

JANUARY-MARCH 1999

VOLUME 61 NO. 1

\$3.50

THE NAVY

The Magazine of the Navy League of Australia





THE NAVY

Volume 61 No 1

Feature Articles

- 3 World Navies Build New Generations of Surface Combatants
- 5 Nuke Ships Steam Into Hot Water
- 8 HMAS BARCOO - Grounding April 1948
- 13 USS INCHON - MCS 12
- 16 Naval Review - South Korea

17 Naval Happenings

- RAN Celebrates 87
- A New Future for ARDENT
- Fleet Air Arm 50th

- 22 New Zealand News
- HMNZS RESOLUTION Survey Role
- HMNZS CHARLES UPHAM
- Right Ship for the Job?

29 Operation Bel Isi

- 32 What is a Naval Airman?

Regular Features

- 1 Viewpoint
- 2 From Our Readers
- 24 Observations
- 30 'The Old Navy'
- 33 Book Reviews

Front Cover: ABMUS Byron Crump and his friend 6-month-old Blake Tonkin, really got into the swing of things during the open day at Fleet Base East in Sydney. (Photo - CPOPH Cameron Martin)

Back: Not a warship, but the 60 year old Manly ferry SOUTH STEYNE in the Captain Cook Dry Dock, Sydney, October, 1988. (Photo - NPU)

Inside Back: HMAS GERALDTON. (Photo - RAN)

The Navy

The Magazine of the Navy League of Australia

The Navy is now in its 61st year of publication.

As the official organ of the Navy League of Australia, the quarterly seeks to keep both members and the public informed of naval developments at home and abroad.

The Navy Magazine is a combination of articles, describing current projects, future activities and past events, including news of naval hardware, reviews, personalities.

Commentaries are provided from both members and naval writers.

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

Viewpoint

Like all quality magazines, *The Navy* must change with the times. As the millennium approaches and to mark the beginning of its seventh decade of publication our presentation has been altered to meet the needs of its readers.

The Navy is now broadly presented via the major or feature articles, naval happenings, smaller supporting stories and the regular features.

From the July edition onwards, the Navy League, its members and readers, welcome to the editorship chair, regular contributor Mark Schweikert. With the former Federal President Geoff Evans as Managing Editor, Mark will co-ordinate the contents of the each edition, following the retirement of this writer, after 22 years and 88 editions.

To create and maintain the quality of such a magazine, requires the continuous help of many Navy League members, as well as readers of *The Navy*. It would be impossible to name all contributors over the two decades, but special mention should be made of the former Federal President Geoff Evans, Otto Albert from the NSW Division and Tony Grazebrook from Victoria. From the RAN, the official Navy Public Affairs Officers Vic Jeffery, Mike James and Joe Straczek have provided numerous news and historical articles.

With the assistance of the Navy photographers and several enthusiasts, including A.D. Baker III, Brian Morrison, John Mortimer, Antony Preston and Chris Sattler, *The Navy* has always been extremely well served. Thank you to all for your 22 years of assistance and encouragement.

Ross Gillett

Corporate Members

THE AUSTRALIAN SHIPOWNERS' ASSOCIATION
COMPUTER SCIENCES OF AUSTRALIA PTY LTD
BTR AEROSPACE AUSTRALIA
HAWKER DE HAVILLAND LIMITED
ROCKWELL SYSTEMS AUSTRALIA PTY LTD
STRANG INTERNATIONAL PTY LTD

The Navy

All letters to the editor and contributions to:
The Editor, Ross Gillett
4 Dela Close,
Dee Why, NSW, 2099

Subscriptions and Membership

All magazine subscription and membership enquiries to:
The Hon Secretary,
NSW Division,
Navy League of Australia,
GPO Box 1719,
Sydney, NSW, 2001

Copy deadline for the next edition is 9 February 1999



Montage of Navy Week 98.

(Above) Open day at the Fleet Base East.

(Left top) Four Fleet Air Arm helicopters 'pose' in front of two Sydney landmarks.

(Left centre) RAN Band performance in front of the Australian Naval Aviation Museum display.

(Right lower) Ceremonial Sunset, at the conclusion of the Sydney Navy Day.

(Photos- CPOPH Cameron Martin and ABPH Torrin Nelson)



FROM OUR READERS



DIAMANTINA after completion.

Queensland Maritime Museum

Dear Sir,

I am researching the story of the River class frigate HMAS DIAMANTINA, our Museum's major exhibit

A Maritime of Australia Project Support Scheme Grant will enable me to study records in Sydney and Perth. However, much of the ship's story is not in the records, but in the memories of the people associated with her. Those personal stories are a vital part of a complete history.

So I am appealing to readers of The Navy who sailed on DIAMANTINA or had contact with her, to send me an account of the highlights of their connection with this veteran warship. Photographs and papers for copying and return would be especially appreciated in the compiling of the history of this long serving and much loved ship.

I can be contacted by phone on (07) 3397 9924

Yours truly,

Peter Nunan
Queensland Maritime Museum
P.O. Box 3098
South Brisbane, Qld, 4101

General Services Medal

Dear Sir,

Our Warships and Marine Corps Museum has recently acquired a General Services Medal with Bar: MALAYA which is inscribed with the name J.G. VICKERS and his RAN service number. J.G. Vickers served in HMAS CURLEW in 1964 during the era of the Indonesian Confrontation.

The medal is now on display, but we would like to contact either his family or shipmates to obtain a photograph of him, as well as his other service in the Navy.

PAGE 2



HMAS CURLEW

Would any of your readers be able to advise us if there is an HMAS CURLEW or Ton class Minesweeper Association who may be able to assist us in this regard.

We enjoy The Navy magazine and all copies are kept in the Museum library as a valuable source of reference.

Yours truly,

Paul Morrison
GPO Box 3949
Sydney, NSW 2001

HMS BASILISK

Dear Sir,

I am writing to ask if any of your readers can assist with information on HMS BASILISK. My grandfather served aboard her in Australian waters between 1870? and 1874 when they discovered the China Strait in south-east Asia. BASILISK was a paddle warship with three masts.

I am searching for the names of the ship's company, where she was launched and her final fate. Any information would be greatly appreciated.

I. Davidson
48 Churchill Ave
Strathfield NSW 2135

Canadian Request

Dear Sir,

Can the readers of The Navy magazine assist me in my search for RAN cap-ribbons (tally bands), of all ships and establishments. Foreign tallies are also welcome.

Please write to me:
LS Robert Brytan
#602-1865 Barclay Street
Vancouver, BC
V6G 1K7
CANADA

World Navies Build New Generations of Surface Combatants



The new South Korean destroyer KWANGGAETO, the lead ship of the KDX-1 class. (Photo - John Mortimer)

By Navy Leaguer

The world's major and medium maritime powers are building a new generation of surface combatants.

This reflects a carefully assessed decision that surface combatants will be required to play their roles in maritime warfare and operations for the next thirty years and more.

Surface combatants will be required for blue water and littoral operations. Surface combatants will be required for anti-submarine, anti air and anti surface warfare. Surface combatants will be able to defend themselves against sea or land based air, underwater and surface attack.

In formulating and implementing their policies, national governments will continue to need the offensive, defensive and graduated response options provided by surface combatants.

Let us take a look at what is going on in our region.

Japan has just completed a class of four new Aegis anti-air warfare destroyers of the 9500 ton full load Kongo class. Series production of the 5100 ton general purpose Murasame class continues. Japan's program is particularly noteworthy.

A primary role of the Japanese Maritime Self Defence Force is the protection of trade out to 1000 nautical miles from the Japanese coast well outside the radius of action of Japanese shore based high performance fighters. Furthermore, naval operations in protection of trade take JMSDF surface combatants well within the radius of action of potentially hostile shore based high performance strike aircraft.

Thus, Japan clearly has confidence in the ability of modern surface combatants to defend themselves against shore based aircraft and new generation air, surface and sub-surface launched anti-ship missiles.

South Korea has just commissioned the first of a new three ship class of 3900 ton general purpose guided missile frigates. These ships armament includes short range anti-missile missiles, surface to surface missiles, a 127 mm gun and an anti-submarine helicopter.

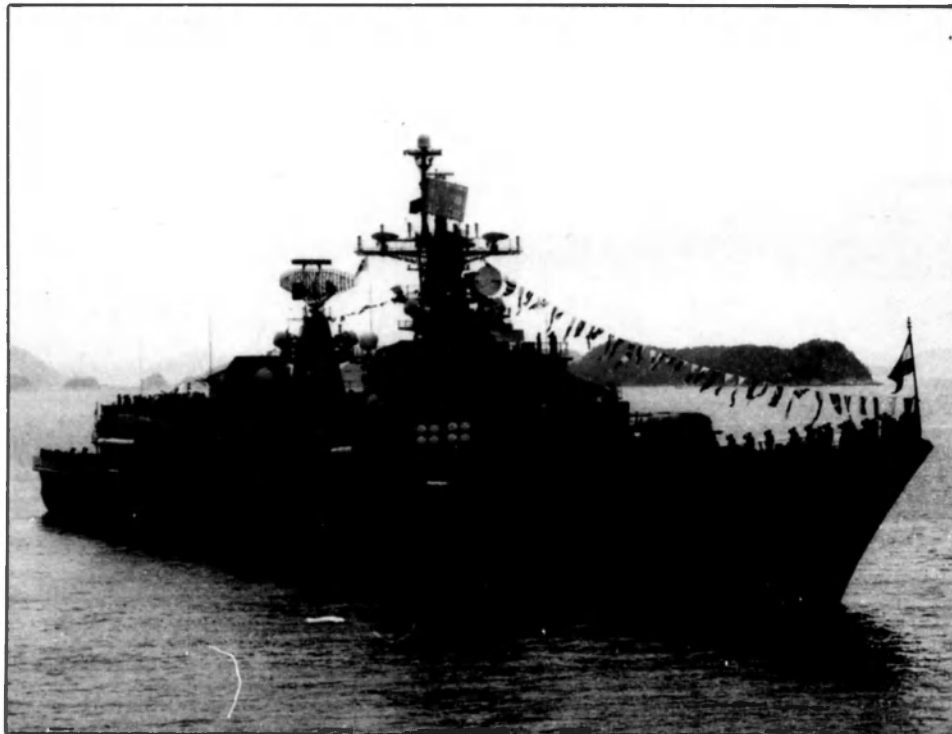
The same country has laid down the keel of the first of a further three ship class of larger anti-air warfare guided missile frigates. These KDX-2 ships will have mark 41 vertical missile launching systems for Standard SM-2 block III medium range anti-air missiles (very similar to those with which the RAN hopes to arm the Anzac class frigates during their war fighting improvement programme). The KDX-2 class will also have guns, vertically launched ASROC anti-submarine weapons and an helicopter.

China continues series production of her own design of Luhai guided missile destroyers and Jiangwei class frigates. All these ships are expected to operate under the umbrella of shore based aircraft.

Much more significantly, China is purchasing from Russia two 840 ton Sovremenny class destroyers. These ships are armed with the latest Russian weapons, including SS-N-22 Sunburn anti-ship missiles. Most significantly, the Sovremennys are armed with area defence AAW systems, a capability the Chinese Navy currently lacks. The ships are under construction in Russia. The Sovremennys will be able to operate without shore based air cover.

Taiwan is just completing construction of thirteen major surface combatants. Seven of these are modified FFG 7 class frigates and six are French built La Fayette class frigates. The Taiwanese Navy must operate within the range of hostile shore based high performance aircraft.

PAGE 3



Indian Navy destroyer DELHI. (John Mortimer)

India has just completed the first of the 6500 ton Delhi class guided missile destroyers. These ships will be equipped for anti submarine and surface warfare and self defence AAW weapons and sensors. Provision is made for two Sea King sized helicopters.

Amongst the worlds most professional medium navies, most are currently constructing surface combatants.

The Netherlands has laid down the first of four 6000 ton anti-air warfare guided missile frigates. These ships will have the new European APAR (active phased array radar) and Smart L 3D radar with vertically launched Standard SM-2MR Block IIIA medium range surface to air missiles, as well as the Evolved Sea Sparrow point defence anti-missile missiles. These ships will be capable of operating within the range of shore based hostile aircraft.

Germany has laid down the first of four 5600 ton ships of very similar anti-air warfare armament and sensors to those building for the Dutch Navy. Again, these will be capable of operating within the range of hostile high performance shore based combat aircraft. The Dutch ships will have one helicopter and the German ships two.

Norway has called tenders for the construction of a new class of smaller 3500 ton frigates, armed with anti-

ship missiles and the evolved Sea Sparrow anti-missile missiles. The ships will have one helicopter.

Italy is planning to participate in the Horizon joint anti-air warfare destroyer programme with Britain and France. Italy plans six ships, armed with the Aster 15 and Aster 30 AAW missiles and EMPAR active phased array radar. These ships are expected to displace 6500 tons.

Unlike other European powers, Spain has developed her own design of AAW guided missile frigate the four unit F100 class of 5700 tons. These ships will be equipped with the Aegis passive phased array radar and the Standard SM-2MR Block IIIA anti-aircraft missiles and evolved Sea Sparrow anti-missile missiles.

Turkey has a programme for a number of air defence frigates. These will follow the final class of Meko 200 general purpose frigates.

As can be seen, many of the worlds navies have continuing construction programmes for surface combatants. Clearly, these navies see both the need for and the viability in war of the surface combatant.

This world wide recognition amongst the worlds professional navies should be noted as the Australian Defence Force plans the Sea 1400 project for successors to the Adelaide class FFGs.

Nuke Ships Steam Into Hot Water



The conventionally powered CV USS INDEPENDENCE. (Photo - Joe Straczek)

By Mark Schweikert

The US General Accounting Office recently issued a report to congress on the cost effectiveness of nuclear propulsion vs fossil fuelled carriers in order to decide what type of propulsion system should be used in the new CVX-78 aircraft carrier. The report not only raised the issue of nuclear vs fossil fuel propulsion systems but also demonstrated the growing post Cold War conflict between the bean counters' and warriors.

Recently, a war was brewing inside the Pentagon over the propulsion system for the new CVX-78 class aircraft carrier. At the behest of Congress the US General Accounting Office (GAO) conducted a study on the cost effectiveness of nuclear powered aircraft carriers compared to conventionally powered carriers. The report's findings were that conventional carriers were more cost effective than nuclear powered vessels and that both types of carriers are as combat effective as the other. The GAO also went so far as to state that nuclear propulsion affords no advantage whatsoever. Naturally the USN disagreed.

The GAO compared the relative effectiveness of conventionally powered carriers (CVs) and nuclear powered aircraft carriers (CVNs) in meeting national security requirements of overseas presence, crisis response and war-fighting. They also estimated the total life-cycle costs of CVs and CVNs, identified implications of an all CVN force on overseas homeporting in Japan and overseas presence.

The USN's CVNs are without doubt the most expensive weapon system in the US arsenal and the most destructive and flexible weapon system in the world (the term weapon system includes the embarked air wing as well as the carrier). Given the almost identical nature of air wings embarked on CVs and CVNs and their identical training,

discerning which type of propulsion system adds combat value to the embarked air wing was a difficult task. For example, the GAO report showed that CVs spent less time in extended maintenance and as a result can provide more forward presence coverage. However, CVNs carry larger quantities of aviation fuel and munitions making them less dependant on replenishment ships in the battlespace as well as having unlimited range at high speed.

The GAO was tasked with finding the most cost effective means of carrier propulsion, not combat effectiveness. Investment, operating, support, inactivation and disposal costs were found to be higher for CVNs than CVs. Based on a 50 year service life the GAO report estimated that a CVs total service life cost was \$14.1 billion (US) and a CVN \$22.2 billion (US) (acquisition, maintenance disposal etc). The debate in the Pentagon and Congress was, does nuclear propulsion warrant the cost premium?

As mentioned the GAO found in favour of CVs over CVNs. One aspect for this finding was the maintenance requirements of both. A CVs maintenance requirements are not as stringent and complex as those of a CVN (given the lack nuclear material and the associated safety requirements). Consequently CVs spend less time in maintenance and are thus more available for operations. CVs can also be made ready, or surged, for operations sooner as their maintenance periods can be accelerated or compressed, depending on the stage of maintenance. A CVNs maintenance cannot be surged as readily given its complexity.

The GAO also examined combat effectiveness during the Gulf War of both types of carriers and found no significant advantage of one over the other. Five of the six carriers participating were CVs with only one CVN. The USN had opportunity to deploy more CVNs to the war but instead followed previously scheduled deployment

patterns. Logistical support of each of the six CBG (Carrier Battle Groups) was essentially the same. However, CVs required replenishment of aviation fuel about every 2.7 days and the CVN every 3.3. The average number of sorties flown by each carrier was virtually identical. Based on the identical types of aircraft, capabilities, training and operational guidance the GAO felt that there was no discernible combat advantage afforded by nuclear propulsion in this war. This example however, is specific to the Gulf War, which happened to be fought near one of the world's largest fuel supplies.

One of the obvious advantages of CVNs over CVs is their speed and range. CVNs can accelerate and respond faster for recovery or launching of aircraft and although both types of carriers have the same top speed, the CVN is able to maintain that indefinitely. But the GAO felt that this does not contribute significantly to operations nor arrival time on station. For example, a CV steaming from the US west coast to the Persian Gulf, 12,000 nautical miles, at a speed of 28 knots would arrive six hours later than a CVN given the CVs requirement to slow down and refuel. On a shorter voyage a CV at 28 knots steaming from the US east coast to the eastern Mediterranean would arrive only two hours later than a CVN.

These examples of the GAO have been disputed by the USN. A CV cannot sustain a high speed for an extended period as the fuel requirement would be higher and mean far more logistics support. Reliability of the propulsion plant would be reduced as well as greater stresses on watch standing personnel, given that all eight boilers would be in use. The first two points would also translate into higher operating costs of the CV, a point not seen by the GAO 'bean counters'. The USN stated that CVs have to transit at a slower, more economical speeds and thus would arrive weeks later, not hours. The USN also stated that CVNs routinely transit at high speeds.

Although the CVN can maintain a high top speed without the need to refuel, her escorts cannot. Part of the original USN's strategy for employment of nuclear powered carriers was to have all its escorts nuclear powered thus severing the logistic tether. It was the high cost of nuclear propulsion which stopped the USN building an all nuclear powered escort fleet in 1975 with the last of the Virginia class CGNs. Still, the addition of one nuclear powered vessel does ease the strain on the CBG's logistic support.

This last point is something that is not readily accepted by the GAO. Their logistics counter to nuclear propulsion is based on the number of USN support ships, their access to 22 fuel and material storage ports around the world and that a CBG will always be accompanied by a replenishment ship. Given these facts the GAO concluded that a CVN was not needed.

However, it is interesting to note a logistics omission by the GAO is that a CVs daily fuel consumption roughly equals that of one Ticonderoga class CG, two Arleigh Burke class DDGs and a Spruance class DD. This means that a CVN led CBG can add four more escorts to its group for the same logistics support as a CV. Being less

dependent on logistics has always been a force multiplier with the opposite providing a source of vulnerability. It should also be remembered that a CVN carries more ordnance and aviation fuel.

To ascertain each type of CBG's sustainability in independent war fighting operations the GAO used two notional CBGs. Each notional CBG had an aircraft carrier, CV/CVN, two Ticonderoga class CGs, two Arleigh Burke class DDGs, two Spruance class DDs and one Sacramento class AOE (replenishment ship). The conventionally powered CBG was able to steam for 29 days, had enough aviation fuel to operate at a tempo comparable to the final days of Desert Storm for 17 days and aircraft ordnance for 30 days.

The CVN led CBG could steam for 34 days (5 days more), had enough aviation fuel to operate at a tempo comparable to the final days of Desert Storm for 23 days (6 days more) and ordnance for 41 days (11 days more). Consequently the CVN CBG was able to stay in theatre longer and deliver more ordnance into an area of operations than its conventionally powered counterpart.

This alone should be enough to convert most to the CVN argument despite the high cost premium to deliver it, however, the GAO felt that its own test was flawed as a CBG would have unlimited 24-hour a day access to logistics support on station anywhere in the world.

Although chasing cost effectiveness and not combat effectiveness may seem inappropriate for fighting wars, one of the requirements for the new CVX-78 is to reduce life cycle costs by 20%. But an interesting example of the priceless advantage of a CVN occurred in March 1996. The Nimitz CBG was patrolling the Persian Gulf when ordered to the Taiwan straits. The self-sustaining capability of the CVN allowed her to stay in the Gulf with one of her fossil fuelled escorts while the remaining escorts and replenishment ships began the long transit. Five days later Nimitz left the Gulf with her remaining escort which she refuelled on route before overtaking the rest of her battle group as they entered the Taiwan straits. Unfortunately the GAO report did not place a price on this capability and flexibility which if it had, would probably prove a saving over a conventionally powered CBG carrying out the same task as well as providing more presence in theatre.

Another priceless advantage of high speed and unlimited range is tactical flexibility. The CBG Commander has the luxury of employing evasive long transit tracks to launch and recover aircraft thus making his group less susceptible to enemy detection and action.

A facet of carrier force power projection is the homeporting of a carrier in Japan. Home porting of a CV has given the USN a readily available and constant forward deployed carrier presence in the Western Pacific. With the eventual phasing out of the last three CVs, Kitty Hawk, John F Kennedy and Constellation, the US will have to make a decision whether to home port a CVN in Japan or not. Given that the current carrier maintenance



The nuclear powered USS JOHN C. STENNIS. (Photo - USN)

facilities are designed for a CV the GAO believed these would need to be replaced and updated at great expense. Home porting in the US would save many millions of dollars but reduce the USN presence in the Western Pacific (unless there was an increase in the number of CVNs to enable keeping one at sea in the Western Pacific). The GAO cites this as one more nail in the CVN coffin however, the USN believes that a CVN could be stationed in Japan with depot level maintenance carried out in the US. All other maintenance could be carried in Japan with existing facilities and by the ship's own resources.

Although not forming part of the report it should be noted that a CVN is not the most welcomed ship in some harbours given the political sensitivity of nuclear propulsion. Sydney harbour is one example that has not allowed nuclear powered vessels since the last visit of the CVN USS Enterprise.

The last USN CV to decommission, USS John F Kennedy, in 2018 will herald the arrival of the all CVN carrier force 56 years after the first CVN, USS Enterprise was commissioned. Since then the USN has had gained an experience, understanding and need for nuclear

propulsion in its carriers and firmly believes in their ability to give the USN a distinct combat advantage.

The fight over the CVX-78 propulsion system has, fortunately, been won by the USN with the X being replaced with an N. CVN-78 is due to commission in 2013 but the fight for something as blatantly obvious as the nuclear powered advantage demonstrates how accountants are now influencing the business of war. Cost effectiveness does have a place in the modern military but does not automatically equal combat effectiveness, as was realised 'in Australia with the cost effective philosophy of 'fitted for but not with' in the Anzac frigates.

Unfortunately this will not be the last time that the 'bean counters' will encroach into the realm of the warrior. The GAO report on nuclear propulsion should stand as a glaring example to the world's military forces to be prepared against the apathetic, militarily illiterate, cost efficiency juggernaut. Military's should take note and be prepared as well as educating the 'bean counters' who now seem to have similar influence over a battlefield as those with egg on their hats. Militaries guard the nation's borders and interests from attack but sometimes the greatest enemy to a country can come from within.



HMAS BARCOO aground at Glenelg in April 1948.

REPORT OF PROCEEDINGS - APRIL 1948

From:
The Commanding Officer, HMAS "BARCOO".

Date 3rd May 1948
Reference No. 20/1/390

To:
The Secretary, Naval Board,
Navy Office, Melbourne. S.C.1.

Copy:
The Flag Officer Commanding HMA Squadron.

1. Submitted for the information of the Naval Board the following report of proceedings for the month of April, 1948.

2. From Thursday 1st April to Wednesday 7th April, HMAS "BARCOO" was berthed at Outer Harbour, Port Adelaide, the surveying motor boats being employed on the sounding of the northern area of Hydrographic Instruction No. 4 of 1948 (Approaches to Port Adelaide). One day was lost during the above period due to rain.

3. "BARCOO" departed Outer Harbour A.M. Thursday

8th. April, and after lifting two surveying beacons the ship anchored off Glenelg at 1545 I.K. The boats were able to sound during the forenoon only, the visibility during the afternoon being poor due to a dust haze.

