia's distinguished war record. Both carriers were also opened to the public, 40,000 people queued to board Connie in one day, *Independence* attracted over 70,000 people over two days.

For the RAN, the port visit facilitates exercise debriefing and professional discussions. "We may lack the technological edge of the Americans" says Commodore Cox, "but the exercises improve our ease of integration into a multi-national force, and help us prove our doctrine". Informal discussions and visits continue, between the battlegroup and RAN ships, while friendships are renewed between the two nations' sailors.

For Sydney, the carriers' visits pump some ten million dollars into the local economy. As well as the personal spending of 5,200 sailors from each carrier, there are the valuable official contracts; on the day of her arrival, 14 semi-trailers were lined up on the wharf with food, supplies and freight for *Independence*.

Oh, and there was a brief protest. Just 12 protesters, including a fool on a surfboard, tried to impede the berthing of *Independence*. Their motives were confused; one was protesting the possibility of nuclear weapons on board (he wasn't aware of the 1991 decision to land naval nuclear warheads) and others thought they were protesting about damage to the Great Barrier Reef (although the exercise was carried out under strict environmental controls). But when the USS *Constellation* came in a month later, on her way to an Indian Ocean deployment, there was no protest at all. Rather, Sydney's preserved Constellation airliner and a bevy of news helicopters welcomed the Connie for her Anzac weekend visit. ■

The RAN and Maritime Airpower

By Navy Leaguer

Fifteen years ago, in 1982, the RAN lost its aircraft carrier and its organic fixed wing aircraft. These were A4 Skyhawk jet strike fighters and S2 Tracker twin engined anti-submarine aircraft.

At the time, the Navy League fought hard against what was unquestionably a substantial reduction in the fighting capabilities of both the RAN and the Australian Defence Force.

A decision on the future of fixed wing naval aviation was necessary because the aircraft carrier HMAS *MELBOURNE* needed replacement. Potential replacements were either too expensive in themselves or necessitated a new generation of aircraft – the Sea Harrier short take off and landing type.

Although cost was a factor against a new aircraft carrier, the major arguments were that such a ship was unnecessary for the defence of continental Australia, its offshore territories, its coastal shipping routes and its territorial waters. A less logical, but influential, factor in some quarters was that aircraft carriers were perceived as symbols of maritime expansionism. The aircraft carrier had replaced the battleship as the maritime ogres of the 20th century.

Nevertheless, the decision left the RAN without fighter defences and without a blue water long range strike capability. The RAAF's F/A-18 A/Bs have neither the range nor the availability to provide fighter cover for the RAN.

Thus 1983 marked the nadir of the RAN's Fleet Air Arm. This applied not only to fixed wing flying but also to ship borne helicopters. Although about 10 Sea Kings and a number of Wessexes remained in service, no warships were capable of operating either type.

Since that time, the Wessexes have retired but the RAN has acquired 16 Sikorsky S-70B2 Seahawks. These are excellent aircraft, for surveillance, over the horizon targeting and for anti-submarine work (although they lack a dunking sonar). Seven Sea Kings remain in service for utility duties. There are a also six Squirrels for support work, while eleven Kaman Super Seasprites SH-2G(A)s are on order.

The Seahawks are fully integrated into the combat systems of their parent ships. That is, they operate as part of their parent ships' armament and provide a massive extension to the Fleet's fighting capabilities. Their full integration has been enhanced by discontinuing the practice of disembarking helicopters each time their parent ships enter a naval port. Instead, helicopters remain on board except for major maintenance etc.

Turning to helicopter capable ships, by 2004 all major RAN surface combatants will be equipped with integrated helicopters. The proposed offshore patrol combat combatants, due to enter service about then, will also have fully integrated helicopters.

A growing number of other naval ships will also operate helicopters. HMAS *SUCCESS* and *TOBRUK* already do so. The LPAs *KANIMBLA* and *MANOORA* will do so, as will the new hydrographic ships *LEEUWIN* and *MELVILLE*.

Thus, the RAN's helicopter Fleet Air Arm is alive, well and growing. However, apart from a pair of shore based HS-748 electronic warfare training aircraft, the RAN has no fixed wing aircraft and no plans to even consider their acquisition.

To replace as far as possible the defensive fighter capability previously provided by the Skyhawks, the RAN has underway plans for a "layered" defensive system:

- close range Phalanx type rapid fire guns are already at sea with some RAN ships, with others fitted for but not with these weapons.
- Sea Sparrow short range missiles in the Anzacs, to be succeeded by evolved Sea Sparrow in the Anzacs and fitted in the FFGs
- Standard SM-1 medium range missiles, with some area defence capability in the FFGs and DDGs
- Standard SM-2 long range area defence missiles to be fitted in the Anzacs
- A range of counter measures, including Nulka active off board decoys

These capabilities will be substantially enhanced when the RAAF gets its planned airborne early warning and control aircraft, although it must be questioned whether, with a maximum of only six AEW & C aircraft, if any will be available for operations with the fleet.

This still leaves the RAN without its long range defensive capability – the ability to destroy attacking aircraft before they

RAN S-70B-2 Seahawk helicopter

Seasprite helicopter

get close enough to launch their weapons against the Australian Fleet. It also leaves the RAN with no shore strike capability and an anti-ship strike capability limited to Harpoon surface to surface missiles launched from surface ships and submarines. This will be augmented when the Super Seasprite helicopters become operational with their Penguin missiles.

Therefore, fifteen years after the carrier cancellation decision, it is appropriate to consider whether a case should be made for an aircraft carrier and carrier borne fixed wing combat aircraft.

During the past 15 years, there have been calls from outside the service for the RAN to acquire an aircraft carrier. The RAN itself has not pursued these for several reasons. The first was that, under the democratically elected government of the day, there was no prospect of budgetary approval. This difficulty was aggravated by entrenched relentless opposition within the defence community. It was, and is still, argued that an aircraft carrier is unnecessary for the defence of continental Australia, it offshore territories and resources, its coastal trade and territorial waters.

The second reason was a lack of the necessary management and personnel resources.

During the last ten years, the RAN has started construction of three new generations of warships – the Collins class submarines, Anzac class frigates and Huon class minehunters, in addition to a number of smaller new construction and modernisation projects, the amphibious transports *KANIMBLA* and *MANOORA* being the largest examples.

The first three particularly involved major technological jumps, with new combat and propulsion systems and many new types of sensors and weapons. The management of these acquisition projects requires a large number of skilled personnel. The specialised collective and individual training of the crews absorbs large numbers of people.

On top of that, the past 15 years has seen the retirement or transfer to other duties of virtually all the RAN's fixed wing aviation personnel – both flying and ground support. The RAN has lost its fixed wing aviation skills.

To start again with a new fixed wing Fleet Air Arm would be a major undertaking, requiring up to a decade.

It can be argued that the RAN can be provided with a very long range precision shore strike capability by arming the Collins class submarines and Anzac class frigates with Tomahawk high explosive tipped cruise missiles.

The Tomahawk strike capability would be more effective and be infinitely cheaper than a carrier borne strike capability.

Turning to fighters, economics would require the RAN to acquire STOVL type aircraft. The life of type of the current generation of Sea Harriers/AV-8B II will expire by 2015. A new generation of vectored thrust aircraft – the joint strike fighter – is currently being developed in the United States, with British participation.

However, the joint strike fighter is still in the early stages of development.

Further, there are those who argue that unmanned aerial vehicles (UAVs) will provide a cheaper and smaller alternative to manned fixed wing aircraft.

It can be argued that it would be imprudent for the RAN to press for a fixed wing fleet air arm until it is certain that a viable new generation of fighter will be available.

However, one step can be taken that would cost no extra money and would provide a potential seagoing platform for UAVs. When successors are selected for *KANIMBLA* and *MANOORA*, these should have full length flight decks in addition to the hangars they will have in any case for their troop lift helicopters. ■

What's in a Name

The Naming of RAN Units
By Joe Straczek

To most Australians the names of some Australian naval vessels are instantly recognisable. Names such as *SYDNEY, MELBOURNE, VENDETTA* and *ANZAC*. Other names such as *CERBERUS, HARMAN* and *NORMAN* may not be as easily recognisable. Whilst a third group of *ELEPHANT, WAG* and *COCKROACH* would only draw blank stares. Yet all of these are names which have graced the pages of Australia's naval history. If these are all names of naval vessels how were they selected and why? In this the first of a two part article the current RAN naming principles and procedures will be explained. Part two of this article will explain the origins of most of most of the named vessels which have served the RAN.

Until 1995 there was no formalised system of naming RAN vessels, though in the main an informal system existed. This informal system saw the RAN retain names of Royal Navy ships on loan to Australia and for its major ship classes use the names of cities or towns or perpetuate a system of distinctly Australian names, such as the River Class. In 1995 all this changed with the introduction of a Defence Instruction (Navy) detailing principles to be followed for naming various types of naval vessels.

This Defence Instruction states that:

- Surface combatants are to be named after Australian cities, towns, districts or previous ships of the type.
- Submarines would carry names with an Australian connection or names of previous naval vessels.
- Survey and other marine science vessels would be named after large coastal or off-shore features, such as islands, individuals who have contributed to the knowledge of our maritime environment or previous Australian vessels employed in the marine science role. Smaller attached marine science craft may also be named after foreign vessels which have contributed to the exploration of Australia's coast.
- Amphibious warfare ships are to be named after Australian combined operations or previous ships of the type.
- Mine warfare vessels are named after Australian rivers and bays or previous vessels of the type.
- Support ships are named after previous support ships or naval establishments.
- Tugs and harbour craft are to be named after Australian flora and fauna or previous vessels of the type.
- Commissioned and non-commissioned establishments could carry names which were connected with either the area the establishment was located or the function of the establishment. They could also carry a name that had been in previous naval service.

The RAN oiler "SUCCESS" is named and then launched in March 1984.

The instruction also provided guidelines for the use of the name AUSTRALIA. This name was reserved for a large vessel which due to its role would have a high national and regional profile.

With the foregoing in mind the actual process of selecting a name is relatively simple. Once a requirement to name a particular type of vessel arises the Senior Naval Historical and Archives Officer, located within the Department of Defence, prepares various lists of potential names. Where ship associations have been campaigning to have a name selected, these names are also included, providing they meet the criteria for that type of vessel.

These prospective names are forwarded to the Chief of Navy with a recommendation and justification for a particular selection. The Chief of Navy then decides on which names to select. If the names are for minor war vessels and smaller support craft the Chief of Navy will advise the Minister for Defence of his selection. Should the names, however, be for major vessels or part of a significant project then these names are recommended to His Excellency the Governor-General for approval. This is done through the Minister's office.

Given the strong interest shown by ship association in perpetuating ship names, names selected for new craft are usually announced shortly after the announcement of the successful tenderer to built the new ships. This can sometime be up to five years before the ship actually enters service as is the case with the Anzac Class frigates and Collins Class submarines.

Part two of this article will detail the origins of many of the names used by RAN ships over the years. ■

Naval News

Seahawk Upgrade

The Minister for Defence, Mr Ian McLachlan has announced that Hawker de Havilland Victoria Limited has been selected as the preferred tenderer to acquire and to integrate forward looking infra-red, electronic support and countermeasures equipment for Australia's 16 Seahawk helicopters.

The Hawker de Havilland proposal offered the best all round value for providing a sensor suite to enhance the protection and combat effectiveness of the Seahawk helicopters, which are operated from the six RAN Adelaide class frigates.

The selected equipment will be fully integrated into the aircraft's weapon system to detect and identify potential threats, and to avoid or counter them. These systems will operate at over the horizon distances, in all weather conditions, day or night. The same equipment will be used where feasible for both the existing Seahawks and the new Super Seasprite helicopters, which are planned to be acquired from Kaman Aerospace of the USA.

While component equipment will be sourced from overseas companies, Australian industry will integrate and install the systems into the helicopters. Hawker de Havilland Victoria Limited will be the prime contractor and will conduct most of the installation work in Australia. The new equipment is planned to be operational in the Seahawk helicopters by 2002.

Survey Crews to Maximise Availability

The new hydrographic vessels, to be named HMA Ships "LEEUWIN" and "MELVILLE", will be manned by three crews to maximise the ships' availability, the Hydrographer, CDRE Bob Willis, said in May.

He was speaking on 9 May, before laying the keel for the second of the two new ships being built under a $214 million contract with NQEA Australia Ltd in Cairns. Defence's requirement was for the ships to be available some 300 days per year – double most other Fleet units.

Apart from the requirement for extra crews – ships's company will be about 47 per vessel – NQEA are factoring the high availability requirement into the ships' design and maintenance plan. The contract price includes a follow-on support contract in Darwin to be managed by NQEA for five years from the time they enter service.

"The 71.2 metre, 2550 tonne ships, *MELVILLE* and her sister ship, *LEEUWIN*, will significantly enhance the data gathering capabilities of the RAN Hydrographic Service," CDRE Willis said.

"They have been designed to operate in the open ocean, in a variety of weather and sea conditions. Their state-of-the-art sensors and systems will enable them to be manned by crews far smaller than their predecessors. Their hydrographic suites include multibeam and single beam echosounders, plus towed and forward looking sonars. These will be integrated with satellite and terrestrial position fixing equipment in a complex survey system.

"They will be capable of providing depth and positional information that meets the stringent quality requirements to the International Hydrographic Organisation."

The Hydrographer said the reason for basing the new ships in Darwin is that most of their work will be in the northern sea approaches to Australia.

"*MELVILLE* will conduct survey missions for both defence and commercial purposes" he said, "we need to ensure freedom of manoeuvre for our warships in the poorly charted waters to our north, but we also recognise the need to ensure safe passage for merchant ships in Australian waters.

"Oil and mineral exploration and export continue to flourish in the remote areas to our north and north-west, hence the priority on survey operations in that region."

Captain Les Pataky is presented with the "Diggers Hat".

HMAS "ANZAC" Digger's Hat

On Saturday, 19 April, Mr John Newman, Chief Executive Officer of Australian Marine Technologies presented the Commanding Officer HMAS "ANZAC", Commander Les Pataky RAN, a bronzed sculpture of an ANZAC's hat.

The hat, 25% larger than normal size, was designed by Canberra sculptor Mr John Ahearn and was based on the original hat as worn by the Australian Light Horse Regiment during the Great War.

Mounted on a special fitting above the ship's bridge the hat will become a significant and easily recognisable feature of the ship. Presented in the week leading up to ANZAC Day the presentation was especially significant in linking the RAN's most modern warship with a significant military event.

The presence of the hat will also help to symbolise the RAN's involvement and

contribution at Gallipoli, a campaign upon which much of Australia's military heritage has been built.

'ANZAC' designers Australian Marine Technologies and parent company Blohm+Voss presented the beaten copper sculpture of an Australian Light Horse hat, complete with genuine emu feathers. The hat, one-and-a-quarter times full-size, was an exact replica of the hat the Light Horse wore on to Gallipoli and will be mounted above the bridge for entering and leaving port.

"The ship that carries the name ANZAC rightly represents the spirit and perpetuates the memory of the brave ANZACs who fought for Australia and New Zealand on the Gallipoli peninsula, the sands of Palestine and the muddy fields of France and Flanders," Mr Newman said.

The sculpture came about following 'ANZAC's launch last year, when a number of members of the ANZAC Association were comparing ships. Accepting the work on behalf of the company, CO CAPT Les Pataky said the hat would become a treasured part of the frigate's fittings.

When the second *ANZAC* entered service in the early 1950s, it proudly displayed a copper replica of a World War I Australian digger's hat mounted on its aft mast. It went missing half-way through the ship's career.

"The ship that carries the name ANZAC, rightly represents the spirit and perpetuates the memory of the brave ANZAC's who fought for Australia and New Zealand on the Gallipoli peninsular, the sands of Palestine and the muddy fields of France and Flanders. It is fitting that their bravery is remembered today aboard their ship HMAS *ANZAC* with one of their hats they wore into battle".

Collins Memory Honoured

Thursday, 13 February 1997 saw a special presentation in the (Admiral) Collins Room of the Melbourne Naval and Military Club. A Naval Sword and Cutlass, suitably mounted in a glass case were presented to the Club by the Victoria Division of the Navy League of Australia and unveiled by two of Collins old shipmates, Commodore Ian Purvis RNA and Commodore Dacre Smyth RAN.

Before jointly unveiling the presentation Sword and Cutlass, the Commodores entertained the assembled members of the Navy League and the Club with short stories about their respective service under their old shipmate.

CMDR John Wilkins, President of the Victoria Division of the Navy League of Australia, handed the President of the Naval and Military Club, CMDR Paul Willee, the League's specially prepared 12 page commemorative presentation folder containing a coloured graphic of the Naval symbols surrounding Collins' life and his illustrated life resume.

The Club Collins Room now contains a framed portrait of Sir John Collins in full uniform and a 24ct gold plated ex Naval mess centrepiece commemorating the 75th Anniversary of the RAN and RANR. Both are complemented by this addition of a mounted Officer's Sword and Sailor Cutlass, in honour of the memory of one of Australia's great Naval Officers and the first Australian to be appointed Chief of Naval Staff and First Naval Member in 1948 - the date that Australia's Navy came of age.

Commodores Ian Purvis and Dacre Smyth unveil the sword and cutlass.

'A Stealthy Frenchman'

The arrival of France's guided-missile frigate FNS "LA FAYETTE" (F710) into the Port of Fremantle on 20 April turned many heads as she passed through the heads.

Looking more like a futuristic 'star wars' mock-up of a warship than a current day operational fleet unit, the FNS *LA FAYETTE* was certainly 'different'.

The first of Frances' new generation 'stealth ships', her superstructure is inclined at 10 degrees at the vertical

"LA FAYETTE" prepares to come alongside H berth, Victoria Quay in Fremantle.

to reduce her radar echoing area with external equipment such as capstans, bollards and liferafts, either concealed or installed as low as possible. Onboard all surfaces are rounded instead of angular, and the ships' boats are normally hidden by large roller-doors.

Radar absorbent paint is used extensively on the 125 metre long frigate which displaces 3800 tonnes. *LA FAYETTE* was commissioned in January, 1995 as the lead ship of a class of six, three of which are destined for the Indian Ocean.

To watch ports opening along the length of the ship as she prepared to come alongside, reminded onlookers of the days of sail with the difference being numerous heads with

berthing lines appearing from the ports instead of cannons. It was an interesting evolution.

Commanded by Captain Darbonneau, *LA FAYETTE* carries a complement of 139 plus 12 aircrew and 12 marines. Armed with Exocet missiles, a 100 mm gun and several smaller, *LA FAYETTE* also carries a Panther helicopter.

The combined diesel/gas powered FNS *LA FAYETTE* made a fitting 'stealthy' departure, sailing at 2100 on the following Wednesday after her three day stopover.

HMS "PEACOCK" with a Wessex helicopter and some Tall Ships.

Far East Base Decommissions

"You do not leave in the darkness nor in the pomp of pride, but in the quiet dignity of men and women who have done their job well," Governor Chris Patten told more than 200 Royal and Navy personnel on parade as the White Ensign was lowered for the final time over HMS "Tamar".

The Royal Navy's last remaining shore base in the Far East held its final Divisions on Friday 11 April – exactly 100 years to the day since a vessel of that name first arrived in Hong Kong waters as an accommodation ship.

The Governor, accompanied by First Sea Lord Admiral Sir Jock Slater, who had flown in especially for the occasion, Commander British Forces Major General Bryan Dutton and Chief of Staff Cdre Peter Melson inspected the Divisions, to music provided by the Band of the Royal Marines.

The ceremony brought to an end a 156-year association between the Royal Navy and Hong Kong. It was, said Admiral Slater, a beginning of a new era ... I very much hope that after 30 June, it will not be long before ships of the Royal Navy revisit Hong Kong and give us the chance to renew links with the many, many friends we have here."

HMS *Tamar*, a name synonymous with the China Station, first arrived in Hong Kong on 11 April 1897. The fourth ship of that name, she was secured to a buoy in Victoria Harbour and then moved alongside the west wall of the newly reclaimed dockyard in 1913, where she remained until the Second World War. When it became clear that Hong Kong would fall to the Japanese in December 1941, she was scuttled – a sad end to an unglamorous career.

The new HMS *Tamar*, and fifth in line, was commissioned in 1946 and between 1959 and 1962 a modern naval base was established. The continuing reclamation of the north shores of Hong Kong Island, including the former Victoria Basin, necessitated the relocation of the Royal Navy's shore establishment to Stonecutter's Island in May 1993, from where it has since operated, in support of the three ships of the Hong Kong Squadron.

The Hong Kong Squadron will remain on duty in Hong Kong waters up to, and including, 30 June, supported by a rationalised naval operational unit. Once their duties in the territory are complete, the three ships will be sold, subject to negotiation, to the Philippines.

"Gloucester" Visit

Sydney has hosted a rare visitor, the Royal Navy frigate HMS "GLOUCESTER" which berthed alongside from 19 May on an eleven day goodwill visit.

GLOUCESTER had departed England in January as part of Ocean Wave 97, the deployment of a RN Task Force to the Asia Pacific region. The ships of the Task Force visited ports throughout South East Asia and exercised with regional navies before returning to England in August.

Displacing 4,675 tonnes, the 141.1 metre long *GLOUCESTER* carries a crew of 301 officers and sailors under the leadership of Commander T. A. Cunningham.

Designed for surface, sub-surface, and anti-air warfare operations, *GLOUCESTER* is equipped with anti-submarine torpedoes, anti-aircraft missiles, a 4.5 inch gun and a Westland Lynx helicopter.

HMS "GLOUCESTER", 19 May, 1997. (Photo - ABPH Annamaria Aldworth)

RADM Campbell hands over the Daring Class destroyer "VAMPIRE" to the National Maritime Museum.

VAMPIRE Handover

On 9 April, RADM David Campbell formally handed over the destroyer "VAMPIRE" from the Royal Australian Navy to the Australian National Maritime Museum.

On hand at the special occasion were The Hon. Bronwyn Bishop, Minister for Defence Industry, Science and Personnel, Ms Kay Cottee, Chairman of the Australian Maritime Museum, former Commanding Officers and Dr Kevin Fewster, Director of the Australian Maritime Museum.

RADM Campbell said that "in her 27 years of active service, *VAMPIRE* was always a special ship. Many Admirals and Commodores once commanded her and half of today's serving admirals spent some of their lives in *VAMPIRE*".

"I have mixed feelings today; I feel like the father of the bride. Having served in *VAMPIRE* as a Midshipman and having been associated with her for such a long time, I am sad to be giving away a family member but, at the same time, I feel mighty relieved that she is now someone else's financial responsibility", he added.

On completion of the hand over, the Australian Red Ensign was lowered, and the Australian White Ensign raised in its place. The Chief of Navy and a former Commanding Officer of *VAMPIRE* himself, Vice Admiral Rod Taylor, had given special permission for this, the first time that a non-naval ship has been allowed to fly the Australian White Ensign.

"However, although she may trick passers-by into thinking she's still a commissioned ship in the Royal Australian Navy, she has only a partial suit of colours, and does not wear the masthead commissioning pennant that is also necessary to legally bind her as one of Her Majesty's Australian Ships. But as I'm sure you'll agree, the White Ensign will make her seem properly dressed," RADM Campbell said.

Minister Bishop then officially handed over Ex HMAS *VAMPIRE* to the Australian Maritime Museum.

ANZAC Spirit Lives On

HMAS "ANZAC", first of the Anzac class frigates completed for the Royal Australian Navy, sailed from Sydney on 17 May for a three month deployment, including missile firing trials at the Pacific Missile Firing Range off Hawaii.

For her harbour departure, two of the ship's company dressed in military uniforms as worn by members of the RAN Bridging Train at Gallipoli, and a representative sailor's uniform as worn by the ship's company of the original HMAS *ANZAC*.

The RAN Bridging Train was formed in Melbourne in February 1915, consisting of mainly Naval reservists with a good knowledge of engineering. Amongst the first Allied troops ashore at Gallipoli, the RAN Bridging Team was employed throughout the campaign, constructing and repairing wharves, salvaging sunken ships and maintaining fresh water supplies.

The Bridging Train was the last of the original ANZACs to leave Gallipoli at 0430 on 20 December 1915.

Kiwi Frigate Launched

The fourth ANZAC ship and the second for New Zealand is in the water.

She was launched by the Maori Queen, Te Arikinui Dame Te Atairangikaahu, in the presence of Prime Ministers and Defence Ministers of New Zealand and Australia at Williamstown on 10 May.

"I name this ship *TE MANA*. God Bless Her and all who sail in her!" Dame Te Ata proclaimed before releasing the traditional bottle to smash on the bow of the 2,000 tonne frigate.

Speakers, including the Group Managing Director of Transfield Defence Systems, Mr Paul Salteri, said the launch brought together the elements of power, authority and status inherent in the name *TE MANA*.

After congratulating the company and workers responsible for production of the new ship, Prime Minister Howard said the launch was a reminder to Australians and New Zealanders of the importance, "... even in this post-cold war era of the importance of significant defence capability".

He said the sacrifice of men and women of Australia and New Zealand in earlier battles produced a debt.

"We owe them and one of those debts, of course, is to maintain a constant surveillance about the security of our region," he said.

While the first of class, HMAS *ANZAC*, is progressing towards full acceptance into Naval service, *TE KANA*, the first of the new ships for New Zealand is nearing completion and due to sail for home in June.

The fitout of ANZAC Ship 03, *ARUNTA*, is continuing with the ship alongside at Williamstown.

Warships Return from Northern Waters

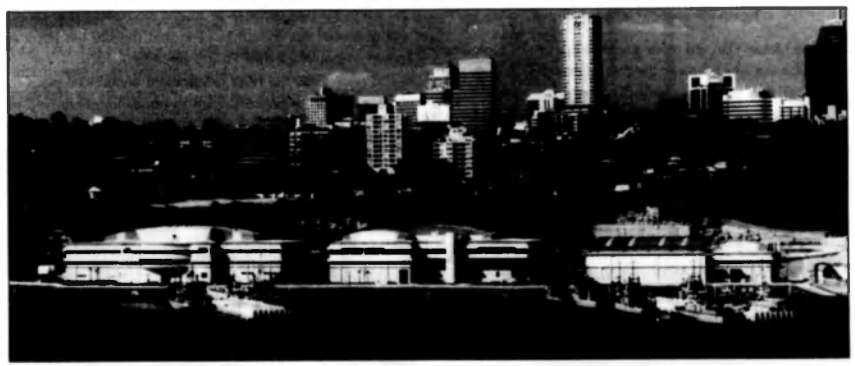
The guided missile destroyer HMAS "BRISBANE" and guided missile frigate HMAS "MELBOURNE" returned to Sydney on 23 May. A large number of friends and families were on hand to welcome home more than five hundred officers and crew.

Since sailing in February, the 4700 tonne destroyer and 4100 tonne frigate visited numerous South East Asian countries and took part in several major international exercises. In March both ships participated in the Exercise Tandem Thrust 97, battling Tropical Cyclone Justin and exercising with a number of other RAN and US Navy warships off northern Queensland, prior to departing for South East Asia.

Next month saw both active in Exercise Flying Fish off Singapore with ships and aircraft from Malaysia, Singapore, New Zealand and the United Kingdom. After a short visit to Singapore, the ships visited Lumut, Surabaya, Pulau Tioman and Phuket, conducting goodwill port visits and exercising with several regional navies. ■

USS PAUL "HAMILTON" berthing in Fremantle 21 April. To the right is the USS "FLETCHER". (Photo - Vic Jeffery)

Working out of Cairns and rarely seen in southern ports, the survey vessel HMAS "FLINDERS" was 'captured' in early 1997. (Photo - Brian Morrison)



The mine counter measures base HMAS "WATERHEN". The two large piers and shoreside buildings were officially opened in April 1997.

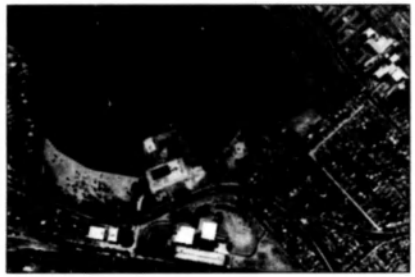
USS "INDEPENDENCE" sails from Australia for the last time, out of Fremantle on 16 April. The ship is due to decommission in 1998. (Photo - Vic Jeffery)

USS "FIFE", arrives in Sydney after exercise "Tandem Thrust". (Photo - Brian Morrison)

TULLOCHS of BRAYS BAY

The Search for Brays Bay Second World War Vessels and Relics

In late 1995 the Department Of Urban Affairs and Planning (DUAP) commissioned the Sydney firm of landscape architects, Pittendrigh Shinkfield and Bruce, to develop a Master Plan for the Philips site in Brays Bay, Sydney. The site is located on Concord Road between two existing parks, Rhodes Park and McIlwaine Park on the Rhodes Peninsula.



Aerial view of Brays Bay, Concord. The former Philips site is defined by the concrete platform jutting into the bay.

The Master Plan will guide the development of a park on the Philips site which links to the two adjoining parks to create a popular and visually prominent open space area on the foreshore of the Parramatta River. It is intended that the new park, to be called the Brays Bay Foreshore Park, will draw upon the site's industrial history, in particular its naval and Second World War shipbuilding past.