4. Boat sounding and coastlining in the southern part of the survey was completed Friday 9th. April.

5. At 0507 I.K. Sunday 11th April, during a sudden and unpredicted storm which reached hurricane force, HMAS Barcoo touched the ground and was driven ashore in position 002' 1.3 miles from Glenelg pier light. The grounding was reported to the Naval Board, the Flag Officer Commanding HMA Squadron, and the Resident Naval Officer, Port Adelaide in my message 102230Z April. A narrative of the events leading up to the grounding was forwarded to the Flag Officer Commanding HMA Squadron together with Form S. 232.

6. During the afternoon of Sunday 11th April the wind continued from S. x E. force 10 and a breeches buoy was rigged from the stem to shore, in case it became necessary to land any of the ship's company. This operation was accomplished only after considerable difficulty due to the heavy sea running and the strong undertow. By nightfall the wind had decreased to force 8, and the ship had settled on a sandy bottom with head inshore and with a list of 5 degrees to starboard. The ship was without

power due to the choking of condenser and diesel intakes with sand.

7. At approximately 0030 I.K. Monday 12th April, the Resident Naval Officer, Port Adelaide came on board and discussed arrangements for refloating the ship. At daylight preparations were begun to be taken in tow and to lay out a kedge anchor. Arrangements had been made to use a 2 ton anchor belonging to the South Australian Harbours Board, but it arrived too late to be laid out that day. The tugs Woonda Foremost and the Harbours Board tug Tandanya arrived late afternoon and after the tows were passed, hauling off commenced at 1726. For a while steady progress was made but after moving 104 feet astern the ship became fast on a sand bar and the tows were slipped at 1917 I.K. the tide having commenced to fall by that time.

8. On Tuesday 13th April a 41/2" wire was brought to the beach and embarked, and the two ton kedge anchor laid out on the starboard quarter. By using snorer pumps to obtain circulating water the diesel generator was started and fresh water (12 tons) pumped from aft to forward. During the afternoon towing wires were passed to the tugs Woonda and Foremost who commenced hauling at 1750 I.K. The combined efforts of the tugs and kedge anchor moved the ship about 20 feet, and at approximately 1920 I.K. the tugs were slipped.

9. During the forenoon of Wednesday 14th April Mr O'Malley, dredging engineer on the Harbours Board staff, arrived on board with the Resident Naval Officer to discuss the practicability of dredging a channel astern of the ship. This appeared essential if the ship was to be refloated before the next spring tides (25th to 28th April). Arrangements were made that day to embark a 6" centrifugal pump to provide circulating water for the main condensers. Commencing at 1730 a further attempt was made by the tugs Woonda and Foremost to tow the ship off, but was unsuccessful and the tugs were slipped at 1904.



Bow view of the stranded frigate.

10. Captain J. Williams, salvage expert, arrived on board A.M. Thursday 15th April and a salvage plan was evolved along the following lines:-

The dredging of a channel from deep water up to, and around the ship's stern.

Starboard aerial of HMAS BARCOO.





Heavy seas pound the frigate.

(b) The removal of most of the oil fuel, naval stores and ammunition by lighters and the jettisoning of the fresh water remaining.

(c) The laying out of two heavy kedge anchors astern and the ship's starboard bower anchor – the latter to steady the ship's head when the haul into deep water was attempted.

With regard to (b) above, the 380 tons of oil fuel on board could not be discharged previously as there was no oil fuel lighter at Port Adelaide. It was therefore necessary to negotiate with the Shell Company to obtain the use of a petrol lighter for the purpose. Upper deck stores were landed on one beach and other stores transferred from the tiller flat, electrical, boatswain's and survey stores, cable locker and paint shop to the upper deck ready for loading into a lighter. The embarkation of salvage equipment in the form of special blocks and shackles etc was commenced that afternoon.

11. On Friday 16th April the large purchases for use with the kedge anchors were rove each side of the upper deck. The dredger arrived at 1030 I.K. and laid out her moorings in preparation for dredging. That afternoon the

34 foot surveying motor boat "Seamew", which had been ashore close north of the remains of the Glenelg pier since Sunday 11th April, was refloated and towed back to the ship. At 2200 I.K. the fuel and stores lighters arrived. An immediate start was made on the loading of these lighters and this was completed by 2400 I.K.

12. At 0015 I.K. Saturday 17th April the dredger commenced operations. At 0840 I.K. commenced discharging oil fuel. This could not be done earlier due to frequent breakdowns in the pumping arrangements. During the remainder of the day the following work was also carried out: Starboard bower anchor and 7 1/2 shackles of cable laid out on a bearing Green 110 degrees. Two coils of 5 1/2" wire (for use with the second kedge anchor) embarked from shore and the necessary splicing commenced. Discharged all ammunition into a lighter.

13. During the forenoon of Sunday 18th April the surveying motor boats "Seamew" and "Moresby", also the motor skiff, were towed into Port Adelaide. At 1130 I.K. the fuel lighter departed with the first load of 139 tons of oil fuel. Discharging had been very slow due mainly to the viscosity of the fuel, the necessity for removing the lighter to deep water at low tide, and the frequent breakdowns in pumping. During the afternoon the second kedge anchor was laid out from forward on a bearing of Green 140 degrees. At 2400 I.K. the dredger reached the ship's stern.

14. At 0400 I.K. Monday 19th April the fuel lighter returned but due to further pumping trouble the discharge of fuel was not effectively commenced until 0800 I.K. During the day the original kedge anchor was relaid along the northern edge of the dredged channel, its 4 1/2" wire being lead to the ship's port quarter thence to the purchase on the port side of the upper deck. The second kedge anchor was backed. At approximately 1600 I.K. the slack was taken down on both kedge wires and the Harbours Board tug hauled astern using a 2 1/2" wire. No appreciable movement astern was observed but the ship's head moved about 10 degrees to starboard. This partially freed the ship's port bilge keel from the

sandbank which had formed along the port side. Steam had been raised that day and the port engine was moved slow astern for about twenty minutes. At 1840 I.K. the fuel lighter departed with 145 tons of oil fuel.

15. From Tuesday 13th April to Tuesday 20th April the weather generally had been favourable for the salvage operations, but on the morning of the 20th April a moderate north west wind sprang up, accompanied by rain squalls, and it was decided to send the dredger back to harbour. To improve its effect for hauling astern the lead of the second kedge wire (5 1/2") was shifted from the starboard bow to the starboard quarter. HMAS "Warrego" arrived and anchored off at 1140 I.K., by which time the wind had backed to west south west and increased to force 6, sea and swell 32. With the ship lightened and a westerly wind freshening it was decided to flood down to prevent the ship driving inshore. This was commenced about noon and shortly afterwards a message was received from the Resident Naval Officer, Port Adelaide (then on board HMAS Warrego) stating that a view of the weather conditions no attempt would be made on that evenings' high tide to refloat the ship.

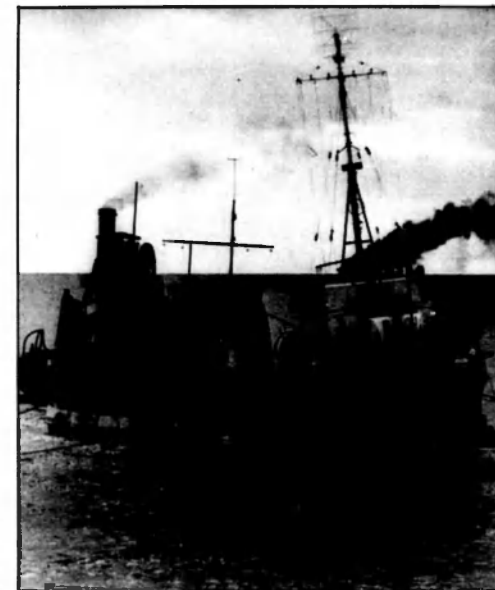
At approximately 1530 I.K. both kedge wires were hauled and the ship commenced to move astern, slowly and steadily. HMAS "Warrego" was informed of the situation and that ship prepared to pass her towing wire. At 1620 I.K. HMAS Barcoo was afloat and shortly afterwards was taken in tow by HMAS "Warrego". At this juncture it was necessary to burn through the ship's starboard cable the end being buoyed. When about 8 cables offshore HMAS "Warrego's" tow parted and "Barcoo" anchored until a line could be passed to the tug "Foremast" who had been standing by during the afternoon. "Barcoo" was then towed approximately 6 miles offshore to the vicinity of the 10 fathom line, anchoring there at 1905 I.K. HMAS "Warrego" anchored approximately 4 cables to the northward.

16. At 0800 I.K. Wednesday 21st April "Barcoo" weighed and proceeded at 7 knots to Outer Harbour securing alongside at 1100 I.K. "Warrego" secured alongside "Barcoo". An immediate start was made on opening up and clearing sand from the main and distilling condensers and the 20 ton fire and bilge pumps. It was estimated that about 8 days would be required to make good the engine room defects and this was reported in "Barcoo's" message 21054z April.

17. Thursday 22nd and Friday 23rd April were spent at Outer Harbour, the ammunition being re-embarked and the special salvage gear landed.

18. At 0900 I.K. Saturday 24th April "Barcoo" slipped and proceeded to Port Adelaide alongside "Warrego" who towed with the tug "Woonda" assisting. Both ships berthed on the Sugar Company wharf at 1100 I.K.

19. On Sunday 25th April the Commanding Officers of "Warrego" and "Barcoo" attended the Anzac Day Dawn Service in Adelaide and also the Service at St. Peter's Cathedral that evening.



De-storing and dredging around the ship.

20. At 0900 I.K. Monday 26th April HMAS "Warrego" departed Port Adelaide for Sydney.

21. From Tuesday 27th to Friday 30th April the engine room department continued clearing sand and making the condensers watertight, while the remainder of the hands embarked the stores which had been landed.

22. HEALTH AND CONDUCT

During the past month the health of the Ship's Company has been good. There have been no outbreaks of infectious diseases except for a mild epidemic of



HMAS BARCOO at low tide.

The sloop HMAS WARREGO stands by to assist.



A few onlookers view two tugs trying to pull HMAS BARCOO free.



HMAS BARCOO being towed into Port Adelaide by a local tug and HMAS WARREGO.

Common Colds during the period the ship was aground, due mainly to the continued wetting experienced by the crew. These however, except for one or two cases, have been cleared.

There was only one admission to hospital during the month, he being a case of suspected Pulmonary Tuberculosis making a total of two admitted to hospital in the last two months. Both cases when x-rayed in January had negative x-rays. On arrival in Sydney all ratings who had been in contact with either of the two cases will be x-rayed for evidence of any infection.

There have been no cases of Venereal Disease reported during April which means that there have been no cases of infection treated during the three months the ship spent in South Australian waters.

The conduct of the Ship's Company has been very satisfactory.

23. CONDITION OF THE SHIP

Comparatively little damage to the hull resulted from being stranded for nine days. The A/S dome was crushed, approximately twenty feet of the starboard bilge keel bent and three feet of the forward lower edge of the rudder bent. The latter damage did not affect the steering.

24. GENERAL

The hardworking and uncomplaining manner in which the Ship's Company worked during the strenuous salvage operations left nothing to be desired. Discomfort was accepted cheerfully, a spirit which was particularly noticeable during the 48 hours following the grounding when no facilities were available for drying their clothing.

25. PERFORMANCE

- Distance steamed during month of April: 45.5 miles
- Hours underway during month of April: 12 30/60 hours.
- Average distance per ton of fuel: 4.5 miles.
- Trial distance steamed since commissioning 17th January 1944: 117,354.3 miles.
- Total number of hours underway since commissioning: 10,441 hours.

Lieutenant Commander R. A. N.
Commanding Officer



USS INCHON with other NATO minesweepers and hunters

USS INCHON

The World's Largest Mine Counter Measures Vessel

The mission of the Mine Countermeasures Support Ship (MCS) USS INCHON, is to provide dedicated command, control, and support services to the Mine Countermeasures (MCM) Commander and his airborne, surface and Explosive Ordnance Disposal (EOD) MCM assets. To accomplish the mission, the revitalised INCHON has the capability to:

- Embark the MCM Commander and staff.
- Provide integrated command and control for all MCM forces including communication and data interface with Amphibious and Battle Force Commanders.
- Embark and operate a tailored airborne MCM squadron (8 MH-53E Helicopters) and a SAR/Spotter Aircraft Detachment (3 CH-46 Helicopters).
- Embark EOD MCM Detachments

- Transport remote minehunting and minesweeping vessels.
- Provide general logistic support and intermediate level maintenance support for embarked airborne MCM squadrons, EOD MCM detachments and to assigned surface MCM ships.
- Provide medical augmentation with an emergency response and stabilisation team.

INCHON (MCS-12) was named in honour of the highly successful amphibious landing at INCHON, Korea on September 15, 1950, by General Douglas MacArthur. One of a series of seven helicopter carriers built by Ingalls Shipbuilding of Pascagoula, MS, she is the first ship to ever bear the name. INCHON's keel was laid on

USS INCHON



Stern view of the two RAN ships as they proceed through the opening bridge.



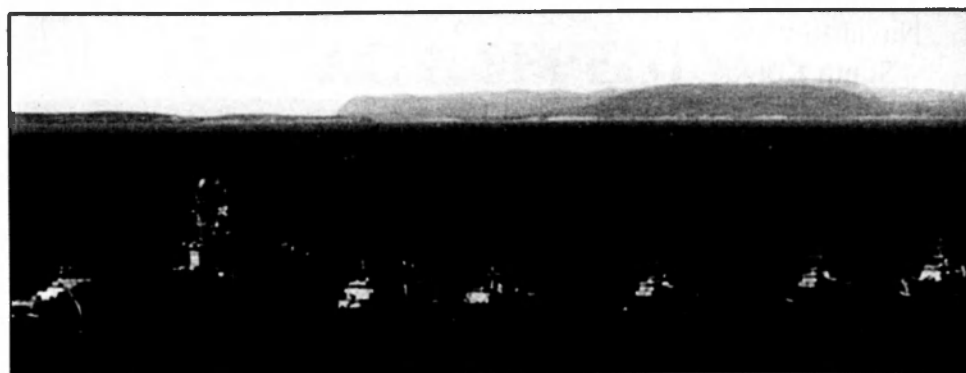
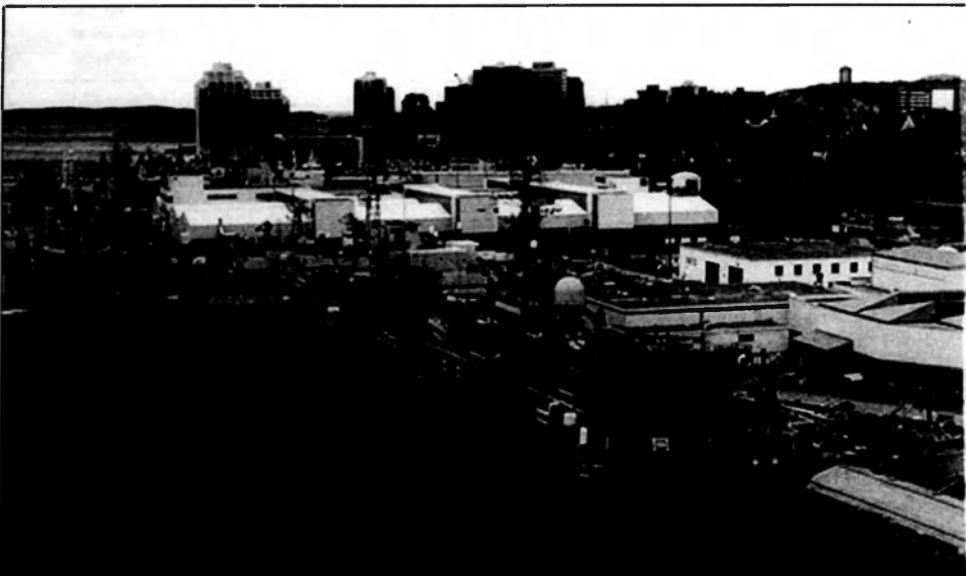
Flight deck operations with MH-53E mine clearance helicopters.

April 8, 1968 and the ship was launched May 24, 1969. She was commissioned at Portsmouth Shipyard on 20 June 1970.

The ship was specifically designed to conduct amphibious force landings by providing helicopter support to transport troops and assist in establishing air

superiority in the designated landing area. Helicopter detachments that embarked aboard INCHON included the CH-53E Super Stallions, CH-46 Sea Knights, UH-1 Hueys and AH-1 Cobras. Additionally, a U. S. Marine Corps Battalion Landing Team (BLT) consisting of 2,000

USS INCHON during a visit to the Canadian east coast.



USS INCHON with MCMVs of NATO

troops and their equipment, embarked for INCHON's deployments.

INCHON's weapon systems include .50 calibre guns, MK-38 25mm Chain Guns, two Vulcan Phalanx, Close-in Weapon's Systems, providing anti-ship cruise missile defence. The ship is powered by a modern, clean-burning 600 psi steam system which develops 23,000 shaft horsepower and can propel the ship up to speeds of 23 knots. Virtually all compartments are air conditioned and the ship's store, laundry, and barber shop represent vast improvements over older counterparts.

The ship had previously deployed to the Mediterranean Sea, Caribbean Sea, and North Atlantic, performing various amphibious operations and exercises. In 1972, INCHON sailed on a world cruise from Norfolk, Virginia, to the Caribbean Sea, South Atlantic Ocean, Indian Ocean, South China Sea, Eastern and Western Pacific Ocean, through the Panama Canal, returning to the Caribbean and finally to the North Atlantic.

INCHON played a key role in Operation Sharp Edge in 1990, performing evacuation operations during Liberia's civil war. Shortly afterwards, INCHON patrolled the southern Mediterranean in preparation for emergency

evacuations in support of Operation Desert Shield/Storm.

In 1994, INCHON deployed to the Mediterranean Sea and Indian Ocean to conduct Operation Continue Hope off the coast of Somalia and Operation Deny Flight off the coast of Bosnia. Following a six month deployment, INCHON remained in homeport for only two weeks, before she was called upon to assist in Operation Support Democracy off the coast of Haiti.

In March 1995, she commenced a 15-month conversion/overhaul by Ingalls Shipbuilding to assume a new mission as the Navy's only Mine Countermeasures Support Ship (MCS).

In July 1996, INCHON changed homeport to Ingleside in Texas, home of the Navy's Mine Warfare Centre of Excellence. Sustaining extended mine countermeasures (MC) operations at forward deployed locations requires extensive command, control and logistics. It is for this reason that INCHON, as the "floating port," currently provides both a landing platform for MH-53E Sea Dragon mine-sweeping helicopters and repair and re-supply facility for Avenger class Mine Counter Measure ships and Osprey class coastal minehunters.

Statistics

Crew	45 officers, 634 enlisted
Length	602.3 feet
Beam	84 feet
Width of Flight Deck	105 feet
Draft, Full Load	26 feet, 6 inches
Displacement, Full Load	18,340
Number of propellers	One
Engines	Two 600 PSI Steam Boilers
Shaft Horse Power	23,000
Speed Sustained	23 knots
Weapons	4 Mk-38 25mm Chain Guns 2 MK-15 Vulcan Phalanx 8 .50 calibre guns
Keel Laid	8 April 1970
Commissioned	20 June 1970
Redesignated	24 May 1996
Homeport	Ingleside, Texas

Naval Review – South Korea



South Korean HDF-2000, Ulsan class frigate CHUNG MU
(Photo – John Mortimer)



The former British landing ship SIR LANCELOT, now
the Singapore Navy PERSEVERANCE.
(Photo – John Mortimer)



Corvette of the Indian Navy, KHANJAR.
(Photo – John Mortimer)



USS GREENVILLE, a nuclear powered attack submarine.
(Photo – John Mortimer)



KCX corvette of the ROK Navy, the Po Hang class
unit JIN JU. (Photo – John Mortimer)



Japanese Asagiri class destroyer SETOGIRI.
(Photo – John Mortimer)

During October, HMAS ANZAC fired a 21 gun salute as part of the Republic of Korea's International Fleet Review held in Pusan from the 11th to the 17th. The occasion marked the 50th anniversary of the Republic of Korea Navy.

ANZAC, commanded by Captain Mark Bonser and HMAS SYDNEY, Commander Tony Gale joined 23 other ships from the United Kingdom, France, Bangladesh, India, Indonesia, Japan, New Zealand, Russia, the United States of America and South Korea for the celebrations. All visiting ships were dressed overall, with President Kim Dae-Jung reviewing the assembled ships from the new KDX1 class destroyer at the local naval base at Chinhae.

During the passage north to Pusan, the 25 visiting ships were presented with a series of ROK fleet exercises and a sail past by the ROK ships and aircraft, a SEAL team demonstration and a Lynx helicopter firing a live missile. The anniversary event also coincided with the Western Pacific Naval Symposium, held in the same city.

ANZAC and SYDNEY sailed from Australia in September for their three month deployment, with both ships spending six days in Pusan. Chief of Navy, Vice Admiral Don Chalmers attended many of the official ceremonies and memorial services. The ships sailed from Pusan as the super typhoon 'Zeb' approached, then visited Tokyo. Both RAN ships returned to Australia in early December.



The former HMAS OVENS is moved to Fremantle to begin her new career as a museum vessel. (RAN)

OLD SUBMARINE's LAST VOYAGE

The former Royal Australian Navy Oberon class submarine OVENS made her final ocean transit when she was towed from HMAS STIRLING at Garden Island to the Port of Fremantle on Tuesday, 17 November.

OVENS began her tow at 8.30am with the slow trip taking about 5-6 hours. The submarine was towed by the naval tug TAMMAR which was made available by Defence Maritime Services donating their services.

The 89.9 metre long submarine is to become the first RAN submarine to be preserved in Australia. Initially she will be berthed at J Berth, Victoria Quay whilst her batteries and other materials are removed. Her sister submarine, the still serving ONSLOW will later be presented to the National Maritime Museum in Sydney after decommissioning.

Paid off at HMAS Stirling on 1 December, 1995 after more than 26 years of service, OVENS continued in naval service as an alongside training submarine until all Oberon-class submarine training ceased in 1997. Since then she has been laid-up in Fleet Base West's small ships harbour.

First commissioned on 15 April, 1969, OVENS steamed more than 420,000 nautical miles, on the surface and submerged. In 1986 she had the distinction of being the first

conventional submarine in the world to fire a Harpoon anti-ship missile.

OVENS was gifted to Western Australia by the then Federal Minister for Finance, Mr Kim Beazley in 1995. Lobbying to obtain an RAN submarine for Fremantle commenced way back in 1989.

OVENS is destined to become a major exhibit with the WA Maritime Museum, a reminder of Fremantle's rich wartime history which saw it become the largest Allied submarine base in the southern hemisphere between 1942-45. It will also be a memorial to the 167 boats;

American (125), British (31) and Netherlands (11) submarines which made war patrols or visited Fremantle. Some were lost operating from the port.

From Vic Jeffery

WESTRALIA TO SAIL AGAIN

It's official - HMAS WESTRALIA (CMDR Stuart Dietrich) is to be repaired and will continue to support the Australian Fleet.

In October 1998 the Chief of Navy, VADM Don Chalmers approved the repairs to



HMAS WESTRALIA sitting alongside the Oxley Wharf, Fleet Base West awaiting repairs. (ABPH Stuart Farrow)



A former RAN torpedo recovery vessel (TRV) repainted in the blue hull/cream superstructure colour scheme of Defence Maritime Services. (Photo - Brian Morrison)

WESTRALIA which was crippled by a major engine room fire off the Western Australian coast on 5 May and claimed the lives of four RAN personnel.

The ship has lain alongside at HMAS Stirling since the tragic fire awaiting a decision on her future.

Fire damage repairs will be undertaken through an open tender and requests for the tender document were expected to be issued by the end of October with fire damage repair work to commence by February, 1999.

The repairs to the ship will be made with great importance placed on the safety of RAN personnel. Other maintenance work may be undertaken at the same time as the fire damage repairs, which may fall outside the contract to repair the fire damage.

It is worth recalling the words of **WESTRALIA's** CO, CMDR Stuart Dietrich at the Memorial Service for the four crew members who were lost in the onboard fire: MIDN Megan Pelly, POMT Shaun Smith, LSMT Bradley Meek and ABMT Philip Carroll.

He said: "We as a crew have fought and won a mighty battle but have lost four shipmates from our family. However we are Westralians and will overcome this tragedy and **WESTRALIA** will sail again".

From Vic Jeffery

HMAS BENDIGO GROUNDING
The Fremantle Class Patrol Boat, **BENDIGO**, based in Cairns, Queensland, ran aground on a underwater rock structure near Michaelmas Cay, about 20 miles north of Cairns, on 12 November 1998.

The ship was aground for around 35 minutes before refloating. A Queensland Volunteer Coastguard vessel was in the area assisted. A tourist vessel in the area also took photographs.