The site's industrial history began in 1915 with the founding of Tulloch's Phoenix Ironworks which initially manufactured a broad range of engineered goods. During the war, production was diverted to the construction of military vessels when Tulloch's was designated as the Commonwealth Shipbuilding Yard No. 4. The shipyard became one of only a few facilities in Australia to build steel vessels, with most similar facilities (particularly in Sydney) building timber vessels.

It was during this period that reclamation works on the Philips site increased the land to four times its original area. Reclamation facilitated shipbuilding operations and included the addition of structures including two slipways, a crane and a range of temporary buildings.

One of the distinctive vessels constructed at Tulloch's during this period was the 120 foot (36.58m) steel cargo vessel, designated in the Australian Navy (RAN) as Motor Stores Lighters (MSLs), Motor Refrigeration Lighters (MRLs) or Motor Water Lighters (MWLs).

These vessels were:

"designated by the Australian Shipbuilding Board following a requirement from the United States of America Forces in Australia (USAFA) for a self propelled oceangoing lighter. Ships of this type were built for the Royal Australian Navy, Australian Army and RAAF, in addition to the Americans. This design turned out to be the most important of the 'standard' cargo vessel designs prepared by the Australian Shipbuilding Board during the Second World War and built in large numbers.

Prefabricated sections for 120 foot steel cargo vessels were built at structural steelyards at a variety of locations, however assembly and fitting out was limited to the State Dockyards at Dyke End, Newcastle, Tulloch's at Rhodes in Sydney and Goodwins at Port Kembla in New South Wales, Johnstone's Tyne Foundry in Melbourne, Victoria and Structural Engineering Co. at Perth in Western Australia."

Source: Navy Public Affairs

At least 11 of these vessels were built at Tulloch's Yard. All of the ships ordered for the Army were given names beginning with 'E' e.g. *EVELYN, ENCHANTRESS, ELLEN* etc.

In the years after the war the site was used for a variety of industrial purposes. Tulloch's was forced to close in 1974 and it was at this time that Philips industries acquired the site. Philips activities on the site included electronic manufacturing and it is due in part to the large 'Philips' sign on the river-facing wall of a now demolished building that the site has become known colloquially as the 'Philips' site.

In early 1985 the NSW government announced plans to acquire the site as part of a plan to return foreshore land to

Motor lighters under construction at Tullochs in the Second World War

MRL 251 is launched into Brays Bay on 10 February, 1946.

public ownership. All structures were demolished in 1987 and since that time the site has remained virtually unoccupied. It is now owned by the Department of Urban Affairs and Planning who view it as an important open space asset for recreation and foreshore access improvement as outlined in the Parramatta River Foreshores Improvement Programme (Department of Planning 1995).

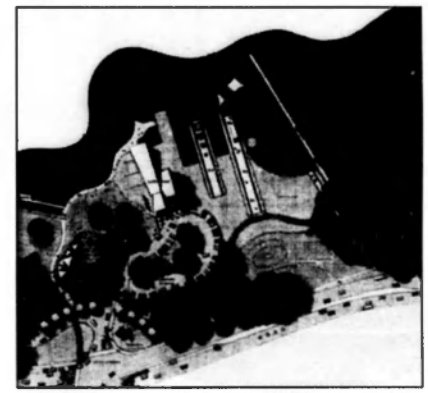
The current proposal for the Tullochs/Philips site is illustrated in the Brays Bay Foreshore Park Masterplan (see image). The Masterplan seeks to transform the site into a public park based on an interpretation of the site's wartime shipbuilding past and using actual shipbuilding elements once manufactured at the Tulloch's yard. The park will link thematically with Rhodes Park which features a Memorial Walkway to those who fought on the Kokoda Trail.

DUAP is currently seeking information on the known whereabouts of any surviving lighters with a view to acquiring a vessel, or relics thereof, e.g. the fore and aft gantries.

It is intended that the dismantled parts of MRL, MSL and MWL vessels will be used as sculptural elements within the new Park and will form the basis for a reinterpretation of the Philips site's shipbuilding past.

In addition there is the potential to incorporate relics/photographs etc. into interpretive material on permanent or rotational display. The Masterplan also provides for educational opportunities through the provision of a staffed information centre and approximately 24 interpretive memorial stations associated with the Kokoda Trail Memorial Walkway.

The Army's A.V. 2056, named "EVELYN".



Plan of the proposed foreshore park. Note the slipways and shipyard relics to highlight the area's shipbuilding past.

It is envisaged that the search for the wartime lighters and associated relics, already underway, is just the beginning of an ongoing revival of the Philips site's significant past.

Any reader of *The Navy* magazine who can assist the Department of Urban Affairs and Planning in locating or obtaining one of the original eleven lighters or other items e.g. peg top buoys manufactured by Tulloch's (or any of the four other shipyards listed in the quote above) please contact:

Mark Blanche
Pittendrigh Shinkfield and Bruce
Landscape Architects
Phone: (02) 9906 4500
Fax: (02) 9906 4479

The current search and potential for display within the highly prominent proposed Brays Bay Foreshores Park on Parramatta River, provides the opportunity for an increased appreciation of Sydney's Second World War shipbuilding past. Any assistance in finding items suitable for display will therefore be greatly appreciated. ■

New Port Services and Support Craft Contract

The Sydney-based joint venture Serco-P&O has bid successfully for a contract worth about $300 million to provide port services and support craft to the Navy for 10 years from mid-1997.

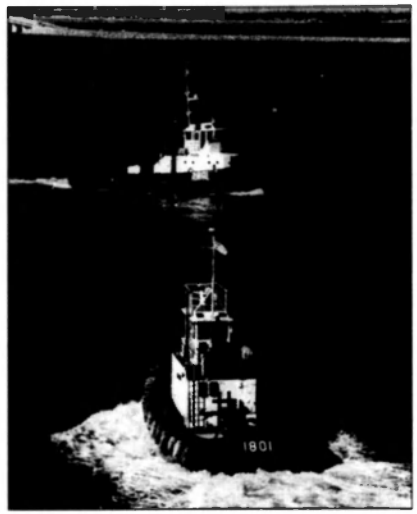
The Navy announced in late April that the joint venture would provide a wide range of services, some of which would directly affect the operational efficiency of the Australian Fleet.

In common with other Defence commercial support program (CSP) contracts, the devolution of the services from the Navy to private enterprise will represent a considerable saving to the taxpayer - in this instance of around $80 million over the term of the contract.

However, this CSP contract will be different from others awarded previously by the Navy because the operational efficiency of the Fleet will depend to some extent on the performance of the contractor.

Another difference is that it sweeps into one contract diverse area including capital acquisition, logistics, maintenance, port service operations, Fleet support and training support; reflecting the Navy's confidence that Australian industry will be able to deliver a wide range of essential services.

A Navy spokesman said the Navy Port Services and Support Craft Project had carried out a rigorous evaluation of bids from a variety of consortia together with an In-House Option (employees currently providing the services from within the Navy and Public Service).



For $300 million (at 1996 prices), Serco-P&O will provide services which will be in evidence in ships and establishments through the RAN. These include:

- Tug services and target service for surface gunnery training;
- Torpedo recovery and weapon ranges support;
- Support of the new submarine force and, in particular, trials for the new Collins Class submarines'
- A full range of training services involving both motor and sailing craft; and
- Planning activities associated with harbour defence, major exercises, the Sydney 2000 Olympics and other special events as they arise.

The spokesman said, commercialisation of these activities would release 150 sailors to fill vacancies elsewhere in the RAN.

"About 60 civilians are currently employed carrying out these services at establishments around the country," he added. "The positions they now occupy will become excess to requirements when the contract comes into effect around the middle of this year, and they will be administered in accordance with the redundancy provisions applicable to their category of employment." ■

"In Brief"

By Geoffrey Evans

The Defence Efficiency Review

"In Brief" is not the place to examine in any detail or to even summarise a report containing a large number of proposals and recommendations which, if fully implemented, would change Australia's defence organisation quite dramatically.

It is however legitimate for one who has been associated in one way or another with an element of the defence force – the Navy – for over half a century to offer a few comments.

After reading the two-volume report of the review panel the writer was left with a number of impressions, the most distinct being;

(a) The haste with which the review was conducted – less than five months from nomination of the six-man review panel to presentation of the panel's report to the Defence Minister and acceptance by cabinet.

(b) The high priority given to reducing expenditure – to saving money.

(c) The pressure to be exerted on the Navy, Army and Air Force to combine their activities to a sometimes unreal intent given the stated intention to retain the three Services as separate elements of the Australian Defence Force.

The last Flag Officer Naval Support Command, RADM David Campbell bids farewell to his staff in May. (Photo – ABPH Simon Metcalfe)

With regard to (a), the panel itself refers to the short nature of the review and in several addendum papers mention is made of the lack of time to develop particular proposals; this does not instil confidence that the consequences of important changes have always been thought through.

Savings (b) are estimated to be at least $770m annually in the short term and potentially $1000m. – about 10% of present defence expenditure. There are no suggestions concerning use of the savings although the Minister has spoken of improved combat effectiveness; how this is to be achieved remains to be seen but a number of acquisitions have been "on hold" for several years due to lack of funds.

With regard to joint functions (c), it seems sensible to bring together many of the functions once regarded as the management prerogative of individual Services, e.g. health, legal services, property management, science and technology support, possibly recruiting, many logistic functions etc., Defence has in fact been on the "jointery" path for sometime, albeit moving slowly. On the other hand proposals that emasculate the authority of the Service Chiefs to command and administer their forces must appear as highly undesirable given the very different elements in which the services operate: In particular, transfer of the Personnel and Training branches of the individual Services to a Personnel Executive (which would also include all civilian personnel) and to a single training and education organisation must surely invite criticism on the grounds of unwieldiness.

Reference is made in the Review to the strategic outlook (currently the subject of a separate inquiry) and confirms continuance of the present uncertainty, a factor that has bedevilled governments and defence planners (not

only in Australia) for many years. The recent rapprochement between Russia and China with the object of countering the global influence of the United States, will no doubt add to the problems of the planners.

The need for the ADF to be able to act as a single, joint force, stated and restated in the review documents is understandable and is already practised in exercises. On the other hand practically all the combat operations in which Australian forces have been engaged since World War II have been essentially single Service operations in which our sea, land and air forces have augmented like forces of allies. This appears likely to continue as the major political parties have expressed support (in principle at least) for United Nations operations. Defence Minister McLachlan appears to have gone further and was reported in April as adding the North American Treaty Organisation and Australia's allies should they ask for military help. It is difficult to envisage Australian forces operating independently abroad unless one of our weaker island neighbours sought assistance.

Finally, the writer finds it surprising that a review claimed to be one of the most important in Australia's military history should be accepted and changes set in motion before being tabled in Parliament. Many of the changes must affect local communities and should therefore be of interest – if that is the right word to use – to quite a few members of Parliament.

Admiral Honoured

Personnel who served in ships of the Strategic Reserve operating off Malaya in the 'fifties gathered in Cooma on Anzac Day as a tribute to Vice Admiral Sir Richard Peek who has been fighting on their behalf to obtain recognition for their service. Admiral Peek who was Captain of HMAS *TOBRUK* at the time, took up farming on the Monaro high plains near Cooma on his retirement as Chief of Naval Staff.

Sir Richard and Lady Peek, together with their supporters were warmly received by the citizens of Cooma at various functions and at the Anzac Day march, which the naval party led. As participant Roger DeLisle said – "the Admiral set a good Whale Island pace". (The writer recalls the Admiral as a fearsome gunnery officer when he was doing courses at Flinders Naval Depot – HMAS *CERBERUS* – many years ago!)

Members of the group travelled from several States to pay what must be deemed an unusual tribute to an officer who attained the highest appointments in the Royal Australian Navy.

HMAS "SYDNEY (II)"

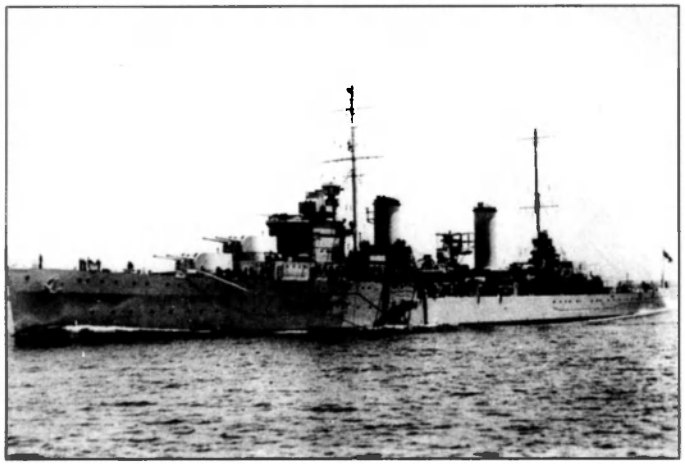
Several years ago the writer was asked for an opinion on a proposal to mount a search for the light cruiser *SYDNEY*, lost with her entire crew after an engagement with the German raider *KORMORAN* in 1941.

After consulting with colleagues a response was made to the effect that the basic facts concerning the engagement were known (*KORMORAN* was also destroyed but most of her crew survived) and that *SYDNEY* was considered to be a war grave, not to be disturbed, no good purpose would be served by locating the ship.

Proposals have again been made to conduct a search and for an inquiry into the loss of Australia's (at the time) best known warship. While facilities for locating and examining sunken vessels have undoubtedly become very sophisticated over the years, the writer's earlier views remain the same. What good purpose would be served – assuming of course the ship is intact?

For *KORMORAN*, a converted merchantman, albeit heavily armed, to destroy a regular man-o-war was no mean feat; it will never be known however why *SYDNEY* was placed in a position that enabled an inferior opponent to cause her loss. An inquiry might possibly indicate if any cover up of wrong doing by shore authorities was involved at some stage as has been claimed, but at this distance in time it seems pointless.

In conclusion, it is possibly worth noting that despite location of the liner *TITANIC* and several underwater hull examinations, the actual cause of the great ship's sinking is still a matter of conjecture. ■



HMAS "SYDNEY (II)"

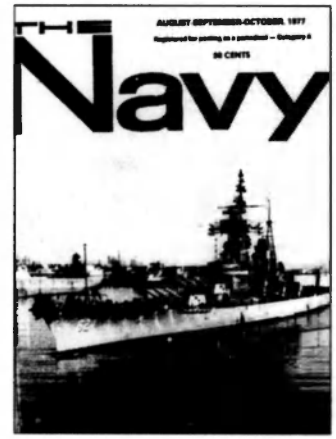
'The NAVY' Revisited

In 1998, 'The Navy', the Magazine of the Navy League of Australia, will celebrate its 60th year of publication. During 1997 we will feature pages from various earlier editions. In this issue the months of August and September have been highlighted over two decades, 1967 and 1977.

(The editor is keen to hear from readers who possess copies of the magazine, published since 1938, to mark its Diamond Anniversary next year).

The Navy, August-September-October, 1967.

A regular feature of the 1960's was the Nautical Notes from All Compass Points. Prepared by Sonar, the information was gathered by the naval historian and photographer, Mr Mike Phelps.



August-September-October, 1977.

From The Navy of 1977, we have re-produced a mixture of current naval news.

Onboard an Arleigh Burke

Story and photographs from Mark Schweikert

Last March the Arleigh Burke class of destroyer made its Sydney debut in the form of the USS *Curtis Wilbur*. Her classic lines and styling make the ship devastatingly beautiful and yet beneath her exterior is the most devastatingly powerful destroyer in the world. One could mount a very credible argument on the basis of size and capability that the class should actually be classified as cruisers.

The technology represented in this class is at the fore front of modern Western naval design. Phased array radars, two VLS (Vertical Launch Systems) for 90 missiles, full NBC (Nuclear, Biological and Chemical) protection, the latest stealth technology and an Aegis combat system capable of handling any threat that may arise, combine to make an incredibly versatile surface combatant.

As this was the first Arleigh Burke to visit Sydney, it provided an interesting opportunity to examine what many would regard as the front runner for the RAN SEA 1400 project to replace our ageing, and soon to be decommissioned DDGs.

Class

The origins of the DDG-51 class stem from the cold war and the USN requirement to defend its CBGs (Carrier Battle Groups) against massed Soviet air/missile attack in a NBC contaminated environment. They were also to be capable of escorting amphibious assault groups, patrolling SLOC (Sea Lanes Of Communication), projecting power and to act as flagships. Although its cold war specialities are now unlikely to be used, the ship still possesses the flexibility to operate in a littoral environment anywhere in the world. Part of its NBC operability consists of the ship's systems being hardened or protected against Electro Magnetic Pulse (produced during a nuclear explosion and renders most electrical systems inoperable) in order to keep operating when other ships cannot.

The class will number 21 hulls before the Flight IIA version appears. This version differs in that it is fitted with a helicopter hanger, something which the earlier Flights were criticised for not having. As mentioned before this ship could also be classified as a cruiser given not only its capability, but also its size. It is only 433 tons lighter and 19 metres shorter than a *Ticonderoga* class cruiser but is heavier than the older *Belknap* and *Leahy* class cruisers.

The first ship of the class, USS *Arleigh Burke*, was commissioned in 1991 with *Curtis Wilbur* commissioned in May 1994. Being one of the newest ships in the USN it is representative of the navy of today having segregated male/female facilities. The class embarks a crew of 280 with a mix of 30% female and 70% male.

Stealth

This is the first USN class of ship to incorporate 'stealth' in the design. Walking around the deck one notices how flush, smooth and uncluttered everything appears. All right angles including edges and corners have been eliminated. All sides are sloped to deflect radar energy in different directions other than where it came. One will also notice how little above deck superstructure there is. The superstructure essentially consists of two smoke stacks, a solid angled tripod mast and the bridge structure, which also houses the SPY-1D radars.

All exposed surfaces are covered in RAM (Radar Absorbent Material). This 'soaks up' radar energy hitting the side of the ship, further reducing the RCS (Radar Cross Section). This material is like padding and one is able to push a finger into what appears to be a solid steel plate.

Air vents all have angled panels covering them to further deflect radar and even the steps on ladders and stairs are angled. Although not apparent, in situations which require a low RCS, the practice is to fold down all the railings and cover certain areas of the ship, such as the bow with all the clutter of bollards, anchor chains etc and refuelling points with RAM blankets. These blankets, similar to what HMAS *Brisbane* and HMAS *Sydney* were fitted with for their Gulf War deployment, further reduce the RCS for items that cannot be 'stealthed' and which could return radar energy. Another stealth feature is the reduced number of access points for the crew to the weather decks. Crew moving around topside are capable of inadvertently returning radar energy. This also explains why there are no deck mounted machine guns or cannon as these also can reflect radar.

USS "CURTIS WILBUR" at speed. Notice the uncluttered and sloped nature of the design even on the main mast. The application of stealth features has given the class an elegance and beauty not normally seen in modern warships.

Although resembling a "fitted for but not with" philosophy this is actually a stealth feature. By having the above deck areas uncluttered and smooth, the result is a far less radar reflective warship. All railings can fold down. Note the angled nature of the funnels.

Of course the idea of stealth is to reduce the ships susceptibility to search radars and weapons utilising radar, such as an anti-ship missile like Harpoon or Exocet. A low RCS will also enhance the effectiveness of countermeasures to lure away any missile fortunate enough to actually lock onto the ship.

Stealth is not restricted to radar evasion alone as acoustic and IR (Infra Red) stealth technologies have also been applied. Each of the four LM-2500 Gas Turbines is raft mounted and contained in a sound proofed box. To further reduce underwater noise a Prairie Masker bubble system is fitted. This forms tiny air bubbles around the hull and propellers to mask noise emanating from the hull and apart from making the ship less detectable to submarines it also enhances its own passive sonar performance and the SLQ-25A torpedo decoy system.

Engine exhaust emissions from the Gas Turbines are cooled before release into the atmosphere to reduce the ships IR (Infra Red) signature which reduces its susceptibility to IR missiles such as Penguin.

Weapons and Systems

The ship's Aegis 3D SPY-1D phased array radar system, four flat panels around the bridge superstructure and covering a full 360 degrees, is designed to automatically detect and track over 500 long range targets simultaneously as well as identifying them as friend or foe and supplying fire control quality information to the fire control system. Three airborne targets can be illuminated simultaneously via three SPG-62 fire control radars for the ship's 74 km ranged Standard SM-2MR missiles.

The ship has two MK-41 VLS for a total of 90 missiles, 29 forward, 61 aft. These can consist of a mix of Standard SM-2MR, BGM-109 Tomahawk (all variants), VL ASROC and VL Sea Sparrow if needed. The combat system can be placed on an automatic mode which can detect, track, classify, designate and destroy any threat at any speed within the ship's radar and missile range. This capability will be more important in the future as anti-ship missiles become faster thus reducing the reaction time for the operations centre staff.

Part of the ship's command and control function in a CBG or at an amphibious bridge head is air traffic control and co-ordination of friendly aircraft onto approaching enemy. During the recent "Tandem Thrust" exercise USS *Curtis Wilbur* was responsible for air traffic control for the entire exercise. For this role she embarked air traffic controllers from the RAAF, RAN, USN and USMC. It seems a waste to use such a powerful destroyer for safety purposes but bears testimony as to the immense flexibility of the class. Not only can it conduct air traffic control in an exercise but also conduct strike missions at far off land targets with Tomahawks, establish an area air defence perimeter, prosecute submarines, conduct shore bombardment, provide surveillance information, attack shipping with its eight Harpoons and act as a group flagship.

USS "CURTIS WILBUR", DDG-54, Sydney debut. The addition of stealth, compactness and sloped sides, gives the ship an unexpected elegance and beauty.

Although primarily an anti-air ship the class possess a significant ASW capability. Its ASW weapons and systems consists of a SQS-53C(V)1 hull mounted sonar, a SQR-19B(V)1 towed array sonar, two Mk-32 triple torpedo

tubes for Mk-46 ASW torpedoes and the ability to fire VL ASROC. Its sonar systems and acoustic stealth make it a formidable submarine hunter but the class suffers in this role by not having its own ASW helicopter.

For shore bombardment duties the ship mounts a MK-45 127 mm gun in the "A" position. This gun, the same as on the Anzac class, fires 20 rpm at targets nearly 23 km away. It can also be used against aircraft with fire control data from one of the SPG-62 radars or a TV/optronic sensor mounted above the bridge slaved to the gun.

For anti-missile defence the ship uses two Phalanx close in weapon systems as well as a large array of chaff launchers, 36 tubes, and a SLQ-32 ESM system. Some criticise the class for not having any ECM equipment but this would defeat the purpose of stealth as ECM transmits a jamming signal designed to be detected. In the future this transmission source could possibly be used by anti-ship missiles to find "stealthy" ships.

Data links with other ships give the DDG-51 commander, or embarked group commander, a clear and precise picture of the ship's and/or groups' activities including the enemies on two large wall mounted displays in the CIC. These display monitors can produce any and all information and data required from sonar information to AAW data, Tomahawk attack flight paths, ESM data and land maps with the position of friend and/or foe units and types.

Another feature of its cold war origins is the extensive NBC (Nuclear Biological and Chemical) warfare 'Collective Protection' system. This consists of double air lock doors, pre-wetting, crew NBC decontamination wash points, an over pressure air conditioning system with extensive filtration of incoming air and recycling of existing air. The over pressure system works by having positive pressure in the ship's spaces. In the event of a hull breech, air will escape rather than enter the ship thus keeping out any NBC contaminated material/particles. Virtually the whole ship is covered by the NBC Collective Protection', system except parts of the engine room and the bridge due to the increased level of exposure to the outside air these places have.

Mounted on the bow is a Mk-45 127 mm gun. Located behind it is the forward 29 cell VLS with a Mk-15 Phalanx above it. Two of the four SPY-1D radars can be seen around the sloped bridge superstructure.

Looking forward from the helipad. Visible is the aft 61 cell VLS, two Mk-141 quadruple Harpoon launches, a Mk-15 Phalanx and two of the three SPG-62 illumination radars. One can also see the sloped nature of the superstructure and how compact the superstructure is.

Engines

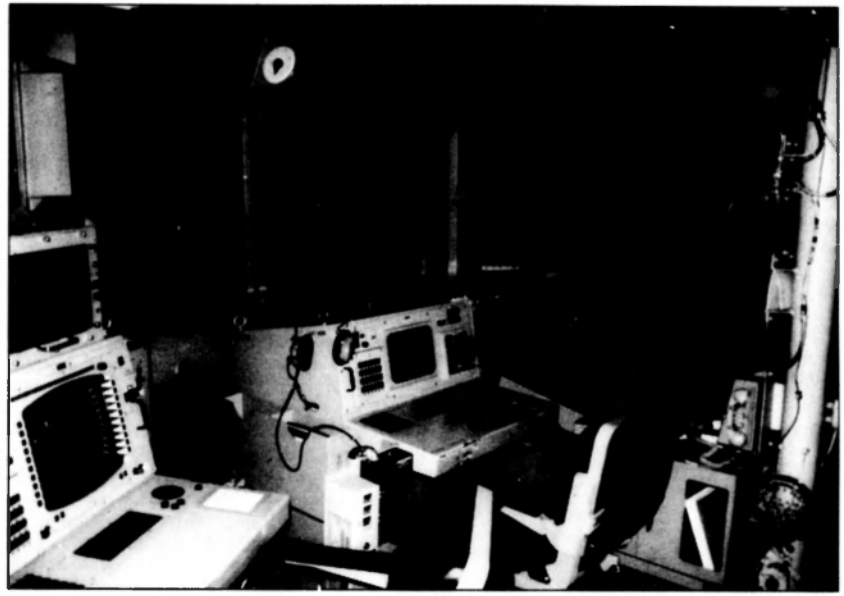
The ship's engines consist of seven gas turbines. For propulsion the ship utilises four LM-2500 gas turbines which propel it to a maximum speed of 31 knots via two controllable pitch propellers. Other gas turbines consist of three Allison 501 K34 generators with one located at the bow, amidships and the stern. One of these gas turbine generators can provide all the power requirements to the ship's systems but two are generally used so as to split the load on each generator and to have one ready in the event the other is put of action.

Damage Control

Damage control in the class of ship is state of the art. Many of the lessons of the USS *Belknap's* collision with the carrier USS *John F Kennedy* and the Iraqi Exocet attack on the USS *Stark* have been applied to the design to make a very survivable ship. Some of the features include 70 tonnes of kevlar armour around the CIC which is located just below the waterline.

The ships 13 bulkheads are made of hardened steel to contain fire and explosions. In fact the whole ship is made of steel except the funnels which are aluminium. This could be said to be one of the lessons of the Falklands war as the aluminium hulls of the *Amazon* class ships actually burned and were ineffective in containing fire and explosions. They also suffered from stress cracks in the heavy South Atlantic sea.

Areas such as the engine rooms and each individual engine module are fitted with halon gas infusers and sprinklers to



In the centre of this photo is the Captains chair. Note the two large wall mounted multi-function displays which give the Captain or group commander a very clear and precise picture of the battle.

suffocate a fire. These are either automatic upon detection of fire or manually controlled. All compartments are fitted with sprinklers and the ship makes its own foam to fight fires. The only damage control drawback I could see was that all the ship's passage ways are very small, almost submarine like. This could present a problem for fire fighting teams of more than three people but the ship's fire fighting system of halon gas, foam and sprinklers may reduce the need for large teams.

During the crew's battle to save the USS *Stark* the ship was nearly lost due the amount of water used by the crew to extinguish the fires. Taking this into account the Arleigh Burke's have a primary and secondary drainage system. Many of the ship's systems are double redundant and located at different areas around the ship.

Conclusion

The recent 'Tandem Thrust" exercise demonstrated, yet again, the high degree of inter-operability the RAN has to have with the USN. Bearing this in mind, questions are being asked about the Anzac frigates' ability to perform the defence and escort requirements of a USN CBG or amphibious group. Consequently Australia needs a surface combatant more capable than a simple Anzac frigate derivative to replace the DDGs given that level of inter-operability. If the current SEA 1400 project to replace our DDGs is serious, that is, not replacing them with a modified Anzac frigate (with all its drawbacks further modified), then it cannot go passed the DDG-51 class.

When the Charles F. Adams destroyers joined the RAN it was somewhat of a revolution. Not just because it was the first time we had bought American warships, or that we were the first overseas customer for the class, but because of the technology and capability the ships represented. Today the Arleigh Burke class represents that same jump in technology and capability. But however impressive the Arleigh Burke's technology is, it must be remembered that this is currently the norm and representative of current technologies. Maybe it is the mystique that the powers that be in Canberra feel this class of ship is endowed with, that prevents them from seeing an Arleigh Burke in the RAN order of battle. Or possibility it is more capable a ship than our current and financially convenient expectations for conflict allow for and whose acquisition would perpetuate the Foreign Affairs Department perception of offending a regional neighbour, as an Australian aircraft carrier is supposed to.

Recently the Minister for Defence stated that 'we cannot predict what may occur in the next 10-15 years'. Consequently a extremely capable ship like the DDG-51 class is an absolute necessity for a nation surrounded by water, in order to counter any threat and present a real deterrent for the uncertain future. ■

KIWI Sealift

From
New Zealand Defence Quarterly
By Matthew Wright

Sealift for the Soldiers

New Zealand has its first military sealift ship – the former 7220-tonne Danish-owned container ship *Mercandian Queen II*, now commissioned into the Royal New Zealand Navy as HMNZS *Charles Upham*. Named in honour of the country's most decorated soldier, the vessel will move troops and equipment in support of the Government's defence foreign policies, and assist areas struck by cyclones, earthquakes and other civil emergencies. The ship's arrival changed the dark prediction of the 1991 Defence White Paper that our response to crisis could be limited "by available transport."