The ship appears to have suffered minimal damage and was not holed in the grounding. Engineers on the staff of Commander Australian Patrol Boat Forces conducted a preliminary inspection of the ship and confirmed this. There were no personnel casualties.

BENDIGO was conducting a Family Day and had 45 family members onboard during the incident. Family Days are encouraged as a means of familiarising families with the work that the Navy does and enhancing morale. They have been most effective in this regard.

BENDIGO is one of 15 Fremantle Class Patrol Boats acquired by the Royal Australian Navy and is one of five based at Cairns.

From Ross Gillett

COLLINS UPDATE

The Royal Australian Navy (RAN) admitted on 8 October that serious flaws have come to light in the new Collins class diesel-electric submarines (SSKs).

Deputy head of the Navy RADM Chris Oxenbould told reporters, "there are design problems which are associated with the submarines and bringing them into service ... The principal problems that we've got relate to the acoustic signature of the submarines ... and the combat system".

RADM Oxenbould was replying to a local press report in the Daily Telegraph about a leaked US Navy report which found that the Collins class have "useless combat system software, inferior construction [causing] the propellers to crack", and flow-noise so loud that the SSKs cannot be risked in combat. The article quoted an unnamed source as saying, "They make as much noise as a rock concert under water".

The report is said to have been prepared by the US Navy's Undersea Warfare Center on the authority of the Chief of Staff of the RAN, VADM Don Chalmers, following the discovery of problems with the first two boats.

RADM Oxenbould denied knowledge of the "top secret document" and a claim that repairs would cost A\$1 billion (US\$610 million), but admitted that the submarines will need extensive repairs before they are fit for combat. He also said that the US Navy is helping to deal with the hydro-acoustic problems. Most of the work will be done as part of the contract, at no additional expense to the RAN.

"The problems are serious", he said, but they are fixable and we will fix them". He predicted that the submarines already completed would be operational by the end of next year.

Two of the class, **COLLINS** and **FARNCOMB**, have already been delivered, and the third, **WALLER**, will be delivered by the end of this year. **DECHAINEUX** is fitting out, leaving the **SHEEAN** and **RANKIN** to be delivered in 2000-2001.

From Antony Preston

ROYAL NAVY CHANGES

The 1998 Strategic Defence Review (SDR) has opted for major changes for the future Royal Navy.

Most importantly the Royal Navy has been selected to receive two new construction 30,000-40,000 aircraft carriers, each able to carry up to 50 fixed wing aircraft and helicopters. The first would enter service in 2012 and the second by 2015.

The MOD would examine the type of aircraft to be embarked, including short take-off vertical landing and the new Joint Strike Fighter currently under development in the USA.

The new aircraft for the carriers would replace the existing Sea Harrier force, with an announcement for the five billion pound project expected in 2000. The two carriers will replace the current three smaller Invincible class vessels.

Other SDR changes include warship reductions; from 12 to ten nuclear powered attack submarines, 35 to 32 destroyers and frigates, 25 to 22 minehunter-sweepers and one offshore patrol vessel.

As part of these changes, five Type 22 frigates and one Type 22 destroyer will be retired as the final three Type 23 frigates enter service. The former are expected to be offered for sale, with Chile and Brazil the most likely recipients.

Orders have also been confirmed for two additional Astute class nuclear attack submarines above the trio already ordered. As well, all ten attack submarines will receive Tomahawk cruise missile capabilities, not just seven boats as previously planned.

On the amphibious front, the new helicopter carrier **OCEAN** commissioned on 1 October, 1998 and four new roll-on/roll-off ferries will be introduced to add to the two (**SEA CHIEFTAN** and **SEA CRUSADER**) already completing for the Royal Fleet Auxiliary.

In lieu of rebuilding two 1960 vintage Landing Ships Logistic (LSLs), two new construction LSLs will be ordered, after the **SIR BIFIDIVERE** refit increased by 50% above the planned cost.

ALBION and **BULWARK**, two new-build LPDs to replace the vintage **FEARLESS** and **INTREPID** will join the Fleet in 2002 and 2003 respectively. By the 2004-2005 the rapid response force of the RN and



The RAN's new Huon class minehunter NUSHIP HUON at Sydney Harbour for trials in November. (Photo SGT Bob O'Donahoo)

RFA will comprise the LPH **OCEAN**, the LPDs **ALBION**, **BULWARK**, six Sea Chieftan class ships and three LSLs (one new, completed in 1987 and two rebuilt in 1984-85 and 1994-98).

For the Fleet Air Arm, the RN will continue to operate its Sea Harrier FA.2s in concert with RAF Harrier GR.7s in line with future Joint Force operations. Although additional orders for the new Merlin anti-submarine helicopters were not forthcoming, ten of the navy's existing Lynx HAS.8 helicopters will be upgraded, the Lynx and Merlin to operate from the frigate/destroyer force.

From Ross Gillett

CHARLES UPHAM DEPARTS

The Royal New Zealand Navy's logistic ship **CHARLES UPHAM** has left the service and is currently on charter to a Spanish company.

The bareboat charter began on 25 June, after the RNZN delivered the ship to Barcelona in late June 1998.

After completion of the 26 month charter, the ship is scheduled to receive a full conversion to her military sealift role, via the addition of troop accommodation, facilities for helicopters and ballast control for more effective operations in all load conditions. During her period away from New Zealand, naval architects will design and prepare plans for the refit.

Her primary role will be to carry military vehicles and stores, to and from harbours with jetty facilities, as well as disaster relief and emergency evacuations.

From LCDR Bill Morley RNZN

HMS OCEAN

The Royal Navy's helicopter assault ship OCEAN has completed her first voyage under the White Ensign, carrying out preliminary sea training.

The carrier will leave for the Caribbean in the northern autumn to carry out first-of-class flying trials, launching and recovering F/A 2 Sea Harriers, GR.7 Harriers and Sea King helicopters.

Thereafter, in late October she will embark six HC.1 Commando troop-carrying helicopters and 500 marines of 45 Royal Marine Commando from Belize and conduct an amphibious landing in the Dutch Antilles. This exercise, carried out jointly with the Royal Netherlands Navy, will see the first operational use of the new LCV Mk 5 landing craft.

OCEAN operates four of the 15m craft, each capable of carrying 2 tonnes of equipment and 35 troops.

After Christmas 1998 the carrier will begin the second phase of climatic trials, heading for Northern Norway. She will become fully operational in March 1999.

From Antony Preston

CUT FROM NAVY

In one of the ironies of modern naval service, the Royal Navy's Sandown class minehunter, HMS CROMER is to be paid off after just six years in service.

The reduction has been brought about by the recent Strategic Defence Review (see earlier report). The report called for a cut of three mine countermeasures vessels, from



Navy Week service at the Hyde Park Anzac memorial. (Photo - Torrin Nelson)

the planned total of 13 Hunt class and 12 Sandown class to eleven of each type in service after the turn of the new century.

The withdrawal of the UK 40million pound CROMER was described as the best option available, avoiding outlay on a planned major refit for the vessel. She was originally to have served for 30 years.

From Bill Fair

INDONESIA

Two ex-German Navy Type 206 diesel-electric submarines, the former U. 13 and U. 14, formally handed over to the Indonesian Navy in September last year and renamed KRI *Nagarangsang* and KRI *Nagabanda*, are not to be delivered after all.

According to German shipbuilder

Howaldtswerft Deutsche Werke (HDW), which expected to undertake an extensive modernisation of the boats, Indonesia can no longer afford to take delivery of the boats because of its continuing economic crisis. The two submarines have remained at HDW's Kiel yard since September last year, when they were handed over.

RAN CELEBRATES 87

More than 20,000 people flocked to Sydney's Fleet Base East on Sunday, 11 October when the Royal Australian Navy staged "open house" as part of its Navy Week 98 activities.

Crowds were waiting for the gates to open at 10am and visitors were still streaming through at 3.30pm, half an hour before the base was due to close. Perfect weather conditions added to the success of the day.

The open day gave officers and sailors a chance to show off their ships and their helicopters. Many of the visitors did the rounds of the ships, boarding the frigates MELBOURNE and NEWCASTLE, the fleet oiler SUCCESS, the submarine ONSLOW and the heavy landing ship TOBRUK.

Children were invited to climb



October 1998, HMAS NEWCASTLE returns to Fleet Base East for Navy Week 98. (Photo - RAN)

into the pilot's seat of a Sea King helicopter from 817 Squadron, a Seahawk from 816 Squadron and Kiowa and Squirrel helicopters from 723 Squadron.

The four helicopters had alighted on the wharf two days earlier. Two days earlier, with two other helicopters from HMAS Albatross, they had made formation flights over Nowra, Wollongong and Sydney.

While children and their parents were not inspecting the ships, the families watched the RAN clearance divers detonate mock mines floating beside the wharf.

The near non-stop performance by the Royal Australian Navy band was applauded, while the late afternoon "Ceremonial Sunset" and "Beating the Retreat" was spectacular. Displays of naval

historical items from Spectacle Island and photographs from the Navy photographic unit and public affairs added to the day. Navy recruiting and the Naval Reserve Cadets were also busy.

The open day culminated a busy four day Navy Week program: Thursday, 8 October saw the Maritime Commander, RADM Chris Ritchie launch the celebrations at a special commemorative service at the Hyde Park War Memorial.

The following day saw the helicopter flypasts of the three cities and a Navy Week reception for civic and naval dignitaries aboard HMAS MELBOURNE during the evening. A Navy Week church service was conducted at the Garden Island Chapel on Sunday.
From Mike James

USN NAMES

NEW SUBMARINE

On 10 September, 1998 the Secretary of the US Navy John Dalton announced his decision to name the lead-ship of the New Attack Submarine (NSSL) class the USS VIRGINIA (SSN-774).

The Navy Secretary said that Virginia will have improved stealthiness, sophisticated surveillance capabilities and Special Warfare enhancements which will enable it to meet the Navy's multi-mission requirements. The sixth ship of the USN to bear the name VIRGINIA, this new submarine continues the tradition started by the original VIRGINIA in 1777 and maintained by the Confederate States Navy ironclad CSS VIRGINIA (ex-USS MERRIMACK). She will be able to attack targets ashore with highly accurate Tomahawk cruise missiles and conduct covert long-term surveillance of land areas, littoral waters or other sea forces. Other missions include anti-submarine and anti-surface warfare, delivery and support of special forces, and minelaying and minefield-mapping. With enhanced communications connectivity, the Virginia class will provide important battle group and joint task force support, and will be fully integrated into carrier battle group operations.

(The US Navy's submarine-naming policy is now in tatters. The names of states were previously reserved for capital ships, hence the names chosen for the Ohio class SSBNs. Then the first of the current SSN programme was named SEAWOLF, conforming to a regulation that attack submarines are to be named after fish, but violating the same regulation, which bars the re-use of hull numbers (SS-21 dates from 1912).

To complicate matters, a 'pork barrel' argument was used to justify naming the second after the state of Connecticut. Naming the third of class after President Jimmy Carter violates another convention, that presidential names are reserved for aircraft carriers).

From Antony Preston

A New Future for ARDENT

One of the RAN's oldest vessels, the Attack class patrol boat ARDENT has left the Navy.



HMS CROMER.



October 15 launching of the new training vessel SEAHORSE MERCATOR, to be operated from Sydney by Defence Maritime Services. (Photo - ABPH Stuart Farrow)

But she worked "right up to the end." The 150 tonne boat was commissioned 30 years ago - 26 October, 1968 - and decommissioned in January 1994.

But the Navy realised there was still work for her as a navigation training vessel. Seven months later, on 18 July, 1994 she took her first trainee navigators to sea.

Since then ARDENT motored almost daily from her Waverton base, HMAS Waterhen and out through the Heads to provide her students with vital practical navigation skills.

Now there is a "new kid on the block" with the Defence Maritime Service's owned SEAHORSE.

MERCATOR launched in Fremantle. With the DMS vessel taking over the navigation training role the Navy knew it had ARDENT as surplus.

Darwin's City Council learned of the former patrol boat and successfully bid for the fully maintained vessel.

ARDENT is expected to be taken from the water and as a memorial put on a hardstand.

On Thursday, 5 November, she let go from Waterhen for the last time and arrived in Darwin on the 23rd.

Only one ATTACK class patrol boat, BAYONET, still remains under RAN control. The boat is berthed at the HMAS Cerberus

wharf for training duties. She is also up for sale.

From Graham Davis

DECHANEUX

The crew of the fourth Collins Class submarine DECHANEUX has finally taken the boat to sea.

Launched on March 12, DECHANEUX slipped the umbilical cords which kept it alongside at the Australian Submarine Corporation in Adelaide on 4 November, pointed the bow down the Port River and headed to the Gulf of St Vincent under its own power.

For the Captain, LCDR Ian Bray, it was a day of mixed feelings, relief and excitement.

"It's been a long time coming, the entire ships company has been looking forward to this day, we just want to get out there (sea) and get started," he said.

DECHANEUX's XO, LEUT Brett Sampson admitted to a few butterflies, "This is a new class of boat, the handling characteristics are unknown when comparing it to an Oberon Class, so there's still a lot to learn."

"There was a great feeling today, there's a noticeable buzz from the crew, they've got through the training, now there's that sense of anticipation, they just want to get the submarine in to the Spencer Gulf," he said.

DECHANEUX's first taste of the sea will last 10 days. During her initial trip she will conduct surface trials, testing the propulsion, radar and communications systems, the anchor and cable, the two periscopes and the navigation system.

Canada Considers

New Roll-On, Roll-Off Ships

The Canadian Navy is studying how best to replace its replenishment ships and add a sealift capability to any new fleet it purchases in the future, Canadian Defence Department officials said.

While in its infancy, the program already has attracted industry interest. Seeking to get in on the ground floor, one of the country's largest shipyards, Davie Industries Inc., Levi, Quebec, signalled to military officials months ago its capability to build such vessels,



Ship's bell, HMAS FLINDERS. The 1973 vintage survey ship was decommissioned in late 1998.

industry and government officials said.

The plan would see the eventual replacement of the Navy's fleet of three auxiliary oiler replenishment ships. These vessels provide fuel, lubricants, water, provisions ammunition and helicopter maintenance facilities for naval task forces. Although not designed specifically for sealift, one of the ships was used in such a role during the Canadian military's 1992-93 mission to Somalia.

Navy officials want to take advantage of the timing in replacing the ships to incorporate a sealift capability in a new fleet of three vessels, Harper said.

Navy officials will consult with those in the Canadian Forces who would be the main users of a sealift capability. That process should take from 18 to 24 months and produce for senior military leaders an analysis of the options available.

"From a naval perspective, we have an idea of a replenishment ship," Bramwell said. "That's relatively well defined. But the sealift is more of an open question."

There is no schedule for when a new fleet might be purchased, nor any cost estimate. But the Canadian military will have to make some kind of decision during the next three to six years. The first replenishment ship will come to the end of its useful life in 2001. A second ship is

expected to go into refit around 2004-2005, leaving the Navy with only one operational vessel.

Naval officials want the new ship to have roll-on, roll-off capability. These types of ships, until recently available from civilian operators, are being phased out in the civilian sector in favour of other types of vessels.

U.S. Eyes Leases for Logistics Ships

To squeeze more warships out of its smaller shipbuilding budget, U.S. Navy Officials want industry to build support ships that the service would lease.

Navy officials would employ this charter-and-build strategy to field its next generation of combat logistics ships, designated ADC(X). Research funding for the new ship type is planned for in the year 2000 budget.

The USN is looking at new ways to build ships and charter-and-build is one way. It can leverage procurement funding to get some very useful, but inexpensive, combat logistics ships that can be paid off over 25 years.

The strategy calls for the Navy to award a charter to a ship owner for a period of time, say 25 years. The owner would then contract with a shipyard to build the ships. They would be leased for Navy use with the owner would be responsible for

crewing, maintaining and operating the vessel.

The Navy used a modified version of the charter-and-build approach to field the Marine Corps' fleet of Maritime Prepositioning Force ships in the mid-1980s and that strategy has reportedly worked well.

The advantages of the new plan are the cost savings to the Navy in not having to provide several hundred million dollars in its shipbuilding budget to fund the ADC(X) ships every year.

UH-1B Helicopter On A Pole

The Australian Naval Aviation Museum has loaned the Shoalhaven City a UH-1B helicopter to erect in Nowra to promote the close ties established between the city and HMAS ALBATROSS.

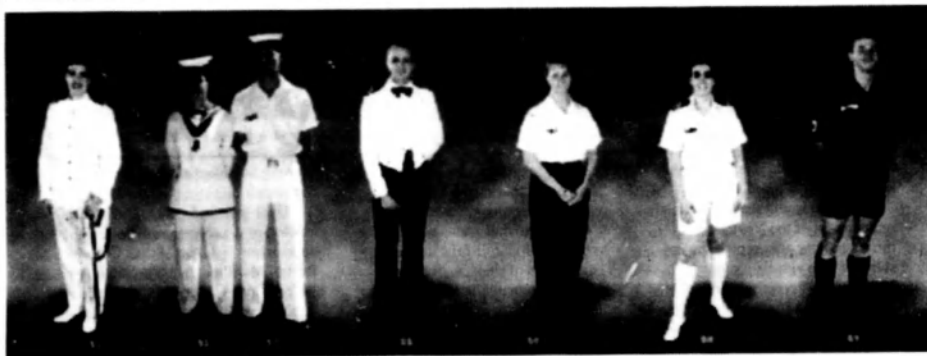
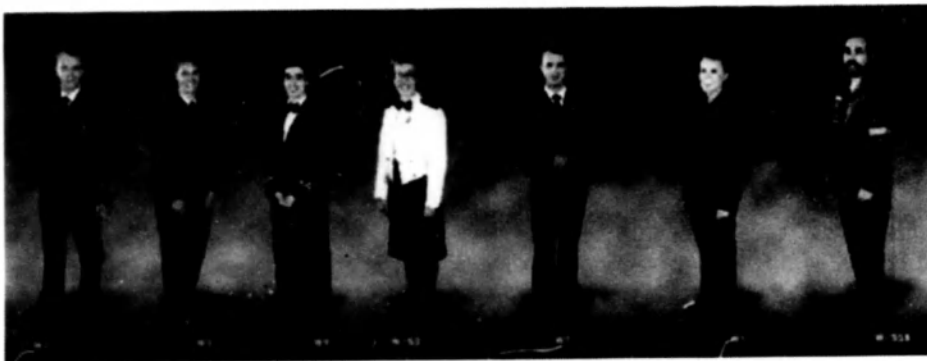
The helicopter is an interim display pending the siting of a Grumman Tracker outside the proposed new Tourist Information Centre, in approximately three years time.

The Council provided an area for the helicopter on the Princes Highway, outside the old Leagues Club, on the southern side of the Shoalhaven River.

The 'commissioning' of this unique display took place at the site on Wednesday, 30 September. From Mike Lehan



Two Attack class patrol boats proceed down Sydney Harbour. Ex HMAS ARDENT leads her sister ship ex HMAS ADVANCE. (Photo - Brian Morrison)



Some of the RAN's current uniforms. For an enlarged colour view see inside back cover.

Observations

From Geoffrey Evans

A Quiet Change

Readers of *THE NAVY* will have observed over the past several years a number of changes in the uniform worn by RAN personnel, in particular by junior sailors (sailors below the rank of Petty Officer).

The most noticeable changes have been the disappearance of bell bottoms and their replacement by straight legged trousers and the introduction of the "Navy Wide Brim Hat". There have been numerous other changes, mostly sensible and some overdue, designed to keep today's sailor in touch with contemporary dress standards without going to extremes - thongs (and ugh boots) for instance are still "out" for personnel proceeding ashore on leave.

The current uniform instructions for the RAN are covered in considerable detail in an Australian Book of Reference (ABR 81) of over 900 pages and several annexes. This may sound rather frightening and unduly bureaucratic, but if thousands of naval men and women

are to bring credit to their service and to their country in a variety of climates and circumstances, at home and overseas, guidance is essential.

Apart from the more generous scale and type of clothing issued to the modern sailor (which in some older ships, such as the guided missile destroyers) must surely pose stowage problems, a feature of the present regulations is a list of occasions when particular uniform / clothing is to be worn.

Occasions range from ceremonial appearances (the only time junior sailors wear the traditional white front (flannel, collar and scarf) through normal working dress to a rather quaintly named "Combat Ensemble" - overalls, socks, safety boots, rank insignia, cap, to be worn in specific states of readiness. Undergarments made of natural fibre (wool or cotton) are recommended for safety, as well as hygienic reasons (some synthetics are flammable: GE).

World War 2 and immediate post-war sailors will be

unfamiliar with kit lists that include items such as maternity skirts, court shoes and tricorn hats (for lady RAN members. These items, were unknown in warships until fairly recent times) or, for that matter, baseball caps and berets which along with the naval Wide Brim Hat may be worn at the discretion of Commanding Officers or superior authorities. Summer and winter versions of the various dress codes are, of course retained.

One interesting item refers to the shaping of the Wide Brim Hat: The relevant passages read as follows:

"A. Hats are to be wetted and bashed on a bashing block prior to wearing. The recommended procedure to form the crown of the hat utilizing the bashing block is to first invert the crown and pour boiling water into the crown. Allow the water to penetrate the crown and then empty any excess water out. The hat is then to be placed on the bashing block and with the aid of a metal spoon, the hat's crown is to be moulded into the contours of the bashing block. The hat should then be removed and must be allowed to dry completely before use.

B. Chinstraps are to be worn on the point of the chin, with buckle level with the left corner of the mouth. When not in use the chinstrap is to be tucked up into the hat out of sight.

C. A slight dip will form naturally on the front and rear brim of the hat. The naturally forming dip of the brim is not to be further accentuated. The left and right sides of the brim are to remain as flat as possible."

Naval uniforms have of course changed over the past nearly 200 years. Although bell bottomed trousers introduced for practical reasons in the days of sail, together with the white front and collar have had a very long life and as remarked, have been retained in the RAN to be worn on specific occasions.

Unlike the USN where uniform changes were made in the early nineteen-seventies without adequate consultation, causing dissatisfaction and eventually a reversion to the original, the RAN consulted widely among those most effected and did not attempt to rush the process of change.

Also the RAN invites suggestions and comments on any matters concerning uniforms and provides the means for any suggestion to be considered.

With some reservations about "the Wide Brim Hat" which does not look altogether appropriate on a sailor, the writer likes the uniforms worn by our present RAN personnel. He suggests the old style "boater" would provide adequate protection from the sun and after all, if it did not blow off in the days of sail it is hardly more likely to do so in a modern warship.

The following is a list of the principal naval dress numbers together with examples of occasions when worn. There are also code numbers for uniforms worn by specific branches, eg. Cooks, Medical and Dental Personnel, Physical Trainers etc.

The writer considers it desirable to end this particular Observations with an "errors and omissions excepted"!

Code No.		Example
S/W 1	Summer / Winter Ceremonial Courts Martial Funerals Guards Levees	Ceremonial Parades
S/W 2	Summer / Winter Ceremonial	Memorial Services Anzac / Remembrance Day
S/W 3	Summer / Winter Ceremonial	Church Services Official Public Functions Navy Open Days
S/W 4	Summer / Winter Mess Dress (Officers and Senior Sailors)	Evening Receptions Official Dinners
S/W 5	Summer / Winter Mess Undress (Officers and Senior Sailors)	Informal Dinners (Normal Evening Wear)
S/W 6	Red Sea Rig	Night Clothing
S/W 7	Summer / Winter Working Dress	Normal Daytime Working Dress
S/W 8 & 9	Variations of S/W 7	Working Dress



HMNZS RESOLUTION under refit in Auckland
(Photo - RNZN)

Survey Role for HMNZS RESOLUTION

by Richard Scott

The Royal New Zealand Navy (RNZN) recently completed initial shakedown trials of its new survey vessel HMNZS *Resolution* (ex-USNS *Tenacious*), a former US Navy Stalwart class T-AGOS towed array surveillance ship converted to perform both hydrographic and oceanographic surveying tasks.

The vessel is a replacement for HMNZS *Monowai* and HMNZS *Tui*. The acquisition of the nine-year old T-AGOS ship was sanctioned in September 1996, having first been inspected in August 1995, purchased for NZ\$12 million (US\$21.5 million) on 3 October of that year.

Laid up inoperative for two years, the ship was reactivated by Cascade General Shipyard in Portland, Oregon, between November 1996 and February 1997. She was formally commissioned into the RNZN in Portland on 13 February 1997, departing on its delivery voyage four days later, arriving in Auckland on 27 March.