"We've got it!"

Immortal words they're not, but for Defence project director Peter Ware and his team they marked final acceptance of a hard-fought $14 million deal for New Zealand's first military sealift ship. The new ship sailed into Auckland after unloading a cargo of containers in Australia to defray the costs of bringing it out from Denmark. Then in October 1996, Upham's widow Molly officially named the ship, formally commissioning it into the Royal New Zealand Navy.

Charles Upham's main task will be to deploy the Army's Ready Reaction Force on overseas operations – up to 150 troops, the M113A1 armoured personnel carriers (APCs), 4-ton Unimog trucks, 8-ton dump trucks, 105 mm howitzers, rough terrain cranes, field kitchens, the relocatable field surgery, ammunition, stores and equipment.

The ship will also enable the Defence Force to directly support New Zealand's United Nations commitments. Had the vessel been available in 1995, it could have moved the APCs and trucks deployed by the Army to Bosnia.

A regular military task will be to support training exercises both in New Zealand waters and overseas, but civil tasks will probably give *Charles Upham* its highest profile. It can carry freight and equipment for disaster relief operations anywhere in the world. It can deploy Army engineers and medical teams into the South West Pacific, and if current modification plans go ahead, it will even be able to supply fresh water, diesel and aviation fuel to disaster zones.

Any Army vehicle can be driven through the stern door at any roll-on, roll-off terminal. If the ship berths at an ordinary wharf, the side door will take everything except the D8 bulldozers. Impressively, the vessel can sustain 14.5 knots at full load, six months out of dock – that's with a fairly rough bottom – in brisk winds and choppy seas, and it can manoeuvre into the quayside in the same weather. Its unrefuelled range at this speed is above 6000 nautical miles and – more significantly – it has the long endurance needed to operate effectively in the South Pacific.

In whatever role it's used, the ship's cargo handling abilities will make life easier for the other services. They may even end the days of shoe-horning over-large pieces of equipment into the RNZAF's Hercules transports or jamming relief supplies into the cramped quarters of the Navy's frigates.

As a merchant ship, the *Charles Upham* required a crew of seventeen, but with helicopter crews and spare personnel, it will need permanent accommodation for 65 people, up to 10 percent of them women. Standard accommodation for an additional 150 is also planned.

A flight deck will be installed with a hangar capable of housing two helicopters – large enough to take Seahawks or Sea Kings when the ship is operating with Australian forces. No firm decisions have been made whether the ship will have a helicopter or helicopters of its own, and temporary deployments may well meet the need.

Four 0.5 inch machine guns will be installed and missile defence provided by SBROC (chaff) launchers and an electronic warfare suite. A standard RNZN damage control centre will also be installed, and the ship's radars supplemented with Identification Friend or Foe (IFF) transponders. Military communication systems will be fitted.

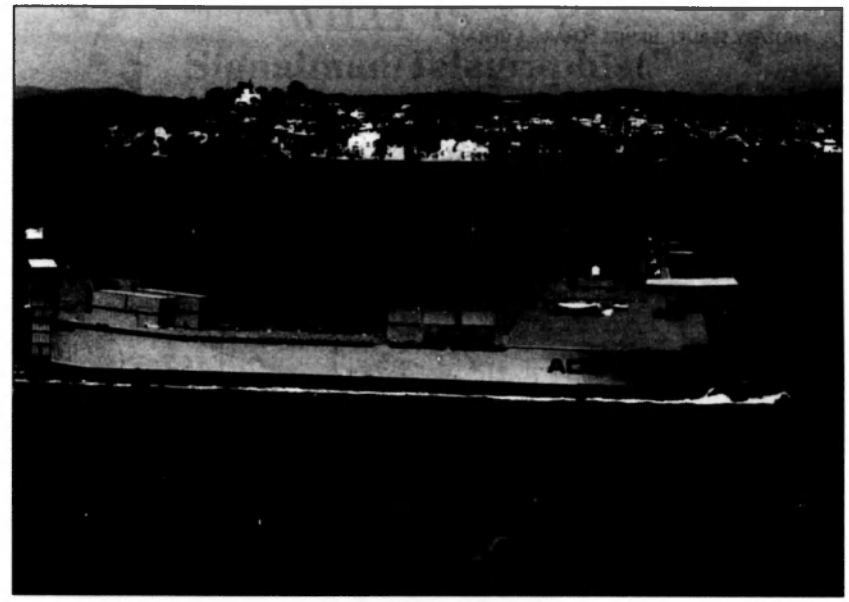
The vessel is not amphibious, which means it must unload at a port rather than run up on a beach, though this would only be a problem if harbour facilities were damaged by storm or another natural disaster. In such cases, the ship's helicopters are deployed aboard the ship.

The helicopter deck apart, most modifications are not likely to be structural or expensive. Even so, the Defence Force is in no tearing hurry because, says Ministry Defence Project Director, Peter Ware, they "want to get it right." No firm decisions will be taken on major alterations for some months, during which crews will be able to get operational experience with the ship.

A few changes, however, have been made already. The ship was coated below the waterline with tri-butyl tin (TBT) anti-fouling paint, which isn't allowed in New Zealand waters because it leaves toxic residue. That was removed in Denmark, and the ship's upperworks have been repainted "Waikato" or RNZN grey.

Special attention is also being paid to keeping the ship clear of toxic or ozone depleting substances. The ship's fire-fighting system will not be based on halon, nor will ozone-depleting chloro-fluorocarbons be used in the refrigeration or air conditioning systems.

As a merchant ship, the *Charles Upham* offers flexibility and operating efficiencies that a specialised military vessel cannot. For example – there will be about 150 extra mouths to feed when the Ready Reaction Force is embarked. A galley big enough to handle such numbers would be expensive, and



HMNZS "CHARLES UPHAM" (Photo - RNZN)

unused most of the time. But the ship has fifty reefer points for refrigerated containers, which means that the Army might find it easier to load a container of food, or even put a field kitchen aboard.

Critical Need

The decision to buy the *Mercandian Queen II* goes back to the shift of New Zealand's defence focus into the South Pacific. During the 1950s, New Zealand became closely involved with its home region almost for the first time. We joined ANZUS and SEATO. We sent forces to Malaysia and later to Vietnam. There was relief work in the South Pacific, with New Zealand military frequently the first on the scene after natural disasters. We became involved in a variety of United Nations initiatives.

It was a wide-ranging policy dictated by New Zealand's position as an island nation dependent on globe-spanning trade. The need for a sealift ship to move equipment in support of those policies was clear, and by the 1960s the Navy wanted a tanker, the Army a vessel to carry men and equipment. The proposed ship was to have an ice-strengthened bow for Antarctic operations, workshops, and helicopter facilities.

This was thinking big with a vengeance, but even in those days, New Zealand couldn't afford such a costly ship. After the ANZUS dispute of the mid 1980s, the Navy bought a tanker – HMNZS *Endeavour* – and the concept changed to a pure logistics vessel able to carry the Army's men and equipment.

A stiff price tag of $200 million killed a proposal for a new vessel, so thinking turned to a second-hand military ship or converted merchantmen. Specialist landing craft carriers like the Royal Navy's *Fearless* or the US Navy's *Austin* classes were considered but thought not to have the broader capabilities needed for other tasks. Cost was also still an issue, so there was little progress for some years.

By 1990, big capital procurements were being met out of a shrinking defence budget, and the Navy's last big purchase – the ANZAC frigates – left little room for a sealift ship. But the 1991 Defence White Paper pushed the message again, the Defence force had "insufficient transport to deploy and sustain a reinforced battalion group away from New Zealand." The paper called for a sealift vessel able to "deploy a force into those islands which have seats of government or significant centres for population."

Australian Offer

Defence's thinking focused early on the Australian transport HMAS *Tobruk*, which the Australian's were prepared to lease because they were negotiating with the United States to buy two *Newport* class tank landing ships. *Tobruk* offered useful capabilities but there were real worries about operating costs – she was manpower intensive with a crew of 147.

Basically, the NZDF wanted a vessel with at least 25 years operating life, assuming minimum annual usage of 4850 hours

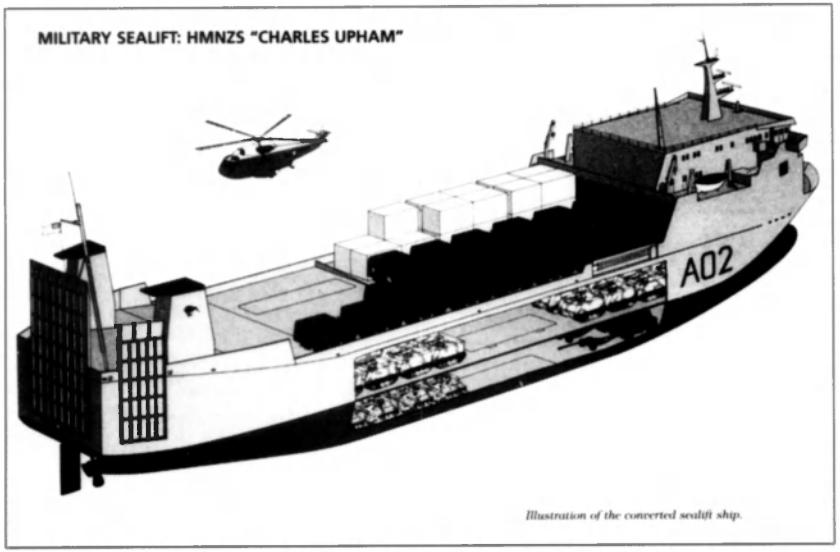


Illustration of the converted sealift ship.

at sea and 2100 in harbour. Finding one for sale in the right bracket wasn't easy, but from the available choices, a ship able to meet 80 percent of Army's needs appeared a better deal than a larger and more expensive vessel. The *Mercandian Queen II* – one of a class of five roll-on-roll-off freighters – was for sale in Denmark and seemed right for the job.

With a typical displacement of 7220 tonnes, the ship is almost the same size as the Navy fleet tanker HMNZS *Endeavour*. It is also one of the largest vessels the Navy has operated since the 8800-ton cruiser *Gambia* during World War II.

Many decisions have yet to be made before the *Charles Upham* is fully operational, but at this stage the future of New Zealand's military transport looks bright. Certainly the ship will give a much needed boost in an area that has long been lacking, and it looks set to do so at a minimum cost to the taxpayer. ■

Vital Statistics

Deadweight (at draft of 6.16 metres): 7220 tonnes

Dimensions: 131.7 m (overall length); 19.39 m (breadth); 11.6 m (depth to first deck)

Engine: MAK Diesel, Type 12M453AK, developing 5250 bhp

Auxiliaries: 3 Mercedes-Benz diesels, each 344kw, single screw. Bow thruster 900 hp

Speed: Trial speed at 4890 bhp and 4.97 metres draft = 15.7 knots

Cargo Capacity: 516,000 cubic feet, or 414 containers, or 111 trailers (12.2m length), or 611 cars

Bunker Capacity: 522 cubic metres

Fuel Consumption: 18.5 metric tonnes per day

"WHAT IS A' . . . Signalman/Telegraphist"

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

(Hysterical note, or he went data way)

Once, way back in history (Naval history that is, as apposed to other more progressive types of history) there was an Admiral called Nelson. Because of a weak voice, this Admiral was unable to make verbal contact with a certain Lady of Hamilton, and so he invented Signals. Signalmen were born(e) that day.

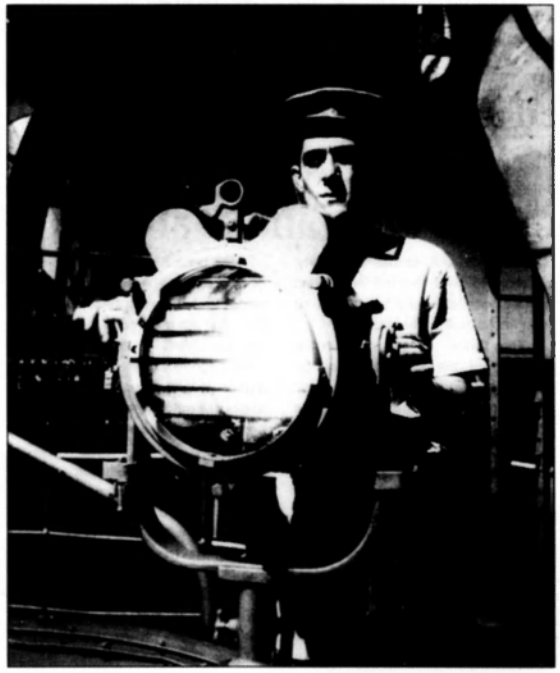
Much later on, an Italian by the name of Macaroni, was so lonely one night that he decided to invent wireless. Telegraphists were born(e) that night.

The joint result of the above was the Communication Branch which as we all know is an uncommunicative one (particularly when it comes to buzzes). It consisted at the beginning of only Signalmen, but internal strife (and Macaroni) split the Branch, which eventually settled quite naturally into two camps – the Telegraphists forming the "other" camp.

Signalmen

Being old Nelsonians they demand first place. A Signalman is the person you see hauling up odd pieces of coloured rag hoping to God that it conveys a message to someone. As well as this, Signalmen operate with staccato like movement, a curious mechanical venetian blind covered lamp. This they flash mysteriously day and night. For some odd reason this flashing is understood by other Signalmen. (No-one can explain this – not even the Signalmen). Apart from these two duties, Signalmen look through telescopes, binoculars, key-holes, and sun themselves all day on the flag deck.

It is rumoured that Signalmen consider themselves to be higher than the rest. This is understandable from such an olde worlde branch who work way up in the air. (They are higher – can't get much higher than the Flag Deck, mate!)



Telegraphists

According to my dictionary, the word telegraphist comes from two very old words, "tele" meaning "sound", and "graph" meaning "to write". Which meanings, in the case of the Telegraphist, is absolutely correct, for they do "sound" (invariably off) and they do spend their time writing – home.

Apart from this they hide in compartments around the ship, amongst and behind, odd assortments of radio equipment.

Like other complex social groups (Ubanga natives for example) Telegraphists have a code. This they follow religiously.

Some people feel that telegraphists are anti-social and keep away from other people. This is not true. Their job entails them being "away" as it were, in small compartments marked NO ADMITTANCE where they work at . . . (security prevents me from saying what they actually do in these compartments). Obviously however, it must be hard on them, for you often see the Telegraphist emerging tired looking, haggard and worn. This is probably because they have been . . . (once more security forbids disclosure). ■

Forgotten Fleet

By Bill Lunney and Frank Finch
Published by Forfleet Publishing, 7 Wade Close, MEDOWIE, NSW 2318
Cost: $35 plus post and packing
Reviewed by Ross Gillett

Many naval writers researching their books in the 1990s seem to be specialising on those ships and fleets of naval vessels, somehow forgotten by the official war historians. First of these was *Trying to be Sailors* by John Leggoe, then Iris Nesdale with *Small Ships at War* and last year, Brian Alsop with his *Australian Army Watercraft*.

Now from the 'stables' of Forfleet comes another mystery 'navy'. Titled the *Forgotten Fleet*, it is a history of the part played by Australian men and ships in the United States Army Small Ships Section in New Guinea between 1942 and 1945.

In the introduction to the book, the authors state, "There were schooners, such as the *HAROLD* and the *ARGOSY LEMAL*, packed with radio communications gear. There were ketches and tug boats and old harbour ferries from Sydney *(BINNGARRA)* and Newcastle *(KOONDOOLOO)* - and an ancient four stack ex-destroyer-cum-babana-boat, the *MASAYA*. ... The oldest ship in the fleet was the *ORTANNA*, built in 1876, which had enjoyed previous lives as a steam paddle tug, three masted schooner and sugar lighter."

But, *The Forgotten Fleet* is also a story of the personnel who manned the mixture of vessels, one skipper had gone to the Boer War at the age of 13, many had served in the Great War, and others in the more recent Spanish Civil War. More than 3000 Australians volunteered to serve with the US Army Small Ships. One skipper had one leg, an engineer operated his boat's machinery with one arm. Many had been declared medically unsuitable for the regular Australian armed forces, but soon found a niche in this other army/naval force.

The book is divided into three parts, the history of operations, the memories and finally, the ships and personnel. All are illustrated by clear large format photographs, numerous sketches and maps of the areas of operations.

The Forgotten Fleet is highly recommended to all readers of The Navy. Its an absorbing tale of these unusual vessels who sailed un-escorted, close to enemy lines, transporting everything from guns and ammunition to biscuits, fuel and tanks, to troops, the wounded and deceased, to and from the safety of the allied ports.

Phone enquiries regarding *The Forgotten Fleet* can be made to Ruth Lunney, Editor, on 049 - 828 437. ■

The Armed Forces of Indonesia

By Robert Lowry
Published by Allen and Unwin
Cost: $29.95
Reviewed by Joe Straczek

For many years the Republic of Indonesia had been viewed, officially and unofficially, as Australia's most likely enemy. Today the point of view is different. Australia and Indonesia, whilst still having many differences, have many common goals and objectives. One of these objectives is regional stability and security. The change in attitude of both countries has also come about as a result of a greater understanding between the military and political organisations of the two countries. This book, *The Armed Forces of Indonesia* is in many ways the product of this improving of relations between the two countries. The author, as an Australian Army officer, attended the Indonesian Army Command and Staff College and so has the ability, not only to write on the Indonesian military with authority but to do so from an Australian perspective.

The book covers the entire spectrum of the Indonesian political and military structure from strategic policy through to the people that make up the Armed Forces. It is an attempt to provide a succinct survey of the organisation and what drives it. As General Murdani stated in the Foreword, whilst many in Indonesia, and for that matter in Australia, may not agree with what Mr Lowry has written he has made a none the less valuable contribution which should be read by all those who are interested in the military policies and structures of our northern neighbour.

This book is part of a general series of books on the Armed Forces of Asia being edited by Professor Desmond Ball. As such it has set a high standard for the others to follow and build upon. The real challenge to the series authors will however be to keep these books relevant over the years by updating and amending them as required.

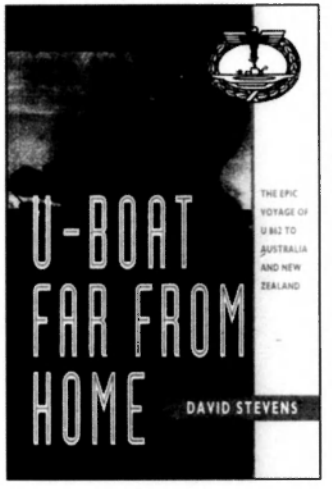
The publishers should also be commended for initiating the series and it is hoped that these books are read by a wider audience than just those within the political/military circle.

All in all Mr Lowry has produced an informative book which should become essential reading for anybody interested in *The Armed Forces of Indonesia*. ■

U-Boat Far From Home

By David Stevens
Published by Allen and Unwin
Cost: $24.95
Reviewed by Greg Swinden

U-Boat Far From Home, by former Naval officer David Stevens, is an excellent account of the epic voyage by the German submarine U862 to Australian and New Zealand waters in 1944-45.



It describes in detail the actions of U862 and her crew under the command of Korvettenkapitan (Lieutenant Commander) Timm from their departure from Germany in mid 1944 until the end of the war. U862 was the only U-Boat to enjoy any sort of success in Australasian waters with the sinking of two 7000 ton Liberty ships in December 1944 and February 1945 respectively.

This is not just an operational history of a single submarine, but describes in detail the German U-Boat campaign and why a submarine should be so far from the normal area of operations in the Atlantic. It also looks at the actions of the RAN and RAAF in combating this new threat in what was, by 1944-45, very much a rear area of the war.

Stevens has used extensive personal information from the crew of U862, and survivors from the two Liberty ships that were sunk, to give the reader the human insight of the war at sea from both the German and Allied viewpoint. The research to complete this book is first class and has come from archives around the world as well as private papers.

U-Boat Far From Home is well illustrated with several maps of the areas in which U862 operated and relevant photographs of the submarine, her crew and their opponents. It also has a substantial endnotes section which reinforce the information in the chapters.

U-Boat Far From Home is a paperback and at $24.95 it is well worth the money and available from most good bookshops. I enjoyed it and found it not just to be a historical text, but a 'bloody good read' as well. Very highly recommended. ■

U-BOOTE
1935-1945 The History of the Kreigsmarine U-Boats

By Robert Lowry
Published by Allen and Unwin
Cost: $29.95
Reviewed by Joe Straczek

Books published in France, about the German naval war activities and readily available in Australia in English, are not great in number. This particular effort was completed in late 1996, presenting a complete breakdown of the operations of the U-Boat force.

U-BOOTE begins with a brief account of the rebirth of the type, followed by detailed descriptions, from the first victories in 1939-40, the massive U-Boat campaign of 1941-42 which almost destroyed the allied powers war effort, the Turning Point in 1943 with the anti-submarine weapons and tactics improved to respond to the threat, the Final Effort via German technical innovations and lastly, the Death of the Wolves.

To improve the performance of his U-Boats, Admiral Doenitz explored a number of technical innovations including improved diving capabilities, new magnetic torpedoes, additional anti-aircraft guns of some classes, improved aircraft detection devices to avoid crash dives to escape allied warplanes, the Schnorkel to improve underwater endurance, a design for a high speed (30 knot) submarine and finally, a boat capable of independent open-ocean operations, the Type XXI.

Supporting the excellent narrative, the *U-BOOTE* book is well illustrated by hundreds of new photographs, with colour technical drawings, contemporary posters, paintings, sketches and some wartime photographs.

All aspects of the life of the U-Boat are covered in this glossy, hard back book, with numerous onboard views of personnel and equipment. Highly recommended. ■

International Roundup

Compiled by Mike James

Indonesian Submarines

The German Government has confirmed that Indonesia intends to buy five ex-German Navy Type 206 submarines. The boats, unlike 12 sisters, did not receive a major modernisation between 1987-92 and have been declared surplus to German Navy requirements. Displacing 500 tonnes dived, the five boats, U13, U14, U19, U20 and U21, are armed with eight 21 inch torpedo tubes (no reloads). Designed for the shallow waters of the Baltic they should prove useful in the similarly shallow waters of the Indonesian archipelago.

Corvettes for South Africa

The South African Navy is once again in the running for a class of corvettes to replace the MINISTER class patrol boats. The new ships will be much larger than the current 430 tonne MINISTERs, able to cope with the large seas off the South African coasts. The UK is reported to have made an offer to supply 2500 tonne corvettes similar to the LEKIU class fitting out for Malaysia. One part of the deal is that the SAN has been offered the four decommissioned UPHOLDER class submarines at an "attractive" price to replace the SAN's aging MARIA VAN RIEBEECK class.

UAE

The United Arab Emirates signed an agreement with the Royal Netherlands Navy last year for the transfer of two KORTENAER class frigates. As is often the case with arms deals in that part of the world, the customer seems to have changed their minds again. While the two frigates will still be delivered, the latest thinking seems to be turning towards smaller vessels, with a request for proposals for a class of six missile boats and several corvettes being issued. Exactly how the UAE Navy, with a total strength of 2100 personnel will be able to man these ships is not certain, each frigate requires almost 200 crew.

BOB HOPE

The US Navy has christened the first ship in a new class of roll on / roll off cargo ships. The 62,000 ton USNS BOB HOPE is capable of carrying almost 400,000 square feet of cargo, mostly helicopters, tanks and vehicles, at 24 knots. Once accepted into service BOB HOPE will be used to store pre-positioned US Army equipment and based at the US Indian Ocean base of Diego Garcia where it can be rapidly moved to the Persian Gulf in a crisis. The ship is named after the legendary actor who entertained US troops worldwide in numerous wars for over 50 years.

New British Nuclear Subs

The Royal Navy has signed a contract with GEC Marine for the supply of an initial batch of three ASTUTE class nuclear attack submarines, with an option for two more to follow. The initial order is worth more than two billion pounds. A total of five boats are needed to replace the aging SWIFTSURE class SSNs. The first boat is not due to commission until at least 2005, by which time SWIFTSURE will have been in commission for more than 30 years.

Another Majestic Goes

The ranks of aircraft carrier operating navies has shrunk by one with the decision by the Argentinian Navy to scrap the 52 year old VEINTICINCO DE MAYO. Laid down as HMS VENERABLE for the Royal Navy in 1942, she was sold to the Royal Netherlands Navy in 1948 prior to her acquisition by the Argentinian's in 1968. Her poor condition and advancing age kept her from playing a meaningful part in the 1982 Falklands War. In recent years she was been reported to have been laid up in a poor state of repair, unlikely to ever go to sea again.

Horizon

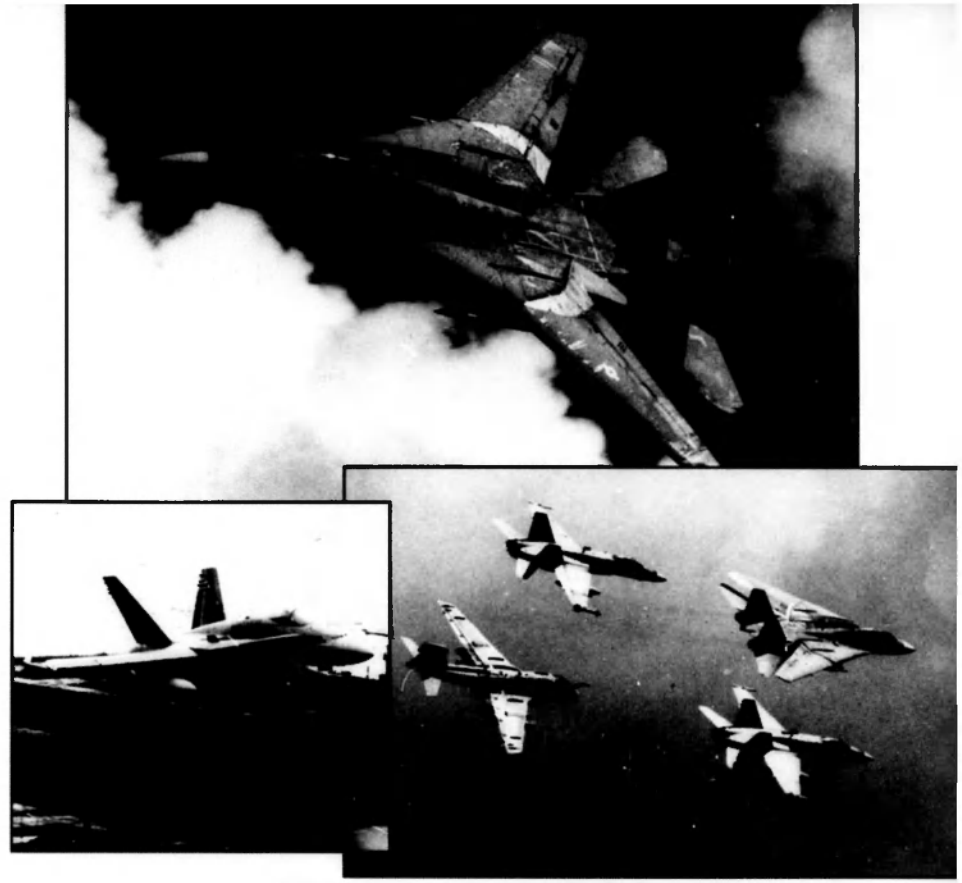
The Royal Navy is a participant in the tri-nation HORIZON programme to build an air defence vessel to replace the existing Type 42 batch 1 and 2 destroyers, completed from 1976 - 1982. As is the nature of such multi-national programmes, HORIZON is already running late and over budget, with the first ship not expected to enter service until 2005. This could see the batch 1 and 2 Type 42s pay off before a replacement is available. Into this scenario has stepped the US Navy, who are rumoured to have offered the RN the lease / loan of five TICONDEROGA class cruisers to tide the RN over until the first HORIZON commissions. The ships reportedly on offer are the first five, fitted with less capable electronics and the older Mk 26 missile launcher instead of the vertical launch systems fitted in latter units. However, the USN are now deciding if they will update the older cruisers, as a cost saving measure.