During the passage across the Pacific, an RNZN team on board developed the user requirement and specification for the ship's new role as a hydrographic survey and acoustic research vessel. The full refit and conversion specification was written by the RNZN (as user requirement and design approval authority) under a target price contract. Babcock New Zealand (commercial manager of HMNZ Dockyard at Devonport, Auckland) was design agent and responsible for implementation.

The Phase 1 refit involved internal rearrangement, with the former operations room outfitted as a laboratory/workshop area. A military communications fit was also installed.

Installation of the new STN Atlas Elektronik Hydrosweep MD-2 swath multibeam sonar, supplied as Government-furnished equipment to Babcock New

Zealand, was undertaken in May-June 1998 as Phase II of the conversion package. The outboard transducer will be housed in an underkeel pod (protruding from a strut 2m below the keel) to keep the array isolated from flow noise around the hull.

Covering a swath width of 4,000m in 1,000m water depth and capable of operating in depths to 5,000m, the 30KHz Hydrosweep MD-2 also provides for a combination of sidescan and depth contouring functions for detailed classification of the seabed morphology. It also incorporates realtime calibration facilities for determining water sound velocity from own-depth measurements.

Ancillary equipment being supplied with the RNZN system includes Atlas Hydromap and offline data acquisition and processing facilities for planning, navigation and post-mission assessment, together with an associated Hydromap Caris module for geographic data management and processing.

Other mission-specific modifications included differential GPS, a survey motor boat, a rigid inflatable boat and additional davits and winches.

The total project cost (including procurement, reactivation, delivery, new equipment, refurbishment outfitting and conversion) was put at NZ\$31 million (US\$55.5 million). The RNZN had earlier estimated that new-build replacements for *Monowai* and *Tui* would have cost around NZ\$80 million and NZ\$34 million (US\$81.8 and US\$60.9 million) respectively (not including mission equipment).

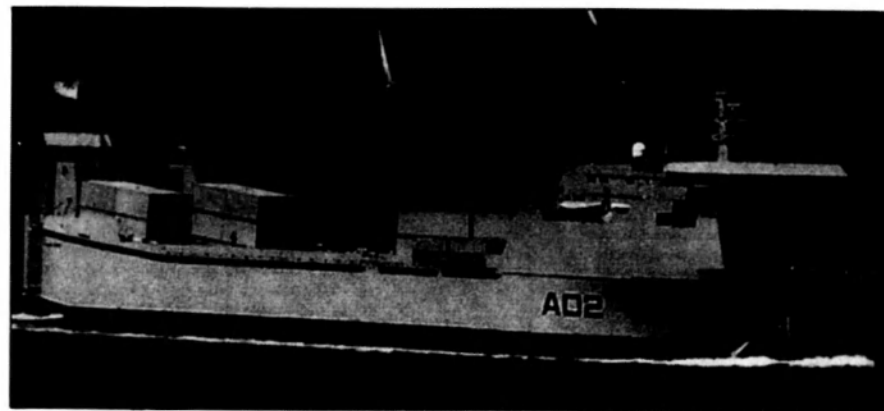
Resolution will also be more efficient to run. *Monowai* (with a ship's company of 136) and *Tui* (with a complement of 40) were manpower and maintenance intensive; operating *Resolution* (crewed by just 29) as a replacement for both will save about NZ\$5 million (US\$8.9 million) in running costs per annum.

Productivity is further enhanced by the new technology aboard. In particular, the sideways coverage afforded by the new multibeam sonar suite enables the ship to look 'in between' survey lines, allowing it to map far faster and with greater confidence than was the case with the conventional echo sounding equipment fitted aboard *Monowai*.

The RNZN plans that *Resolution* should be available for operations for about 300 days per year: 130 days of hydrography; 60 days of acoustic research; 50 days of naval tasking; and 60 days of reserve availability (for Crown or other research organisations).

Resolution began shakedown trials in February 1998, conducting operations in the Pelorus Sounds. Returning to Auckland on 12 March, the ship recommenced trials on 23 March before coming alongside on 3 April for its Phase II swath sonar installation.

Resolution then received the MD-2 fit in early May. The rest of May was spent on set-to-work operations, with *Resolution* fully operational in the third quarter of 1998. Her initial tasking was oceanographic research, to Tonga, Fiji and Raoul Island occurring during July, in the ship's first major deployment since commissioning into the RNZN. After undertaking Towed Array trials and conducting a resupply run to the sub-Antarctic Auckland Islands, *Resolution* has been fitted with a SWATHE multibeam echo sounder for her hydrographic surveying role.



HMNZS CHARLES UPHAM (Photo - RNZN)

HMNZS CHARLES UPHAM Right Ship for the Job? The Answers

On 5 November, 1998 the New Zealand Minister for Defence reported on the selection and acquisition of the military sealift ship CHARLES UPHAM.

In New Zealand there has been a considerable amount of public comment and controversy surrounding the military sealift ship, HMNZS CHARLES UPHAM. The Foreign Affairs and Defence Select Committee discussed the issue and asked the Audit Office to look into the quality of advice provided to the Government.

In view of this widespread interest and the controversy that had arisen it was considered that public interest would be best served by a full disclosure on the Military Sealift project that resulted in the commissioning into service of CHARLES UPHAM.

Did New Zealand Buy the Right Ship?

The CHARLES UPHAM, formerly the Mercandian Queen II of the Mercandian 2-in-1 class, was selected after a very thorough selection process. The possibility of both purchasing a used ship for conversion and building a new ship were looked at. Careful consideration was also given to taking up an Australian offer of HMAS Tobruk.

A total of 33 used ships of 20 different classes were first identified and this was later narrowed down to a total of 21 ships and eventually to four classes of ships that were physically inspected. The inspections included a search of Classification Society records, as well as advice from naval experts on the feasibility of converting ships for military sealift.

An external review was undertaken by experts in the field, Pacific Marine Management in association with H.D. Stronach & Associates. It was their conclusion that The Mercandian Queen II was a suitable ship for conversion to the role of a Military Sealift Ship.

The serious options were evaluated properly, and none of the options provided a better solution than the Mercandian Queen II. Further, the concept for modifications considered prior to the purchase could satisfactorily adapt the vessel for its intended purpose.

Was the Acquisition Process Sound?

This question was examined as part of the Pacific Marine Review of the project. It was their view that the process of evaluating the options and making the purchase was carried out in a professionally responsible manner. They also considered that there were no matters of major significance that were either overlooked or inadequately considered.

Was the Government Misled About the Ship's Capabilities Prior to Completion of The Modifications?

The proposed acquisition strategy was a phased approach: Phase 1 - purchase the ship and undertake initial modifications to meet safety and habitability requirements and defect rectification; Phase 2 - a short period of sea trials to gain operating experience and to validate the User Requirement and full modification proposal; and Phase 3 - full modification to meet the User Requirement. Cabinet approved this strategy and the initial purchase decision was based on understanding that the ship would not be fully capable until all phases were complete. While Ministers and officials were not aware of the severity of the stability problems that arose during the sea trials phase, it was clearly understood that the usefulness of the ship would be quite limited until the final modifications were completed.

Were the Planned Purchase and Modifications Affordable?

While Treasury had raised some concerns about the risks associated with Defence's overall capital investment plan, the Government decided to proceed with the MSS project in 1994, as well as other high priority items, on the assurances of the Defence Chief Executives that they could manage defence capital procurement within their

budgets and without prejudicing the NZDF's ability to fund future major replacements.

Were the Modifications Jeopardised by a Lack of Priorities?

There has always been a clear set of priorities and criteria against which to determine the relative priorities among the large number of capital investment projects needed to maintain our defence capabilities. Some may disagree with how these were applied, such as the lower priority assigned to the follow-on modifications of CHARLES UPHAM, but it would be incorrect to blame the delay on a lack of priority setting. Indeed, exactly the opposite is true - the modifications have not proceeded because the priority setting criteria have been applied.

Why Were the Modifications Deferred?

The 1996 Defence Assessment included a proposal to proceed with the Phase 3 modifications of CHARLES UPHAM beginning in 1997/98. However, Cabinet directed that its blueprint for investing in defence over a five-year period had to be accommodated during the initial two years within the spending cap of the Coalition Agreement. This limited the number of projects that could be started before the 2000/01 financial year.

The Phase 3 modifications was one of a number of projects that had to be assessed to determine their relative importance and time sensitivity against the Government's priorities. It was judged a lesser priority than re-equipping the Army so that it could undertake the more demanding peace support operations; and improving the ability of the Air Force to undertake maritime surveillance tasks in the New Zealand EEZ and the Southern Ocean.

It was the view of the minister's predecessor that in coming to an acceptable balance between operational

capability and affordability, the planned modifications to CHARLES UPHAM could be delayed by two years.

Given the Age of the Ship, Should the Modifications Go Ahead when the Current Charter is Completed?

As the ship will be 17 years old when the modifications are done, some have questioned whether the modifications would be a wise investment.

The original purchase decision was based on a nominal service life of 15 years after conversion, and the Chief of Naval Staff still considers this realistic with CHARLES UPHAM.

It is difficult to predict the life of ships with any precision as it depends on usage and the extent of work that is undertaken during surveys. It is relevant to note that the United States has eight Vehicle Cargo Ships that were last used during the Gulf War and in Somalia that are already 35 years old. They were originally container ships, acquired in 1982 and converted for military use.

Their role is to carry Army equipment, a similar task to that of CHARLES UPHAM.

There is no reason for the Government to reconsider proceeding with the modifications on the basis of the age of the ship.

Conclusion

Contrary to the speculation based on misinformation that is being fed to the public, the CHARLES UPHAM, once modified, is the right ship to meet New Zealand's military sealift requirement.

While it is unfortunate that the current financial squeeze has resulted in a delay to the commencement of these modifications, there are no reasons not to proceed with this work in two years time. We will then have a fully capable ship that will give us at least 15 years service.

NZ CONSIDERS FRIGATE PURCHASE

The New Zealand Cabinet will consider buying a third Anzac frigate in about four years - after it has been in service with the Royal Australian Navy.

New Zealand understands the warship ARUNTA has just been commissioned and would cost significantly less than the \$600 million price of a new one straight off the production line.

It would push the financial commitment down the track, making it easier for New Zealand to manage expenditure that could include buying F16 fighter planes.

If the frigate purchase goes ahead, the Australians will build another to replace it and New Zealand companies will make components for the replacement vessel. The Australian Government is waiting on the NZ government's decision and is understood to be ready to ratify the deal.

NZ Defence Minister Max Bradford said, "What I will ask the Cabinet to do is make an informed decision on

both proposals (the frigate and the F16s) that I will be recommending, consistent with the defence assessment signed up to last year."

"A very important part of the decision is the signal that this package will send out to countries like Australia, the US, Singapore and the like on whom we depend as part of our defence," he said.

"The external attitude to the decisions we take tomorrow are very important, not just for defence but for the total relationship with those countries."

Asked what the consequences would be if his proposals were turned down, he said that would be regarded as a sign that New Zealand was not prepared to pull its weight internationally in peace and security operations in the overall defence of the region.

After the Cabinet has made a decision it will put its recommendation to the National Party caucus on Tuesday and the parties that support the Government in Parliament will be briefed later in the week.

OPERATION BEL ISI

No Problems for HMAS BRUNEI with Loloho Pitstop



Personnel aboard HMAS BRUNEI keep a watchful eye as the LCH steams along the Bougainville coastline. (Photo - CPL Patrina Malone)

CAPT Mike Harris

When one of your ship's three and half tonne marine diesel engines burns out four thousand kilometres from your home port you would think you were having a bad day.

For the new commanding officer of the Landing Craft Heavy (LCH), HMAS BRUNEI, with just two weeks up on the board, the breakdown was seen as a chance for his crew to excel in the art of adaptation.

In late 1998 BRUNEI is on a five week deployment to Operation Bel Isi: the Peace Monitoring Group in Bougainville, but unfortunately spent four of those alongside the wharf at Loloho. There the LCH underwent the nautical equivalent of open heart surgery, having the right hand engine removed and replaced, an operation normally undertaken in Australia, or where heavy lifting machinery is readily available.

"When you have just 14 crew you have to be flexible and display initiative. They did exactly that with this incident," said LEUT Richard Stevenson.

When BRUNEI pulled into Loloho the three marine technicians began work immediately. LEUT Stevenson said most credit for the

repairs should go to these three men and to the three marine engineers who flew up from Sydney to assist.

"They worked around the clock for almost six straight days stripping the engine of its sensors, electronics and gearing, and removing the exhaust and its flagging.

In the meantime a new engine was dispatched from Sydney via C130 to Bougainville. Ordinarily, LEUT Stevenson would have preferred the engine repairs to occur where the ship had marine engineering support

"But we were down to one engine and we didn't have a choice about where the repairs were going to take place."

Symbolic of the tri-service nature of Operation Bel Isi, BRUNEI's CO thanked the RAAF and Army for their contribution in getting his ship seaworthy.

"The RAAF's C130 delivered the engine and the spare parts. The operation's Logistics Support Team (LST) with engineers and technicians from the Townsville based 3 BASB and 10 Forward Support Battalion were also integral in getting the engine in place."

The LST at Loloho is responsible for supporting the operation and has at its disposal a crane and number of mechanics.

"They pitched in when we needed to manoeuvre the engine into place and they also helped hang off spanners. It was a team effort and we couldn't have done it without the LST," said LCDR Stevenson.

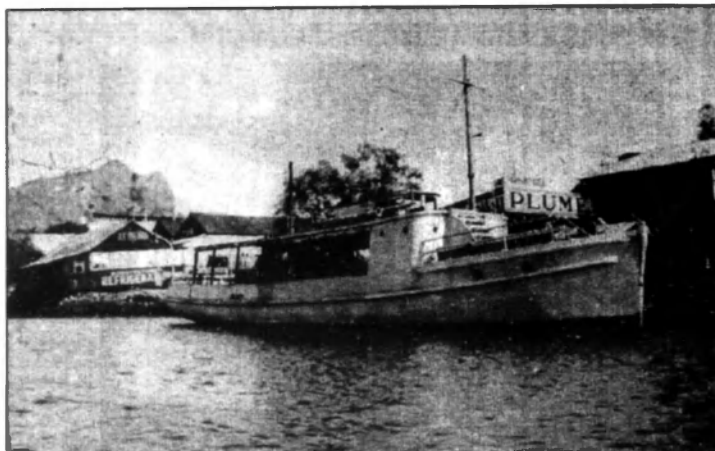
The Royal Australian Navy's five heavy landing craft are on rotation through Operation Bel Isi. As amphibious vessels offering ship to shore transport for troops and equipment, BRUNEI provides cargo, vehicle and personnel transport support to the operation for all coastal ports on Bougainville.



Another onboard view of HMAS BRUNEI during her service for Operation Bel Isi. (Photo - CPL Patrina Malone)

'The Old Navy'

PALUMA shortly after completion.



BLAZING END FOR A FIERY WARRIOR

A piece of RAN history was lost in far north Queensland in late August, 1996 when fire destroyed the 22-metre motor vessel PALUMA.

The boat burned to the waterline then sank off Airlie Beach, where she had begun a new life as a Great Barrier Reef dive boat.

She was not carrying passengers at the time of the incident. Her owner, Mr Bob Jenkins, and skipper, Mr Rob McManus, abandoned ship and were rescued from the water unhurt.

It was a fiery and ironic end for the 45-tonne charter boat, which as HMAS PALUMA, second in a distinguished line of four Australian warships to bear the name, dodged Japanese patrols and bombers to end the Second World War unscathed, her fine fighting record intact.

The cause of her fatal fire on 27 August is unknown, PALUMA was on her way to refuel at Shute Harbour from her berth at Airlie's Abel Point Marina. Her owner was in the wheelhouse when Mr

McManus alerted him to smoke coming from the main cabin.

When he investigated the skipper found the lower sections of the wooden boat well afire. He and Mr Jenkins immediately took to their tender. As they floated clear of PALUMA, exploding gas cylinders from scuba tanks threw columns of flame 20 metres into the air.

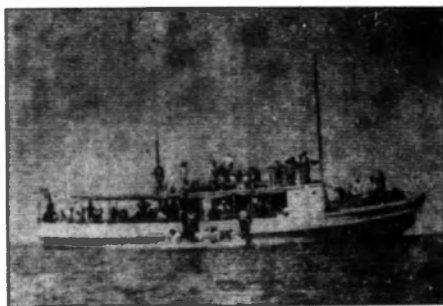
The local Volunteer Marine Rescue Boat VMR1 was quickly on the scene but nothing could be done to save the veteran PALUMA. She was taken in tow later in the afternoon to shallow water in Pigeon Bay, where her remains are still visible at low tide.

PALUMA was originally built in 1941 by Taylor Brothers shipwrights in Townsville as a fishing charter vessel. She was formally requisitioned by the RAN on New Years Day, 1942 and went into service as examination vessel at Thursday Island.

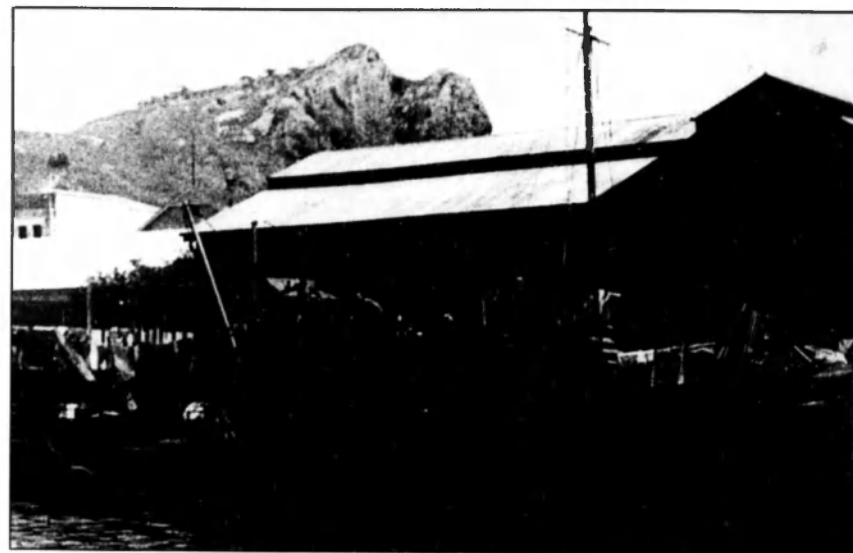
On 6 August, 1942, General MacArthur issued Operations Instructions No 15-New Guinea Force. They outlined operations on the Papuan coast designed to culminate in the capture of Buna and Gona from the Japanese as a precursor to an attack on Rabaul in November.

Central to their success was to be an amphibious force equipped with small boats capable of delivering and supplying Coastwatchers behind enemy lines, and helping secure the coastline from East Cape to Tufi.

This duty fell to "Ferdinand", a section of the Allied Intelligence Bureau of which the Coastwatching organisation in the southwest Pacific had become a part. Ferdinand named after Walt Disney's bull who sniffed flowers rather than fight, and who reminded Coastwatchers their job was to sit unobtrusively gathering information, was told to put observers in place around Rabaul. The RAN made PALUMA available for the job.



PALUMA with a tourist contingent embarked.



HMAS PALUMA in Townsville during the Second World War. (Photo - RAN)

But in July the Japanese had landed at Buna and in August invaded Milne Bay.

Accordingly, the Rabaul plan was shelved. PALUMA, which had been refitted and armed (with two .5 inch Browning machine guns, two .303 inch Bren guns and two depth charges) for the task, was given the job of surveying the reef-strewn coast between Milne Bay and Buna, installing necessary lights and landing reporting parties.

LEUT Ivan Champion who on 9 April had brought

survivors out of New Britain after the Japanese invasion, was put in command of the ship and her survey work. PALUMA made sketch surveys of reefs to locate suitable harbours for ships up to 6000 tonnes in the Cape Nelson area and guide and pilot ships through reef passages already marked.

PALUMA was paid off from RAN service on 9 December, 1945 and sold into private ownership on 30 April, 1946.

From Ian Mackay



PALUMA, May 1992 in Townsville Harbour. (Photo - Ross Gillett)

WHAT IS A... NAVAL AIRMAN?

Modern day aviators
conduct a flypast.
(Photo - David Karonidis)

The 'What is a ...' navy people series was originally written in the late 1950s. This is the final instalment of the series.

A Naval Airman is a two legged, brightly coloured creature, that runs around the ship flapping imaginary wings. In short, a Naval Airman is a birdie.

An ornithological and homo sapien combination produced this remarkable species. There are many types, for example, Yellow Heads, Green Heads, Red Heads, and of course the more commonly known, Black Heads. From listening to birdies talk, the Black Head strain is ever on the increase (this is in evidence when seeing the number of elevator tips that suffer during handling). The Black Head strain comes in two groups - Young Black Heads and Old Black Heads - the latter being instantly recognised by loud and raucous calls of practically no

PAGE 32

significance. Being invariably all male, the birdies have adopted the bright plumage of their winged friends - yellow apparently being the more favoured colour.

All birdies no matter the type or colour, are capable of communicating to one another per media of digital signs, and are adept at sleeping standing up (they claim to do this quite consciously).

There are amongst birdies, odd assortments of "E's", "O's" and "A's" - these vowel sounds mean nothing other than a further fine grouping explaining exactly what a particular birdie is supposed to do.

The older birdies wear berets (this is the only way of telling the Young from the Old) and are always falling in for something. Contrary to popular opinion, at fall-in, birdies are NOT issued with bird-seed, but must buy their own if they fancy it.

After days of running around the Rockery in their little yellow cars, moving their flying machines from here to there and back again, THE DAY arrives when the weather is suitable for their AW machine to fly. There is naturally great excitement for the day of justification has come. All the birdies are up. There is feverish goings on.

This weird ritualistic activity is accompanied by much waving and shouting, by immense clouds of black nauseous smoke, and by sundry clumpings and bangings. The sublime moment being the ejection of their flying machines. Straight away they jump into their little yellow cars and drive furiously up and down, pulling wires and things. (After prolonged exercising, birdies are now able to practice these weird rites under the cover of darkness).

All birdies (apart from the few foreign birds that were imported from a colder climate, to of all things, improve the strain) are born at a small place in New South Wales, called Albatross.

They return home to mate twice a year. (With general sighs of relief from the sea-going types as peace and quiet descends over the ship). The birdie has at long last flown.

BOOK REVIEWS

FLYING STATION - A Story of Australian Naval Aviation

By:
The Australian Naval Aviation Museum, friends and volunteers
Published by: Allen & Unwin
Reviewer: Joe Straczek

FLYING STATION - A Story of Australian Naval Aviation is the story of naval aviation in Australia. Although the modern RAN Fleet Air Arm celebrated its 50th Anniversary in late 1998 the story of naval aviation in Australia goes back a lot longer.

Aircraft were carried onboard RAN units during the Great War and after. In the 1920s an attempt was made to establish a dedicated Fleet Air Arm, but this was scuttled by the establishment of the Royal Australian Air Force. RAAF aircraft operated from HMAS ALBATROSS and the Navy's cruisers up to, and including the early stages of the Second World War.

After the war, and acting on the experiences of that conflict, the RAN acquired two aircraft carriers and the aircraft to operate from them.

This fledgling force, like the RAN shortly after its formation, was soon thrown into the thick of battle with the deployment to Korea of HMAS SYDNEY. Since then the members of the Fleet Air Arm have served in the Vietnam and Gulf Wars and participated in peacekeeping and numerous humanitarian operations in Australia and overseas. Through fire, flood and cyclones the Fleet Air Arm has responded to the nations call for help.

FLYING STATION - A Story of Australian Naval Aviation is in many ways an autobiography. It is an autobiography in the sense that those who wrote the story are very much part of the story. It tells the story of the ships, squadrons, aviators and their wives. Recollections of Nowra in the 1950s make for interesting reading.

One of the more tragic, though illustrative stories in the book concerns the 1955 flood at Maitland where two people died and a helicopter was lost. The subsequent Board of Inquiry was apparently more concerned with the legalities of how to get civilians to sign

indemnity forms prior to rescue. No form no rescue!

Since then the RAN's helicopters have been involved in countless rescues and saved innumerable lives.

The book is written in an easy to read style, packed full of information and illustrated with a wide variety of photographs, many from personal collections. If anything is missing from this book it is an appendix detailing aircraft types, squadrons and ships. This omission is however not of any major consequence.

FLYING STATION - A Story of Australian Naval Aviation is a book that will sit comfortably on the flight deck of any bookcase and is highly recommended for anybody interested in aviation, naval history or who just wants a good read.