New Indian Boats

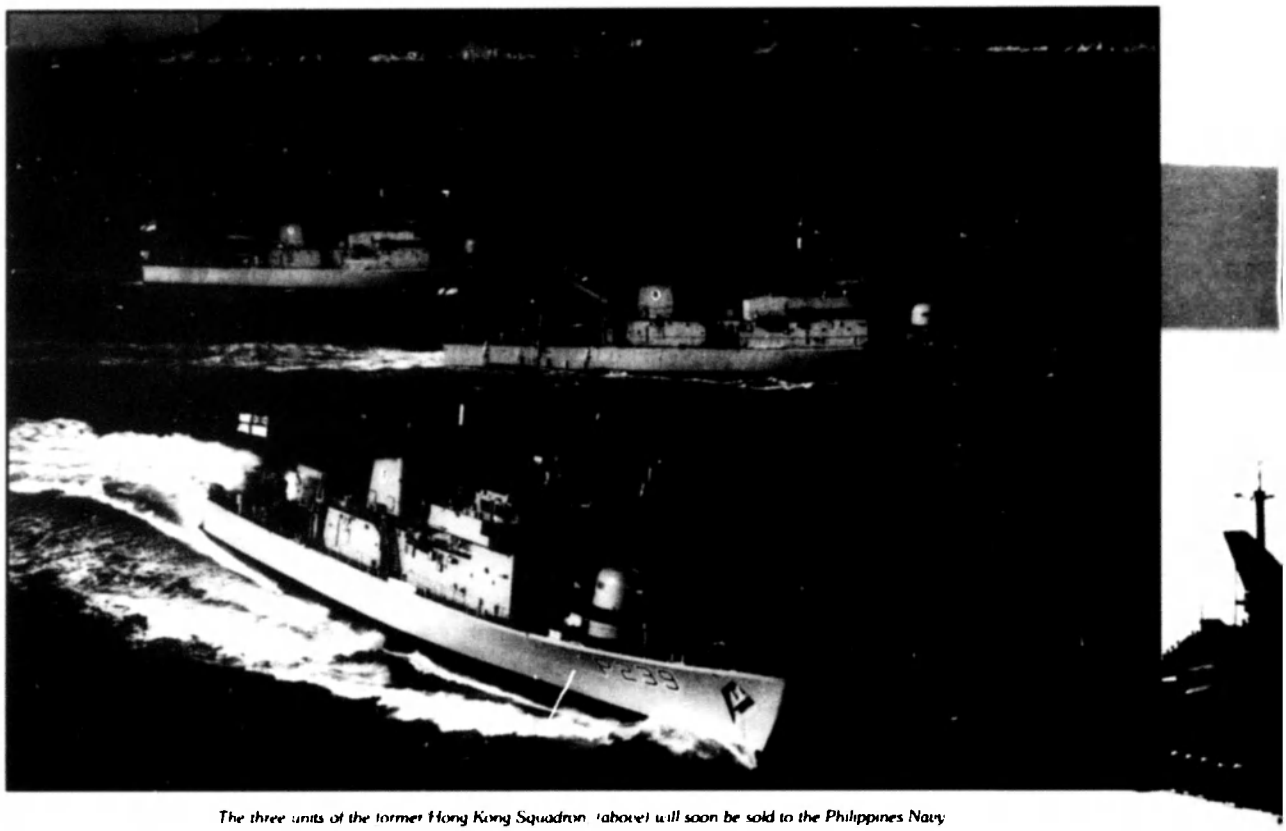
India is reported to have signed a deal for the delivery of two additional KILO class submarines. These will be of a more modern variant than the eight KILO class currently in service, featuring improved fire control and quieter propulsion. One is scheduled for delivery later this year with the second due in 1998. Such a rapid delivery suggests that the two boats are lying partially completed in Russian yards, unable to be completed for the cash strapped Russian Navy.

Wave Class

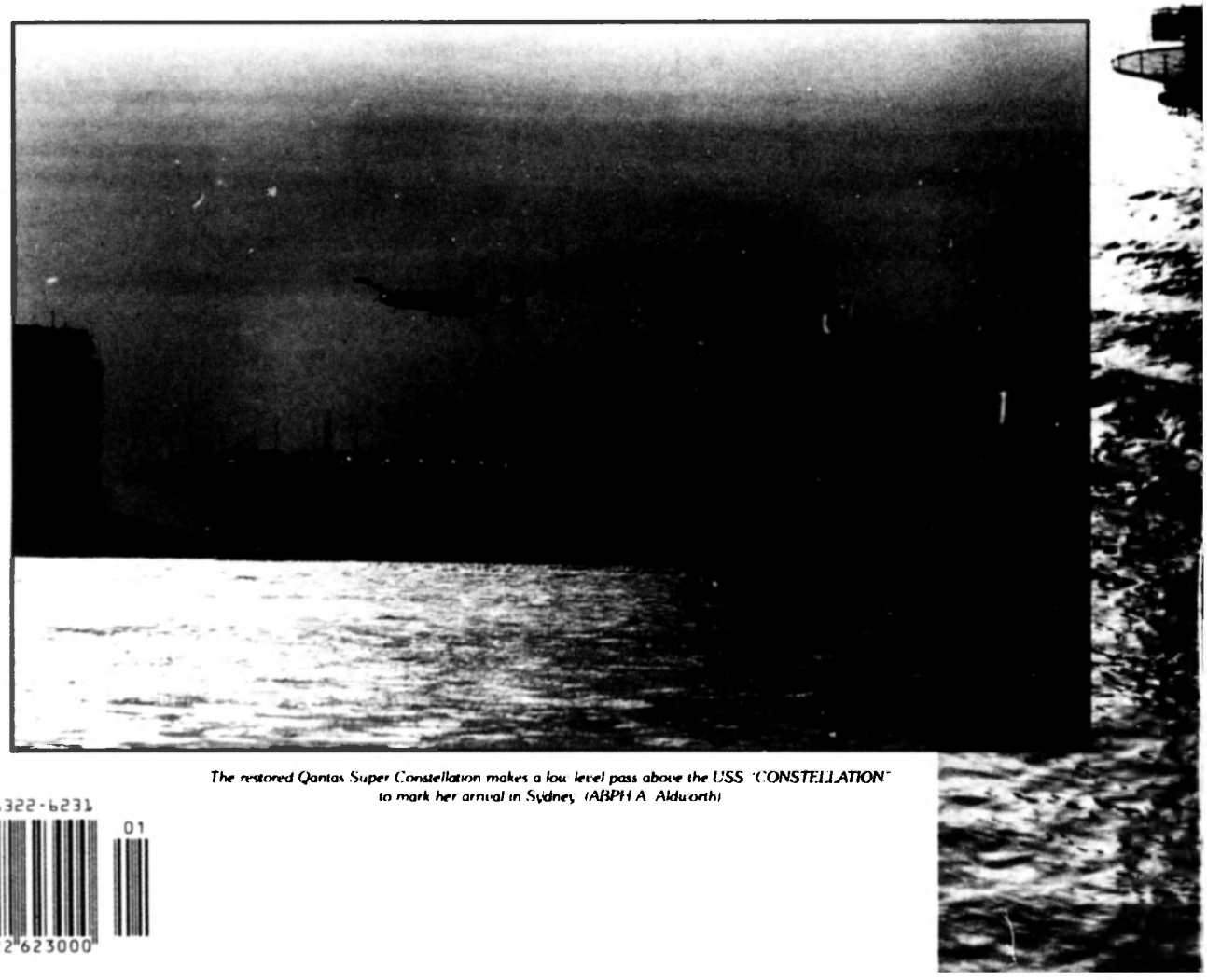
The Royal Navy has placed an order for new tankers to replace the 30-year-old support tankers OLWEN and OLNA. The contract, worth some 200 million pounds, was placed with Vickers Shipbuilding and Equipment, for delivery in 2000 and 2001. The new ships, designated Fast Fleet Tankers, will be named WAVE KNIGHT and WAVE RULER. A mixed crew of 22 RN and 80 civilians will be carried.



Montage of United States Naval aircraft from the USS "INDEPENDENCE". All were taken in April by ABPH Simon Metcalfe. An F-14A Tomcat fighter-bomber (top), F/A-18C Hornet (Centre left), a Tomcat leads two Hornets and an EA-6A Prowler in the rear (Centre right), an E-2C Hawkeye early warning aircraft (lower left) and the forward flight deck of the carrier (lower right).



The three units of the former Hong Kong Squadron (above) will soon be sold to the Philippines Navy



The restored Qantas Super Constellation makes a low level pass above the USS 'CONSTELLATION' to mark her arrival in Sydney. (ABPH A. Aldworth)

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Vol 59 No 4

The NAVY

The Magazine of the Navy League of Australia

ANZUS After 45 Years
AE2 Located * Naval Humour * All Compass Points
Colonial Curiosity – The Gunboat "Spitfire"

The new coastal minehunter, "HUON", prior to launching in Newcastle on 25 July. (Photo - ABPH Antoinette Aldworth)

In this Issue

Regular Features

Our Front Cover
NUSHIP FARNCOMB, off Thistle Island, near Port Lincoln in August, 1977. (Photo - CPOPH Cameron Martin)

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GPO Box 1719,
Sydney, NSW, 2001

Copy deadline for the next issue is 9th November 1997.

Viewpoint

The last three months has witnessed several notable milestones for the RAN in 1997. During July, the senior service celebrated with the launchings of the lead ships for both the Minehunter Coastal project *(HUON)* and the new generation hydrographic ship *(LEEUWIN)*.

On the historic front, Turkish authorities announced that the remains of the 84-year-old submarine HMAS AE2 had been discovered in the Sea of Marmara by Rahmi M. KOC Maritime Museum, a private consortium. The boat lies at a depth of 85 metres.

On Wednesday, 13 August, the Minister for Defence Science and Personnel, Mrs Bronwyn Bishop, became the first female to stay overnight in an Australian submarine. The event took place in South Australian waters aboard NUSHIP *FARNCOMB*, second of the *Collins* class to be commissioned into the Australian Fleet. Describing the conditions aboard her submerged home of 18 hours as "commodious", the Minister also announced that up to 83 females would begin training for the submarine arm in 1999.

On Friday, 22 August, Mrs Bishop also launched the new Defence Industry Internet onboard HMAS *MELBOURNE* at Garden Island in Sydney. She described the ADC site as "an important new link in taking Australia's defence and technology products to markets around the world".

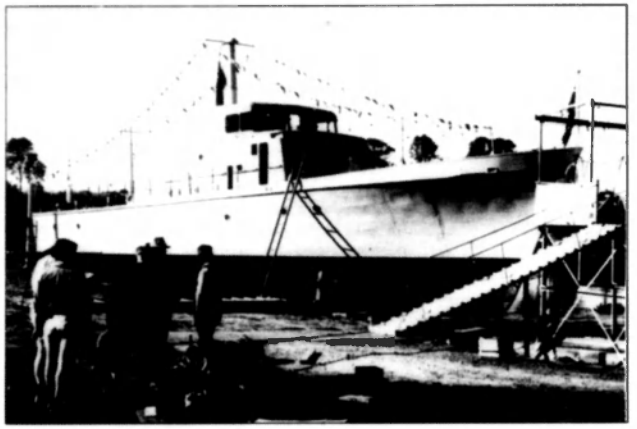
The new site is accessible via **www.adc.gov.au**

Courtesy of the Internet and beginning in this edition of *The Navy*, we will feature "All Compass Points", an overview of the more significant naval news from Asia, Europe and North America. For the long standing readers of *The Navy*, I suppose it's a logical development of the old "Nautical Notes" which appeared in the 1960s and 1970s. Thanks to Internet, news stories from around the globe can now be accessed for re-production in the magazine.

Some additional 'foreign' reports to appear in this edition, courtesy of Antony Preston, outline the growth of the Japanese submarine force over the past 40 years and from the United Kingdom, a technical description of the new LPDs (landing platform dock), *ALBION* and *BULWARK*.

Ross Gillett

FROM OUR READERS



"AITAPE" during building

Farewell "AITAPE"

Dear Sir,

As the first Commanding Officer of HMAS *AITAPE* (later HMPNGS *AITAPE*), I was particularly sad to see the photograph of her scuttling in the July-September 1997 edition of *The Navy*. This in fact was my first knowledge of this dismal end to the *AITAPE*.

It is a great shame that the PNG National Museum was not able to find the resources to preserve this ship. *AITAPE* was after all, the first vessel of what became the independent Defence Force of Papua New Guinea. It is also a pity that the Museum's difficulties in maintaining the vessel were not more widely known, as it is possible that some effort to save her could have been mounted from Australia.

AITAPE was launched in Maryborough, Queensland, on 6 July 1967 by Mrs Maloat Paliau, the wife of the Member for Manus Island in the PNG House of Assembly. We commissioned at HMAS *MORETON* in Brisbane on 13 November 1967. This was a week or so ahead of the commissioning of the name ship of the class, HMAS *ATTACK*. Although *'ATTACK'* was to have commissioned several months ahead of *AITAPE*, her Brisbane builders, Evans Deakin, met with delays, and *AITAPE*'s builders, Walkers in Maryborough, won the unofficial "race" to complete the first Attack class patrol boat. Thus, not only was the *AITAPE* the first patrol boat in the PNG Defence Force, but she was also the first of her class in the RAN!

AITAPE eventually arrived at the Patrol Boat Base at HMAS *TARANGAU*, Manus Island, in early January 1968 after a work-up in the Sydney-Jervis Bay area in November-December 1967. Sobering to think that all these events are nearly thirty years ago.

I have enclosed photographs of the launching of *AITAPE*, along with a view of the vessel taken off Sydney in December 1967.

Yours faithfully,
Sam Bateman
Commodore AM RANR
KEIRAVILLE NSW 2500

Editor: The print of *AITAPE* in the last edition was taken direct from a newspaper, and in this case, a very poor quality, very wrinkled, piece of newspaper print.

"VOYAGER"

Dear Sir,

As a regular reader of *"The Navy"*, I was fascinated by Gavin Ryan's very readable account of a Far East Commission on the destroyer HMAS *Voyager* in the fifties. A veritable time capsule of a read – if you'll pardon my expression.

He touched upon various interesting things. From life on board to the inter-regional tensions of the times and the allies that they fostered. Including the 'feel' of what it was like to be there in 'the pride of the fleet' at that time. One of his many interesting observations, was that after an enthusiastic start to the commission, the high levels of energy and efficiency started to go 'off the boil' as he puts it – after a period of about 7 months.

In the Merchant Service, of which I am a retired member, there have been many studies done, of optimum efficiency periods, ie periods when the best can be expected of people on ships at sea. In saying this, I fully realise that this applies to peacetime conditions only. As in war, it's a fight for national survival and the 'niceties' of proper rest cannot always be granted. However, the following was what was found after studies done in the UK – mostly by the major oil companies – BP, Shell and Esso being the most noticeable.

It was found, that people's efficiency peaked at about five and a half months then went downhill rapidly after that. I would like to ask the Editor if he is aware of any similar study done in the RAN linking time at sea and efficient performance of duty. And if so, may we perhaps see the results. Fatigue and stress have become major problems in all areas of work and I just wondered what the Navy point of view on this was or is.

Thank you Gavin Ryan, for a very interesting article.

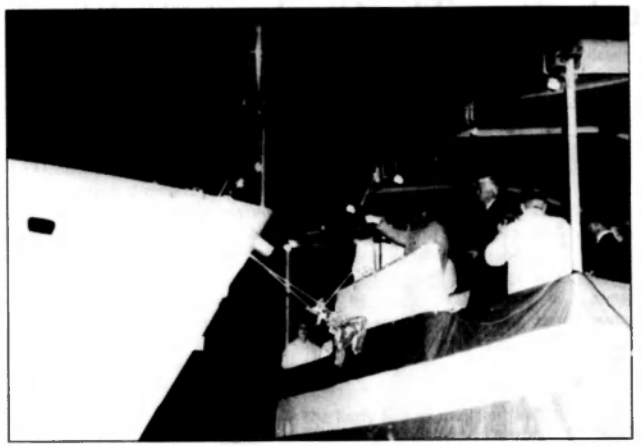
Yours etc,
Dave Smith
Altona VIC 3018

PS. The pictures taken at sea especially of the 'Munga' (HMAS *Warramunga*) were a treat to look at. Of the days when the destroyers looked like destroyers. Long, lean, grey and menacing. But also – dare I say it – beautiful.

WITHER OUR HISTORY

In recent years a lot has been done by the Australian Services in promoting their history.

Army has developed an extensive network of museums and has an active program of highlighting its history. The Air Force has a large museum at



"AITAPE", the first launching at night

Point Cook and an annual heritage competition.

But despite possessing Spectacle Island in Sydney the Navy doesn't seem to care too much about it or any other aspect of its history.

As a veteran I am proud of my service, I volunteered at a time when our nation was in mortal danger. To me, my period of service was a significant part of my life. My life, and the lives of many other navalmen, is part of the history of the Navy. A history in which today's Navy doesn't appear to show much interest. Economic rationalism has supplanted esprit de corps and traditions.

The Army and Air Force have left Navy in their 'wake' when it comes to appreciating the rich fabric of service history. Navy has only a small number of museums, mostly staffed by volunteers like myself. Yet it seems to be hesitant to provide a penny to these. Money to Army and Air Force museums and history does not seem to be in short supply. Is it that they are better managers or do they care about their history and naval people don't?

Last year we had a visit from a Mr Fry promising much, but typically nothing has happened. Volunteers, many who have already given much to the Navy, are expected to put their hands in their pockets and use their money to provide basic items for museums. Museums which Commanding Officers seem to be so proud of but are not willing to fight for.

Well I am sorry I've had enough and the Navy has just lost another part of its history, and will probably loose the rest, not that they really care.

A Hadlam
PYRMONT 2009

Editor: What do readers think about the state of our few naval museums?

Manoora Book

Dear Sir,

It would be appreciated if you would place a notice in your next edition that the HMAS *MANOORA* Association has recently published a book relating to the time when HMAS *MANOORA* was a Landing Ship Infantry.

The book details the eight assault landings in which she took part in New Guinea, Philippines and Borneo during 1944-45. As well as the history, the publication includes original Operational and Flotilla Orders to Boats Crews, which illustrate the detail that made the assault landings so successful. The orders are unique to the LSI's and are not promulgated by any other type of RAN vessel.

Also in the book are twenty original illustrations depicting life onboard ship by AB Roger Gittus – an Official Naval War Artist.

A posted book can be obtained by forwarding $30 payable to HMAS *Manoora* Association.

'Addressed to
J C Wilson
1/146 Bay Road
Sandringham VIC 3191
Yours very truly,
Graham Robinson
(Hon Secretary)

Colonial

Dear Sir,

I am currently, in my spare time, researching the personnel who served in, or were attached to, the Victorian Navy.

As you know, the Colony of Victoria put a lot of effort into naval matters and I am attempting to gather as much information together as possible on the people that made up that force. I am attempting, through your magazine, to get in contact with anyone with a similar interest or who might have information that may be able to help me.

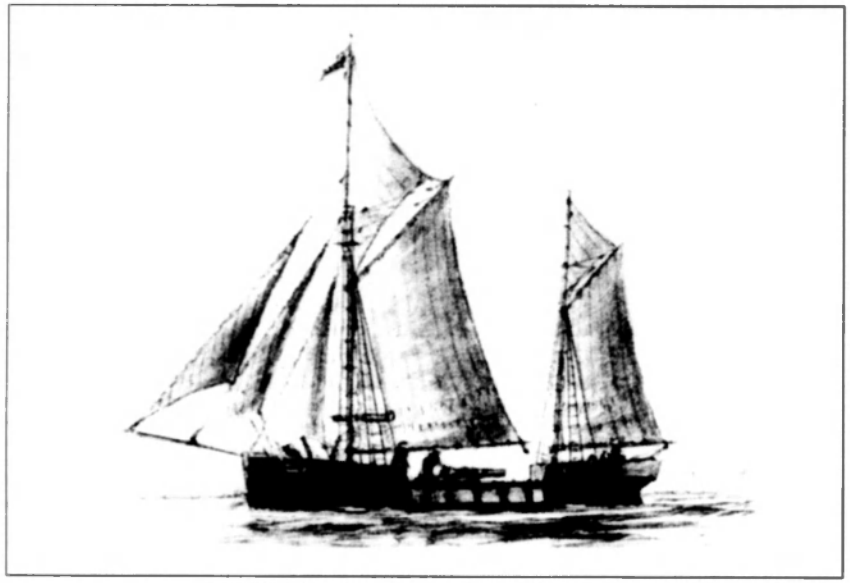
Any assistance you can give me would be greatly appreciated.

Yours faithfully,
Frank Noonan
D Block, Victoria Barracks
St Kilda Road
Southbank 3006

HMAS AITAPE underway.

Colonial Curiosity – The Gunboat "Spitfire"

Colin Jones



"SPITFIRE" built in Sydney in 1855. (Drawing - courtesy Mr. John Bastock)

The Building of a Gunboat

During the early colonial period in Australia, all governments supported a variety of vessels for official purposes, but few that could be regarded as warships. For this, the existence of a legitimate disciplined force was required, and after the closure of the penal facilities, it was not considered necessary.

The defence of the country as a whole rested in the hands of the Royal Navy, and the residual garrison forces of the British army. Nevertheless, the absence of permanent local forces worried the colonial administrators, especially in the wake of the great gold rushes of the early 1850s, to the extent that the colony of Victoria determined in 1853 to have a 'war steamer' built in Britain. Other influences of the time were the growing likelihood of a major war in Europe, following the Battle of Sinope in November 1853, and the annexation in the September of the year of New Caledonia by the French.

For the first time, Australia could have an enemy on its doorstep. Britain and France had declared war on Russia on 27 March 1854, and the allied fleet in the Pacific sailed to attack the Russian base at Petropavlovsk in August. Communications were slow and rudimentary, and many in Sydney saw the need for greater defence, especially in view of the inadequate state of such coastal gun batteries as existed.

The main defence of Sydney, it seemed, resided in the paddle sloop Acheron, whose 1-68pdr and 4-32pdr guns would be the main force available to repulse an enemy. For his part, Sir William Denison, the Governor of New South Wales, judiciously strengthened the defences of Sydney with the building of the Pinchgut fort, which was named in his honour on its completion in 1857. As he wrote,

> You laugh, and with reason, at the panic which led people in these colonies to insist upon fortifying themselves against the Russians. I never partook of this panic, but I have gone into the question of the defence of Sydney for the purpose of keeping off much more unpleasant neighbours than the Russians, namely, our friends the French, and our relations the Americans.

Whether a panic move, or one done on consideration, the other action was the building of a gunboat. By the 1850s, steam had pervaded the whole operation of the British fleet, and the building of a sailing gunboat was a real rarity, but for New South Wales it was a practical and swift solution to the problem of floating defence. A local shipbuilder, John Cuthbert, had a yard facing Darling Harbour, and he had already built for the government a sailing vessel named Lady Denison. He was given the contract to design and build the gunboat.

So it was that the ketch *Spitfire* was launched at Cuthbert's yard, at Millers Point, on 4 April 1855, in the presence of the Portmaster, Captain Brown and Mr Moriarty. Her construction had been gratifyingly swift. Cuthbert's yard could launch a vessel like this two months after the laying of the keel. She was intended to carry 'one long gun (32 pounder) on a traversing carriage, the rail and bulwarks on either side being so constructed as to allow of their being lowered at any time so as not to impede the firing in any direction'. The following description indicates her size and build:

Dimensions, tonnage and layout

tonnage	60 tons measurement (burthen)
length	62' between perpendiculars 51' keel for tonnage (not actual length of keel)
beam	16' moulded (to outside of frames)
depth of hold	7'3" (later noted as 6'6")
draught	5'6" (designed)
armament	strengthened to take one long 32 pounder (9'6")
build & layout	ketch rigged, raked stem and square counter stern, keel of ironbark, frames of blackbutt, kauri planking, copper fastened throughout and sheathed with 22oz copper. A small cabin aft, and other accommodation, for a maximum of about 12 persons. As a pilot vessel she needed to be roomy enough to take a buoy on board and she usually carried a whaleboat.

The only known picture of her is an etching first reproduced in the Illustrated Sydney News of 14 April 1855 (and a sketch produced by naval historian, the late Mr. John Bastock – Editor). The 1855 etching is probably speculative to a degree, as she would probably not have had her masts in her before the sketch was published. The weight of evidence points to her being rigged as a schooner, certainly by 1867 and possibly by 1856. The well-known photograph of a ketch moored at a buoy by the Endeavour Tree in Cooktown and dressed with flags, does not show the *Spitfire* but is actually the Pilot.

The Early Life of the "Spitfire"

A question hangs over the early years of the *Spitfire*, as a history of the Cuthbert yard stated that she was built for service in Moreton Bay. Despite contemporary newspaper opinion that she was for the defence of Sydney, this is a logical conclusion. Sydney and Newcastle were right on the ocean and could be fortified quite easily whereas the approaches to the Brisbane River were difficult, and could be better served by a gunboat. It is also very possible that she never carried her gun. There was, after all, no colonial military establishment except for poorly trained and organised volunteers, and for warlike actions she would probably have had to be commissioned and manned from the British squadron locally. In the Moreton Bay region there were no volunteers at all. Certainly she was unarmed when she went to Moreton Bay, and no 32 pounder gun was ever held on the Queensland establishment.

As for the war with Russia, the Russian Pacific squadron was found to be hidden up the Amur River by May 1855 and Sebastopol fell on 9 August. Indeed, HMS *Acheron* was decommissioned, then sold at Sydney on 24 September 1855. The navy was no longer considering war, and the *Spitfire* would naturally be found other work to do.

The next question which hangs over the *Spitfire* is her rig. Certainly she was built as a ketch, but only a year later she is being described as a schooner. Although some references of this type date from a later period, and the description may have been generic rather than accurate, there seems a very good chance that she was rerigged for service on Moreton Bay. Colonial boatmen generally seem to have felt more at home with a schooner than with a ketch or a cutter, and probably looked for the heavier rig to produce a better speed. Some reference to her rig may be deduced from the report of the damage she suffered in 1861, when the boat was carried away, she lost the topmast gaff and the stay foresail, and the bowsprit was thrown athwart the bow. In 1860 and 1861 the newspapers consistently referred to her as the 'government sloop', which referred to her role rather than to her rig. At the time of her loss she was a schooner, fitted with topmasts and rigged with hemp except for wire main stays. Her owner in 1896 noted that she had formerly been fitted with a running bowsprit, which was drawn in as sails were reefed.

Moreton Bay was the Cinderella area of the colony, where the government in Sydney only spent money if it had to. The navigation could be very dangerous, certainly for the unwary, as witnessed by the ship *Phoebe Dunbar* which was stranded at Amity after mistaking Point Lookout for Cape Moreton, on 5 May 1856. Nevertheless, a lighthouse was under construction, and the *Spitfire* carried the lantern and other gear from Brisbane to Moreton Island. The light was formally proclaimed on 29 January 1857.

Moreton Bay Pilot

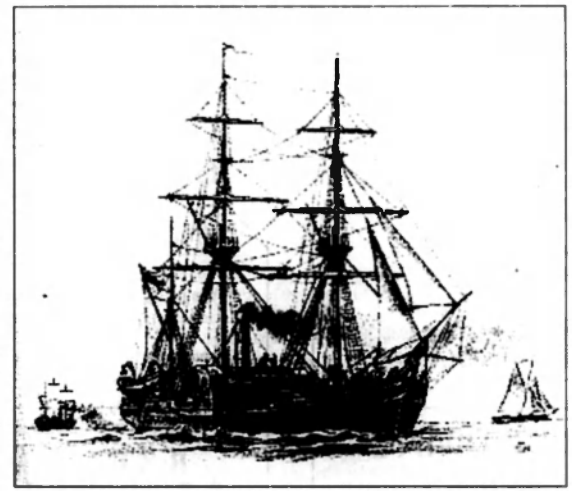
In 1857 the schooner *Pearl*, which had been purchased the previous year, was surveyed and found to be in need of repair, so she was replaced as pilot vessel for Moreton Bay by the *Spitfire*. From December 1857 to May 1862, William Bousefield was her master, and she was worked by a crew of five. The pilot vessel had other duties when not attending to the shipping, as she was responsible for the buoys and markers in the bay, as well as for the lightship *Rose*

which had been sailed up from Sydney in 1856.

Two pilots and nine boatmen lived ashore on Moreton Island at Cowan Cowan, in very primitive conditions, and they would be signalled by balls from the flagstaff at Cape Moreton light if a ship needed their assistance. The pilot station was convenient, as the same wind that brought a sailing ship up the coast from Sydney would take the pilot vessel out to meet it off Cape Moreton. In fact it was not until some years later, with the opening of the regular Torres Strait steamer service, that the sailing pilot vessels proved inadequate and required replacement by a steamer. The only difficulty was meeting a vessel at night. This was overcome by the extension of the telegraph line from Lytton across the islands to Cape Moreton after 1862. Then, if a pilot was wanted, a red light would be shown from the lighthouse and the *Spitfire* would send a boat ashore at Cowan Cowan to pick up a pilot.

There were other duties which fell to the *Spitfire*, as one of the best of the government vessels based in what had in December 1859 become Queensland. The settlers were moving north. In 1859 George Dalrymple had explored the Burdekin Valley, and the New South Wales government had offered a prize of £2000 to the person who could find a port to serve the country north of Rockhampton. It was bad luck for the finder that, by the time the place had been discovered, the area was administered by the new, penniless, government of Queensland.

Following vigorous representations by Mr Dalrymple, the government requested that an officer from the survey ship *Herald* be made available to continue survey work in Queensland before she left Sydney. In consequence it was suggested that the Royal Navy would make an officer available and that Queensland would provide a vessel of 80 tons for the work. Such a decision required parliamentary approval, but in the interim, Assistant Master Joseph Smith was discharged from the *Herald* on 18 July, and Queensland supplied the *Spitfire*. In fact, Smith had been under a cloud for his lack of sobriety and so he was not seen as a real loss to the Royal Navy.



Paddle sloop HMS "ACHERON". (Drawing – courtesy Mr. John Bastock)

In August 1860, styling himself as a Lieutenant, Smith took his new command north from Moreton Bay. Dalrymple himself was on board, along with a surveyor and a botanist. They turned back down the coast after reaching Magnetic Island and skirmishing with Aborigines near Cape Cleveland on 15 September. They then located the mouth of the Burdekin, which proved to be quite un-navigable, with a depth of water of no more than seven feet, five miles offshore. Most of the work was done further south, at the 'splendid haven' of Port Denison, and as a result a chart was published later in the year and it was opened as a port of entry on 9 March 1861. The town of Bowen was soon established. The *Spitfire* meanwhile returned to Brisbane on 18 October 1860. While she had been away the small cutter *Flora* filled in as pilot vessel. As for Joseph Smith, he was replaced by another man.