AUSTRALIAN SUBMARINES Photofile No. 7

Published by Topmill

Price: \$19.95

Reviewer: Joe Straczek

Finally, its here. A well researched and equally well illustrated history of the Australian submarines service.

Topmill do it again. Over the past three to four years the publishing company Topmill have produced a series of inexpensive and informative and well designed booklets dealing with various aspects of navies generally and the Royal Australian Navy in particular. The latest offering, Submarines is no exception.

Submarines consists of almost 100 pages of details about submarines in Australian waters. The text is crisp and informative. The general narrative is supported by extracts from various submarine logs and other contemporary accounts. Submarines is well illustrated throughout, with numerous rare photographs showing the submersibles of the secretive Service Reconnaissance Department of World War II.

A large colour photographic section, showing todays submarines, rounds off the book. All classes of RAN submarines are covered, as are those of the Royal Navy which operated with the Royal Australian Navy in the period from 1948 to the late 1960s.

Australian Submarines is an

ideal gift for all naval enthusiasts or those with an ongoing interested warships and the RAN. This book represents good value for money.

THE VUNG TAU FERRY HMAS SYDNEY and Escort

Ships (Vietnam 1965-72)

By: R. Nott and N. Payne

Reviewer:

LCDR Greg Swinden

The year 1998 was certainly a bumper year for Australian Naval histories concerning the Vietnam War. Firstly we had 'In the Oceans Dark Embrace' by Lex McAulay which described the role of Clearance Diving Team 3. Then came 'Up Top' by Jeffrey Grey (the RAN's history as part of the Official History of Australia in South East Asian Conflicts series) and last but by no means least 'The Vung Tau Ferry'.

Effectively the number of books written about the RAN in the Vietnam War has doubled in the space of a year.

The Vung Tau Ferry details the involvement of the Fast Troop Transport HMAS SYDNEY in her 25 voyages to South Vietnam between May 1965 and November 1972. The book also includes details on her escort ships (Frigates or Destroyers) and the voyages made by the MV (later HMAS) BOONAROO and the MV (later HMAS) JEPARIT.

This history describes the events which lead up to SYDNEY being used as Fast Troop Transport, her time in South Vietnamese waters and there are a number of interesting stories from several of her crew and soldiers who were transported to and from Vietnam. The book also goes into depth concerning the lengthy fight, by the Vietnam Logistic Support Group, to gain official recognition for the role played by SYDNEY, and her escorts, which culminated in the issue of the Vietnam Logistic and Support Medal in 1992.

This latter fight for official recognition makes interesting reading and reminds me of a story told to me by one of my high school teachers who had served in SYDNEY as a Naval Reservist. He claims that several SYDNEY sailors attempted to have Australian troops

ashore fire on the vessel, in order to strengthen future claims that the ship had served in a 'War Zone'. Who knows, but why in this case, let the truth spoil a good story.

This hardcover book is well illustrated with several interesting and very clear photographs and also includes a comprehensive list of all personnel who served in the RAN during Logistic Support Operations during the period 1965-72.

The Vung Tau Ferry is available for \$29.95 (which includes postage) from the author R.T. Nott of 6 Shillington Place, Wishart QLD 4122 and cheques/money orders should be made payable to R.T. Nott.

This book is an excellent addition to the Navy's history of the Vietnam War and one which all keen Naval historians, and those interested in Australia's role in the Vietnam War should have on their bookshelves.

Canada and the Battle of the Atlantic

By: Roger Sarty
Publisher: Art Global and
Department of National Defence
Reviewer: Joe Straczek

Their finest hour was a phrase coined to describe the efforts of the RAF in defeating the German Air Force during the Battle of Britain.

The same phrase could also be used to describe the Royal Canadian Navy in the Battle of the Atlantic. If there was a battle that was crucial to the outcome of the war in Europe it was that sea encounter.

Victory against the U-boats ensured ultimate victory for the Allies. Defeat, whilst not leading to an ultimate Allied defeat, would have resulted in a far greater loss of life and longer war. The naval victory in the Atlantic helped shorten the war and reduce the human suffering which was World War 2.

The role played by the Royal Canadian Navy has often been overlooked or understated, as has the role of most Commonwealth countries in the Second World War. Many an RAN DEMS gunner serving in the Atlantic has memories of the small Canadian escorts battling not only the U-boats but also poor weather conditions and at times unco-operative merchantships in an

attempt to get the vital supplies through.

Canada and the Battle of the Atlantic tells the story of the Royal Canadian Navy in this momentous struggle. Above all else it is a human story of life, struggle and death at sea. Whilst some may question its retelling after 50 years it is important to remember the service rendered by seamen and the roles played by the Navy in war.

Roger Sarty has written a book that portrays these human elements as much as it does the history of the events he describes. The role played by the women of the RCN and the RCAF are also described. The book is well produced and illustrated with

a large variety of photographs which clearly portray the many aspects of the war at sea.

Canada and the Battle of the Atlantic is highly recommended for readers interested in the Battle of the Atlantic, what was achieved and the human costs.

AUSTRALIA'S WAR AT SEA
1939 to 1945
Profile No. 5 - Revised Edition
Published by Topmill
Price: \$14.95
Reviewer: Joe Straczek

One of the most important of the earlier Profile series of warship monographs, the Second World War

AUSTRALIA's WAR AT SEA 1939 to 1945

\$14.95



Profile No. 5 - Revised Edition

volume is available again from most major newsgroups.

The revised book includes a greatly enlarged photographic section depicting the RAN's war at sea, its personnel at work and 'play' and shorebased activities. Sections are devoted to the famous 'Scrap Iron Flotilla', shipyard scenes including building the new warships, ship losses, the Naval Auxiliary Patrol used to protect the major ports, Garden Island in Sydney and finally, the 'Post Script'.

U-BOATS DESTROYED German Submarine Losses in the World Wars

By: Paul Kemp
Publisher: Arms & Armour Press.
Distributed in Australia by:
New Holland, 4/14 Aquatic Place,
Frenchs Forest, NSW
Cost: \$49.95.
Reviewer: Vic Jeffery

This 288 page book is a record of the 178 U-boats sunk in the First World War and the 784 sunk or destroyed in the Second World War. It does not include the boats scuttled or damaged after the Armistice in 1918 or the surrender in 1945.

A staggering 33,000 men were

lost in German U-boats during the two World Wars, more than 5,400 in the First and 27,491 officers and men in the Second.

Losses are divided chronologically into years commencing with U15 lost to ramming by the British cruiser HMS BIRMINGHAM in the North Sea on 9 August, 1914, and concluding with U2538 mined on 9 May, 1945 off Marstal, SW of Aero Island. Despite her damage, the boat was beached and abandoned, finally being broken-up in 1975.

The U-boat U87 had the dubious distinction of being the only German submarine to be lost on Christmas Day. This occurred in 1917 when she was rammed in the Irish Sea by the sloop HMS BUTTERCUP with the loss of 44 of her crew.

It seems that training accidents and collisions were as big a threat to new U-boats as Allied forces were to those on patrol. Brief careers were experienced by U1013 (14 days in commission) when she was lost in a collision with U286 whilst working-up; U1234 (25 days) was lost in a collision with the tug ANTON; U2331 (28 days) was lost in a training accident; and U272 (35 days), U768 (37 days) and U1015 (57 days), were all lost in collisions during work-ups.

Each entry lists: Launching, Commissioning, Class, Commanding Officer, Date of Loss, Location, Cause (if known), Casualties, Survivors, and if Salvaged. Each entry concludes with a summary of how the submarine was lost.

Well-known British naval author Paul Kemp has produced a commendable easy-to-follow book which provides historians and students with a single source reference to both World Wars.

COMBAT FLEETS of
the WORLD 1998-99
(Compact Disc)
Compiled by:
A.D. Baker III
Released by: USNI
Reviewer: Ross Gillett

This CD version of the book previously reviewed in The Navy is now available for computer buffs. The access to all ship and naval entries is simple and provides much information, data and colour photographs. The Combat Fleets CD is available through the United States Naval Institute; E-mail: customer@usni.org

KIDD CLASS UPDATE

Following the article, 'The Kidds, Opportunity Only Knocks', published in the last edition of The Navy, a number of national media outlets commented on the American offer to the RAN.

However, on 9 September the Greek Council for Foreign Affairs and Defence confirmed reports that the Hellenic Navy wished to acquire the four Kidd (DDG-993) class air defence destroyers (DDGs) from the United States Navy (USN).

Three of the Kidd class had been laid up, but the fourth, the USS Scott, is still operational, and was to be 'hot-transferred'. The cost was a reported US\$454 million, excluding reactivation, weapons and spares. Under the original offer, the total price for the ships, reactivation, equipment and weaponry was \$900m, including 100 Standard SM-2 (MR) missiles.

However SM-2 would not be released by the US Department of Defense (DoD), and the substitution of the older and shorter-range Standard SM-1 (MR) knocked \$50-60m off the price.

The DoD's prohibition on selling the SM-2 (MR) weapon system to Greece was blamed on pressure from the Turkish lobby in Washington, DC. The ban caused the Greek Defence Ministry and the Navy to reconsider its options, and to look at European advanced air defence frigate designs.

For the moment, the Hellenic Navy was expected to receive the remaining stocks of SM-1 (MR) rounds, a total of 128 missiles, giving commonality with its four ex-Charles F Adams class DDGs already in service.

Then in mid November, the final decision was made not proceed with the purchase.

During the same period and due to the uncertainty of the Greek's accepting the offer for the four Kidds, the US Government re-offered the ships to the RAN. On 30 November press reports appeared in various papers that the Commonwealth Government had again rejected the ships, instead deciding to upgrade the six Adelaide class guided missile frigates.

The second offer was reported at \$30 million per ship, with the class of four each having an expected 19 years of service life remaining. The Kidds were considered by many commentators as particularly well suited to RAN requirements, with their long range and powerful armaments.

STATEMENT of POLICY

Navy League of Australia

The strategic background to Australia's security has changed in recent decades and in some respects become more uncertain. The League believes it is essential that Australia develops capability to defend itself, paying particular attention to maritime defence. Australia is, of geographical necessity, a maritime nation whose prosperity, strength and safety depend to a great extent on the security of the surrounding ocean and island areas, and on seaborne trade.

The Navy League

Believes Australia can be defended against attack by other than a super or major maritime power and that the prime requirement of our defence is an evident ability to control the sea and air space around us and to contribute to defending essential lines of sea and air communication to our allies.

Supports the ANZUS Treaty and the future reintegration of New Zealand as a full partner.

Urges a close relationship with the nearer ASEAN countries, PNG and the Island States of the South Pacific.

Advocates a defence capability which is knowledge-based with a prime consideration given to intelligence, surveillance and reconnaissance.

Believes there must be a significant deterrent element in the Australian Defence Force (ADF) capable of powerful retaliation at considerable distances from Australia.

Believes the ADF must have the capability to protect essential shipping at considerable distances from Australia, as well as in coastal waters.

Supports the concept of a strong Air Force and highly mobile Army, capable of island and jungle warfare as well as the defence of Northern Australia.

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

Advocates the development of amphibious forces to ensure the security of our offshore territories and to enable assistance to be provided by sea as well as by air to friendly island states in our area.

Advocates the transfer of responsibility, and necessary resources, for Coastal Surveillance to the defence force and the development of the capability for patrol and surveillance of the ocean areas all around the Australian coast and island territories, including in the Southern Ocean.

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

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

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

As to the RAN, the League

Supports the concept of a Navy capable of effective action off both East and West coasts simultaneously and advocates a gradual build up of the Fleet to ensure that, in conjunction with the RAAF, this can be achieved against any force which could be deployed in our general area.

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

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

Advocates the acquisition at an early date of integrated air power in the fleet to ensure that ADF deployments can be fully defended and supported from the sea.

Advocates that all Australian warships should be equipped with some form of defence against missiles.

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

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

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

Advocates the retention in a Reserve Fleet of naval vessels of potential value in defence emergency.

Supports the maintenance of a strong naval Reserve to help crew vessels and aircraft in reserve, or taken up for service, and for specialised tasks in time of defence emergency.

Supports the maintenance of a strong Naval Reserve Cadet organisation.

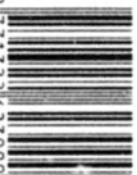
The League

Calls for a bipartisan political approach to national defence with a commitment to a steady long-term build-up in our national defence capability including the required industrial infrastructure.

While recognising current economic problems and budgetary constraints, believes that, given leadership by successive Governments, Australia can defend itself in the longer term within acceptable financial, economic and manpower parameters.



9 771322 623000



ISSN 1322-6231

01





The Navy League of Australia

APPLICATION FOR MEMBERSHIP

HISTORICAL

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

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

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

MEMBERSHIP

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

OBJECTIVES

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

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

ACTIVITIES

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

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

Member participation is encouraged in all these activities.

JOINING THE LEAGUE

To become a Member of The League, simply complete the Application Form below, and post it, together with your first annual subscription of \$22 (which includes the four quarterly editions of *The Navy*), to the Hon Secretary of the Division of the Navy League in the State in which you reside, the address of which are as follows:

NEW SOUTH WALES DIVISION: GPO BOX 1719, Sydney, NSW 2001.
VICTORIAN DIVISION: PO Box 1303, Box Hill Delivery Centre, Vic 3128.
QUEENSLAND DIVISION: C/- PO Box 170, Cleveland, Qld 4163.
SOUTH AUSTRALIAN DIVISION: GPO Box 1529, Adelaide, SA 5001.
TASMANIAN DIVISION: C/- 42 Army Road, Launceston, Tas 7250.
WEST AUSTRALIAN DIVISION: C/- 23 Lawlor Road, Attadale, WA 6156.

If you live in the Australian Capital Territory or the Northern Territory, please post the form to the Hon Secretary of the New South Wales or South Australian Division respectively.

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

THE NAVY LEAGUE OF AUSTRALIA

Application for Membership

To The Hon. Secretary
The Navy League of Australia

..... Division

Sir or Madam,

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

Name

(Mr)

(Mrs)

(Ms)

(Rank)

PLEASE PRINT CLEARLY

Street

Suburb

State

Postcode

Signature

Date

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

JOIN THE NAVAL RESERVE CADETS

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

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

Uniforms are supplied free of charge.

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

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

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

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

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

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

NEW SOUTH WALES: Cadet Liaison Officer, HMAS Watson, Watsons Bay NSW 2030. Telephone: (02) 9337 0560.

QUEENSLAND: Senior Officer NRC, Naval Support Office, Bullimba Barracks, PO Box 549 Bullimba QLD 4171. Telephone: (07) 3215 3512.

WESTERN AUSTRALIA: Cadet Liaison Officer, HMAS Stirling, PO Box 228, Rockingham WA 6168. Telephone: (08) 9550 0488.

SOUTH AUSTRALIA: Cadet Liaison Officer, Naval Support Office, Keswick Barracks, Anzac Highway, Keswick SA 5035. Telephone (08) 8305 6708.

VICTORIA: Cadet Liaison Officer, Naval Boatshed, Nelson Place, Williamstown VIC 3016. Telephone: (03) 9399 9926.

TASMANIA: Cadet Liaison Officer, Naval Support Office, Anglesea Barracks, Locked Bag 3, Hobart TAS 7001. Telephone (03) 6237 7240.

AUSTRALIAN CAPITAL TERRITORY: Commanding Officer, TS Canberra, HMAS Harman, Canberra ACT 2600. Telephone: (02) 6280 2762.

NORTHERN TERRITORY: Cadet Liaison Officer, HMAS Coonawarra, PMB 11, Winnellie NT 0821. Telephone: (08) 8980 4446.

THE NAVY

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

**The Hon. Secretary, NSW Division
NAVY LEAGUE OF AUSTRALIA
GPO Box 1719, Sydney NSW 2001**

APRIL-JUNE 1998
www.netspace.net.au/~navy/flag

VOLUME 61 NO.2

\$4.95

THE NAVY

The Magazine of the Navy League of Australia

**ARUNTA
ARRIVES**

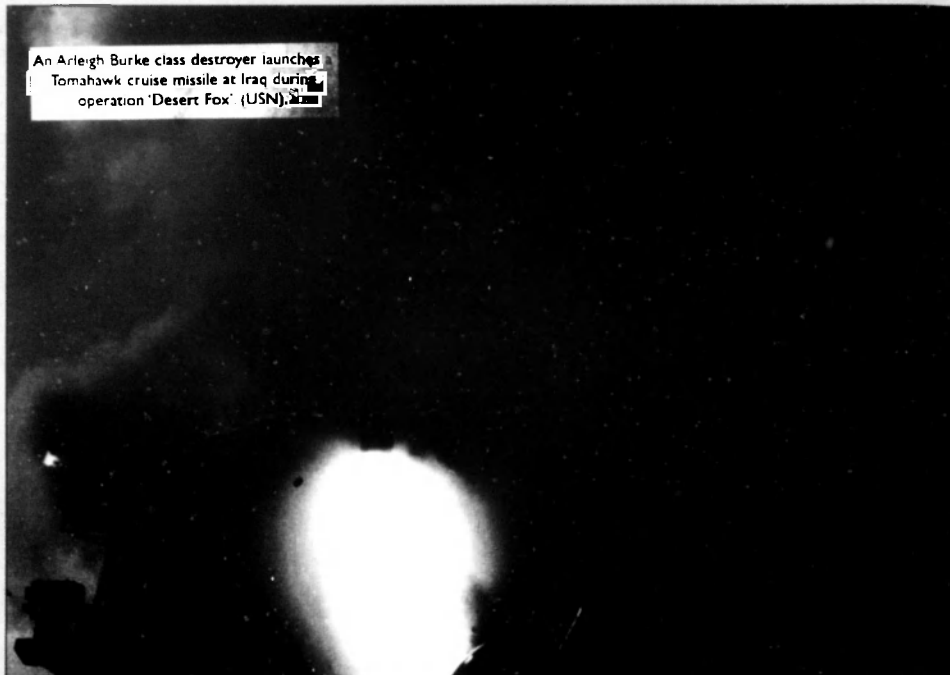
**OPERATION
DESERT FOX**



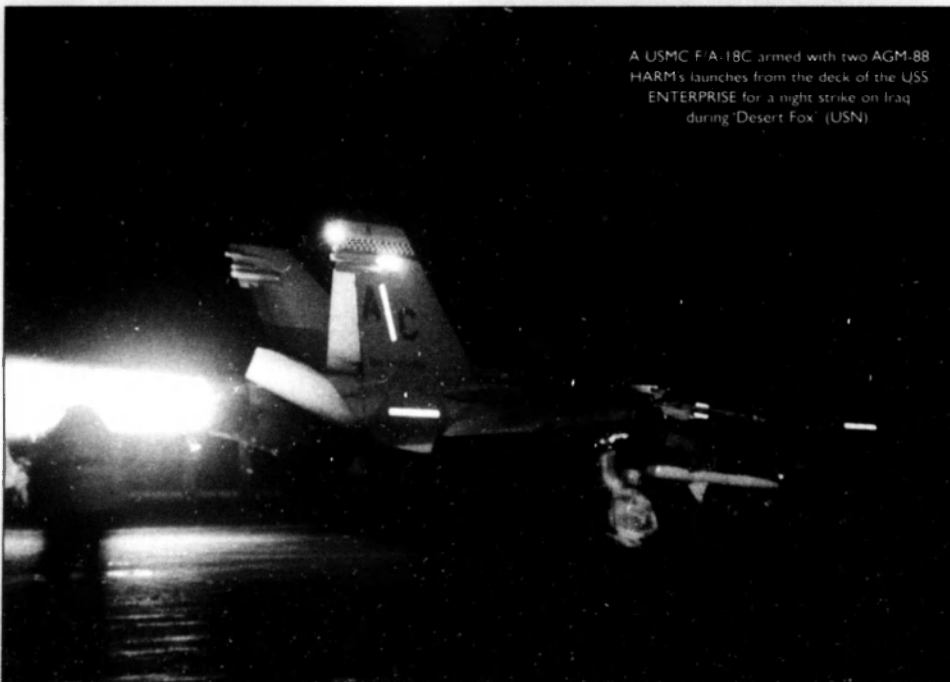
**MV-22
OSPREY**

**RIMPAC 98
IN IMAGES**

An Arleigh Burke class destroyer launches Tomahawk cruise missile at Iraq during operation 'Desert Fox' (USN).



A USMC F-18C armed with two AGM-88 HARMs launches from the deck of the USS ENTERPRISE for a night strike on Iraq during 'Desert Fox' (USN).



THE NAVY

Volume 61 No 2

Feature Articles

- 4 ARUNTA Joins The Fleet
- 9 Desert Fox Debrief
- 13 Osprey Moves Closer to Deployment
- 15 RIMPAC 98 Images

17 Naval Happenings

24 News Briefs

Regular Features

- 2 Viewpoint
- 2 From Our Readers
- 25 Observations
- 27 Book Reviews
- 32 League Policy Statement

Front Cover: HMAS ARUNTA arrives in Sydney.

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

The Navy

All letters to the editor and contributions to:
The Editor, Mark Schweikert
1/5-9 Federal Avenue
www.netspace.net.au/~navyleag
HYPERLINK mail to: mark@canberra.teknet.net.au

Subscriptions and Membership

All magazine subscription and membership enquiries to:
The Hon Secretary,
NSW Division,
Navy League of Australia,
GPO Box 1719,
Sydney, NSW, 1043

Advertising

All enquiries to:
Peter Jordan, Baird Publications
Telephone: (03) 9645 0411
Fax: (03) 9645 0475

Corporate Members

THE AUSTRALIAN SHIPOWNERS' ASSOCIATION
COMPUTER SCIENCES OF AUSTRALIA PTY LTD
BTR AEROSPACE AUSTRALIA
HAWKER DE HAVILLAND LIMITED
STRANG INTERNATIONAL PTY LTD

COVER PRICE INCREASE

We regret the necessity to increase the cover price of this edition of the magazine to \$4.95. This is the first increase in nearly eight years and comes about from increased printing and distribution costs.

The Navy League of Australia

FEDERAL COUNCIL

Patron: His Excellency, The Governor General
President: Graham M Harris, RFD
Vice-Presidents: RADM AJ Robertson, AO, DSC, RAN (Ret); John Hind, CDRE HJP Adams, AM, RAN (Ret)
CAPT HLA Josephs, AM, RAN (Ret)
Hon. Secretary: Don Schragel, PO Box 135, Woonahville, SA 5011. Telephone: (08) 8347 1985 Fax: (08) 8347 3256

NEW SOUTH WALES DIVISION

Patron: His Excellency, The Governor of New South Wales
President: R O Albert, AM, RFD, RD
Hon. Secretary: J C J Jeppson, OAM, RFD, GPO Box 1719, Sydney, NSW 1043
Telephone: (02) 9570 8425 Fax: (02) 9232 8383

VICTORIAN DIVISION

Patron: His Excellency, The Governor of Victoria
President: J M Wilkins, RFD
Hon. Secretary: T E Kilburn, MBE, VRD*, PO Box 1303 Box Hill Delivery Centre VIC 3128
Telephone and Fax: (03) 9560 9927

QUEENSLAND DIVISION

Patron: His Excellency, The Governor of Queensland
President: I M Fraser, OAM
Hon. Secretary: R D Poulton, RFD, PO Box 170, Cleveland, Qld 4163
Telephone: (07) 3345 2174

State Branches:

Cairns: A Curmison, PO Box 1009, Cairns, Qld 4870
Telephone: (07) 4054 1195
Townsville: I McDougall, PO Box 1478, Townsville, Qld 4810
Telephone: (07) 4772 4588
Mackay: K Milwood, PO Box 5527, Qld 4741
Telephone: (07) 4942 2965
Bundaberg: I Lohse, PO Box 5141, Bundaberg, West, Qld 4670
Telephone: (07) 4151 2210
Southport: I V Fout, PO Box 946, Southport, Qld 4215. Telephone: (07) 5532 2447

SOUTH AUSTRALIAN DIVISION

Patron: His Excellency, The Governor of South Australia
President: Alan Preslett, RFD, 15 Sleeps Hill Drive, Panorama SA 5041
Hon. Secretary: Miss J E Gill, GPO Box 1529, Adelaide, SA 5001. Telephone: (08) 8347 1985

TASMANIAN DIVISION

Patron: His Excellency, The Governor of Tasmania
President: M L Cooper, OAM, QFSM
Hon. Secretary: Mrs J M Cooper, 42 Ann Road, Launceston, Tas. 7250
Telephone and Fax: (03) 6344 1531

State Branches:

Devonport: P O'Leary, 11 Tasman Place, Devonport, Tas 7310. Telephone: (03) 6424 5064
Burnie: G Davis, 40 Cherry Street, Burnie, Tas 7320
Telephone: (03) 6431 4023
Launceston: Mrs J M Cooper

WESTERN AUSTRALIAN DIVISION

Patron: His Excellency, The Governor of Western Australia
President: A H Hewitt, JP
Hon. Secretary: Mrs G Hewitt, 23 Lawler Road, Attadale, WA 6156
Telephone: (08) 9330 3600

State Branches:

Geraldton: E Beckwith, 2 Pechell Street, Rangeway, WA 6530
Telephone: (08) 9921 3760 H: (08) 9921 1200 B
Albany: D Bray, Lot 46 Frederick Street, Gledhills, via Albany, WA 6330
Telephone: (08) 9841 6542

FEDERAL ADVISORY COUNCIL

F. Geoffrey Evans, OBE, VRD, Chairman
Neil Bart, Chairman Baird Publications
Wm. Bratby, AM
Admiral Michael W. Hudson, AC, RAN (Ret)
Vice Admiral David Leach, AC, CBE, LVO, RANEM
Vice Admiral Sir Richard Peck, KBE, CB, DSC, RAN (Ret)
John Strang, Chairman Strang International Pty Ltd

Deadline for next edition 5 May 1999

Viewpoint

This current edition of *The Navy* is a combined effort between the new and retiring editors of Australia's longest continuous published naval journal.

To mark the arrival of the incoming editor, Mark Schweikert was invited to submit his maiden Viewpoint and naturally with it, a selection of news articles for this issue of *The Navy* magazine.

"In this edition we look at the newest ship in the RAN, HMAS ARUNTA. Although ARUNTA is the second product of the miss-guided 'fitted for but not with' philosophy it is encouraging to see ships of this size and technology being produced in Australia. Many welcome the news that elements of the Anzac WIP are being introduced sooner rather than waiting for completion of a lengthy tendering process. However, in the interim our Anzac's are still very vulnerable in a modern naval conflict. As an aside, negotiations between the US and Greece over the purchase of four Kidd class DDGs have stalled leaving these four magnificent ships on the market. If navy needed a stop gap measure to meet unexpected contingencies at short notice the Kidds would fit the bill perfectly.

In his regular column 'Observations' Geoff Evans comments on the 22 years of service of *The Navy's* former Editor, Ross Gillett. In 1995 I approached Ross with a request to write for *The Navy*. Ross was very obliging and helped greatly in developing my writing style. When Ross submitted my name as a possible replacement for him I was very overwhelmed. Producing this edition of the magazine has been more difficult than I expected but thoroughly rewarding. Ross has and continues to advise on how to produce a successful magazine such as *The Navy*. I do not believe I could fill his shoes but I can certainly try

them on. Ross has been a great influence on me and I hope this will be seen in future copies of *The Navy*.

Elsewhere in this edition Operation 'Desert Fox' is analysed which questions what purpose continued strikes will have on Iraq and what the implications are for the world.

Closer to home 'Desert Fox' has again proved that Tomahawk in RAN service would be an ineffective weapon. During 'Desert Fox' the US and UK used over 300 aircraft from a carrier and land bases and fired over 325 Tomahawks at 100 targets. Despite this impressive firepower destruction of Saddam's weapons stocks has not resulted. Today, Tomahawks seem to be more of a political manoeuvre than a weapon of strategic value. The question for the ADF is: if 325 Tomahawks and 300 aircraft could not destroy an impoverished country's research and development program what could a handful of missiles from a Collins achieve?

Less than a year out from the coalition's second election success it seems defence has not received the attention it did during the Fraser years. During that term the coalition considered the purchase of an aircraft carrier. Mention it today and coalition members run for cover or come out fighting with ill-informed arguments similar to Labor's Kim Beazley when he confronted the issue as Defence Minister. It is also interesting to note that the Parliamentary Defence Sub-committee, chaired by Senator David MacGibbon, last year called for an increase in the defence budget. Alas this too has been quietly forgotten. If the coalition does not change its course it will aid Labor in becoming a viable alternative voice in defence policy."

Mark Schweikert / Ross Gillett

From Our Readers

HMAS ASSAULT

Dear Sir,

I have just been shown a copy of your excellent *Navy* magazine of January March 1998 Volume 60 No 1. The article, 'New Ship but Old Memories' was a great surprise and interest to me.

I was an original member of HMAS Assault, having come ashore from HMAS Westralia, then an armed merchant cruiser anchored in Port Stephens off Salamander Bay in 1942 and was one of the original 120 Royal Australian Navy members of the Special Service Beach Commando.

From January 1944 through 1945 I served in the 1st Australian Beach Group AIF as a sailor in Army uniform, living in tents and being fed and medically treated by the Australian Army. The latter now presents a real problem for those who served as no medical records, except for Army hospitalisation, were kept by the Navy.

After the Oboe 6 invasion of West Borneo the writer was sent to serve with the Engineer Special Brigade of the United States Army up the great rivers of Sarawak and British North Borneo until the Japanese surrender.

On June 30 1998 a book was launched titled 'Sailor & Commando'. A Royal Australian Navy Special Service Beach Commando 1942-1946. Hesperian Press ISBN0 85905 253 2. This book has been acclaimed by ex HMAS Assault trained personnel as their 'bible'. The writing of it was encouraged by a Curator of the Australian War Memorial, Canberra who wrote to the author, 'your extraordinary training and activities as sailors in Army uniforms has been a secret too long and the story has to be told'.

Sailor & Commando is being sold on several World Wide Web book shop sites and bookshops around Australia including the AWM and Army Museum bookshops. Congratulations on the first comprehensive article on HMAS Assault yet published.

A.E. Jones
BIBRA LAKE WA 6163

Editor: Graham is member of the Navy News staff, located at Garden Island in Sydney. Your congratulations have been passed onto him.

From Our Readers

BARCOO AGROUND

Dear Sir,

I have been a member of the Navy League of Australia for many years and always look forward to receiving *The Navy* magazine.

In the last edition, the grounding of HMAS BARCOO article featured the letters I.K. after the times of day in the

Report of Proceedings. Could you please enlighten me as what I.K. represents.

Seeing the BARCOO in 'distress' brought back many memories to me and many other readers. Keep up the good work.

F.W. Austin
MITCHELTON QLD 4053

Dedication of the Merchant Navy Roll of Honour

On Saturday, 17 October, 1998 a Roll of Honour, listing the names of almost 900 Australian Merchant Seamen who died while manning ships during the First and Second World Wars, was dedicated by His Excellency The Governor General, Sir William Deane, AC, KBE at the Australian War Memorial, Canberra.

This moving service was attended by approximately 400 people, many of whom had travelled long distances in order to participate. They included representatives of the Wartime Master Mariners, The Company of Master Mariners, politicians, members of the Diplomatic Corps, other VIPs and members of the public.

The Roll of Honour is set either side of the magnificent two metre sculpture "The Survivors" by Dennis Adams, a Second World War Official War Artist. This significant and evocative sculpture, set above a large engraved polished granite slab, depicts a group of distressed merchant seamen clinging to a life saving raft, and is located on the western side of The Australian War Memorial.



HMAS ARUNTA departs Sydney during heavy weather in March. The frigate conducted trials off the NSW coast. (Photo - J. Straczek)

The two parts of the Roll of Honour include the names of 181 Australian Merchant Seamen who were lost during the First World War and the 675 who died during the Second World War. Historically, Australian Mariners have sailed in ships of the British Commonwealth and Empire, and many other nations that serviced world wide trade with Australia. However, it is recognised that the list for World War One is far from complete.

It was not until 1923 that a Register of Australian Seamen was kept in each state capital. Prior to this shipping companies kept their own records and, for example, an Australian Seaman who had signed on in Sydney might join another ship or company in Tilbury, England, after several voyages, and thus appear to be from the Port of London. By comparison with the 675 Australian Merchant Seamen who died as a result of 4000 sinkings in the Second World War, it is likely that the losses from 5000 sinkings in the First World War would have been much higher than the 181 who were able to be identified.

A significant proportion of those on the Second World War Roll died as a result of submarine attacks off our own coasts which sank over 40 Australian and allied Merchant ships, some of which often carried dangerous cargoes.

The beautiful sculpture, "The Survivors", is an important symbol of two proud chapters in Australia's maritime history, and the recording of the names of those mariners who died now stands in a place of honour in their national capital, ensuring that their sacrifice will not be forgotten.

Many of those who visited Canberra to attend the dedication ceremony remained to participate on Sunday, 18 October, 1998 in the Annual Memorial Service at the National Merchant Navy War Memorial on the shore of Lake Burley Griffin. A wreath was laid on behalf of The Navy League of Australia by Jack Marshall, of the NSW Division.

ARUNTA Joins The Fleet



HMAS ARUNTA during her commissioning ceremony in Melbourne. (RAN)

Clear skies and near record temperatures heralded the commissioning of the latest Anzac class frigate HMAS ARUNTA. The ship is the second Anzac class frigate to be built for the RAN with six more to come.

ARUNTA was commissioned at Melbourne's Station Pier on Saturday, 12 December, before a large and enthusiastic crowd of guests and spectators.

Despite forecast temperatures of 41 degrees, a brisk cooling sea breeze ensured that the ceremony proceeded smoothly, albeit at the cost of several caps lost seen heading off over Port Phillip Bay.

The Guest of Honour at the Commissioning was Mrs Dulcie Morrow, wife of the late Commodore J.C. Morrow, commissioning CO of the first ARUNTA. Mrs Morrow launched the ship on 28 June 1996 and was pleased to be able to continue the association with ARUNTA.

Also present was the Mayor of Alice Springs, Councillor A. McNeill, who was present to confer the Freedom of Entry of the city to ARUNTA and her crew. While numerous people commented on the likely hood of ARUNTA conducting port visits to a land locked city, it was suggested that she could send a team to compete in the famous Henley-on-Todd dry river bed race.

A number of elders of the Arrernte people of Central Australia were honoured guests at the ceremony. Further cementing the close ties between the Arrernte people and

HMAS ARUNTA, a group of Arrernte women performed a traditional ceremonial dance to mark the occasion.

A multi-denominational blessing by Anglican, Catholic and Protestant chaplains was followed by the breaking of the ships commissioning pennant, signifying the introduction into service of ARUNTA as a unit of the RAN.

Following the breaking of the commissioning pennant, the crew of ARUNTA marched aboard to man their ship for the first time as a RAN unit. Manning the rails, the crew undertook the traditional three cheers, the cheers being taken up with gusto by the large crowd.

ARUNTA is the second ship to bear the name, the first being a Tribal class destroyer that saw active service during the Second World War. Tribal class destroyers in the Royal Navy and Canadian Navy were named after warrior peoples such as the Zulu of Africa and Canada's Athabaskan Indians. ARUNTA was named after the Arrernte Aboriginal peoples of central Australia using the then-common spelling.

The Ship

The class has one GE LM-2500 Gas Turbine, as the second turbine was eliminated to save money, and two diesel engines. Either diesel can drive either or both shafts. The endurance of the Anzac variant of the MEKO 200

design is considerably greater than in other countries' units of this class, due to enhanced fuel supply.

The combat systems consists of a Celsius-Tech 9LV 453 Mk 3 combat data/fire-control system, with only one Ceros 200 director (although space for a second is provided); the director has television and infrared tracking, as well as a J-hand radar and a laser rangefinder.

In the operations room there are seven dual-screen combat displays with a N-FOCSS command decision support system. The ships have Link 11 data-sharing.

The G-band Sea Giraffe 3D air/surface track while scan radar employs a CelsiusTech 9GA XYZ antenna. The air search SPS-49(V)8 radar's antenna also mounts the antenna for the Corsor IFF interrogator.

The surface-to-air missiles are controlled by a Raytheon MK 73 Mod. 1 system; at a future date, it is hoped to employ the Evolved Sea Sparrow missile in "Quad Packs," which would quadruple the missile load. A second 8-cell vertical-launch module is to be added to the fifth and later units and backfitted into the others to permit carrying up to 64 Evolved Sea Sparrow missiles in Quad Packs.

For shore bombardment duties the ship mounts a MK-45 127 mm gun in the "A" position. This gun fires 20 rpm at targets nearly 23 km away. It can also be used against aircraft with fire control data from the Ceros 200 director. As mentioned the director has television and infrared tracking, as well as a J-hand radar and a laser rangefinder which make the gun far more effective in the direct fire role against surface craft or aircraft.

The Mk 15 CIWS is no longer planned to be installed on the ships as completed, but weight and space for it are retained. The two triple MK-32ASW torpedo tubes are recycled from the River class DE's.

The Spherion-B sonar has 'Triple-Rotation Direct Transmission' to increase radiated sound level by 6 decibels and incorporates a torpedo-warning feature. A lightweight version of the Indal RAST (Recovery Assist, Secure and Traverse) helicopter deck-handling system will be incorporated. The class will eventually have four tubes for Nulka decoys and currently have two six tube RBOC launchers for regular chaff rockets.

The Anzac's will initially carry an S-70B-2 helicopter but will employ the new SH-2G Super Sea Sprite when it comes into service.

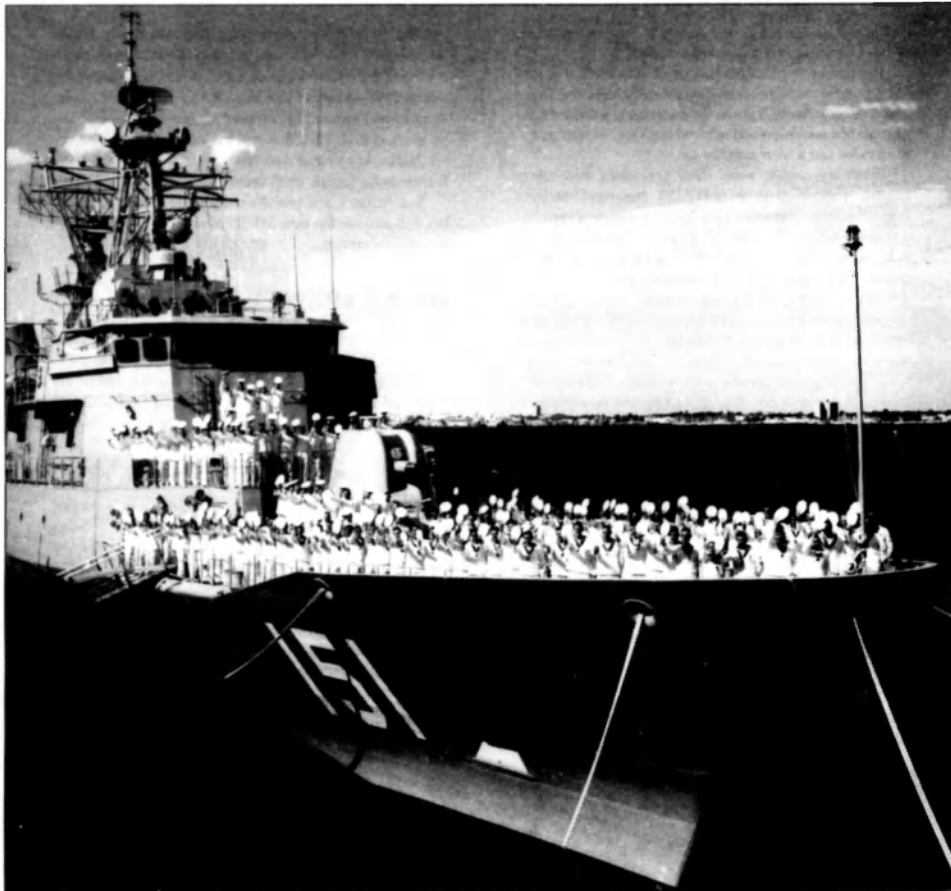
HMAS ARUNTA (I)

HMAS ARUNTA, the first of three 'Tribal' class destroyers built at Cockatoo Dockyard during World War II, was commissioned on 30 March 1942 under the command of Commander J. C. Morrow, DSO, RAN, with a complement of 12 officers and 178 ratings.

Her wartime duties began on 17 May 1942 with anti-submarine patrol and convoy escort duties in eastern Australian waters. At the time Japanese submarines had already sunk four ships totalling 15,000 tons. On 11 August ARUNTA began escorting Australia-New Guinea convoys and shipping in the New Guinea theatre. On 29 August she experienced her first contact with the enemy when she destroyed the Japanese Submarine RO 33 by depth charge off Port Moresby. In September she continued escorting convoys to New Guinea and while engaged took on board the survivors of SS ANSHUN at Milne Bay after that ship had been sunk by Japanese cruisers on the night of 6/7 September.



"Three cheers for ARUNTA" are given by the ship's company during commissioning. (RAN).



ARUNTA's ship's company assemble on the bow of their soon to be commissioned ship (RAN).

On 5 November 1943 ARUNTA, then a part of TF.74, arrived at Milne Bay (from Brisbane) where it remained based throughout the month. The Task Force spent six days at sea in the Solomons area giving covering support to the Bougainville operations then in progress. The four destroyers (operating as a detached group) bombarded the Gasmata (New Britain) area on 30 November. ARUNTA and WARRAMUNGA expended 909 rounds of 4.7 inch against Japanese ammunition dumps near the mouth of the Anwek River.

In mid-May 1944 ARUNTA took part in the seizure of Wakde Island, her duty as a unit of Task Force 74 being confined to bombardment of adjacent areas. On 17 May she expended more than 300 rounds of 4.7-inch ammunition. The Japanese garrison fought to the last man (only one prisoner was taken) and some 859 dead were counted after the battle.

On 13 October 1944 ARUNTA sailed from Hollandia as a unit of the vast armada assembled for landings at Leyte Gulf in the Philippines. She was attached with HMA Ships AUSTRALIA, SHROPSHIRE and WARRAMUNGA to Task Group 77.3 (Close Covering Group) under Rear-Admiral Berkeley, USN.

She took part in the pre-landing bombardments and on 25 October, with SHROPSHIRE, took part in the final and most decisive surface engagement of World War II, the Battle of Surigao Strait. Fought in the darkness, the Japanese were placed at a hopeless tactical disadvantage which ended in their complete rout with the loss of two battleships and three destroyers. The Allied force, under Rear Admiral Oldendorf USN, comprised six battleships, eight cruisers and 20 Destroyers, lost no ships and suffered only superficial damage.

ARUNTA remained with the Task Groups patrolling the Leyte area until 16 November when she sailed for

Manus. In all she spent 28 days in the Leyte area under frequent air attack but suffered no damage and fortunately was not attacked by the 'Kamikaze' aircraft which inflicted such grievous damage on many ships of the Allied fleet including HMAS AUSTRALIA.

December was spent at Manus until Boxing Day when she proceeded in company with AUSTRALIA, SHROPSHIRE, WARRAMUNGA and three US destroyers to return to Leyte.

In January 1945 ARUNTA took part in the second phase of the Philippines campaign, the landings at Lingayen. The landings were successfully completed on 9 January 1945 in the face of continual air attack. Twelve ships of TG 77.2 were damaged by 'Kamikaze' planes including AUSTRALIA which was hit five times. ARUNTA was damaged during the approach on 5 January



Mrs Dulcie Marrow, wife of the first CO of ARUNTA boards the ship for the first time. (RAN).

when a 'Kamikaze' plane narrowly missed crashing into her port side. Two ratings died of wounds.

Following the landings ARUNTA proceeded to Leyte escorting AUSTRALIA (9 January) reporting for duty at Lingayen with Task Group 77.2 on 22 January. Thereafter until the close of February ARUNTA continued in support of the Philippines campaign as a unit of Lingayen Defence Force. On 5 March she returned to Manus departing on 10 March for Sydney to refit.

When VJ Day came on 15 August ARUNTA was refitting at Cockatoo Dock having steamed 184,368 miles on war service in the South West Pacific.

ARUNTA completed her refit on 18 October 1945 and later proceeded to Japanese waters to join the naval occupation forces. ARUNTA did two deployments to Japanese waters from 1945 to 1947. In 1950 she was modernised at Cockatoo Island Dockyard and returned to service on 11 November 1951. ARUNTA spent most of the next three years in fleet exercises until September 1954 when she operated as one of the Allied units on the Korean Patrol groups based in Japan.

ARUNTA spent 1956 on the Australia Station in home waters. On 14 June 1956 she arrived in Sydney flying her paying off pendant. On 21 December 1956 she passed to dockyard control for refitting for Operational Reserve. ARUNTA steamed 95,221 miles during the course of three and a half years being the period of her second commission bringing her total mileage to 357,273 since commissioning in 1942.

From 1957 to 1968 ARUNTA remained in Operational Reserve at Sydney.

She was sold for scrap to China Steel Corporation of Taipei, Formosa, on 1 November 1968. On 13 February 1969 ARUNTA sank 65 miles off the New South Wales coast while under tow to Formosa by the Japanese tug TOKYO MARU.



HMAS ARUNTA arriving in Sydney Harbour for the first time.



ARUNTA's ship's company prepare to board their new ship. (RAN)

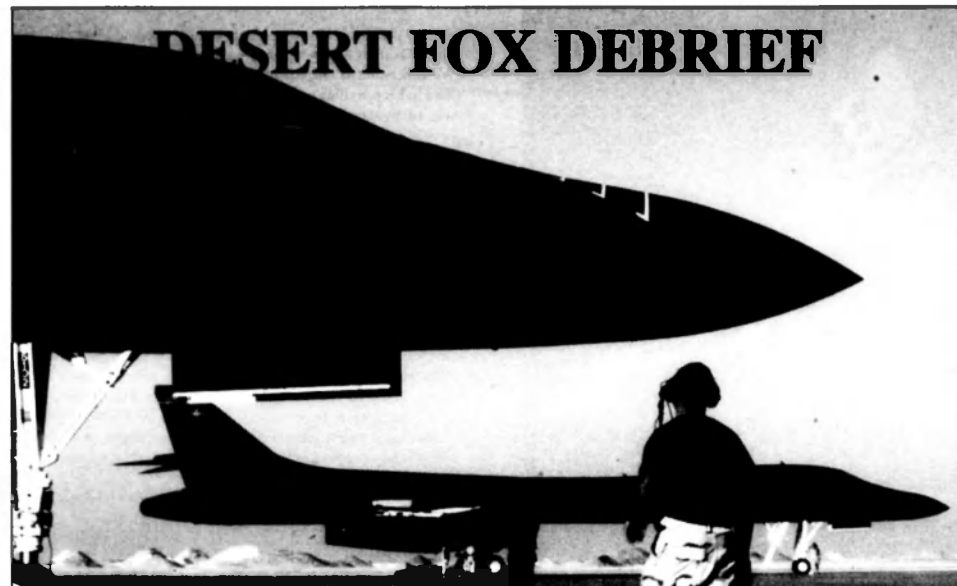
SPECIFICATION

Displacement: 3,300 tons.
 Speed: 27+ kts (20 kts on diesel).
 Dimensions: 117.50m (109.50 pp) x 14.80m (13.80 wl) x 5.99m (4.37 hull)
 Weapons: provision for 8 Harpoon SSM.
 1 Mk 41 Mod. 5 VLS module for 8 RIM-7P Sea Sparrow SAM
 1 127-mm 54-cal. United Defence Mk 45 Gun. Provision for 1 20-mm Mk. 15 Phalanx CIWS.
 Two triple 324-mm Mk 32 ASW torpedo tubes for Mk 46 Mod. 5 torpedoes.
 1 SH-2G Super Sea Sprite ASW helicopter.
 Electronics:
 Radar: 1 STN Atlas Elektronik 9600-M ARPA navigation radar.
 One Ericsson 150 HC Sea Giraffe 3D air/surface track while scan radar.
 One Raytheon SPS-49(V)8 air search radar.
 One CelsusTech Ceros 200 fire control radar
 Sonar: Thomson-Marconi Spherion-B hull mounted sonar.
 EW: Racal-Thorn Sceptre-A intercept (2-18 GHz).
 One Mk 36 Mod. 1 SRBOC decoy system.
 One SLQ-25 Nixie towed torpedo decoy.
 Machinery: CODOG: 2 MTU 12V1163 TB83 diesels (4,420 bhp each), 1 G.E. LM-2500-30 gas turbine (30,172 shp); 2 CP props.
 Range: 900miles at 27 kts; 6,000 miles at 18 kts (1 diesel); 7,000+/.
 Crew: 22 officers, 41 petty officers, 100 other enlisted.

HMAS ARUNTA's crest.

HMAS ARUNTA

ANZAC CLASS FRIGATE - 151



Two B-1B Lancer bombers are prepared to strike at targets in Iraq from bases in Oman for operation 'Desert Fox'. (USAF).