The year 1860 saw the appointment of Lieutenant George Heath RN, late of the *Rattlesnake*, as Portmaster for Queensland, and his earliest tasks were the investigation of the local waterways and making them more agreeable for navigation. Queensland enjoyed a brief boom in the growing of cotton during the American Civil War, and on 11 April 1861 Heath sailed in the *Spitfire* to investigate the rivers north of Brisbane to see whether any were suitable for use as a port. During the ten days away she was damaged in a gale, losing some of her head gear, but came home safely, and by 1862, timber getters on the *Maroochy* were using the Mooloolah River as their port.

The *Spitfire*, meanwhile, served the daily round of the pilot service in northern Moreton Bay. She rode out a cyclone which caused heavy damage to the pilot station on 18 March 1864, and it was her larger consort, the schooner *Pearl*, which was provided to the hydrographer for the resumption of the coastal survey in the same year. The funds for the pilot service depended on the rates levied on the shipping, and with the sharp economic downturn from 1866, these became rather meagre. Nevertheless, the work was still there, and an additional vessel was used by now to attend to buoys and beacons.

A report on the *Spitfire* said that she was much improved as a schooner compared to how she had been as a ketch, 'an excellent seaboat although rather too small'.

In 1873 she was dismasted and almost lost in a storm, but was saved owing to the efforts of Pilot William Woods. In weather too thick to allow her to be seen from the lighthouse, she rode out a south-easterly gale at anchor in five fathoms of water off dangerous sandbanks for three days. She was subsequently refitted and remasted, replaced meanwhile by the schooner *Ethel*. It should be noted, however, that at no time, including the Russian war scare of 1878, was she ever considered for reversion to her original role as a gunboat.

Cooktown Pilot

The Palmer River gold rush of 1873 was a phenomenon in Queensland, and led to the foundation of the town of Cooktown. Increasing trade in the far north soon called for the services of a sailing pilot vessel, and the Spitfire was chosen. She was replaced at Brisbane by a new schooner, the Governor Cairns, a significantly larger vessel, 78 feet in length, which arrived in 1879. The desire of the pilots for a fast vessel was illustrated by their alterations to the new schooner immediately upon her arrival in Brisbane. They raised the height of the masts by four feet. Probably they had already done something similar to the Spitfire.

The north is a different environment to Moreton Bay. There is the ever-present danger of the coral of the Great Barrier Reef, and also the strong trade winds against which sailing vessels found it very tedious indeed to beat. The *Spitfire* therefore, though intended to be used for pilotage and the servicing of buoys, beacons and lightships for much of the inner passage, in practice found herself confined to within a safe distance of her base. One early task was to investigate the Cape Sidmouth area where there had been reports of a white woman living among the blacks. No trace of her was found. A rather more tragic task was for her to bring back the remains of Mrs Watson, her child and her servant after their death from thirst on No 5 Howick Island in January 1882. The story of the heroic but futile escape from murder by the natives at Lizard Island was to be told for generations to come. The *Spitfire* also brought back the survivors of the German steamer *Freya*, which had been wrecked, after sailing from Cooktown, on Osprey Reef in October 1882.

The north was very much less civilised, also, than the Moreton region. When the first stage of the Cooktown railway was opened, 31 miles to Normanby Creek, in 1885, it was still possible for workers to be attacked by Aborigines. Still, the reach of the government was long, and the *Pearl* was used to take officials to Port Moresby to claim New Guinea for Queensland on 4 April 1883.

For the *Spitfire*, though, it was almost the end of the road. In 1883 she was replaced as the Cooktown pilot vessel by the *Ethel*, a vessel which was regarded as more efficient for general service. Then in 1885, considered not worth cost of repair, she was sold out of government service for £300 and became a bêche-de-mer fishing vessel. The *Ethel* herself was replaced in 1887 by the *Governor Cairns*.

The Last of the "Spitfire"

The new owner of the Spitfire was Alex Matthewson, but he sold her in 1889 and she was sold again in 1892 to a partnership of Daniel Moynahan and S. Andreassen. They were by trade a shipwright and a sailmaker respectively, and they found that the old vessel needed some attention. On 26 January 1896 the barometer fell to 29.26 inches and the Spitfire was lucky to escape with just the loss of its masts off Hinchinbrook Island in Cyclone Sigma. They saved some of the sails and brought her into Cairns under jury rig. After that they sold her. The bêche-de-mer fishery went hand in hand with the pearl fishery in the north, and both involved a large number of vessels. They were all desperately vulnerable to the weather. The entire pearling fleet, over 100 vessels, was to be lost in Cyclone Mahina in March 1899. But the Spitfire was no longer there to be lost. The newspaper reported,

The Japan mail steamer *Omi Maru*, which arrived from Brisbane today, brought news of the loss of the schooner *Spitfire*. The steamer picked up the master of the schooner, Mr Andrew Allison, off the Queensland coast. He reported that the vessel sprang a leak, and he fired off an "L" reed near Piper Island lightship. No lives were lost. The *Spitfire* was built as a gunboat for Sydney at the time of the Crimean war. She was afterwards, for many years, a pilot vessel at Brisbane and Cooktown. Subsequently she was sold, and was in the bêche-de-mer trade when lost. ■

SUBMARINES & THE ADF

by Navy Leaguer

The RAN is spending a very substantial sum on building six Collins class submarines. There is the possibility that a further two will be ordered.

Although they are armed with torpedoes and sub-surface to surface anti-ship missiles, the primary role of the *Collins* class is reconnaissance. To provide them with the most modern diesel electric submarine capabilities they are equipped with seven different types of sonar, an electronic warfare mast and a radar mast. The signals received from these are classified by computer and used in the *Collins* own fully integrated combat system and, where appropriate, passed to other ADF vessels and aircraft by the link 11 combat data communications system. Reconnaissance reports are also passed through the Exmouth Gulf naval communications station.

Although they are very well equipped for their primary reconnaissance role, the *Collins* class' mark 48 mod 4 anti-submarine and anti-surface target torpedoes are approaching obsolescence. There are plans to replace them with a new generation of submarine launched heavy weight torpedoes.

These plans represent one step in a much needed and overdue increase in priority accorded by the ADF to anti-submarine warfare (ASW).

For some years, ASW has been accorded a relatively low priority. This was in spite of the fact that diesel electric submarines have been increasing their capabilities for some time. Regional powers have been acquiring more submarines – in many cases new and more modern submarines.

Moreover, they are increasing their ASW capabilities.

In these circumstances, a review of the ADF's ASW modernisation plans shows that, although a number of steps are being taken, those steps are not being taken quickly enough.

The programmes include:

* A new generation of heavy weight torpedoes for the *Collins* class submarines. Studies have been approved, but no decision to buy the torpedoes will be made until 1999/2000.

* Airborne light weight torpedoes as the ASW armament of RAN helicopters and surface combatants and RAAF Orions. Although a number of kits have been acquired for an interim upgrade of existing stocks of airborne light weight torpedoes, only studies have been authorised on a new generation of these torpedoes. No decision will be made to buy new generation torpedoes until 2001/2002.

* The programme to upgrade the RAAF's P-3C Orions is well underway.

* Two prototype low frequency active passive towed array sonars are to be ordered shortly for a 2 year trial from RAN surface ships. After these trials are completed it is planned to equip all 14 RAN surface combatants with towed array sonars.

* Trials are underway of both Kariwara solid and Narama liquid filled slim line towed arrays for the remaining 4 *Collins* class submarines. The first two have an early version Kariwara.

* The Defence Science and Technology Organisation is studying the use of bi-statics to complement the Barra passive sonobuoys (used in RAAF Orions and RAN Seahawk helicopters) with an active sonobuoy. Whilst this shows promise, this development is in the prototype stages.

* Mines for the *Collins* class to enable them to "mine in" opposing submarines into their bases. In this case, progress is strong, with a request for tender expected later this year.

The big gaps are in the sonar equipment of RAN surface combatants and in the lack of dipping sonars for RAN helicopters.

Although improvements can be made in the hull mounted sonar sets in the Adelaide class FFGs (which have Raytheon SQS-56), and the Thomson Marconi Spherion Bs in the Anzacs are an up-to-date hull mounted sonars, the range at which any hull mounted sonar can be effective is limited – and shorter than the range of most submarine launched torpedoes. It is generally accepted that hull mounted sonars are approaching their maximum development potential.

The big opportunity for the surface ship to recover its defence against the submarine is in improved dipping sonars for its helicopters.

In this area, there has been a major technological breakthrough. The latest helicopter borne low frequency dipping sonars can now achieve ranges far in excess of their predecessors.

This comes at a time when the RAN has removed its AQS-13B dipping sonars from their Sea King helicopters. At this stage, there are no firm plans to provide the Seahawks with a modern dipping sonar such as Allied Signals Ocean Systems' HELRAS or the Thomson Marconi FLASH.

One very authoritative RAN source has stated that a number of regional powers in the near north are undertaking major upgrading to their ASW capabilities. A number of regional powers' (Japan, Taiwan, India, China and Pakistan) naval helicopters are already equipped with dipping sonars. One, South Korea, has ordered AQS-18V for its Lynx helicopters. Three navies have expressed interest in acquiring HELRAS.

HELRAS was demonstrated to the RAN in the Timor Sea – one of the world's most difficult sonar environments – and achieved ranges very substantially in excess of anything achieved by the Sea Kings' AQS-13B.

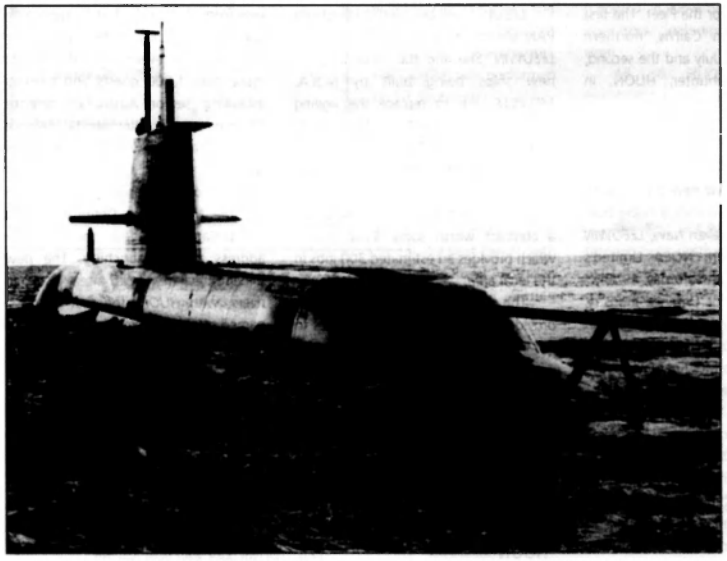
The Italian Navy aircraft carrier *GUISEPPE GARIBALDI* undertook an exercise in a cleared area in the Mediterranean. One helicopter with HELRAS was deployed to locate the submarine (a modern, very quiet Italian diesel electric boat). The trial was extremely successful.

There is no doubt that the RAN should and will explore all alternative sources of low frequency active sonars. These will include both Thomson Marconi Sonar's FLASH, Raytheon/Hughes ALFS (in which Thomson Marconi Sonar plays an imoortant part) and Allied Signal Ocean Systems' HELRAS.

However, at this stage there are no firm plans to acquire dipping sonars for the RAN's helicopters. A decision to undertake the inevitable studies is due in 2000. Under current plans, actual delivery of modern low frequency dipping sonars is unlikely before 2005.

The RAN needs a strong ASW capability to undertake its own ASW operations and to exercise the *Collins* class boats in evading modern ASW sensors. Unless urgent action is taken to acquire modern dipping sonars, and to accelerate the other programmes, the RAN will have the world's most capable diesel electric submarines but be without the opportunity to train them to operate against regional ASW forces equipped with modern dipping sonars. ■

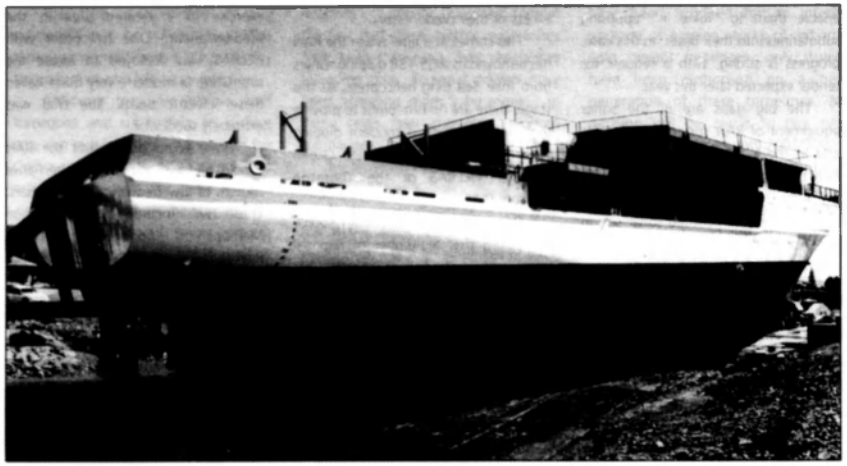
HMAS "COLLINS"



"NUSHIP FARNCOMB", August, 1997. (Photo - CPOPH Cameron Martin)

FLEET LAUNCHINGS

By Ross Gillett



Survey ship "MELVILLE" prior to launching. (Photo – ABPH Antoinette Aldworth)

For the Royal Australian Navy the month of July witnessed the launchings of two new ships for the Fleet. The first was conducted in Cairns, northern Queensland on 19 July and the second, the coastal minehunter, HUON, in Newcastle six days later.

"LEEUWIN"

The first of two new 2500 tonne hydrographic ships currently being built for the Royal Australian Navy, *LEEUWIN* was launched from NQEA Limited's shipyard in Cairns on Saturday, 19 July.

The Minister for Defence Industry, Science and Personnel, Mrs Bronwyn Bishop, addressed shipyard personnel and guests prior to Mrs Judy Taylor, wife of the recently retired Chief of Navy, Vice Admiral Rod Taylor, broke a bottle of champagne across the bows to name the vessel, *LEEUWIN*.

Conducted mid-evening to take advantage of the high tide, *LEEUWIN* is a 72 metre ship equipped with state-of-the-art sonar equipment. She will soon join Hydrographic Service vessels and an aircraft which work to chart and upgrade existing charts of Australian terntorial waters.

LEEUWIN will be commissioned into RAN service, in due course, as HMAS *LEEUWIN*. She and the second of the new ships being built by NQEA, *MELVILLE*, are to replace the ageing hydrographic vessels, HMA Ships *MORESBY* and *FLINDERS*, which will be decommissioned as the new ships are brought on line.

NQEA are building the ships under a contract worth some $162 million which provides an estimated 300 jobs in the local area.

The Australian Hydrographic Service provides accurate charts and Notices to Mariners for all ships, yachts and boats which operate in our sea lanes, on the continental shelf and in estuaries around Australia.

The Wollongong-based Australian Hydrographic Office has responsibility for an area equal to about one-eighth of the earth's surface.

"HUON"

HUON, the leadship of six *HUON* class minehunters ADI Limited is currently building for the Royal Australian Navy was formally launched at its Newcastle construction facility on 25 July.

The naval event was attended by more than 1,000 guests and workers including senior Australian defence force personnel, international defence industry and Newcastle community leaders and the minehunter construction workforce.

The Minister for Defence, Mr Ian McLachlan, provided the keynote address at the launching. The new minehunters are named after Australian rivers, with *HUON*, the first of class, named after the Tasmanian waterway.

HUON was launched by Mrs Betty Norris, wife of the Mayor of the Huon Valley Council in Tasmania. A state-of-the-art combat system will make the *HUON* class the most advanced minehunters in the world today. The sonar system fitted to each ship will locate and classify threatening mines, then, employing the remotely operated disposal system, will place a charge alongside the mine. The new ships possess far better sea-keeping

"HUON" on 25 July, 1997. (Photo – ABPH Damian Pavlenko)

"HUON" after launching. (Photo – ABPH Antoinette Aldworth)

capabilities that the older *RUSHCUTTER* and *SHOALWATER*, currently in service with the mine warfare force.

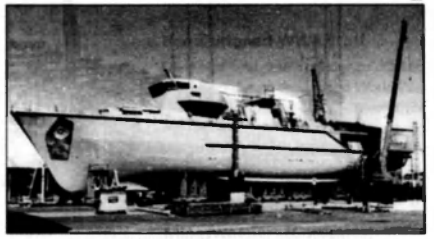
The $1.2 billion construction program is on target to meet the Navy's schedule and is within budget. The hull and bulkheads of the second minehunter, *HAWKESBURY*, have been completed and outfitting is progressing well. Construction of the hull of the third ship, *NORMAN*, is complete and the laying of the keel of the fourth minehunter, *GASCOYNE* was performed on 13 September.

LCDR Geoff Uren, has been selected as *HUON*'s first commanding officer. LCDR Uren has previously commanded a minehunter and patrol boat during his 19 year career with the Royal Australian Navy. During exchange with the US Navy, he spent six weeks on the command staff of a mine clearance operation following the 1991 Gulf War. More recently, he has been to sea on the Italian Navy's *Gaeta* class minehunters upon which the *HUON* class is based.

HUON will have a crew of 38 comprising the commanding officer, five officers, six senior sailors and 26 junior sailors. Twelve technical crew members commenced training for the ship in Newcastle in August. They will be followed in November by another 22 operators, including Lt Commander Uren.

All six HUON class coastal minehunters will be homeported at HMAS *Waterhen* in Sydney. *HUON* is expected to enter service in early 1989, with sea trials from April 1998 and delivery to the Navy eight months later, in December.

The first *HUON* was a River class torpedo-boat destroyer which was built at Cockatoo Island in Sydney. She served during the Great War and in the 1920s. ■



Second of the class, "HAWKESBURY", at the builders yard. (Photo – Brian Morrison)

HMAS AE2 LOCATED

Found after 82 years – Australia's unsung naval hero of Gallipoli, the submarine *AE2* which first pierced the Dardanelles to expose the Turkish flank during the Great War.

Identified by scan sonar images lying upright and partially covered by silt and fishing nets in 80 metres of water in the Sea of Marmara behind Gallipoli, *AE2* is a significant Australian maritime historical discovery.

"It was eerie being the first person to see the *AE2* since she was scuttled by her crew 82 years ago," said Selçuk Kolay, the Istanbul museum director whose dogged underwater detective work has finally located and photographed the lost submarine.

Captained by the flamboyant Irishman Lieutenant-Commander H.G. Stoker, *AE2* created naval history for Australia – breaching the narrows of the Dardanelles against mines, currents and strong Turkish fire from afloat and ashore.

AE2 arguably then changed the entire course of the Gallipoli campaign. Stoker's message to Allied headquarters that he had breached the narrows arrived on the night of April 25, 1915, just as Allied commanders were assessing the disastrous landing, and deciding whether to press on or pull out.

The signal swayed the decision in favour of staying, and led to the famous message to Australian troops form General Ian Hamilton to "dig, dig, dig", the origin of "digger".

Five days later, after attacking Turkish shipping and being constantly pursued, *AE2* was hit by a shell from the Turkish gunboat *Sultan Hisser*.

Stoker and his Australian/British crew scuttled *AE2*, but were rescued from the sea only to spend the next three years in Turkish prisoner-of-war camps.

All attempts by both Turkish and Australian authorities to locate the boat over the years had failed, because Stoker had probably given misleading co-ordinates to stop the enemy finding what was then a state-of-the-art piece of military equipment.

Selçuk Kolay, Director of the Rahmi M Koç Industrial museum took a different tack with his investigations culminated in him finding Stoker's relatives. One aged aunt, Primrose, told him Stoker in his latter years would shout "north" in his sleep. Searching north of the sinking sites recorded by British and Turkish naval authorities he finally found the RAN's *AE2*.

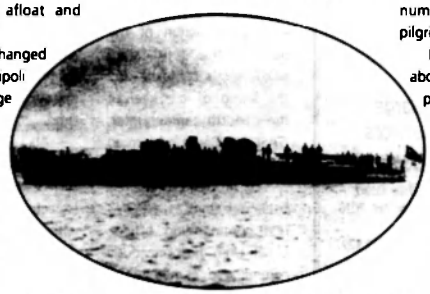
His exploratory dives on the hulk revealed that she was basically standing upright, although the conning tower had fallen to one side after the steel rivets corroded.

"It was a great thrill to be the first person to step on her in 82 years," he reported. "The water around is muddy and she is smothered by the many fishing nets she has entangled over the years."

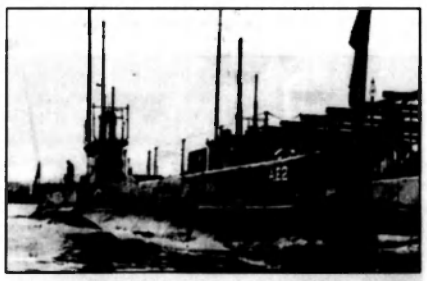
Mr Kolay are keen to raise *AE2* in a joint venture with Australia, and display it in Istanbul's Koç Industrial museum. This would create a dual attraction, with Gallipoli's Anzac Cove, for the growing numbers of Australians making a pilgrimage to Turkey.

Mr Kolay estimated it would cost about $US1 million to raise, clean and put *AE2* on display, although tentative Australian estimates are higher. He has applied to the Turkish Government for salvage rights, which have already been approved by the Turkish Navy.

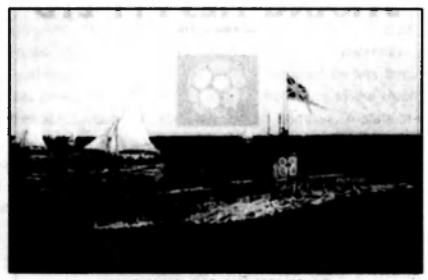
Australia has indicated to Ankara it believes the submarine could be designated Australian property under international law. ■



The Turkish gunboat "SULTAN HISSAR", responsible for the loss of HMAS AE2.



HMAS AE2, alongside Garden Island in 1914.



Artists impression of HMAS AE2 in the Sea of Marmara. The boat actually carried the number B1 (not B2) on her sail.

WHAT'S IN A NAME

By Joe Straczek

Colonial Ships

The ships of the Colonial navies carried a mixture of names with origins ranging from Greek mythology through to names with indigenous connections. When the surviving vessels were transferred to the RAN they retained their original names, although in the case of *CERBERUS* and *PROTECTOR* these ships were re-named to reflect a changing role late in their careers.

Cruisers

All of the cruisers built for the RAN were named after either Australia, in the case of the larger cruisers, or capital cities, for the light cruisers. *CANBERRA*, a heavy cruiser, carried the name of the nation's capital.

Cruisers transferred to the RAN by the Royal Navy retained their original names whilst serving with the Australian Fleet.

Torpedo Boat Destroyers

The first three TBDs, *PARRAMATTA*, *YARRA* and *WARREGO*, were named after rivers with a distinctively Australian name. The second group of three; *HUON*, *TORRENS* and *SWAN* were named after rivers carrying non-indigenous names.

E Class Submarines

In line with RN practice the two submarines were not named. They were identified as AE1 and AE2, the prefix A being used to indicate they were modified E class submarines built for Australia.

WWI Requisitioned Craft

These craft retained their original names.

Gift Fleet

After the Great War the Admiralty loaned the RAN a number of ships to replace the smaller units which had seen extensive service or had been lost. These units included the destroyer leader ANZAC; S class destroyers – *STALWART*, *SWORDSMAN*, *SUCCESS*, *TASMANIA*, and TATTOO; Flower class Sloops – *GERANIUM*, *MALLOW* and MARGUERITE; J class Submarines – J1, J2, J3, J4, J5 and J7; and the sloop SILVIO. With the exception of SILVIO (renamed *MORESBY*) all retained their former names.

Records indicate that the Naval Board did consider renaming the S class destroyers after; *DARWIN*, *FREMANTLE*, *RABAUL*, *LAUNCESTON* and *MORESBY* respectively.

SILVIO was renamed, with Admiralty approval, *MORESBY* in honour of Admiral Moresby's survey work. The names *COOK* and *BASS* had also been suggested.

Scrap Iron Flotilla

In 1933 the RN agreed to loan the RAN replacements for its destroyer flotilla. The new ships; *STUART*, *VAMPIRE*, *VOYAGER*, *VENDETTA* and *WATERHEN* again retained their original names.

O Class Submarines

The Admiralty had advised the Naval Board that starting with the O class all RN submarines would be named. The two Australian boats, originally designated AO1 and AO2, were subsequently named *OXLEY* and *OTWAY*. This followed the RN policy of starting the names with the letter O.

Australian Built Sloops

Described in some correspondence as Yarra class Sloops these ships; *YARRA*, *PARRAMATTA*, *SWAN* and *WARREGO*, were named after rivers. Historical records indicate that there had been a request by the city of Parramatta to name a ship after it.

Boom Defence Vessels

These ships all carried Australian names starting with the letter K; *KOOKABURRA*, *KOALA*, *KANGAROO*, *KARANGI* and *KIMBLA*. During the war *KARA KARA*, *KOOMPARTOO*, *KINCHELA* and *KURAMIA* were requisitioned for service as boom defence vessels. These ships retained their mercantile names.

"Tribal" Class Destroyers

In selecting names for the *Tribal* class destroyers Navy decided that the names must be, easy to pronounce, easy to spell and the name should come from a significant tribe. *ARUNTA* and *WARRAMUNGA* were the first two names selected. The third destroyer was to be named *CHINGILLI* but this was first changed to *KURNAI* and latter *BATAAN*.

N and Q Class Destroyers

These ships; *NAPIER*, *NIZAM*, *NESTOR*, *NORMAN*, *NEPAL* and *OUALITY*, *QUADRANT*, *QUEENBOROUGH*, *OUIBERON* and *QUICKMATCH*, were loaned from the RN and retained their RN names.

Requisitioned WWII Craft

Ships and small craft requisitioned for service during the Second World War generally retained their mercantile names. In cases where this may have resulted in confusion with ships already in service the name was changed.

"Bathurst" Class Australian Minesweepers (Corvettes)

The 56 *Bathurst* class corvettes to

serve in the RAN were all named after major regional centres. Given the numbers involved a good geographical spread of names was obtained.

Of these ships a few were re-named prior to commissioning. These were, *WHYALLA* originally *GLENELG*, *GAWLER* originally *GAMBIER*, *PARKES* originally *MUDGEE* and *COLAC* originally *HAMILTON*.

"River/Bay" Class Frigates

This group of frigates have been described as either *River* or *Bay* class or Modified Rivers. All, except two, of the ships authorised for construction were named after Australian rivers, so perhaps they should be designated a *River* class.

The ships were approved in two groups. Of the first group, *CULGOA* was originally named *MURRAY* and *WARBURTON* was originally named *ROPER*. *WARBURTON* and *MURRUMBIDGEE* were cancelled. All of the second group were cancelled except for *CONDAMINE*. Within the second group were two frigates to be named *BALMAIN* and *WILLIAMSTOWN*. These were named after the municipalities where the ships were to be built.

"Battle" Class Destroyers

The two *Battle* class destroyers were named after famous Australian battles. *ANZAC* was originally to have been named *MATAPAN*.

Landing Ships Tank

Six LSTs were on loan to the RAN from the RN. In 1948, and in line with new RN practice, three of these ships were named after famous landings in the south west Pacific area during World War II.

Aircraft Carriers

Australia's first aircraft carrier *ALBATROSS* was named after a sea bird whilst the other two were named after capital cities, *SYDNEY* and *MELBOURNE*. *VENGEANCE* was on loan and so her RN name was retained.

"Daring" Class Destroyers

Originally the four *Daring* class destroyers were allotted the names of the wartime V and W destroyers, *WATERHEN*, *VOYAGER*, *VAMPIRE* and *VENDETTA*. Of these *WATERHEN* was cancelled and *VOYAGER* lost after colliding with HMAS *MELBOURNE*. HMS *DUCHESS* was loaned to the RAN as a replacement and retained that name in RAN service.

"Type 12/River" Class Frigates

These ships carried on the tradition of naming sloops/escorts after Australian Rivers, alhough the final pair were technically not Type 12s. Generically the class has been described as the *River* class.

"Oberon" Class Submarines

These boats carried on the tradition of having all their names start with the same letter. Of the six boats only *ORION* had no real Australian connection.

Guided Missile Destroyers

Named after the cities of Perth, Brisbane and Hobart.

"Ton" Class Minesweepers/Minehunters

On acquisition by the RAN these vessels were named after water birds.

"Attack" Class Patrol Boats

All names start with either the letter A or B. Those which were destined specifically for the PNG Division of the RAN were named after towns in Papua New Guinea.

"Fremantle" Class Patrol Boats

Carry names previously carried by *Bathurst* class corvettes.

Guided Missile Frigates

Named after Australian cities. *DARWIN* and *NEWCASTLE* are the first ships to carry these names in the RAN. *NEWCASTLE* is also the first RAN ship not to carry forward Battle Honours won by an RN ship of the same name.

Support Ships

The naming of support ships appears to have been more haphazard than for other vessels. HMAS *SUPPLY* was originally named *TIDE AUSTRAL*, in keeping with RN naming for this class. *STALWART* and *SUCCESS* were named after S class destroyers and *WESTRALIA* carries forth the name of the Second World War LSI. Earlier support ships have been *PLATYPUS*, *KURUMBA* and *BILOELA*.

Hydrographic Ships

Purpose built marine science craft have been named after early navigators and ocean explorers. Those ships which were converted to the role normally retained their former name. The current Survey Motor Launches all carry names of ships previously involved in marine science or hydrographic work. The two new medium hydrographic ships which are currently under construction are named for large coastal features, Cape Leeuwin and Melville Island.

Minewarfare Craft

The *Bay* class MHIs are named after the Shoalwater and Rushcutters Bays. Those of the *Huon* class; *HUON*, *HAWKESBURY*, *GASCOYNE*, *DIAMANTINA*, *YARRA* and *NORMAN*, carry names of Australian rivers.

The Auxiliary minesweepers purchased by the RAN have been named after First and Second World War requisitioned minesweepers; *KOORAGA*, *GUNNUNDAL* and *BERMAGUI*.

Amphibious Warfare Ships

The post-war amphibious ships all carry names connected with Second World War amphibious operations, in the case of the LCHs, or operations in which there was significant naval support for the Army, *TOBRUK*. The two LPAs carry the names of the Second World War LSIs *KANIMBLA* and *MANOORA*.

"Anzac" Class Frigates

The first four Anzac Frigates are named after famous Australian destroyers; *ANZAC*, *ARUNTA*, *WARRAMUNGA* and *STUART*. The second group of four carry names of Australian cities; *PARRAMATTA*, *TOOWOOMBA*, *BALLARAT* and *PERTH*.

"Collins" Class Submarines

These ships are named after famous RAN figures and are the first ships in the RAN to be so named. ■

ANZUS AFTER 45 YEARS

By Andrew Robertson

Given recent questioning of the relevance of the ANZUS Treaty today, the public seminar held at Parliament House, Canberra on 11/12 August, 1997 by the Defence Sub-Committee of the Joint Standing Committee on Foreign Affairs, Defence, and Trade was timely and of particular interest and importance.

Chaired by Senator D MacGibbon, the seminar consisted of papers presented by 19 speakers, including Ambassadors and Members of parliament, academics, military and retired military officers, public servants, industrialists and historians. A video conference with the President of the Asia-Pacific Policy Centre Washington DC, Mr Doug Paal, the Foreign Policy Advisor US Pacific Command, Ambassador Richard Teare, and Dr Bill Tow, Reader in International Relations, University of Queensland, was also set up.

The introduction to the seminar was given by the new US Ambassador to Australia, Ambassador Genta Hawkins Holmes who, against the historical background, outlined the positive features of the Treaty including its brevity, flexibility and adaptability and how its principles had stood the test of time. The Ambassador pointed out that the ANZUS Alliance has been a key element in the positive growth and development of the Asia-Pacific and quoted Prime Minister Howard's recent speech in New York:

(Australia's) close association with the United States has underpinned not only our security but also our stability. But most importantly it has given us an opportunity to share values across the Pacific, to share those fundamental beliefs of personal liberty of individual effort, of a just society and a belief that it is appropriate always to aspire to the ideal of a better world.

The US Ambassador stated that ANZUS provides a framework for co-operation in many areas – exchange assignments, ship visits, and joint exercises. These last were vital in terms of readiness and interoperability.

Australia is the key southern partner in our Asia-Pacific bilateral security arrangements – that is as true today as it was over forty years ago.

We will continue our military presence in the Asia-Pacific, both in terms of forward-depioyed forces and our commitment to maintain about 100,000 troops in the region. For that presence acts as an incentive for continued development, stability and peace. Our five bilateral treaty alliances are key in providing the stability necessary for political, economic and social development in Asia, she said.

In the subsequent session the history and content of the Treaty were examined with particular emphasis on the Treaty requirements for *continuous and effective self-help and mutual aid to maintain and develop individual and collective capacity to resist armed attack; the agreement to consult whenever the security of any of the parties was threatened in the Pacific; and the crucial article IV stating that each party recognises that an armed attack in the Pacific area on any of the Parties would be dangerous to its own peace and safety and declares that it would act to meet the common danger in accordance with its constitutional processes.*

The New Zealand relationship to ANZUS was thoroughly examined, a most comprehensive summary of developments in which he was involved being given by the Hon Kim Beazley MP.

Professor Paul Dibb outlined the uncertain strategic situation in the Asia-Pacific Region post Cold War, while Vice Admiral RAK Walls RAN (Rtd) reviewed strategic practice, and the Commander of 3 Brigade, Brigadier Peter Leahy, gave recent experience of the major exercise *Tandem Thrust*.

US Policies, Asia-Pacific Policies, the attitude to ANZUS of ASEAN countries, and alliances in North Asia were thoroughly examined, and a stimulating open forum rounded off the two day seminar, Professor Ross Garnaut finishing with a presentation on *The Future*.

Speaker after speaker supported the Treaty as being highly important and relevant to Australia's defence arrangements today. Particular areas of benefit included in intelligence, in special access to advanced US Technology, in the exchange of personnel and in joint exercises. These advantages were irreplaceable, as was the overall pledge of US support.

The subject of the effect of our membership of ANZUS on South and East Asian countries was discussed. In general this was seen as being advantageous and did not seem a cause for concern with ASEAN nations.

The disagreement between New Zealand and the US over the visits of US warships was a cause of considerable concern to Australia and created many problems. The US view was that New Zealand must repeal its anti-nuclear legislation or the tap remains turned off. Australia tried to maintain its military links with both countries but the need to organise separate exercises with New Zealand threw a great strain on Australia's planning capabilities. New Zealand continued to play an international role as witness its efforts in Cambodia, the Gulf War, Bosnia and now in Papua New Guinea, though its armed forces suffered considerably from no longer being an effective member of ANZUS.

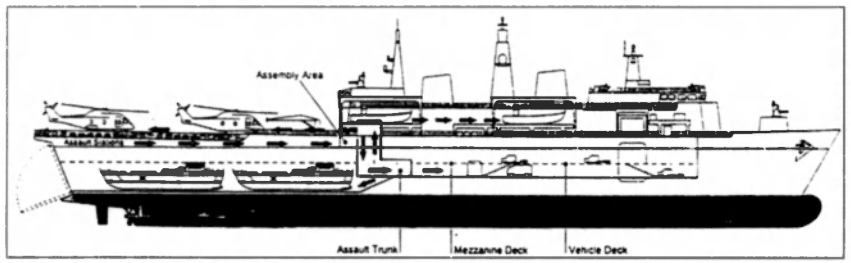
The New Zealand Defence budget has fallen by 30% since 1990 and the view was expressed that New Zealand was not pulling its weight in our bilateral relationship and its defence force was now below a credible minimum.

The Joint US/Aust Facilities at NW Cape, Narrungar and Pine Gap were considered. NW Cape, important for submarine communications, will revert fully to the RAN in 1999, being already entirely manned by Australians. Narrungar is to close in about 2000, being replaced by a smaller ground station at Pine Gap. This last enhances and complements our own intelligence capability.

(Continued page 27)

"ALBION" and "BULWARK"

British LPDs Take Shape



Detailed view of the new HMS "ALBION" and HMS "BULWARK".

Following protracted negotiations, the contract to build two new amphibious dock transports (LPDs) was awarded by the UK Ministry of Defence (MoD) to VSEL on 18 July last year. Details of the design of these ships, to be named HMS *Albion* and HMS *Bulwark*, were revealed at the June 1997 Royal Institution of Naval Architects (RINA) conference on "Air Power at Sea".

The new LPDs will be the first large surface warships built at VSEL's Barrow in Furness yard since HMS *Invincible* was completed in 1978. They will replace HMS *Fearless* and HMS *Intrepid* "early in the next century", with the first steel to be cut in November 1997.

With a docking well and stern gate, roll-on/roll-off (ro-ro) decks and access through side ramps, the new LPDs will have a similar payload of troops, tanks, vehicles, landing craft and equipment to the 158m *Fearless* class. They will, however, be larger.

Particulars

Displacement: 14,600t (full load c17,000t)
Dimensions: 176m (oa) x 28.9 x 6.1m (hull depth 6.5m)
Machinery: 2 shaft diesel-electric, 15.62 MW
Speed: 18knots
Armament: 2 CIWS
Complement: 650

The new ships will be able to lift 305 troops (405 in overload conditions), 31 heavy (16-tonne) trucks or main battle tanks, 36 low vehicles, 30 tonnes of cargo and four laden Mk 10 utility landing craft (LCUs) in the docking well aft. One air-cushion landing craft (LCAC) can be transported in lieu of two LCUs. A total of 550 linear metres of vehicle decks (1.8m wide) are served by a ramp leading to the flight deck.

The new LCU Mk 10 has a through-deck ro-ro configuration, allowing vehicles to embark and disembark quickly without turning or reversing. Four Mk 5 Vehicle and Personnel Landing Craft (LCVPs) will be slung in davits, along with two rescue boats. There will be a two-spot flight deck capable of handling EH101 Merlin, Sea King helicopters, or one Chinook or a Harrier STOVL aircraft.

The hull structure is designed to meet Lloyd's Register Rules = 100AQ, Ice Class 1c, IWS for unrestricted service, with scantlings generally well in excess of naval structural codes. However, warship features such as a nuclear, biological, chemical defence (NBCD) citadel are included. Using a modern ferry form with a bulbous bow as the basis, the hull has been optimised, using computerised fluid dynamic (CFD) techniques to compensate for the docking well aft and heavy vehicle-loading forward.

Albion and *Bulwark* are believed to be the first Royal Navy surface warships with a fully integrated diesel-electric propulsion system. This has been contracted to UK-based Cegelec Projects of Rugby. Four Wartsilä Vasa diesel engines (two Type 1632E developing 6250kW and two Type 4S32E rated at 1560kW each) will generate 15.62MW power to supply current to a pair of 6MW synchronous variable-speed propulsion motors driving twin shafts with 4m diameter fixed-pitch propellers. A 108kN bow-thruster will also be fitted for slow speed manoeuvring.

The platform management system (PMS) for both machinery control and damage control has been contracted to CAE Electronics, the Canadian company responsible for the Canadian Navy's "*City*" class frigates' machinery control system and US Navy battle-damage control systems.

The ADAWS 2000 combat system is based on the ADAWS system used in the *Birmingham* class destroyers and the Invincible class carriers, and is similar to the system selected for the new amphibious assault carrier Ocean. A Siemens-Plessey type 996 surveillance radar will be the main sensor, with two Kelvin Hughes Type 1007 radars for navigation and helicopter control.

For self-defence the ships will be armed with two 30mm Goalkeeper close-in weapon systems (CIWS), one forward and one aft, two single guns (said to be 20mm, but more likely to be 30mm Mk 1), an electronic support measures (ESM) systems and decoy-launchers. – Antony Preston

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Naval News

'Notices To Mariners' Go On-Line

The Australian Hydrographic Office (AHO), website is now on-line at http://www.hydro.navy.gov.au.

As well as providing general information about hydrography and the AHO, mariners will be able to read the latest Notices to Mariners on-line. All recent changes and the latest information for the official Australian charts and publications can be viewed from the Web.

The site will also list all the charts of Australian waters, where charts and other publications such as tide tables can be bought, prices, and information on the latest products and developments.

The national Hydrographer and head of the Navy's hydrographic service, Commodore Robert Willis, announced the opening of the AHO website. He described the on-line Notices to Mariners as 'another practical example of how the AHO is serving the mariner and safety at sea in the electronic age'.

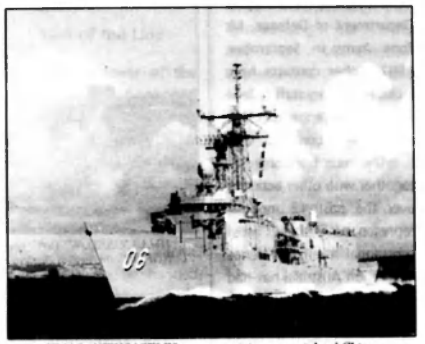
"We publish Notice to Mariners fortnightly so that mariners can keep their charts up to date using the latest important information which we have in the Hydrographic Office," he said. "Chart users can now get this information from their computers rather than waiting for the mail or visiting their local chart agent. Sailors can also e-mail any new information which they think should go on the charts."

Commodore Willis said that another recent example of maritime developments was the publication of the AHO's Seafarer electronic charts.

"These are identical copies of our official paper charts which can be used in standard PC or laptop systems," he said. "Seafarer also has a Notices to Mariners service which allows new information to be applied automatically to the charts. You can find out all the details on our website."

China Visit

The Australian warships, HMAS "PERTH" (destroyer), HMAS "NEWCASTLE" (frigate) and HMAS "SUCCESS" (replenishment oiler) arrived in Qingdao, homeport for the PLA (People's Liberation Army) – Navy's Northern Fleet, on Friday, 29 August.



HMAS "NEWCASTLE", a recent visitor to mainland China.

A combined 21 gun salute heralded the arrival of the ships, to mark the first RAN visit to China since *PARRAMATTA* in 1986. The ships remained in Qingdao until 3 September when they sailed for the Republic of Korea for a short visit. As well, Rear Admiral Chris Ritchie, Maritime Commander Australia, visited China to coincide with his ships' visit, involving more than 750 crew members.

The visit is another step in the developing of defence relationships with China. The Prime Minister of Australia, Mr John Howard, during his visit to China in March-April this year, agreed with President Jiang Zemin, to step up the level of defence contacts between the two countries.

Defence activities between Australia and China now include annual dialogue at Vice Chief of Defence Force level, high level visits (Chief of Defence Force

USS "FITZGERALD", an Arleigh Burke destroyer visited Sydney from 25 July to 2 August. (Photo – USN)

The torpedo recovery vessel "TAILOR" flanked by HMAS "ONSLOW" and HMS "TRENCHANT" (right) as they proceed to sea from HMAS "STIRLING" for exercise "LONGFISH 97" on 21 July, 1997. (Photo – Stuart Farmie)

General John Baker visited China in September 1996 to be followed by the Secretary, Department of Defence, Mr Tony Ayres in September, 1997. Other contacts have included military staff college visits and a range of other working level contacts.

The recent ships' visits, together with other activities over the past 12 months, represented the most substantial level of defence interaction Australia has had with China since the establishment of diplomatic relations in 1972.

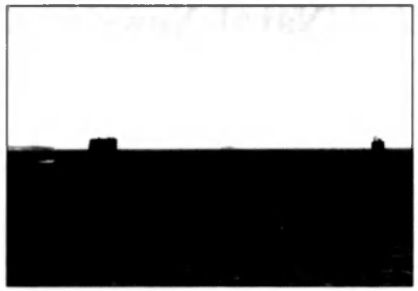
Transfield Shiplift Purchase

The Department of Defence has finalised the sale of its shiplift interest located south of Fremantle in Western Australia to Transfield Defence Systems (TDS) Pty Ltd.

The WA Marine Support Facility was commissioned in January 1989 under a three-way arrangement between the WA government, the Department of Defence, and WA company, Australian Shipbuilding Industries.

TDS exercised its right as the long-term hirer of the equipment to purchase the WA Marine Support Facility on a commercial basis. The sail makes provision for third party access, representing a significant asset for support of the Royal Australian Navy (RAN) in the west.

The facility can accommodate vessels up to 8000 tonnes, so it remains capable of providing support for RAN vessels based at HMAS *Stirling*, south of Perth.



HMAS "ONSLOW" (left), and USS "CAVALLA" during exercise "LUNGFISH", an annual Australian sponsored anti-submarine exercise. (Photo – ABPH Stuart Farrow)

The New "BANKS"

The 37-year-old, 255 tonne ex HMAS "BANKS", once destined as a training platform for midshipman at Jervis Bay ... until devastated by fire while under refit in Port Macquarie in 1995...is set for a glamour life as coastal tourist vessel.

The former *Explorer* class general purpose vessel (GPV) was built in Australia for the RAN in 1960. After naval duties on fishery surveillance, hydrographic and reserve training, she is now owned by Ulladulla land surveyor, marine master and maritime buff, Peter Smith.

BANKS is now based at Ulladulla on the NSW south coast. Current plans see her embarking her first paying passengers in late 1997. Eventually the old GPV will be capable of taking 24 passengers for overnight voyages. Cabins will be built in the former cargo hold.

BANKS had been undergoing conversion in Port Macquarie to a training platform for midshipmen at HMAS *Creswell* but at 0630 one morning, the workers arrived to find the ship on fire. The blaze destroyed the first and second officers cabins, the captain's cabin and the bridge. The bridge deck buckled 'one foot'.

In February 1996, Peter Smith purchased *BANKS* 'as is, where is'. Although the bridge had been destroyed there were controls on the unaffected quarter deck. During April 1996 *BANKS* was taken to Ulladulla where her old Navy numbers, 244, were removed from the bow. As part of the rebuild, the boatyard has taken six tonnes of steel from the bridge area and lowered the bridge by 1.5 metres, to meet the requirements. Extra bulkheads have been installed plus the latest fire protection incorporated. Six cabins have been built aboard, all with ensuites.

HMAS "BANKS" at Jervis Bay, in the early 1980s. (Photo – Ross Gillett)

BANKS' new owner had purchased the vessel in an effort to re-create the early coastal passenger service of the 19th and the early 20th centuries, when sailing ships and then steamers worked up and down the coast. It is planned to sail *BANKS* between Ulladulla, Jervis Bay and Batemans Bay.

52 Years Between Visits

A search of the Fremantle Port Authority records has revealed the Royal Canadian Navy frigate HMCS "REGINA" which visited the Port on 19 July was the first Canadian warship to visit Fremantle since 1945.

The light cruiser HMCS *UGANDA* berthed in Fremantle on 4 March 1945 as a unit of the British Pacific Fleet in the closing days of the Second World War. Built for the Royal Navy and first commissioned on 3 January 1943, she was transferred to the Royal Canadian Navy on 21 October 1944 and was renamed HMCS *QUEBEC* in 1952. She was placed on the disposal list in 1959 and scrapped at Osaka, Japan in 1961.

HMCS *REGINA* berthed at H Berth, Victoria Quay on 19 July, returning from the Persian Gulf where she was part of the United Nations force imposing sanctions against Iraq. *REGINA* was in the company of the US Navy destroyer *PAUL F FOSTER* and the guided missile frigate *INGRAHAM*.

Eight Nations in Australian Maritime Event

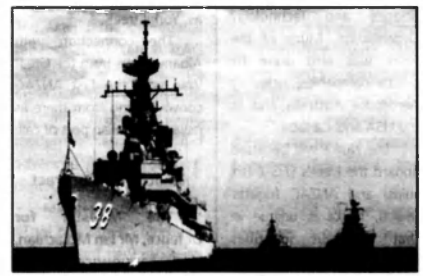
Ships, aircraft and more than 6000 military personnel from eight South East Asian countries joined forces in a major Fleet Concentration Period (FCP) in north Australian waters from 28 July to 15 August.

Maritime units from the defence forces of Australia, Indonesia, Malaysia, New Zealand, Singapore and Thailand gathered in the Timor Sea for a range of training activities and manoeuvres aimed at developing the ability of regional maritime forces to operate with Australia. Observers from Brunei and the Philippines also attended.

The FCP was the third Fleet Concentration Period in the Kakadu series, following the success of the first one conducted in 1993. The current exercise represented more than twice the number of maritime assets and personnel as KAKADU 1.

Centred on Darwin, the FCP provided the opportunity for bilateral activities between Australia's maritime forces and its South East Asian neighbours. Apart from general training in damage control and communications procedures and interaction between air, surface and subsurface assets, the FCP provided a wide range of other opportunities including personnel exchanges and work in explosive ordnance disposal techniques used by clearance divers.

FCP KAKADU 3 involved 26 ships, two submarines and maritime patrol and fighter aircraft and helicopters.



A rare sight, three RAN guided missile destroyers during exercise Kakadu 1. (Photo – John Mortimer)

HMAS "SUCCESS" during Kakadu 1. The ship recently completed a major refit including the addition of two Phalanx close-in-weapon-systems. (Photo – John Mortimer)

Last of the Line

The handover of the Pacific Patrol boat FSS "INDEPENDENCE" to the Federated States of Micronesia at Transfield Shipbuilding WA last May was the end of an era.

FSS *INDEPENDENCE* was the 22nd and last Pacific Patrol Boat to be handed over to Pacific nations in the current build of this 12 year project, the largest Defence co-operation project financed by the Department of Defence, International Policy Divisions, and managed by the RAN.

FSS *INDEPENDENCE* was the third Pacific patrol Boat to be handed over to the Federated States of Micronesia, and the first of which the recipient country has contributed to the vessel's cost with a payment of A$1.5m.

The value of these craft to patrol SW Pacific exclusive economic zones was highlighted last year when the new commanding officer of FSS *INDEPENDENCE*, LCDR Philip Maluweiram, then commanding her sister ship FSS *MICRONESIA*, apprehended and arrested four illegally fishing Taiwanese long-line fishing vessels.

Under the initial contract, 15 patrol boats were provided: four to Papua New Guinea, three to Tonga, two each to the Solomon Islands and the Federated States of Micronesia and one each to the Republic of the Marshall Islands, Cook Islands, Western Samoa and Vanuatu.

The project included the provision of training, adviser support and other integrated logistic support aspects. The handover of *RSIPV AUKI* to the Solomon Islands on November 2, 1991, signalled the completion of the initial project constructions phase.

Following requests to enter the project from Kiribati, Tuvalu and Fiji, construction was recommenced with a contract amendment being signed with Transfield

Malaysian frigate "LEKIR" anchored off the Port of Darwin. HMNZS "CANTERBURY" lies to the left. (Photo – John Mortimer)

Thai corvette "RATTANAKOSIN", exercise Kakadu 1. (Photo – John Mortimer)

Shipbuilding (WA) on February 19, 1993, for the construction of an extra five vessels, three for Fiji, and one each for Kiribati and Tuvalu. A request to enter the project was received from Palua in February, 1995 and a contract amendment was signed on April 20 for PSS *PRESIDENT REMELIK*.

The Federated States of Micronesia requested an additional patrol boat with a contract amendment being signed with Transfield on May 2, 1996, with the conclusion coming with the handover of FSS *MICRONESIA*. Total cost of the project in present day prices has been just over A$155m.

It was 10 years almost to the day since then Prime Minister, the Hon R J. Hawke handed over the first of the class, HMNGS *TARANGAU* to Papua New Guinea's Minister for Defence, the Hon S. Tago on May 16,1987 at the shipbuilding yard which was then known as Australian Shipbuilding Industries (WA) Pty Ltd.

The RAN continues to provide advisers for on-going in-country training and a Pacific Patrol Boat logistic/technical follow on support centre is located in Brisbane. An additional support facility has also been developed in Suva.

A Nulka test round is fired from HMAS "BRISBANE".

Decoy Rocket Orders

The largest defence contract won by Australian industry was announced in Canberra in late June.

The $58 million contract represents more than 50% of the total contract value. The new weapon, expected to be valued several hundred million dollars, provides an anti-missile decoy to defend warships against surface-skimming missiles.

Known as Project Nulka (Aboriginal for 'be quick'), the new system will see series production of the Australian-developed Nulka hovering rocket missile, which simulates both the movements and profile of a warship, in an effort to confuse the homing systems of anti-ship weapons. The Nulka missile measures about 2m long and about 30cm in diameter.

With more than a decade in development, the Nulka concept began with the Department of Defence Science and Technology Organisation. Much of the work was also done by private companies, including Aerospace Australia and in the USA and Canada.

The Nulka will be fitted aboard the Fleet's FFG-7 (six ships) and ANZAC frigates (eight). Nulka is unique in that once it identifies increasingly hard-to-track missiles, via a system of frequency-hopping transmissions to lure incoming warhead from enemy units.

Major production of Nulka will be performed at Melbourne and Salisbury in South Australia by British Aerospace Australia and by ADI at Mulawala (NSW) and Bendigo (Vic). This will include the manufacture of rocket motors, canisters and flight control systems, assembly of the decoys using US sourced payloads and system integration work to fit the payloads to the motors.

Decoy rounds are expected to be delivered from late 1998, with the overall Nulka systems operational on RAN ships from mid 1999.

ANZAC in West

The RAN's newest frigate, HMAS "ANZAC" arrived in her home port at HMAS "STIRLING" on 29 August.

First commissioned on 18 May 1996, *ANZAC* was greeted by the ship's launching lady, LTCOL Vivian Statham, along with the Mayor of Albany, Mrs Annette Knight. The city of Albany adopted the ship prior to commissioning last year, with the main throughfare onboard known as 'York Street'.

The connection with Albany stems from the Great War, with the first ANZAC convoy sailing from there as its last Australian port of call.

Helicopter Contract

The Minister for Defence, Mr Ian McLachlan, has announced the signing of a contract for $660m with Kaman Aerospace International Corporation to provide eleven helicopters for the Royal Australian Navy. In addition an in-service support contract was signed to provide long term support services for the helicopters once they enter service.

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

The helicopters, to be known as the SH-2G(A) 'Super Seasprite', are designed to operate from ANZAC ships which are currently being introduced into service.

Developed by Kaman Aerospace, the Super Seasprite is a twin engine aircraft which will enhance and extend the operational capabilities of the ANZAC ships. The aircraft will be fitted with the Penguin anti-shipping missile system, modern sensors, and advanced 'state-of-the-art' digital avionics suite.

Minister McLachlan said: "The helicopters represent an important new capability for the Royal Australian Navy, and the Australian Defence Force as a whole, by significantly increasing the ability to monitor and defend Australia's maritime approaches and other areas of interest."

He added: "The aircraft is designed and built in the USA with extensive Australian industry involvement being generated in the development of the aircraft's software and avionics suite and the through life maintenance and repair support phase."

"Furthermore the service contract with the Kaman will cover technical and training support requirements of the helicopters through the first ten years of operations and is consistent with the Government's continuing drive to provide support to the ADF through industry thereby releasing uniformed personnel for front line duties."

The first of the Super Seasprites is planned to be delivered into Australia during the first half of 2001 with all deliveries completed by mid 2002.

End of the Line

Once most Royal Australian Navy ships and submarines would pay off for disposal in Sydney, spending their last days berthed at the dolphins in Athol Bight in Sydney Harbour.

With the recent removal of these dolphins and the build-up of HMAS *STIRLING* this is no longer so. In recent years, the destroyer escorts *STUART*, *DERWENT* and *SWAN*, submarines *OXLEY*, *OVENS* and *ORION* and the patrol boat *AWARE* have paid off at Fleet Base West.

Additional ships programmed to decommission at *STIRLING* in the next twelve months include the hydrographic survey ship *MORESBY* and destroyer escort *TORRENS*. Refer to inside back cover.

Navy Week Sydney

This year's Navy Week celebrations in the Sydney area will focus upon the RAN's Mine Warfare community with up to six ships berthed around the Fleet Base, Woolloomooloo during the weekend of 18/19 October.

To celebrate the Navy's 86th birthday, the mine countermeasures vessels will be open for public inspection between 12 noon and 5.00 pm, both days. These include *RUSHCUTTER*, *BROLGA*, *KORAAGA*, as well as *ARDENT*, *BRUNEI* and *TREVALLY*.

Ashore, the Navy has arranged special video, historic, warship model, helicopter and diver activities plus numerous performances by the RAN and RANR bands.

Also open will be HMA Ships *MELBOURNE*, *HOBART* and *BRISBANE*.

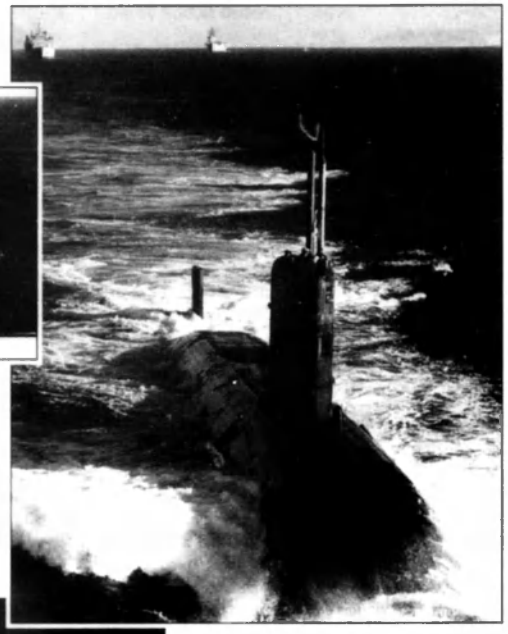
"WOLLONGONG"

During September the patrol boat HMAS "WOLLONGONG" was granted Freedom of Entry to her namesake city on the NSW south coast.

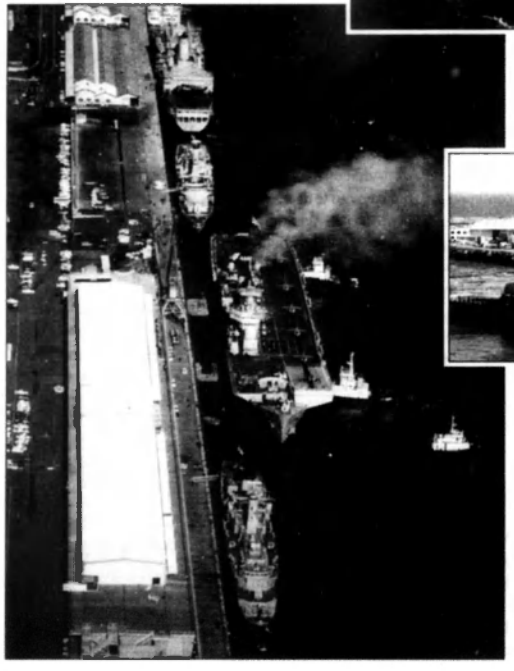
The patrol boat, homeported to Darwin, arrived in Sydney on 15 September on her way to the ceremony, arriving in Wollongong Harbour two days later. The FOE was carried out by crew members the same day, with the boat remaining in harbour until the following Monday.