By Mark Schweikert

If Saddam Hussein is ever going to be stopped from posing a threat to his neighbours and the world then a more permanent solution will be required than periodic air strikes. With each air strike Iraq must surely adapt and will thus, one day, overcome what is already more akin to US nuisance raids than decisive military blows. In the aftermath of Desert Fox Australia should again look at the effectiveness of Tomahawk missiles and consider if they do provide long term military solutions.

Over four nights during December, US and British forces launched 'Operation Desert Fox' against Iraq. The operational plan, later dubbed "Desert Fox", had been in the planning for over a year and was intended for use during November's aborted strike on Iraq.

The November operation was approved but later aborted, minutes from execution, as Saddam made a number of verbal undertakings to allow UNSCOM unlimited access. The November operation was initiated when it became clear within weeks of Cofi Annan's agreement with Baghdad (which was supposed to provide UNSCOM with access to presidential sites) that Saddam had once again outmanoeuvred the UN chief.

After the aborted November operation UNSCOM discovered that its teams had less access than previously. It also found traces of VX nerve gas on missile warheads unearthed north of Baghdad. This eventually led to another confrontation of words. Baghdad then flatly refused UNSCOM access to all Iraqi installations. As a result 'Desert Fox' was launched to destroy Iraq's WMD (Weapons of Mass Destruction) capability which UNSCOM was being prevented from doing.

UNSCOM officials had concluded that Iraq has covertly retained sufficient production components and data and retained or developed sufficient expertise, to enable it to resume development and production of WMD. UNSCOM officials also believed that Iraq still maintains a small force of 'Scud'-type missiles, a small stockpile of chemical and biological munitions and the capability to quickly resurrect biological and chemical weapons production. This view was reinforced by an elaborate concealment effort on the part of the Iraqi authorities, including an attempt to steadily increase the number of 'sensitive' installations out of bounds to UNSCOM inspectors before the aborted November strike.

Operation 'Desert Fox' lasted 70 hours, hit 100 targets and involved more than 300 aircraft from the USN, USMC, USAF and RAF with no allied casualties being suffered. The aircraft involved in 'Desert Fox' delivered over 600 pieces of ordnance in 650 sorties. Over 300 sorties were night strike missions. USAF B-52 bombers also launched over 90 AGM-86 cruise missiles.

It is interesting to note that the air launched cruise missile is a far more effective variant than the ship launched version so predominant in the world media (and in Australia with regard to the Collins class submarine). The AGM-86 has a range of approximately 2400 kms and employs a 3000-lb warhead. The ship launched cruise missile, the RGM-109, uses a 700-lb warhead and has a range of 1700 kms. A criticism of the ship launched variant used during 'Desert Storm' was its ineffectiveness against some hardened targets given its small warhead. It is doubtful that the AGM-86 will suffer the same criticism post 'Desert Fox'. 'Desert Fox' also saw the first combat use of the USAF B-1B 'Lancer' bomber from bases in Oman.



An F-14D "Bombeat" drops a GBU-24. "Bombeats" armed with the GBU-24 were used during operation "Desert Fox" to attack Iraqi targets. (USN).

In the waters of the Persian Gulf, USN ships of the US 5th fleet fired over 325 Block 3 Tomahawks at Iraq. This figure is somewhat remarkable given that only 291 Tomahawks were fired during operation "Desert Storm". The Block 3 Tomahawk differ from those used in "Desert Storm" having a slightly greater range and a GPS backup to the TERCOM (TERrain COntour Matching) system. Although the warhead is smaller on the Block 3 it has a selectable delay fuse to increase warhead penetration before detonation.

Ships in the Persian Gulf participating in "Desert Fox" consisted of:

- The Aircraft Carrier:
 - USS ENTERPRISE. (CVN-65).
- One Ticonderoga class cruiser:
 - USS GETTYSBURG (CG-64).
- Three Arleigh Burke class destroyers:
 - USS Paul Hamilton (DDG-60), USS HOPPER (DDG-70) and USS Stout (DDG-55).
- Three improved Spruance class destroyers:
 - USS FLETCHER (DD-992), USS Hayler (DD-997) & USS NICHOLSON (DD-983).
- One Oliver Hazard Perry class frigate:
 - USS CARR (FFG-52), and
- One Improved Los Angeles class attack submarine:
 - USS MIAMI (SSN-755) also equipped with Tomahawk.

GETTYSBURG, MIAMI, the three Arleigh Burke DDGs and the Improved Spruance DDs were responsible for Tomahawk attacks on Iraq. It is also understood that ships from the USS CARL VINSON CBG, ENTERPRISE's Gulf replacement, also participated in Tomahawk attacks.

During one of the Pentagon press conferences on Desert Fox the US Secretary of Defence, William S. Cohen, said, "We've degraded Saddam Hussein's ability to

deliver chemical, biological and nuclear weapons. We've diminished his ability to wage war against his neighbours. We concentrated on military targets and we worked very hard to keep civilian casualties as low as possible. Our goal was to weaken Iraq's military power, not to hurt Iraq's people".

Iraq's Weapons Program

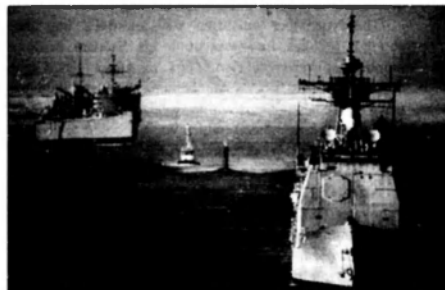
Information provided by Saddam's son-in-law, Hussain Kamil, following his defection in August 1995, forced the Iraqis to reveal a far more extensive WMD programme than had previously been admitted. These included a 1990 crash programme to develop nuclear weapons, the production of chemical agents (including the deadly VX), and a very significant biological agent production and weaponisation programme, as well as an advanced missile production and testing programme. In recent times, UNSCOM officials have said that as much as 600 tonnes of VX precursors have been hidden away, and that Iraq retains the capability to produce sizeable quantities of the biological weapon Anthrax, as well as other biological weapons.

Ballistic Missiles

The conclusion is that Iraq may have assembled a small arsenal of missiles by integrating guidance and control systems that have been concealed from UNSCOM, with parts that were produced in Iraq. It is known that Iraq had a pre-war capability to produce 'Scud' engines, airframes and warheads.



A flight deck crewman paints bomb symbols on the side of an F-14D 'Bombeat' after a mission. (USN).



A Ticonderoga class cruiser, an Improved Los Angeles class submarine and a fleet replenishment ship transit the Suez Canal on their way to the Persian Gulf. (USN).



An HH-60 Seahawk hovers over the bow of the aircraft carrier USS ENTERPRISE just prior to operation "Desert Fox". (USN).

Analysts have concluded that, in the absence of sanctions, Iraq could probably return to full-scale production of 'Scud'-type missiles in one year. Iraq has been able to conserve and boost missile production expertise through work on the Al Samoud and Ababil missile programmes, which are centred at the missile production facility at Ibn al Haytham. These missiles have a range of less than 150 km and are permitted by the UN. Iraq is reported to have carried out a test flight of the Al Samoud, essentially a scaled-down 'Scud'. It would be quite easy for Iraq to move from these programmes to production of actual 'Scuds' in the event of the requisite materials becoming available following the lifting of sanctions.

Nuclear Weapons

Following on from the defection of Hussein Kamil in 1995 Iraq was obliged to admit that it had planned to build a nuclear device in 1991 by using highly enriched uranium from its Soviet-supplied reactors. Iraq also admitted that it had experimented with seven uranium enrichment techniques and was most actively pursuing electromagnetic isotope separation, gas centrifuge and gas diffusion.

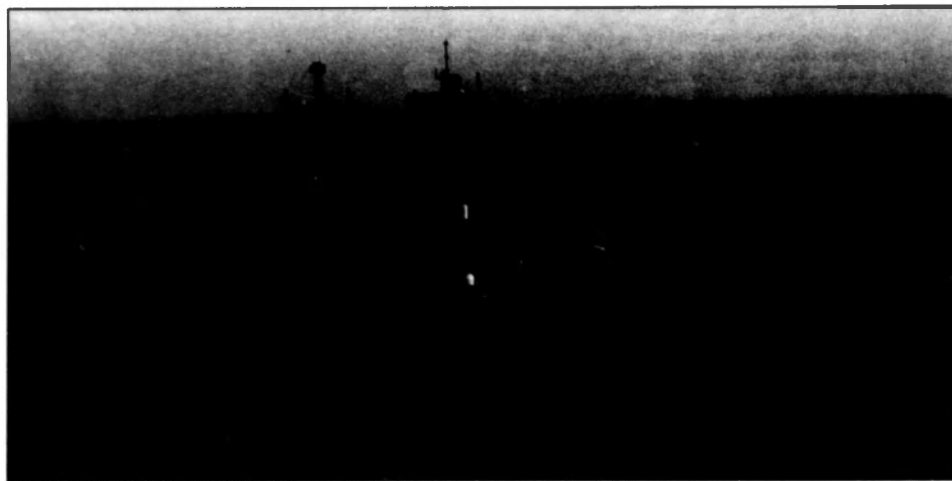
The Iraqi regime is thought to have about 7,000 nuclear engineers, scientists and technicians who retain the knowledge required to rebuild the programme. Prior to the invasion of Kuwait, Iraq is believed to have employed over 100,000 people in the nuclear weapons programme, including those in Western universities and on exchange with North Korea. Suspicions have persisted that scientists have been pursuing theoretical nuclear research that would be of benefit to a weapons programme, should Iraq acquire the appropriate fissile material.

Biological Weapons

The CIA has reported that it would take only 12 weeks for Iraq to produce war stocks of biological weapons. In the 1980s Iraq developed the most significant and most advanced programme in the Middle East for the development of biological weapons. UNSCOM chairman Richard Butler stated that Iraq's most recent biological weapons declaration, submitted in September 1997, 'failed to give a remotely credible account of Iraq's biological weapons program'.



USS GETTYSBURG launches a Tomahawk at Iraq during 'Desert Fox' (USN).



The Improved Spruance class destroyer USS NICHOLSON during a lull in strike missions against Iraq. (USN).

Chemical Weapons

Before the Gulf War, Iraq had developed a formidable capability in the area of chemical weapons (CW). Iraqi forces delivered chemical agents (including Mustard 5 and the nerve agents Sarin and Tabun) in aerial bombs, aerial spray dispensers, 120 mm rockets and several types of artillery shells.

It was thought that if the UNSCOM inspection programme were ended, Iraq could restart limited Mustard agent production within a few weeks, full-scale production of Sarin within a few months, and pre-Gulf War production levels of chemicals such as VX within two or three years. It is known that before the war the Al Hussein variant of the 'Scud' missile had been adapted to take a chemical warhead, and that a binary Sarin-filled artillery round was also developed.

Iraq's Deception Measures

There is little doubt that despite the best efforts of UNSCOM, there remain a number of WMD programmes which are unaccounted for. It is believed that Iraq has several secret storage locations in the eastern provinces and that a number of buildings belonging to otherwise innocent government departments have been used as laboratories and storage places. Missiles include about 100 Al Hussein and some 20 R-17 'Scud B' types. It is generally believed that a number of banned ballistic missiles and launchers have been hidden away, capable of delivering WMD.

Ever since UNSCOM was formed after the Gulf War in early 1991, Saddam has sought to sabotage the most intrusive arms control regime ever undertaken. While the UN inspection teams have achieved considerable success in dismantling Iraq's WMD programmes, Saddam has often out-manoeuvred UNSCOM and disrupted its operations, repeatedly confronting the Security Council.

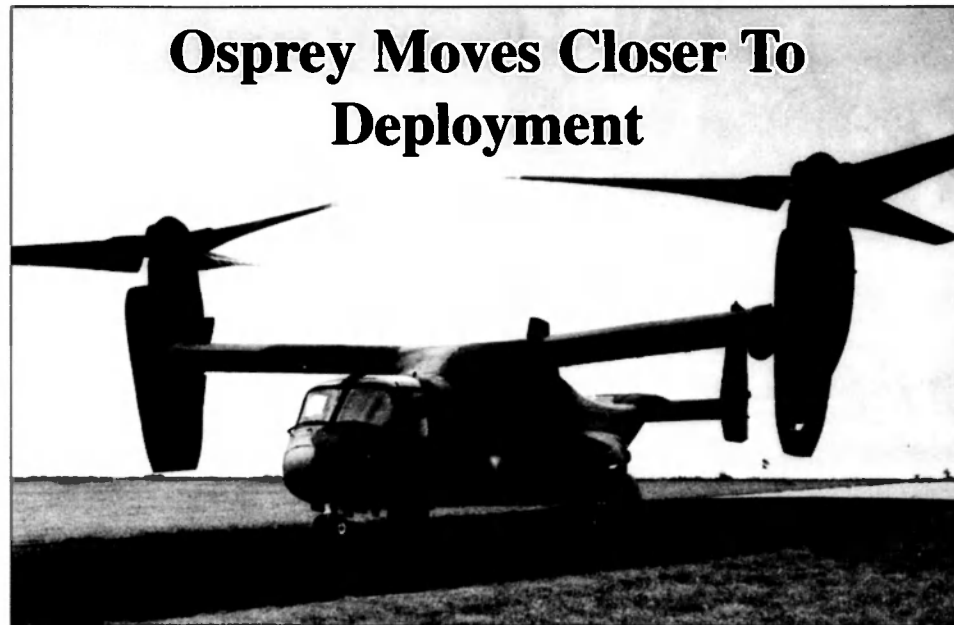
CONCLUSION

Early indications of the effects of 'Desert Fox' are not encouraging. Of the near 1000 pieces of ordnance delivered at 100 targets in Iraq 85% found their target. None of the WMB sites were destroyed and only 43 of the 100 targets were classified as severely damaged. The Iraqi Foreign Affairs Minister Tariq Aziz said "These barracks and buildings can and certainly will be rebuilt". It was learnt recently that Tariq Aziz and other Cabinet Ministers narrowly missed out on becoming casualties of 'Desert Fox' when the building they were occupying was hit by a Cruise missile that failed to explode.

At the time of writing UNSCOM had not recommenced investigating and destroying Iraq's WMD programs. If this continues then Iraq may be able either to commence building more WMD or have greater opportunity to conceal its current stocks.

Since 'Desert Fox' Iraqi forces have clashed with US aircraft in the no-fly zones on numerous occasions. Iraqi armour and SAM systems were also reported to be taking up positions near Kuwait. What these actions mean is anyone's guess but the Iraqis have proved too many times in the past that they are capable of intelligent action.

The questions the UN should be asking itself is can it indeed stop Iraq from making WMD? If sanctions continue could this undermine Security Council resolve given Iraq's perceived victories in the PR war with images of Iraqi children suffering under sanctions? If military strikes continue periodically could not the UN, already wavering in the face of 'Desert Fox', call for a halt on all UN activities against Iraq? If any of these were to happen then Iraq would quickly become a threat to international peace and stability via its WMD. Unless a more permanent solution can be reached this is exactly what may transpire.



The Bell-Boeing V-22 Osprey prior to flight testing. (Bell-Boeing)

One of the world's most unique and capable aircraft, the MV-22 Osprey, is moving closer to deployment aboard USN ships for the USMC (United States Marine Corps). Testing being carried out now will ensure smooth MV-22 tiltrotor operations during future force projection operations from the sea. Flying faster than most fixed wing propeller driven aircraft, being able to lift more troops and equipment than most helicopters in an aircraft that can take off and land vertically will one day prove to be a decisive advantage.

V-22 Osprey entered another phase of its flight test program Jan. 15 when one of the MV-22 engineering and manufacturing development (EMD) aircraft flew aboard the USS SAIPAN, beginning sea trials scheduled to last until mid-February.

The tiltrotor aircraft joined up with the LHA class ship off the coast of Norfolk, Va., where the aircraft will undergo about 30 days of testing to meet two primary objectives.

The first objective is to do dynamic interface testing which involves validating and expanding the general launch and recovery envelope relative to winds over the deck for the ship's helicopter spots where the V-22 could land. There are 10 helicopter spots, each having launch and recovery parameters in terms of speed and relative direction of wind.

"The envelope expansion testing is critical because it will evaluate the aircraft's handling qualities as well as reveal any problems that need correcting," said Lt. Col. John Rudzis, V-22 government flight test director. "This is to ensure that the fleet pilots can safely hover, take off, and

land from any of these spots within the designated launch and recovery envelope."

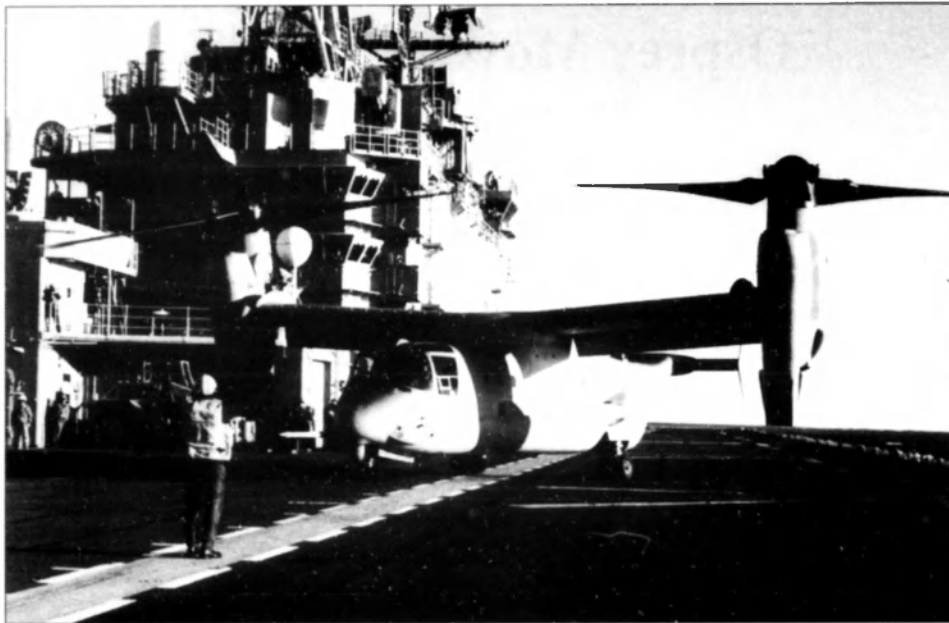
The sea trials test plan requires the V-22 to do practice landings on five of the ship's 10 helicopter spots to determine how it handles in a variety of conditions, such as strong winds or rough seas. In addition, the pilots will practice a simulated one engine inoperative procedure. This includes a no-hover vertical landing to the aft end of the ship, vertical take-offs from a helicopter spot, and shipboard short take-offs.

Rudzis said the dynamic interface testing is in support of and in preparation for the V-22's next sea period during Operational Evaluation scheduled to begin in October 1999. In addition to the dynamic interface testing, the V-22 will do external loads tests in which it will pick up a 4,000-pound netted load from a single hook on the aircraft, and some night flying, both for the first time in a shipboard environment.

"I think the aircraft is going to do very well in all aspects and I am looking forward to pushing the flying as much as we can," said Rudzis.

The second objective is aircraft/shipboard compatibility testing which will show that the V-22 fits on the LHA's hangar deck, elevators, the launch and recovery spots, and can be parked, positioned, stowed and maintained aboard ship. An important part of this testing will validate that in the wing-fold, blade-stow position, the V-22 fits in the elevator and can be lowered into the hangar deck. The V-22 will also do what is known as spotting. According to Rudzis, this manoeuvre is an important part of shipboard compatibility testing because when the ship is

RIMPAC 98 Images



A USMC MV-22 undergoing ship board trials on the LHA USS SAIPAN in the Atlantic. (USN).

loaded with a full complement of aircraft, the V-22 must be able to land, quickly stow rotors and the wings, and be moved to its parking spot. Although a full complement of squadron aircraft will not be present during the sea trials, SH-3 and CH-46 helicopters from squadrons HC-8, HC-6 and HC-2 with provide search and rescue as well as logistics support.

Another important aspect of shipboard capability is how well maintenance functions can be performed. Marine maintainers from the V-22's Multi-Service Operational Test Team (MOTT) will perform the maintenance with some maintenance contractors from the Bell Boeing team. In the process of conducting these tests, the job of the MOTT maintainers will be to maintain the V-22 as well as to record, validate and assess all Marine maintenance work. This means that all procedures, manuals, tools and support equipment will be assessed for how well they allow maintainers to accomplish standard maintenance.

"We will also be assessing how well maintainers and the aircraft interact with the ship and support equipment they will be using, the effects of salt water on the V-22 and how corrosion may factor into this," said Staff Sgt. Tony Huntington, a CH-53 crewchief and now a V-22 MOTT crewchief and maintainer. He added that they also will assess the availability of support equipment, storage facilities for special equipment and how this unique equipment is transported to and from the ship.

While maintainers do not expect any extraordinary maintenance work during sea trials, Staff Sgt. Joseph Cottle, an experienced CH-46E maintainer and now a V-22 airframe mechanic, said they will have an intense schedule.

They are doing visual pre-flight and post-flight inspections, troubleshooting any concerns the pilots or crewchiefs may have after a flight, and validating everything on the aircraft during the 35-hour inspection, including how long it takes to complete maintenance jobs on the ship. This inspection occurs each time the aircraft completes 35 hours of flight time.

On the hangar deck, MOTT maintainers will do simulated and actual maintenance on the aircraft to assess how difficult it is to work in confined spaces on a platform that is constantly moving with equipment that has to be chained down. On the flight deck, they will do daily inspections, wash the engines with the aircraft parked and be expected to secure the aircraft within five minutes after it lands. According to Huntington, "The ship's air boss expects the V-22 to be precisely positioned so that other operations can safely continue. Since space is a valuable commodity, even a slight departure from the designated area is unacceptable.

"This is a very challenging test period and there are always inherent risks associated in a shipboard environment," said Huntington. "The things that are easy to handle on land such as engine washing and refueling will be increasingly difficult on a ship."

As MOTT maintainers, it is their job to assess these things as well as all maintenance procedures, and to identify any maintenance problems and deficiencies now so changes can be made before the aircraft gets to the fleet.

"Since we are the final line before the aircraft gets to the fleet, we want to ensure that they get an aircraft that is the best it can be," said Cottle.

RIMPAC (RIM of the PACIFIC) exercises are the biggest and busiest training events on the Navy Calendar.

Australian sailors and airmen have participated in every RIMPAC since they began in 1971. All of these exercises provide a unique opportunity for Australian ships and aircraft to conduct tactical live firings and integrate with a large multinational force.

RIMPAC 98 is a multinational exercise which includes military participation by Australia, USA, Republic of Korea, Canada, Chile and Japan. The exercise was conducted in the Hawaiian area between 6 July 1998 and 6 August 1998.



From bottom, HMAS DARWIN, USS CIMARRON, HMAS SUCCESS and HMAS PERTH conducting replenishment operations during RIMPAC 98. (RAN).



HMAS SUCCESS's Sea King practising her own brand of intlight re-fuelling whilst hovering off the port side of the ship. (RAN).

Participating Australian Defence Force units include HMA ships PERTH, SUCCESS, BRISBANE, DARWIN, MELBOURNE and ONSLOW, and elements from Clearance Diving Teams 1 and 3, and 3 RAAF P-3C.

Australia's Defence policy of 'self-reliance ... within a framework of alliances and agreements' takes account of the size of the RAN and interoperability with other navies. In a time heightened international tension either near our shores or further afield, we are likely to be operating as part of a much larger maritime force. Our most recent operational involvement with the USN was a part of the Multinational Force in the Gulf War. When the RAN is required to meet a maritime threat at short notice, the ability to assimilate the environment quickly - know the language and systems of naval warfare - could well mean the difference between success and failure in individual actions ... or between victory and defeat overall.

RIMPAC VITAL STATISTICS

Number of personnel participating: Approximately 25,000.

Number of aircraft participating: 200.

Location of exercise: On and in waters surrounding the Hawaiian Islands.

Number of aircraft carriers involved: One, USS CARL VINSON (CVN 70)

Types of Australia aircraft: P-3C, SH-70B, SK-50, AS-350B.

Types of aircraft from other participating nations:

- U.S.: F/A-18, F-14, EA-6B, SH-60, E-2C, S-3, P-3, CH-46, UH-3, HH-60, B-52, B-1B, F-16, E-3, F-15, C-130, KC-135, KC-130, AV-8B, UH-1, and AH-1.
- Canada: CP-140, CH-124A, CE-144
- Japan: SH-60, P-3.
- Republic of Korea: P-3C



From left, HMA ships DARWIN, MELBOURNE and PERTH tied up along side at Pearl Harbor naval base prior to RIMPAC 98. (RAN).