Prior to her southern cruise, the boat apprehended a number of foreign fishing vessels making illegal catches off the north west of the continent. After some urgent machinery repairs *WOLLONGONG* headed at speed for her next appointments. ■

Flagship of the Royal Navy "Down Wave" task group, the aircraft carrier HMS "ILLUSTRIOUS", off the Western Australian Coast in July, 1997. (Photo - LSPH Peter



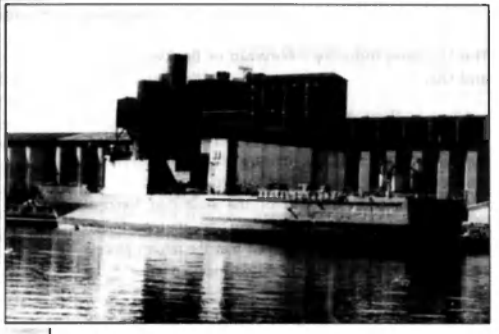
HMS "TRAFALGAR" leads the Royal Navy task group into Fremantle on 14 July. Behind the submarine are the RFA "FORT GEORGE" and HMS "ILLUSTRIOUS". (Photo - ABPH Peter Lewis)



Royal Navy Frigate HMS "RICHMOND", entering the Port of Fremantle on 14 July. (Photo - PDPH Scott Connolly)

Four of the Task Group ships alongside at Fremantle. From top, RFA "FORT AUSTIN", HMS "RICHMOND", HMS "ILLUSTRIOUS" about to berth and HMS "BEAVER". (Photo - LSPH Peter Lewis)

The Chilean Navy sail training ship "ESMERALDA" proceeds up Sydney Harbour as part of her 1997 Pacific training cruise. She visited Sydney between 6 and 12 July. (Photo - ABPH Antionette Aldworth)



The former THSS HMAS "KANIMBLA" under conversion to an LPA at Forgacs yard in Newcastle in July. The bow horns have been removed and much of the interior gutted prior to re-building. (Photo - Brian Morrison)

The first view of the new frigate "WARRAMUNGA", or sections of it. Hull modules are built in Newcastle and shipped to Victoria for final assembly by Tenix. (Photo - Brian Morrison)

NSW Cadet of the Year. The Navy League's annual NSW Cadet of the Year medallion for 1996 was awarded to cadet Chief Petty Officer Leonora Toussaint of TS "ALBURY". The award included a sponsored cruise on STS "YOUNG ENDEAVOUR".

The new Anzac class frigate "TE KAHA" arrives in Auckland Harbour for the first time, 11 July 1997. (Photo - RNZN)

Observations

by Geoffrey Evans.

The Shipping Industry – Forward or Backwards and Out!

In a scathing attack on bureaucrats, politicians and overseas shipowners who have over the years made a viable, Australian-owned shipping industry almost impossible of achievement, Mr. Bill Bolitho, former chairman of the Australian National Line and of the Australian National Maritime Association (now known as the Australian Shipowners Association) has claimed that the reform process initiated in 1983 and recently stalled must continue if the existing local industry is to survive.

Mr. Bolitho, who's knowledge of the local and international shipping scene is probably unsurpassed in Australia, was delivering the 5th Whitlam lecture in Sydney in August. The text of his address, titled "The Story of Australian Flag Shipping – A Partisan View", was accompanied by a lengthy written paper explaining in detail and documenting the spoken address. The following remarks apply to both.

The story as recounted by Mr. Bolitho is indeed a sorry one. Starting from the time Australia was a fledgling colony and half the ships in the world flew the British Flag – a great many of the ships unseaworthy and manned by "illiterate, uneducated and exploited crews" – the dependence of Australia on overseas-owned shipping and on decisions made by British and later, foreign shipowners interested only in profit – a dependence that has lasted for nearly 200 years and may well continue if, as the former shipping leader says, the reform process is not concluded successfully. Given that Australia has the fifth largest shipping task in the world it is illogical that Australia should be so dominated by overseas interests.

The bright spots in our maritime trading history appears to be

- the formation of the Commonwealth Line by Mr. Billy Hughes in 1916;
- Australia's Navigation Act which came into force in 1921 after a delay of 19 years;
- the formation of the Australian National Line by the Menzies government in 1956; and
- the reform process initiated by Transport Minister Peter Morris in 1983.

The Commonwealth Line lasted only until 1928 when the Bruce government brought about its demise (an exchange of cables between Mr. Bruce and Lord Inchcape, head of the great Inchcape group of companies, quoted by Mr. Bolitho makes interesting reading); the Navigation Act remains relatively intact; the ANL has been much reduced following the actions of Transport Minister Brereton in 1994, which Mr. Bolitho claims, also halted the reform process which had been progressing slowly but surely.

Mr. Bolitho's severest criticism was levelled at Flag-of Convenience (FOC) shipping, a practice that" ... began in America in 1917 when American shipowners, aggrieved at having to pay taxes on their profits, found that by setting up a so called open register in Panama and flagging their ships out to it they could avoid paying taxes. To their great delight they found that they could not only avoid taxation but could also evade prohibition and other laws ...".

The practice of flagging out has grown enormously and has become what is described by Dr. Peters, principle maritime adviser to the World Bank, as an "undeclared naval war" and by Bill Bolitho as "a war of good ships against bad, of humane shipowners, shipper and charterers against inhumane ... in a sense a war of good against evil. For I can think of few acts more evil than to send seamen to their deaths for profit". Mr. Bolitho believes the Federal Government should be resisting rather than possibly considering proposals that would facilitate the entry of FOC ships into the Australian trade.

Despite his criticism of those he considers failed to appreciate Australia's maritime needs in the past, Mr. Bolitho believes all is not yet lost and that following a decade of reform Australia has:

- "a modern hi-tech fleet still well below the average age of the world fleet and a well trained and highly skilled work force competent to operate them.
- "a maritime training institute in Launceston second to none in the world
- "in the Australian Maritime Safety Authority, AMSA, one of the most cost-efficient, competent and incorruptible maritime safety organisations in the world.
- "a decade long history of industrial co-operation and reform prior to the actions and policies of 1994. An attitude which can be recaptured ..."

Mr. Bolitho's views can perhaps be best summarised in the following passage:

"only a shipping company based in Australia and reliant upon the success of Australian exports for its existence will advance the interests of Australian exporters over those of others and in destroying Australian shipping in general and the Australian Line in particular the Government and its free marketeers have substantially damaged the prospects of those very industries from which they expect so much by destroying our ability to develop a shipping capability appropriate to the task"

As a long-time advocate of the need for a viable Australian flag shipping industry, the Navy League hopes that Mr. Bolitho's hopes will be realised.

If this writer may add a personal postscript to the former shipping leader's Whitlam Address, the lack of attention to it by the metropolitan print and electronic media is indicative of the community's attitude – as judged by the medium – to the major problems bedevilling Australia.

Titles

The recent April – June "In Brief" referred to a perceived reduction in the status of the chiefs of the Navy, Army and Air Force, previously known as the Chief of Staff of their respective Services and who had been re-titled "Chief" with the "Staff" part eliminated.

It is somewhat ironical that the Defence Efficiency Review, accepted by the Defence Minister, very firmly placed the Service Chiefs under the command of the Chief of Defence Force where, as his advisers on naval, military and air force matters, they could be seen as staff members.

In the circumstances the old title would seem to be more appropriate. "Chief of Staff" has always been an honourable title.

Maritime Detectives

The extent of measures taken to investigate accidents at sea was shown in a recent report by the Maritime Investigation Unit of the Commonwealth Department of Transport.

In November 1996 a 63 tonne fishing vessel was anchored at night some 30 miles south of the Victorian coastline when she was struck by a large unidentified ship which failed to stop and disappeared into the night.

The fishing vessel was anchored in about 72 metres of water on a recognised shipping track, apparently a not uncommon practice for similar craft in the area, and was stated to be showing the appropriate lights. The accident was reported immediately, the message indicating there were no injuries and no immediate danger of the vessel sinking. The vessel proceeded to port and arrived safely.

In the course of the following inquiry eight ships were identified as being in the general area at the time of the collision, but only one in the immediate vicinity; this ship – a bulk carrier – was contacted later in the day and reported that no collision or "problems" had been experienced.

However, fragments of paint from the damaged part of the fishing vessel were obtained and these indicated a blue-hulled ship was involved. It so happened the bulk carrier had a blue hull. Over a period of several months samples from several blue-hulled ships, including the bulk carrier which by then was in an American port, were collected and sent to the Scientific Unit of the Australian Federal Police for examination.

The tests indicated that only one sample matched the retained fragments – blue over grey undercoat; other indicated up to seven layers of various coloured paints and undercoats. The matching sample belonged to the bulk carrier.

End of quest.

"IRON BARON" Dispute.

A court case involving the bulk carrier *IRON BARON* which grounded on a reef off Northern Tasmania on 10 July 1995 ("In Brief" April 1996) has been settled out-of-court in London.

One of the consequences of the grounding was oil pollution of the adjacent coastline, attracting widespread publicity at the time. Representatives of the United Salvage Company after assessing the damage, considered the ship could be salvaged. BHP Transport, the company to which *IRON BARON* was under charter, thought otherwise and wanted the vessel towed into the Tasman and scuttled.

In the event BHP Transport's wishes prevailed and when freed from the reef by the salvage company was towed into the Tasman and scuttled in 4000 metres of water.

The court case involved financial aspects of the matter. ■

(From page 17)

These facilities contribute to ANZUS and to Global Peace and strategic stability through assisting in arms control, nuclear non-proliferation, and effective nuclear deterrence.

Mr Dough Paal, President of the Asia-Pacific Policy Centre, gave his view of advantages to the US and ANZUS co-operation as.

- reinforcing US Engagement in Aisa contrary to pushes favouring isolationism in the US
- assisting US moves for a reduction in tension and advancing arms control
- assisting in information warfare and helping in technology transfer
- lending support to a sensible China policy
- enhancing South East Asian prosperity
- adding weight to US policies on Burma
- strengthening trade liberalisation moves and
- providing a foundation for regional multilateral co-operation

Questions put to the panel of speakers included whether Australia was paying her dues under the ANZUS Treaty and whether, given the uncertain strategic situation, our expenditure on defence was realistic. In general the feeling seemed to be yes for ANZUS and an increase in defence expenditure was required to meet the uncertainties of the strategic situation post cold war.

It seems clear that, insofar as Australia and the US are concerned, ANZUS is alive, well, and highly relevant in the closing years of this century. We need our security fire insurance policy. We would be wise therefore to be sure to pay our dues. And we must put the necessary resources into *continuous and effective self-help and mutual aid to maintain and develop individual and collective capacity to resist armed attack.*

■

All Compass Points

The new Thai aircraft carrier during sea trials.

Bangkok's Aircraft Carrier

BANGKOK, Thailand – In the midst of the worst economic crisis in its history, Thailand received its brand new $300 million aircraft carrier in August, becoming the first nation in South-East Asia to join the naval big league.

Not long after delivery, the purchase began to create controversy, moves that could further weaken the embattled government of the Prime Minister, Mr Chavalit Yongchaiyudh, as it struggles to keep afloat an economy that recently signed up for a $20 billion International Monetary Fund bailout.

Critics say there is no strategic rationale for a ship capable of projecting naval power far from Thailand's shallow shores and that the country has neither the expertise nor considerable resources needed to main the vessel and its outdated aircraft.

A regional defence analyst commented: "This is a showpiece purchase for which there is no military justification."

The 11,485-tonne, Spanish-built HMTS *CHAKRI NARUEBET* was commissioned on 11 August at a lavish ceremony attended by Mr Chavalit, a former armed forces commander who supported a previous abortive move to buy submarines for the Thai Navy.

In addition to the ship, the Government has also spent $175 million for six Sikorsky Seahawk helicopters and another $138 million on a squadron of nine former Spanish Navy Harrier VSTOL jets.

The Thai Navy, whish is already renowned for having more admirals at its disposal than ships, says the carrier is needed to patrol sealanes around the Spratley Islands. But Thailand is about the only country in South-East Asia that does not lay claim to any of the disputed islands and their mineral and fisheries resources.

Programme – Under the contract signed in July 1992, the carrier was built at Bazan's El Ferrol yard in Spain. With a design similar to that of the Spanish carrier *PRINCIPE DE ASTURIAS*, is fitted with a 12 degree ski jump.

The ship was launched on 20 February 1996, with sea trials in October/ November 1996. The carrier's main roles will include warfare/flagship command and control, air support for amphibious operations and the Thai surface fleet, EEZ surveillance and protection, search and rescue, and disaster relief. She will be based in the Gulf of Thailand.

Design – The ship has a full-load displacement of 11,485.5 tons. Overall length is 182.6m; flight-deck waterline beam 22.5m, and full-load draught 6.12m. She can accommodate a crew complement of 600 (there will also be apartments for the Thai Royal Family).

The flight deck measures 174.6m x 27.5m, sufficient to operate five simultaneous helicopter take-off/landings; the hanger provides space for ten more medium helicopters or Harrier-sized aircraft. It is estimated that the carrier could carry a

maximum of 18 helicopters and aircraft; and 100 tons of ammunition.

The carrier's maximum speed is 26.2 knots, with a cruise speed of 17.2 knots. Range is estimated to be 10,000 nautical miles at 12 knots. Two spade rudders and four hull stabilisers have been fitted.

Weapons and Sensors – Original plans had proposed an electronics fit including 2-D long-range and 3-D medium-range air-surveillance radars, a ten-console command-and-control system, hull-mounted sonar; an electronic-warfare system incorporating electronic support measures, jammers and countermeasures launchers; and armaments including vertical missile launchers, four close-in weapon systems and a pair of 25/30mm cannon mounts. However, she will now only be fitted with basic electronic systems, but not with defensive weaponry, electronic warfare systems, sensors or decoys.

The systems provided include a Hughes AN/SPS-52C 3-D medium range air search radar, a Kelvin Hughes navigation and helicopter control radar, a Kelvin Hughes I-band navigation radar, a MX 1105 Transit/GPS Omega satellite navigation system, as well as an unspecified Tacan system and a simple communications fit. The command and control system is made up of a combat information centre with seven Inisel consoles and an auxiliary console. The centre is based on the Tritan combat data system using Unisys UYK-3 and UYK-20 computers. If upgraded the C2 system will be served by 11 consoles.

Until the carrier is equipped with armour, sensor and combat systems, it will remain heavily dependent on escort vessels for defence. The Thai navy lacks submarines for escort duty (a US$800 million plan to buy three submarines was shelved in May 1995, probably for financial reasons). Consequently, the carrier will have to rely on surface escorts to defend it against surface and submarine attack, although the basic command system will enable it to orchestrate operations involving the air group.

While Bazan says that it does not know of plans to equip the carrier with combat systems and armaments, it is possible that the Thai government intends to install these later. There has also been speculation that the US may assist with equipment upgrades, possibly in collaboration with Bazan.

HMCS "WHITEHORSE" – Half Way Point

HALIFAX, N.S. – The Canadian Navy has taken delivery (May) of HMCS *WHITEHORSE*, the sixth of an eventual 12 *Kingston* class maritime coastal defence vessels.

WHITEHORSE was scheduled to sail from Halifax for its permanent home in Esquimalt near Victoria, B.C. on 28 August. The ship, under the command of Lieut. Cmdr. Derek Carroll, will join Canada's West Coast fleet and be commissioned in HMC Dockyard in late fall. *Whitehorse* is the first Canadian warship named for the capital of the Yukon Territory.

The *Kingston* class ships are crewed primarily by naval reservists, operating on the Atlantic and Pacific coasts and inland as far as the Great Lakes, conducting naval operations including sovereignty patrols, mine countermeasures, training and search and rescue as well as surveillance in support of other departments and agencies such as the RCMP, Fisheries and Oceans, Environment Canada and Customs.

Capable of carrying a mixed-gender crew of 36, *WHITEHORSE* is armed with a 40-millimetre gun and two .50-calibre machine-guns. She is 53 metres long, displaces 970 tonnes and has a cruising range of more than 10,000 kilometres. Twelve ships are being built at Halifax Shipyard Ltd., under contract to Fenco MacLaren Inc.

HMS "SCOTT" – Unique Survey Ship

DEVONPORT, UK. – HMS *SCOTT*, the Royal Navy's new survey ship sailed into Devonport Naval Base for the first time on 17 June 1997.

This was a tremendous moment for the Hydrographic Surveying Squadron (HSS) which now has one of the world's most capable vessels to undertake its operational work. The new ship is ground-breaking in a number of ways, replacing HMS *HECLA* which recently left Royal Navy service after more than 30 years.

SCOTT is built to merchant ship standards, enhanced to naval requirements where necessary. With extensive automation SCOTT is highly efficient and needs a crew of just 42 to run the 13,500 tonne vessel. In comparison a Type 22 frigate, which is about 4,200 tonnes, is manned by at least 250 sailors.

SCOTT is also the first ship to operate a crew rotation system. There is a total complement of 63, but only 42 will be embarked at any one time. This allows her to be operational for a minimum 307 days per year. Living accommodation is also spacious, with almost every person on board having their own cabin. The ultra-modern ship also has a multi-beam echo sounder which allows it to do deeper survey work than ever before.

The ship was ordered from BAeSEMA in January 1995 and sub-contracted to Appledore Ship Builders in North Devon. She was launched by Mrs Carolyn Portillo, wife of the former Secretary of State for Defence on 13 October 1996.

SCOTT will now become part of the Devonport-based Hydrographic Surveying Squadron, producing the Admiralty charts which are used all over the world by both Service and civilian sailors.

"CONSTITUTION" Underway

MASSACHUSETTS BAY, Mass. – USS *CONSTITUTION*, the world's oldest commissioned warship afloat, celebrated her 200th birthday, setting sail under her own power on 21 July for the first time in 116 years.

Better known as "Old Ironsides," she is an 18th century frigate manned by a

21st century crew – an example of the lasting quality of workmanship, professionalism and dedication of our Navy Chief of Naval Operations Admiral Jay L. Johnson commented on her place in naval history. "*CONSTITUTION* links the legacy of our Navy's past with the promise of our future," Johnson said. "She embodies the constancy of our enduring mission: forward presence."

Authorised by President George Washington in 1793 to protect American shipping, she was the most effective warship of her era, projecting power during the Quasi-War with France, against the Barbary pirates in the Mediterranean, and defeating the British during the War of 1812, where she earned her nickname.

USS *CONSTITUTION* and her early crews never lost one of the 42 battles in which she was engaged. She was the epitome of fighting spirit and victory, inspiring patriotism in a very young nation.

On 21 July, "Old Ironsides" and her crew logged another success in the history of the ship: she sailed under her own power for an hour in Massachusetts Bay.

"This sailing reminds us that – just as 200 years ago – our Navy is the best because of our proud and dedicated Sailors," stated ADM Johnson.

Like today's Navy ships, *CONSTITUTION* served multiple purposes, including acting as a training ship during and after the Civil War. In preparation for this event, she once again proved an impressive learning platform. Long months of arduous training culminated in the young crew climbing the rigging like seasoned tall ship Sailors, prepared to put "Old Ironsides" through her paces.

For this birthday sailing, *CONSTITUTION* was towed from Boston to Marblehead, 17 miles north of Boston, to stage the ship in Massachusetts Bay. During the War of 1812, she found a safe haven in Marblehead from two British warships. There were no enemies at which to level her guns on this occasion, but she fired both port and starboard batteries during the historic sailing. As the smoke cleared, the Navy Flight Demonstration Squadron – the Blue Angels – flew over the sailing ship, and modern day warships USS *RAMAGE* (DDG 61) and USS *HALYBURTON* (FFG 40) rendered honors as they passed by *CONSTITUTION*.

USS "SEAWOLF" Commissioned

GROTON, Conn. – USS *SEAWOLF* was commissioned on 19 July at Electric Boat Shipyard in Groton, Conn. USA. She is the first of three *Seawolf* class submarines to be built for the United States Navy.

"America has waited anxiously for *SEAWOLF*, to contribute to the vital forward presence we maintain with our naval expeditionary forces," said Navy Secretary John Dalton.

Armed with Tomahawk cruise missiles, the boat can target about 75 percent of the earth's land mass for strike missions and can target surface ships at long range. She also carries the Mark 48 Advanced Capability torpedo, the best in the world. With twice as many torpedo tubes and a 30 percent increase in weapons magazine size compared to the previous 688-class submarines, *SEAWOLF* is eminently capable of establishing and maintaining battle space dominance.

"As Secretary of the Navy, and as a former submariner who understands the important contributions of the "Silent Service", I will continue to support our efforts to aggressively modernise America's submarine force," said Dalton. "We are indeed fortunate that *SEAWOLF* and her sister ships will provide the lessons we need for constant improvement of our undersea capability."

Value Of Bomber Fleet

WASHINGTON, USA - An interesting report from the America press.

In response to U.S. Airforce-sponsored studies that claim the cost of maintaining B-2 bombers is less than that of an aircraft carrier, a new Navy point paper shows carriers have been used in 10 separate international crises since 1993, while B-2 and B-1 bombers have not been used at all. B-52s were used once.

But the paper notes the B-2 has appeared in the 1997 Rose Bowl parade and many air shows.

Singapore Buys Submarines

SINGAPORE – Singapore has purchased three second-hand *Sjöormen (A 12)* class submarines from the Royal Swedish Navy to augment the single 1960s-era Sjöormen (RSS RIKEN) it bought in 1995.

The boats, to be upgraded by Sweden's Kockums AB Shipyards, will be delivered to the Singapore Navy between 1999 and 2001, Kockums spokesman Thomas Arosenius said. The value of the purchase has not been disclosed. Tony Tan, Singapore's defence minister, commented on 31 July, that the subs will be used for training.

The three boats had been retired by the Swedish Navy, in advance of the commissioning of the new Gotland class. The first of the four, *RIKEN* is expected to be delivered in early 1998. Each submarine has a crew of 23, with a surfaced displacement of 1,130 tons. All were originally built during the late 1960s.

Sjöormen class submarine, shown here in Swedish colours.

Indonesian Acquisitions

INDONESIA – Reports from the Indonesian capital have confirmed that the Indonesian (TNI-AL) Navy have purchased five former West German Type 206 class submarines.

The five boats, all un-modernised, include U-13, U-14, U-19 and U-21 plus U-20 to be cannibalised for spare parts. All were built in West Germany between 1969 and 1975, crewed by 4 officers and 18 sailors each. The boats are fitted with eight 533 mm torpedo tubes, but due the small size of the submarines, no reloads are carried.

Deliveries of the second hand boats is expected from early 1988 and conclude in mid to late 1999. In service they will join a pair of Type 209 submarines, built in Kiel and commissioned in 1981.

Acquisition of a larger, 8,000 tonne, former Russian troop vessel are now complete. The ship is expected to be one of three *IVAN ROGOV* class LPDs built for the Soviet Navy in the 1980s. The as yet named LPD will be able to embark a battalion group, with the associated armour and supporting vehicles. The ship is fitted with bow and stern ramps (into the docking bay) and a hanger for up to four helicopters.

The Indonesian ship will be selected from one of the two laid up with the Russian Pacific Fleet, *IVAN ROGOV* or *ALEXSANDR NIKOLAEV*.

■

German submarine U14

Amphibious assault ship "IVAN ROGOV", in Soviet naval service. (Photo - RAIF)

JAPANESE SUBMARINES SINCE 1954

By Antony Preston

When the Japanese Maritime Self Defence Force (MSDF) was created in 1954 the US Navy was keen for it to develop a range of capabilities, including a submarine force

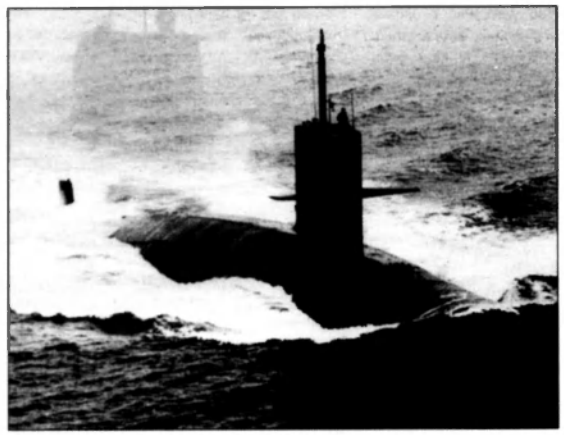
In August 1955 the 13-year-old *Gato* class submarine USS *Mingo* (SS-261) was transferred and renamed the *Kuroshio* (SS-501). Her main role was training a new generation of submarine specialists, until she was decommissioned in 1966 and returned

Under the 1956 Programme the MSDF laid down its first submarine, the 1420-ton (submerged displacement) Oyashio (SS-511) at Kawasaki Heavy Industries in Kobe Apart from being fitted with a snort (snorkel), the design was noticeably conservative, smaller than the *Kuroshio*, with an armament of only four 21inch (533mm) torpedo-tubes, and folding forward diving planes. Completed in 1960, *Oyashio* was discarded in 1976.

A series of equally modest designs followed, *Hayashio* (SS-521) and *Wakashio* (SS-522) built in 1960-62, and *Natsushio* (SS-523) and *Fuyushio* (SS-524). Both classes displaced under 900 tons (submerged) and were armed with three 21inch torpedo-tubes. A pattern was established of awarding alternate contracts to Mitsubishi and Kawasaki.

The next group, the first Japanese "fleet" submarines built since the Second World War marked a big jump in capability, with a displacement double that of the Hayashio group. The prototype *Oshio* (SS-561) was delivered in 1965, and four production variants followed in 1967-69: *Asashio* (SS-562), *Harushio* (SS-563), *Michishio* (SS-564) and *Arashio* (SS-565). Armament was heavy, six bow tubes and two stern tubes, with a speed of 14/18kn (surfaced/submerged).

The MSDF relied heavily on the US Navy (USN) for technical assistance, and the next class was the first to adopt the "teardrop" hull for high underwater speed manoeuvrability *Uzushio* (SS-566), *Makishio* (SS-567), *Isoshio* (SS-568), *Narushio* (SS-569), *Kuroshio* (SS-570), *Takashio* (SS-572) and *Yaeshio* (SS-572) entered service in 1971-78. Although some non-Japanese sources claim that the designers followed US Navy practice in placing the torpedo-tubes amidships (but increased to six), information published in Japan indicates a conventional layout. Other innovations included diving planes on the fin, a double hull, NS-63 steel to permit diving to 200m, a separate emergency high-pressure blowing system, and a three-dimensional automatic steering system.



"UZUSHIO"

Uzushio was decommissioned in 1987, but her sisters were all reclassified as training boats (ATSS) until finally decommissioned in 1992-3, with the exception of the *Yaeshio*, which was redesignated ATS 8005 in 1994

The next design was very similar, but capable of deeper diving (to 275m), and equipped with improved electronics. *Yushio* (SS-573), *Mochishio* (SS-574), *Setoshio* (SS-575), *Okishio* (SS-576), *Nadashio* (SS-577), *Hamashio* (SS-578), *Akishio* (SS-579), *Takeshio* (SS-580), *Yukishio* (SS-578) and *Sachishio* (SS-582) were built in 1976-1989, with a displacement of 2250 tons (surfaced) *Takeshio* introduced the ZQQ-3 sonar, as well as the SQS-36(J) medium-frequency active sonar on the fin. Since then they have been retrofitted with a Hughes-Oki sonar and starting with *Akishio*, four have been refitted with the US Navy's SQR-15 clip-on towed array. All will be refitted with ZQQ-5B sonars. From *Nadashio* onwards (1984) all were capable of launching UGM-84 Sub Harpoon from their HU-603 tubes, in addition to their Type 89 torpedoes.

The newest submarine class currently in service includes *Harushio* (SS-583), *Natsushio* (SS-584), *Hayashio* (SS-585), *Arashio* (SS-586), *Wakashio* (SS-587), *Fuyushio* (SS-588) and *Ayashio* (SS-589) built during 1987-97. Intended to replace the *Uzushio* class, they are a natural progression from the previous class. *Harushio* was completed with the ZQQ-5 cylindrical sonar array forward, integrated with a new Japanese-developed reelable towed array, the ZQR-1. *Natsushio* and the later boats have the improved ZQQ-5B sonars. They appear to carry a mix of an estimated twelve Type 89 heavyweight torpedoes and Sub Harpoon missiles, and eight Type 80 short anti-submarines torpedoes, all launched from six HU-603B tubes

Oyashio (SS-590) is the first of a new design of SSK was laid down at Kawasaki's Kobe yard on 26 January 1994, and is planned to be delivered in March next year. She was authorised in Fiscal Year 1993, with a further three funded in succeeding years. Despite the devastation caused two years ago by the Kobe earthquake, work on the submarines at Kawasaki and Mitsubishi has not been delayed, according to the Defence Agency.

This design is the first to depart from the US Navy's Barbel design, which formed the basis of the previous two classes. The most obvious difference is the arrangement of the weapon launch-tubes above the bow sonar window. Particulars

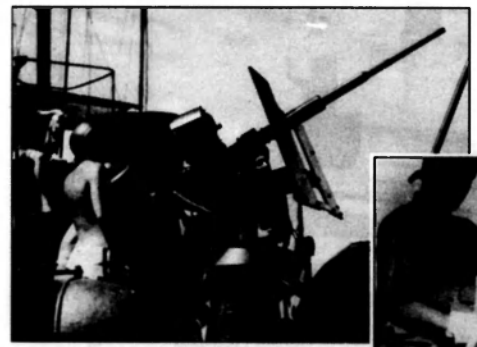
Displacement:	2700t (standard), 3000t (submerged)
Dimensions:	82.0m (wl) x 8.9m x 10.3m
Propulsion:	Single-shaft diesel-electric, 2 Kawasaki 12V25S diesels, 3400bhp/2 Kawasaki electric motors and Fuji alternators, 7750hp, 12kn/20kn (surfaced/submerge)
Armament:	Six launchers for Type 80 and 89 torpedoes and UGM-84 Sub Harpoon missiles (20 loads)
Complement:	10 officers, 59 enlisted personnel

The Type 89 torpedo was formerly known as the GRX-2, and is widely regarded as equivalent to the US Navy's Mk 48. Reported range is 30,000m at a maximum speed of 70kn (presumably on the surface), or nearly 50,000m at 40kn. It became operational in the mid-1990s. The Type 80 is a replacement for the Mk 37-0-N, launched from the standard tube using a liner. Driven by silver-zinc battery and wire-guided, it is credited with speeds in excess of 30kn. It was developed from the GRX-1 experimental weapon, becoming operational in 1980.

No submarines built since the *Mingo* have remained in front-line service for more than 17 years. Unlike other major submarine-operators the MSDF does not appear to go in for major mid-life upgrades, preferring to replace its middle-aged SSKs with new construction. This does not rule out detailed improvements such as the addition of Sub Harpoon and upgrades to sonars, but it has the advantage of keeping the shipyards busy while at the same time having a relatively modern submarine force. The rundown of the MSDF will see the submarine force cut to 14 boats or even 12, which means that some of the older *Yushio* class will soon be retired.

Acknowledgment: We are indebted to Ships of the World and The Naval Institute Guide to World Naval Weapon Systems. ■

ONBOARD A FAIRMILE



Fairmile B Motor Launch No. 431. An onboard view taken in June 1944, showing the vessel's 20mm Oerlikon gun and its two man crew. The weapon was mounted abaft the stack with a range of 1,000 yards and rate of fire of 450 rounds per minute. The 20mm was loaded from a drum feed which could be quickly replaced by a fresh container.

Y gun aboard Fairmile B Motor Launch No. 802. This weapon was carried by each Fairmile to launch depth charges a safe distance from the ship and to create a wider arc of attack against enemy submarines. In this photograph, two depth charges are being prepared for detonation.

ADFA Tour Gallipoli

By Sarah Giles

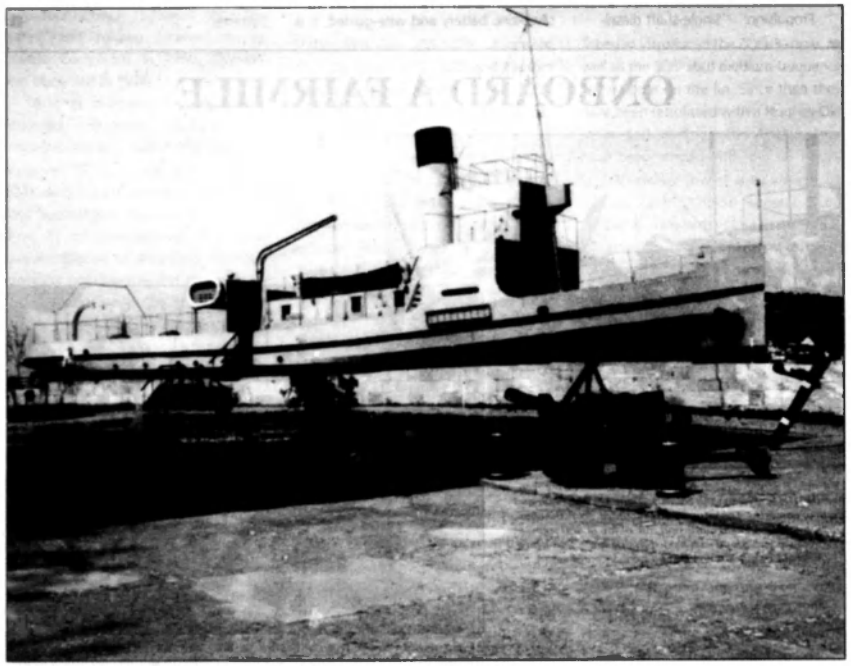
Midshipman, RAN
23 Division
Australian Defence Force Academy

From sipping apple tea in a cafe in Istanbul to a Dawn Service at Anzac Cove, the experiences were many and varied for the 80 staff and cadets from the Australian Defence Force Academy (ADFA) who visited Turkey in May 1997 for the Gallipoli Battlefield Tour.

The trip was initiated in 1996 to provide us with a greatly increased understanding of our Australian heritage and the exact context in which the Anzac tradition was forged. It also introduced many of us to the wonders of Europe and its ancient past.

The trip commenced with two days in Istanbul. During this time we crammed in as much sightseeing as possible, including the Blue Mosque, Haga Sofia and ferry trips across the Bosphorous into Asia. These activities were interspersed with many a donor kebab, and Turkish delight. Of course apart from the elusive belly dancers, the search for which occupied many a cadet's evening, the main attraction of Istanbul was the Grand Bazaar. Here we ran riot, haggling over the prices of fake Calvin Klein shirts, fezs, jewellery, food, leather goods – anything! Never have our arguing skills been so well practised.

Following a visit and tour of the Turkish War College where Turkey's more senior officers are trained, we moved on to the main aim of our trip- an exploration of the Gallipoli Peninsula. From our base in Canakkale, a town on the Asian side of the Dardanelles, we set out in four groups to different parts of the Peninsula to begin our trek. Before beginning, we sat on the deck of a replica of the Turkish minelayer *NUSRAT* (which had laid mines in March 1915, which had sunk several Allied warships and caused the Naval assault on the Dardanelles to fail) and listened to a Turkish historian's view of the campaign including the fortification of the Dardanelles and the defences which the Allied navies, including our own AE2 submarine, attempted to penetrate. I had not previously comprehended the narrowness of the Straits at this point and it amazes me that any ship was able to draw even close to the Sea of Marmara.

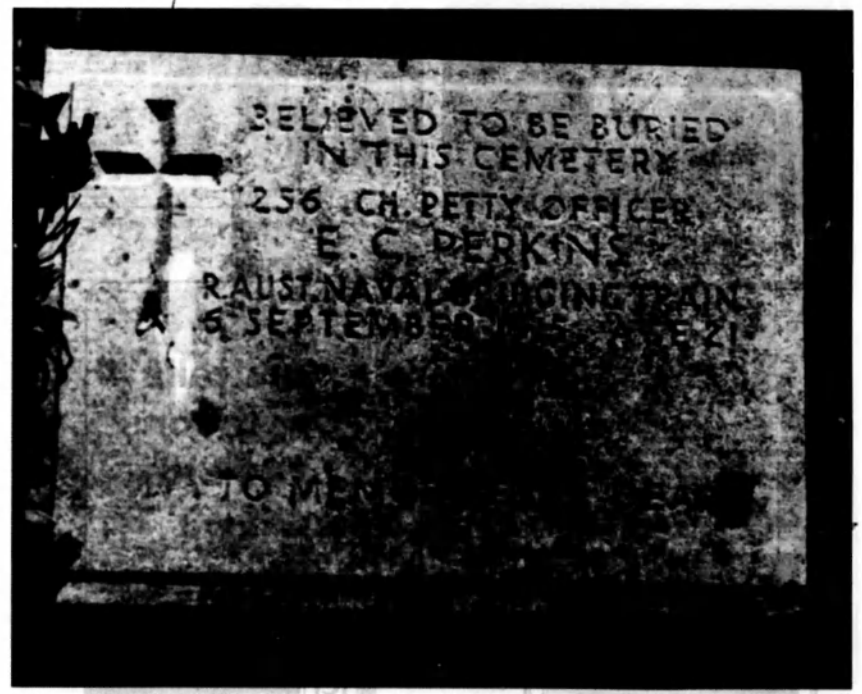


Replica of the Turkish minelayer "NUSRAT" at Canakkale. "NUSRAT" laid the mines in the Dardenelles which sank several Allied warships and caused the naval attempt to force the Dardenelles to fail. Thus the land campaign was initiated.

For me, the time at Gallipoli provided some of the most moving moments and experiences of my life. Our group started our travels in the south, at and around Cape Helles. From the towering Turkish Memorial which dominates the landscape we looked across to V, W, X and Y beaches where the British and French soldiers had landed 82 years ago. That afternoon, we hiked up to a quaint village, known in World War I as Krithia and the site of a famous battle involving Anzac troops. The only reminder left is a small war museum.

The highlight of the trip came over the next two and a half days during which we explored the north of the Peninsula where our country had its so called "baptism of fire". We explored the Lone Pine cemetery at the site where 2000 Anzacs were killed on 6 August 1915, we posed for photos at the Nek, where the 10th Light Horse Regiment from Western Australia charged up a ridge the width of two tennis courts only to be mown down by Turkish gunfire, as depicted in the movie "*Gallipoli*". A small group of us left the main road to scramble up Rhododendron Spur as the New Zealanders had done 82 years earlier in an attempt to capture Chunuk Bair, the highest point on the Peninsula. In doing so we discovered a trail of evidence of the fierce battles that took place: remains of trenches, live rounds, a skull half destroyed by shrapnel, pieces of ceramic rum jars possibly issued to the Anzacs to provide them with some "Extra Courage" before battle and the find of the trip – a New Zealand hat badge.

Our trip concluded with further travel around Turkey in which we toured the ancient ruins of Troy and Ephesus and the supposed retirement home of the Mother Mary. A quick stopover on the way back also gave us the opportunity of a lightening tour of Cairo, including a sound and light show at the Pyramids – a spectacular end to what turned out to be two weeks of experiences and emotions which will remain with the staff and cadets for some time. ■



The grave of CPO Edward Perkins of the RAN Bridging Train, at Hill 10 Cemetry, Suvla Bay. The Bridging Train was the only RAN unit to serve ashore at Gallipoli.

"The NAVY" Revisited

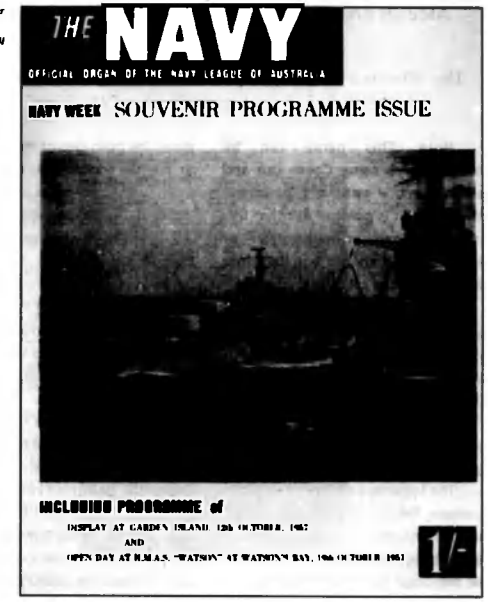
In 1998, *'The Navy'*, the Magazine of the Navy League of Australia, will celebrate its 60th year of publication. During 1997 we will feature pages from various earlier editions. In this issue the months of October 1947 and October 1957 have been re-produced.

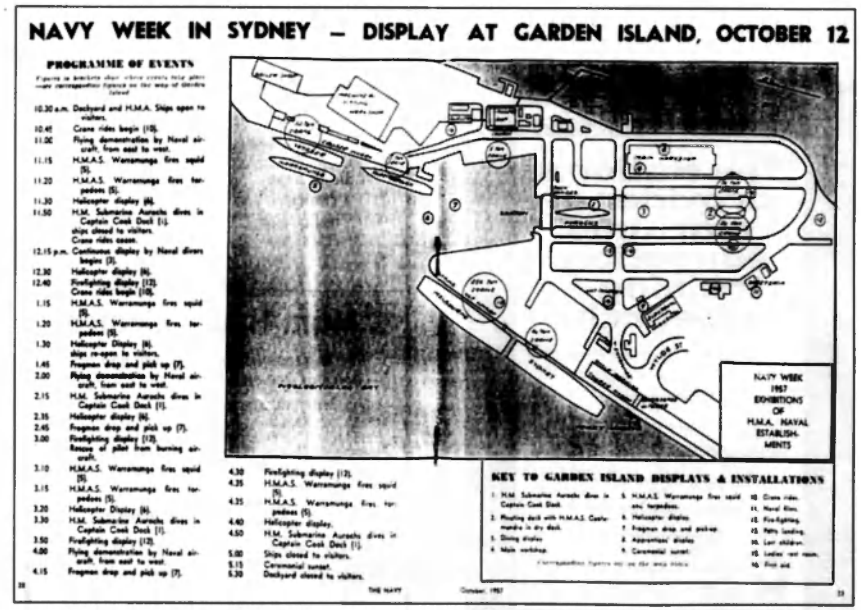
(The editor is keen to hear from readers who possess copies of any 1938 editions to mark its Diamond Anniversary). ■

Front cover of the October 1947 edition. The well known naval officer depicted was used on a number of the early issues.

The October 1947 edition included this piece of nautical humour.

October 1957 featured a colour cover of the Battle class destroyer HMAS "TOBRUK", replenishing at sea from HMAS "MELBOURNE". Note the price, one shilling for the special Navy Week issue!





The good old days. Outline map and programme for a busy Open Day at the Garden Island dockyard. Both carriers were present, the Royal Navy submarine HMS "AUROCHS", plus HMA Ships "VOYAGER", "WARRAMUNGA" and "QUEENBOROUGH".

? WHAT IS A' . . . COOK ?

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.

Note: This name can be confusing, as some Cooks can and some can't – generally however, they can't. It is pointed out that this is only an opinion held by 99% of the Navy and should not therefore be taken as the rule.

What is a Cook? The Concise Oxford Dictionary says of a Cook – 'one whose business it is to cook food.' This definition does not necessarily apply to Naval Cooks (see note above). The word 'cook" is a noun, that is, the name of something. Although what is cooked is generally without a name.

The favourite past-time of the Cook is playing PHUNG! The game is played at the servery when potatoes, pumpkin, and cabbage etc, are being dished out. As the Cook dishes up, he arches the arm, contracts the bicep, and then with super-human effort – PHUNG! on your plate. The main idea of the game being to pile the food in the centre of the plate, and from wide reports, most Cooks are fairly expert at this.

Cooks wear white tee shirts, white trousers and white caps. The white cap however, is optional, although I believe, compulsory. The mark of the Cook is old and greasy looking boots and shoes, but it is not true that Cooks sleep in these. Cooks wear their trousers tucked into their socks.

When addressing a Cook and not knowing his name, most refer to him as "Chef". As you know, this word is French for 'head cook' but it does not mean that Cooks cook heads. If they were to cook heads however, I'm sure that they would be deliciously done (this last comment was added very hastily).

Cooks can be either O (Officers) or S (Ships). At the cookery school the O's are sifted from the S's by an ingenious system, the main point being, to cook eggs. If the eggs are actually cooked then the Cook is labelled O. If not, then an S is attached to him. Now and again some O's slip through to become S's, but this is very rare. (This idea of labelling is borrowed from blood grouping)

Many expressions surround the Cook. For example, "Who called the Cook a runt?" and "Who called the runt a Cook?" This latter expression is used frequently.

Cooks cannot, at any stretch of the imagination, be called "first Boatmen". They do not rush from work at 1545 to shower, to change, to dress, to get ashore on the first boat. No! Why, some may ask! Well, its because they step ashore at 0900. ■

AUSTRALIAN WARSHIPS Through The Lens 1901 to 1940

Published by Topmill
Cost: $12.95
Reviewed by Joe Straczek

Since the early 1990s the Topmill imprint has appeared on the very popular Navy Profiles, this latest 112 page book being the sixth in the series.

However, "Through the Lens" is more than just another book about the Royal Australian Navy. It the first in a three volume photographic history, a set of books spanning some 330 plus pages with over 1,100 illustrations.

The main difference between the new Through the Lens books and other earlier publications is the degree to which the warships and support vessels of the Navy have been illustrated, not just a single photograph, but with each ship or class depicted at almost every stage in their respective careers. For example, from the Great War era, the *River* class torpedo boat destroyers are shown via 21 photographs, the training ship *TINGIRA* with four and the old *PIONEER* and *PSYCHE* with nine views.

The first of the new books covers the years from 1901 to 1940 with the following profiles to span 1941 to 1950 and then 1951 to 2000.

Each ship or class, whether purpose built or requisitioned from the private trade is presented in sequence of the date of commissioning into the RAN, with units modified or rebuilt also depicted at those subsequent times. All 330 illustrations in "Through the Lens" are well captioned, with each ship prefaced by brief technical specifications.

For the warship/navy buff, the new "Through the Lens" is highly recommended. The first volume can be obtained direct from the publisher at 102 Victoria Road, Marrickville, NSW, 2204, phone 02 9565 1266 or through most medium to large newsagencies.

GREAT LINERS AT WAR

By Stephen Harding
Published by Motorbooks International
Review copy from Capricorn Link, Australia
Reviewed by Joe Straczek

Great Liners at war is a 160 page book recounting the wartime exploits of the most famous passenger liners. From the *LUISITANIA* of the Great War to the *QUEEN MARY* of the Second World War through to the QE2 at the Falklands, the book describes the wartime activities of nine of the most famous, largest and fastest liners.

WARSHIPS of the USSR and RUSSIA 1945 – 1995

By A. S. Pavlov
Published by Chatham Publishing, London
Cost: $80 (approx)
Reviewed by Ross Gillett

This new book is from the stables of Chatham, a naval publishing house, formed in England in the mid 1990s. The latest release from the company is entitled Warships of the USSR and Russia 1945-1995.

Authored by Russian A. S. Pavlov and edited by naval analyst Norman Friedman for the English language edition, the book has been fully revised and updated to incorporate the latest information emerging from the former Soviet Union.

Sub-divided into three sections; ships built and completed from pre-war and Second World War projects; ships of the post-war projects; and civilian-type ships included in the Navy List, the Soviet book is laid out something like the traditional Janes Fighting Ships. Each ship or class is described via both technical data and narrative, with numerous side profile and deck plans re-produced to accompany the numerous black and white illustrations.

Compared to the other Chatham books now in the marketplace, Warships of the USSR and Russia is reproduced on somewhat inferior quality paper, giving a somewhat traditional 'communist' feel to the publication. On the positive side, the ship plans reproduce extremely well, providing for most, the first technical view of the upper deck, profile and interiors of many of the warships.

THE SHIPBUILDERS OF BRISBANE WATER NSW

By Gwen Dundon
Published by the author
Cost: $35
Reviewed by Joe Straczek

This may appear to be a rather odd book to review in *The Navy* Magazine. It is the story of the 500 plus mainly commercial vessels built on the shores of the Brisbane Water,

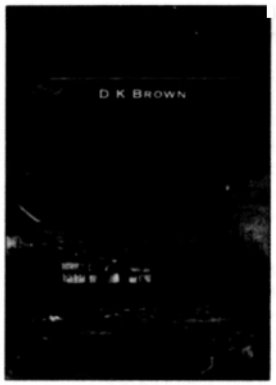
near Gosford on the New South Wales central coast.

From 1829 to the present day, the author describes the vessels that have been designed and launched into the tranquil waters known to all as Brisbane Water. More than 200 rare photographs have been discovered by the author, while the careers of most of the craft and their builders have been reproduced for the interest of the reader.

From what this reviewer can ascertain, just one vessel built in Brisbane Water, saw RAN service. The ship was the 1941 vintage motor vessel *PATRICIA CAM*, constructed by Gordon Beattie for Cam and Sons Pty Ltd. Requisitioned by the Navy in 1941, *PATRICIA CAM* operated in the role of auxiliary minesweeper. She was sunk on 22 January, 1943, by a Japanese seaplane off Wessel Island, north-east of Arnhem Land. This book can only be obtained from the author, phone 043 25 1777.

WARRIOR to DREADNOUGHT
Warship Development 1860–1905

By D. K. Brown
Published by Chatham Publishing
Reviewed by Ross Gillett



In the year 1860 the Royal Navy commissioned its first ironclad, the evolutionary 9,137 ton HMS *WARRIOR*. With an impressive armament of twenty-six 68 pounders and ten 110 pounders, the new warship could make 14 knots, all for an investment of 377,292 English pounds. The arrival of the new man-o-war, almost immediately rendered all older wooden warships obsolete.

The book "Warrior to Dreadnought" describes the development of the British Navy from these first fully rigged ironclads designed for broadside actions of the mid 19th century, through the early turret ships and barbette ships, up to and including the first modern day battleship, HMS *DREADNOUGHT*, commissioned in 1905.

Similar descriptions are also provided through the smaller and medium size warships, including the variety of cruiser types, early destroyers and gunboats. Our own Victorian breastwork monitor HMVS *CERBERUS* is described, as is the torpedo boat HMVS *COUNTESS OF HOPETOUN*, with a new illustration of the vessel, not long after launching.

The book is primarily a technical history of this new era of warships, focusing on the armament, armour protection, speed and machinery, the development of new guns and torpedoes and the countermeasures to defeat them. On the historical front, full accounts are provided for the 1882 attack on Alexandria, the ramming of HMS *VICTORIA* by HMS *CAMPERDOWN* in 1893, the 1898 Spanish-American War and the Russo-Japanese War of 1904-05.

Many rare photographs from the second half of the 19th century illustrate "Warrior to Dreadnought", the numerous data tables providing additional information for the naval enthusiast. Highly recommended. ■

Notice is hereby given that the

ANNUAL GENERAL MEETING

of

THE NAVY LEAGUE OF AUSTRALIA

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

On Friday, 14 November, 1997, at 8 pm

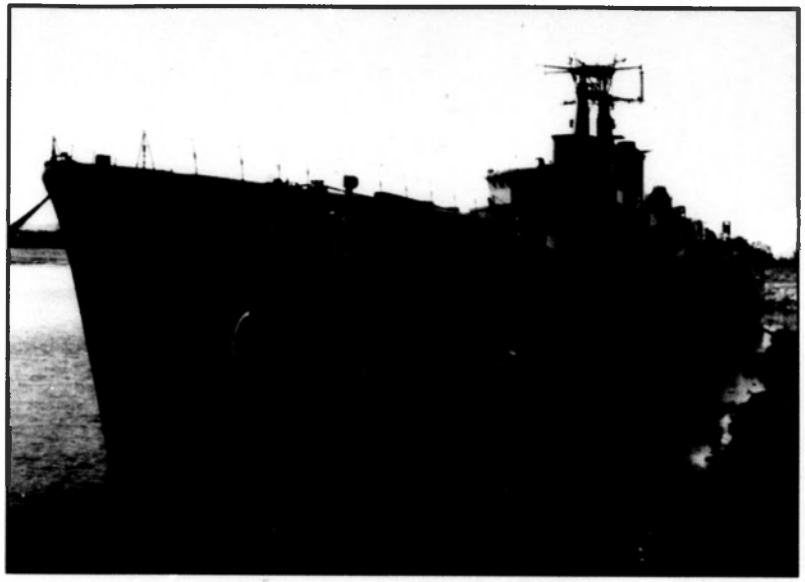
BUSINESS

1. To confirm the Minutes of the Annual General Meeting held in Canberra on Friday, 8 November, 1996
2. To receive the report of the Federal Council, and to consider matters raised therefrom
3. To receive the financial statements for the year ended 30 June 1997
4. To elect Officer Bearers for the 1997-98 year as follows:
   - Federal President
   - Federal Vice President
   - Additional Vice Presidents (3)

   Nominations for these positions are to be lodged with the Honorary Federal Secretary prior to commencement of the Meeting.
5. General Business:
   - To deal with any matter notified in writing to the Honorary Federal Secretary by 3 November, 1997
   - To approve the continuation in office of those members of the Federal Council who have attained 72 years of age, namely Arthur Hewitt (WA), Joan Cooper (Tas) and Mervyn Cooper (Tas)

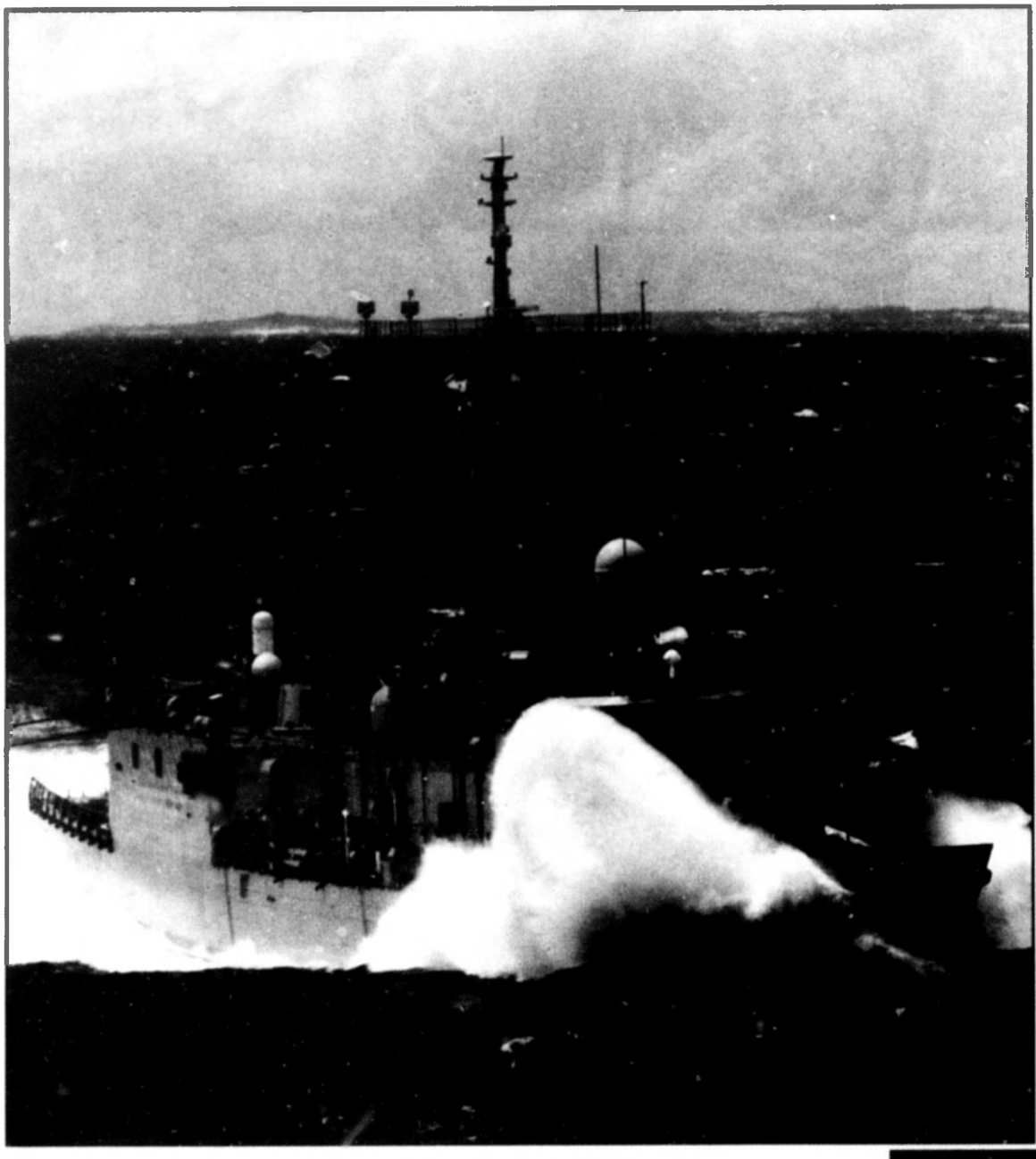
ALL MEMBERS ARE WELCOME TO ATTEND

By order of the Federal Council
Don Schrapel, Honorary Federal Secretary, PO Box 309 Mt Waverley 3149
Telephone (03) 9888 1977 Fax (03) 9888 1083



(Above): The former destroyer escort "SWAN", laid up in the shallows as she undergoes stripping and cleaning to meet environmental standards in the southern Western Australian Port of Bunbury's outer harbour. "SWAN" will be scuttled in Geographe Bay, 1.3 nm off Point Piquet, Dunsborough in December, 1997. Her twin 4.5 inch gun turret was relocated to the historic Albany tourist complex, Princess Royal Forts. (Photo - CPONPC Andy Hooker)

(Below): The Oberon class submarines "ORION" (left) and "OVENS", laid up in the HMAS "STIRLING" Small Ships Compound. "ORION" is in reserve, awaiting a decision on her future, either sold, refitted, scrapped or preservation as a floating museum. "OVENS", until recently the RAN's alongside training submarine at Fleet Base West, will be handed over to the Western Australian Maritime Museum in late 1997. The boat is to be towed to Fremantle to prepare her for the new role. "OVENS" will then be lifted from the water and placed on display in Fremantle Harbour. (Photo - ABPH Stuart Farrow)



HMAS "ADELAIDE", March, 1997

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