The major USN participant in RIMPAC was the nuclear powered aircraft carrier USS CARL VINSON. (RAN).



The Canadian frigate HMCS REGINA moves into position alongside HMAS SUCCESS for replenishment. (RAN).



The Ticonderoga class cruiser USS ANTIETAM steams towards SUCCESS for replenishment. (RAN).



A Canadian Iroquois class destroyer participating in RIMPAC 98. (RAN).



HMAS SUCCESS replenishing USS BOXER, LHA-4. (RAN).



From left, USS ANTIETAM, HMAS SUCCESS and HMCS REGINA. (RAN).

Naval Happenings

USS CHOSIN AND STETHEM PROVE READY FOR Y2K

Recently the USN sent one of its most advanced guided-missile cruisers and destroyers into the future to ensure the ship's systems were ready for the year 2000 bug. Clocks aboard USS CHOSIN (CG 65) and USS STETHEM (DDG 63) were set to 31 Dec 1999, and the ships entered 1 Jan 2000 in the middle of a mock battle. "We've had a couple of minor things, but I stress minor," said Capt. Thomas J. Gregory, Commanding Officer of the Pearl Harbor-based ship CHOSIN. "Superb coordination among all parties made this a relatively unobtrusive event." Less than five percent of CHOSIN's systems are date-sensitive or vulnerable to failing when 1999 becomes 2000, said Capt. Tim Traverso, U.S. Pacific Fleet Y2K team leader and Director for Command, Control, Communications, Computers and Intelligence. The events aboard CHOSIN and STETHEM were two of a series of in port validations around the Fleet that will culminate in an at-sea validation involving 16 ships. Although CHOSIN was tied to a pier under the Hawaiian sun, in the combat information centre a virtual battle called an Aegis Combat Training System (ACTS) scenario raged 30

minutes before midnight on 31 Dec through 1 Jan targeting and firing systems, along with engineering and support systems all continued to work.

The crew then ran another scenario to ensure that all systems would perform in combat from start to finish in the year 2000. The exercise was in preparation for the USS CONSTELLATION (CV 64) Battle Group Y2K validation exercise, scheduled for late February or early March. Sixteen ships from the U.S. Pacific Fleet, including CHOSIN, the U.S. Coast Guard and Canada will participate in the event off the coast of Southern California.

RNZN FRIGATE TE KAHA DEPLOYED TO SOUTHERN OCEAN

The New Zealand frigate HMNZS TE KAHA recently deployed to the Southern Ocean to increase the surveillance effort for vessels engaged in illegal or unregulated toothfishing.

The frigate deployment is in addition to the RNZAF Orion surveillance flights into the Ross Sea region, that the NZDF had been mounting.

"The deployment allowed the Navy's newest frigate, TE KAHA, to familiarise itself with conditions

within the furthest reaches of New Zealand's Exclusive Economic Zone," said the NZ Defence Minister Mr Max Bradford.

"The Southern Oceans present some of the harshest conditions any warship is likely to experience. The deployment increased the crew and vessel's capability to handle its fishery patrol work and other naval tasks in the future."

Mr Bradford said the decision to send the ship underscored New Zealand's determination to discourage potential toothfish poachers from threatening the Ross Sea region.

No illegal boats were sighted by the Air Force Orions or Te Kaha during the deployment. The presence of TE KAHA reinforced the message to all would-be illegal toothfishers that they are not wanted, said the Minister.

USS ARTHUR W. RADFORD COLLIDES WITH TANKER

In an embarrassing incident for the USN the improved Spruance class destroyer USS ARTHUR W. RADFORD, collided with a Saudi oil tanker off Norfolk naval base.

The collision occurred during RADFORD's final week of work up for a Gulf deployment. The impact went from the starboard side of the fo'c'sle and nearly to the centre line. Given RADFORD's collision is on the starboard side one could assume this is a case of failure to give way as international law of the sea conventions require ships to give way to other ships on their starboard side.

Damage to the ship could have been much worse had the tanker struck the Mk-41 VLS magazine loaded with Tomahawk missiles. Other damage suffered included: destruction of the fwd Mk-45 gun, powder and projectile magazines for the fwd gun flooded, sonar dome equipment room flooded, sonar dome imploded and impacted with transducer, fwd firemain lost, fwd fuel tank compromised and deck



"RNZN frigate TE KAHA deployed to Southern Ocean". The frigate HMNZS TE KAHA cruises past an average size iceberg in the Southern Ocean.

house and ballistic doors damaged. The ship was also down by the bow 1.3 metres (4 feet). RADFORD has entered Portsmouth shipyard for repairs estimated at \$6.3 million (US). The ship's Captain has been relieved of command.

"USS ARTHUR W. RADFORD collides with tanker". Three views of the damage suffered by the ARTHUR W. RADFORD after colliding with an oil tanker. Notice the proximity of the Mk-41 VLS to the impact point, the slice through the deck and the paint stains on the destroyed Mk-45 gun mount.



MINISTER PRAISES RAN RESCUERS

(An account from NAVY NEWS)
"They came through the door with big grins on their faces ... one had a broken leg, another a busted shoulder. But they were alive." This was the comment from LEUT Mick Curtis co-pilot of HMAS NEWCASTLE's Seahawk.

Comments such as this were repeated time and again by Royal Australian Navy aviators as they recounted their involvement in the recent Sydney to Hobart Yacht Race tragedy which saw six men die, another 50 yachtsmen and women rescued, several boats sunk and a massive rescue operation launched.

The magnificent work by the RAN along with the RAAF has since been praised by the Defence Minister The Hon. John Moore. "The Government and all Australians are very proud of the effort made by more than 200 men and women of the RAN and RAAF who were involved in the search and rescue off Australia's south-east coast.

"Many of those involved in the rescue were called back to duty at short notice. "Especially at Christmas time, this rapid response to AUSAR's request for assistance is a credit to everyone involved," Mr Moore said.

The 115 competitors in the annual 850 km Telstra Sydney to Hobart event set off from Port Jackson on Boxing Day. The Weather Bureau had warned the fleet days before that it

would run into a weather change as it travelled down the NSW coast.

The change took the form of a deep depression in the Tasman Sea which whipped up 60 knot westerly winds and massive seas.

Conditions deteriorated on the Sunday with increasing numbers of competitors calling for help as they tried to reach ports along the NSW and Victorian coasts or wallowed in giant seas. Some yachts did 360 degree turns beneath the waves, others rolled 180 degrees.

Helicopter squadrons at HMAS ALBATROSS and the duty response ship, HMAS NEWCASTLE (CDR Steve Hamilton) were put on alert.

First to lift off at around 8pm was Sea King 'Shark 05'. In command was LEUT Alan Moore, beside him LCDR George Sydney, the CO of 817 Squadron and behind them as rescuers, LEUT Phil Payne and PO Kelvin Ballico.

Also readied was Shark 20 from 817 Squadron. LCDR Tanzie Lea took charge with LEUT Chris Money (co-pilot) LEUT David Hutchinson and PO Brian Lee in support.

Also readied were the two Seahawk helicopters which normally are aboard HMAS NEWCASTLE and HMAS MELBOURNE, but because the frigates were alongside Fleet Base East were on the Nowra hardstand.

Seahawk 70 from NEWCASTLE lifted off around midnight with LCDR Adrian Lister in command, LEUT Mick Curtis beside him and with LS David Oxley and LEUT Marc Pavillard behind with the winch and rescue gear.

Also to lift off in the dead of night was Seahawk 75 from MELBOURNE. LEUT Nick Trimmer was in command with LCDR Rick Neville, LEUT Wal Abbott and PO Shane Pashley in the crew area.

Meanwhile it was decided to send HMAS NEWCASTLE to help trawlers and other ships conduct a surface search. The search became urgent as the activation of EPIRBS and radio messages that yachtsmen were taking to life rafts, increased. The 05 Sea King was immediately dispatched to search for disabled craft.

"We were going to look for Sword of Orion but were diverted to check on Renegade," LCDR Sydney said. "We couldn't find her because she was underway and heading in.

"Then we found B 52 and circled her. We saw her crew were OK and

with fuel running low returned to Merimbula". At about the time 05 was checking on B 52, Shark 20 with LCDR Lea had found the Sword of Orion nearly 100 kilometres off the coast. "There were nine people on board," LCDR Sydney continued. "Tanzie held his aircraft in hover and using a 'high line' method of rescue was able to get three of the nine aboard. Dixie (Brian) went into the water for one rescue.

"Shark 20 was low on fuel so had to return to Merimbula. A Seahawk took over. The saving of the remaining six was left to the '70' aircraft. "We wanted to do the rescue in daylight so after finding Sword of Orion circled it for a while," said co-pilot LEUT Mick Curtis from Seahawk '70'. "We had radio communications with the yacht and knew there were injured on board. "It was 5.15 am when we started the rescue. Winds were between 60 and 70 knots. We think it was a Force 9 gale.

"We used the high line method. One by one they got into the strap and we winched them aboard. We hovered at about 30 metres. "One had a broken leg, another a busted shoulder. But they were alive. "The rescue took about 30 minutes.

The rescued six were later taken to Pambula Hospital. As the rescue drama continued grave fears were held for the nine occupants of the veteran wooden hull'd yacht the Winston Churchill.

Its skipper had radioed it was sinking and the occupants were evacuating. Later a rubber raft with the skipper and four crew were found and rescued. The four men including John Stanley and John Gibson had disappeared into the darkness.

On the Monday night a strobe light led an Orion to a spot where it could see the missing raft. Only Stanley and Gibson were on board. Their mates had been swept away. The floor of the raft had gone so the two men were clinging to the inflated "doughnut" section of the device, a fact not realised from above.

Seahawk 75 was dispatched to the scene. While Nick Trimmer manually held his aircraft in hover, Shane Pashley was lowered to the raft. "I pulled myself up over the side of the raft expecting to go in on the floor," he said.

"There was no floor in the raft so I went straight through and back under water again. They were just hanging on the outside rim of the raft keeping

their feet on this little bit of floor that was flopping around in the water."

Shane put the first yachtsman in a harness and gave LEUT Abbott the 'thumbs up' to winch them aboard. At the same time a wave hit the raft and the slack was taken up. "We got reeled out of the raft and went skating backwards through the water. I just hung on, held my breath and waited to come to the surface. "I just made sure I didn't lose him."

The pair were winched safely aboard. Elsewhere in the Tasman HMAS NEWCASTLE had taken on board two survivors from another yacht, Kier Enderby and Glen Picasso. They were from the Newcastle-based Solo Global Challenge. The injured pair were taken from the damaged yacht by a RIB from the frigate. Earlier other crew members had been airlifted clear. Other helicopter rescuers went into the sea when two yachtsmen were seen bobbing in the waves, however, they were found to be already dead. Their bodies were recovered. The dramatic three day drama saw aviators log scores of hours in flying time as well as HMAS NEWCASTLE travelling hundreds of kilometres.

By Graham Davis

OUTCOMES OF HMAS WESTRALIA INQUIRY

The Chief of Navy, Vice Admiral Don Chalmers, has released the Report of the Board of Inquiry into the fire in HMAS WESTRALIA on May 5, 1998. This followed briefs on the outcomes of the Inquiry to the ship's company and the families of those who died.

"The Maritime Commander and I accept, without reservation, the principle findings of the Inquiry," Vice Admiral Chalmers said.

"We conclude that ADI bears some responsibility for the fire onboard WESTRALIA and the deaths and injuries caused by the fire. Navy was also partly to blame.

"The weight of Navy responsibility lies in systemic weaknesses, and these failures are my responsibility as Chief of Navy. There can be no junior scapegoat for this tragedy.

"I take full responsibility for rectifying the deficiencies identified in the report for the future safety of Navy.



A USAF F-16CJ similar to the 28 F-16s the RNZAF is to lease from the US. (USAF).

"We work in a hostile and sometimes dangerous environment that we must ensure is as safe as it can possibly be made.

"The Maritime Commander and other responsible areas of Navy are now acting on the many recommendations of the Board.

"We have not stood still waiting for this Inquiry to conclude. The Maritime Commander has completed a safety check on all the flexible hoses in the Fleet and conducted an audit of all configuration changes.

"I commend the ship's company of WESTRALIA for their resourcefulness and courage in preventing further loss of life, saving their ship and preventing environmental damage."

The Board of Inquiry met its terms of reference and its report is very comprehensive. The Hearing was open to the public and Board included two independent civilian experts, which ensured a wide breadth of experience informed the Board's recommendations.

NEW ZEALAND UPDATE

New Zealand recently announced that plans for the purchase of a third PAGE 20

Anzac frigate will not go ahead. Instead, the New Zealand Defence Minister, Max Bradford, announced that the RNZAF will be leasing 28 F-16 A/B 'Fighting Falcons' from the US. The aircraft were originally destined for Pakistan when the US cancelled delivery due to concerns about nuclear weapons. The leasing arrangement is estimated to save the RNZAF \$NZ431 million over the life of the aircraft. As a consequence, plans for the modernisation of its existing Skyhawks will be cancelled and the aircraft retired early.

CLEARANCE DIVERS BLAST MANLY BEACH

The Royal Australian Navy's "men in black" ... they're underwater demolition experts ... have destroyed a live hand grenade just metres from one of Sydney's best known tourist attractions, the Manly Aquarium.

"The firing pin was gone. It was if someone had thrown it into the water to see it go 'bang' ... and it didn't," leader of the demolition squad, LEUT Wayne Hamilton said.

Involved in the destruction of the unexploded ordnance was a team of seven from Clearance Diving Team 1, based at HMAS WATERHEN.

LEUT Hamilton said, "a recreational SCUBA diver found the grenade 15 metres out from shore and in three metres of water near the Manly Aquarium.

"He reported his find to police and we were called in."

Using the diving boat SEAL a seven-man squad responded immediately joining Water Police launches and police on shore.

LEUT Hamilton put three divers over the side who searched for the grenade for 45 minutes.

"It was amongst rocks and weed and had not been in the water long".

With police on the shore keeping a 500 metre cordon of onlookers and with the police launches keeping small craft well clear, the trio attached a charge to the grenade and at 3pm lit a wax covered wick which three minutes later detonated the charge and destroyed the grenade.

Many people going about their daily business and interested bystanders were treated to a free show when the charge detonated lifting a column of water into the air.

NEW DESTROYER LAUNCHED

The newest Arleigh Burke class destroyer USS ROOSEVELT DDG-80 was launched from Ingalls Pascagoula, Miss, shipyard on 10 January 1999.

The ship is named in honour of Franklin Delano Roosevelt the 32nd President of the United States. ROOSEVELT is a Flt at IIA Arleigh Burke class destroyer and differs from early Arleigh Burkes by having a helicopter hangar.

ADELAIDE WINS GLOUCESTER CUP

The Maritime Commander, RADM Chris Ritchie announced the winners of the 1998 Fleet Awards.

The Gloucester Cup for overall efficiency went to HMAS ADELAIDE. Runner up was HMAS PERTH.

HMAS ANZAC took the Otranto Shield for gunnery while PERTH won the VOYAGER Trophy for anti submarine warfare.

The EW Proficiency Shield went to HMAS SYDNEY while the AIO Shield was awarded to CANBERRA. SYDNEY was the runner up in this category.

The combat systems proficiency shield went to BRISBANE while the COMMODORE Wardle Cup for outstanding communications went to ADELAIDE with BRISBANE second.

The Wormald Shield for NBCD skills went to SYDNEY while MELBOURNE won the Australia Cup for marine engineering prowess.

The supply excellence award went to HOBART while the Collins Trophy for embarked flight safety and efficiency was won by MELBOURNE

HMAS ONSLOW won the award for submarine fighting efficiency.

The prestigious Kelly Shield for overall efficiency for a minor warfare vessel went to the patrol boat GLADSTONE.

The Kelly Shield for overall efficiency in mine-counter-measures went to AUSCDT One.

HMAS LABUAN took out the landing craft proficiency shield.

The NQEA Award for excellence in patrol boat engineering went to HMAS WOLLONGONG.

The survey launch MERMAID won the hydrographic excellence shield while the McNicol Trophy for air squadron safety and efficiency was award to HS 816 Squadron.

There were three Silver Platter awards for outstanding catering. The winner in the major ships category went to HOBART with BRISBANE the runner up.

Patrol boat LAUNCESTON's food won the minor units class while OTAMA had the best food in the submarine class.



DDG-80 USS ROOSEVELT is launched January 10 1999. (Ingalls).



USS HARRY S. TRUMAN conducting a high speed turn during builders trials.

RN PAYS OFF FIRST TYPE 22 BATCH 2

The RN has announced the early paying off of the Type 22 Batch 2 frigate HMS LONDON. After 12 years of service, LONDON is due to go for disposal in the next six months as part of the RN's restructuring from the Strategic Defence Review.

The fourth warship this century to bear the name, LONDON has had a distinguished career. She was the flagship of the British naval task group during the Gulf War of 1991 and played her part in the Adriatic, enforcing the arms embargo against states of the former Yugoslavia. In recognition of her work in supporting humanitarian aid, LONDON was awarded the Wilkinson Sword of Peace for 1993 during a visit to Durres, Albania. More recently, she has returned from a high profile deployment to the Black Sea where she participated in a major sea exercise with warships from the Federation of Russian States, Ukraine and Bulgaria, as well as paying good will visits to several ports in the area.

Speculation as to who may wish to purchase this ship is mounting. Chile was reported to be very interested in the ships sale but given the current diplomatic climate between the two countries this may be

premature. Another customer could include Brazil who already operate four ex-RN Type 22 Batch 1 frigates.

It is expected that LONDON's sister ship batch will follow in due course. These six ships are still relatively new with LONDON receiving a year long refit in 1995. Perhaps the RNZN should be considering two of these ships as a cheaper alternative to their Anzac's three and four.

WORK TO START ON NEW RN AIRCRAFT CARRIERS

Six major defence companies have been invited to bid on initial work on the project to develop two new large aircraft carriers for the RN.

The UK Defence Secretary, George Robertson, said "The Strategic Review set out our plans to replace our existing aircraft carriers from 2012 with two larger new generation carriers, each capable of operating up to 50 aircraft."

"The new carriers will be acquired through smart procurement methods, beginning with the assessment phase. The companies will be given the freedom to use all the latest technology on their designs and innovative ideas will be encouraged

as a way of cutting costs and improving operational effectiveness".

FIRST SUPER HORNET SQUADRON

The USN's first Super Hornet squadron - VFA-122 - was established at Naval Air Station Lemoore, California, on Jan. 15. The newly formed squadron is a Fleet Readiness Squadron responsible for aircrew and maintenance training in the Navy's newest tactical aircraft.

The new squadron currently consists of about 60 personnel but is expected to grow to more than 500 over the next several years.

"Our mission is to train Super Hornet aviators and maintainers to project power from the sea, to put fused ordnance on target, the first pass, on time, day or night, anywhere," explained Commander Mark Fox. Fox is the first commanding officer of VFA-122. "There is an enormous amount of very detailed work that must be done to prepare for this airplane to go to sea and to operate as part of the fleet."

"Our next major milestone is in June of 2000 when we say we are ready to train and the first class starts flying," says Fox. "We intend to make this training system the very best we can."

Fox says the first class will graduate from VFA-122 in the early part of 2001. Graduates are destined for the first fleet squadron of operational Super Hornets which is slated to be a transitioned F-14 Tomcat squadron on the East Coast. The first Super Hornet fleet deployment is scheduled for spring 2002.

USS HARRY S. TRUMAN ARRIVES

Recently the USN accepted its biggest aircraft carrier in the form of the Nimitz class USS HARRY S. TRUMAN.

TRUMAN received an official welcome into the fleet by commander in chief President Bill Clinton, Secretary of Defense William Cohen and Secretary of the Navy, John Dalton among others.

President Clinton remarked that the ship was an endearing way to remember the country's 33rd President.

A reception held in the ship's hangar bay after the commissioning ceremony included a mock-up of a cuboose used by President Truman in his famous "whistle-stop" campaign of 1948, a ceremonial quarterdeck, and a Truman look-alike, who milled through the crowds, shaking hands and posing for photographs.

Construction of the ship began in April 1989 with the naming and launching taking place in September 1996. Acceptance trials took place in May 1998 with the ship finally commissioned on July 25, 1998.

Like many smaller ships built today the TRUMAN was built using modular techniques with 190 making up the ship.

Its height reaches 20 stories above the waterline. It's 1,096 feet or 365 metres long (almost as long as the Empire State Building is tall). The flight deck area covers 4.5 acres. Her draft measures +/- 37 feet or 12.3 metres with water displacement around 97,000 tons.

Like all the Nimitz class carriers, TRUMAN's top speed exceeds 30 knots which can be maintained indefinitely. The ships predicted lifespan is 50 years. She has four catapults for her aircraft which number around 80-90. Her four arresting wires are capable of bringing an aircraft travelling over 180 knots to a stop in less than 130 metres.

TRUMAN's power plant consists of two nuclear reactors which are capable of 20 years service without refuelling. Her four bronze propellers are 7 metres across and weigh around 33 tons each.

TRUMAN will be homeported in Norfolk, Va., and is scheduled to make its first deployment in late 2000.

PHALANX UPGRADE

Raytheon Missiles Systems Company has revealed plans for the upgrade of the Block 1B Phalanx CIWS. Plans call for the replacement of the 20 mm gun and ammunition magazine with an 11 cell RAM (Rolling Airframe Missile) launcher. RAM has a range of approximately 4 km and uses a RF receiver to hone in on an attacking missile radar before switching to an IR seeker for the final phase of the interception. Replacing the 20 mm gun system means that the Phalanx can engage targets at nearly three times the range as well as defend against multiple missile attacks simultaneously. The modification uses the existing Block 1B mount and console and reduces its all up weight by 400 kg. Ship board trials are expected by 2000.

PATROL BOATS NEW LEASE OF LIFE

The Royal Australian Navy's 15 patrol boats are to get new engines

and gearboxes and new 'seaboats' as part of the program to extend their operational lives by eight years.

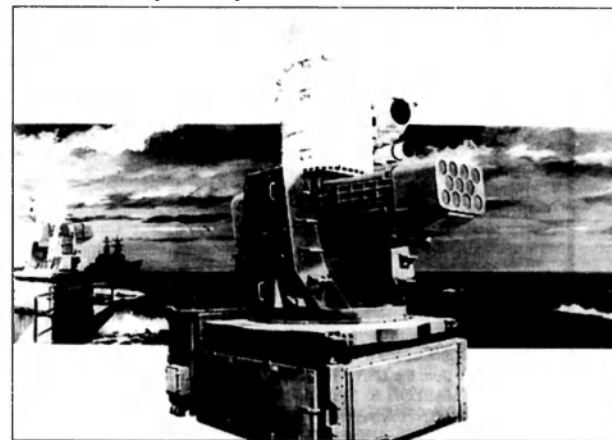
The hulls of some of the craft will be repaired. This may include extensive replacement of hull plating in some cases. Broad details of the program have been released by staff of the patrol boats' "life of type extension" (LOTE) team.

Last November the Federal Government approved Defence's proposal to extend the lives of the 15 boats by eight years and beyond their present end-of-service lives ranging from the year 2000 to 2004. A decision on what will eventually replace the boats has been deferred until around 2003.

"This decision recognises the Government directed focus for the patrol forces towards peacetime tasking and helps ensure that scarce Defence funding is directed to higher priority combat related capabilities," the LOTE team said.

The LOTE will be directed at maintaining the present level of capability of the boats and ensuring they are able to continue operations for the additional eight years. The refits will not incorporate capability enhancements, except where these are necessary from a safety perspective or where improvements flow from necessary replacement of unsupportable systems or equipment with their modern equivalent.

While there are a number of issues still to be resolved, including decisions on whether a medium



Raytheon Missiles Systems new RAM modified Phalanx.



HMAS BENDIGO at Garden Island. All 15 Fremantle class Patrol boats are to receive an upgrade package as an interim measure until a replacement can be found.

The director of the project, Mr Sam Yamunurajan said the first step in the program was for the appointment of a project management team which will be supplemented by external consultants.

That team will define the work package and assemble the documents needed to call tenders for a contractor to carry out the actual work.

KALKARA

HMAS NEWCASTLE has become the first Australian warship to fire at the RAN's new target towing drone the Kalkara - and it hit the target first go.

The successful target exercise was executed 30 kilometres off Jervis Bay in January. Controllers launched a Kalkara towing a TRX 17 target from the Jervis Bay airfield.

The ships company NEWCASTLE tracked the devices and launched an SMI missile from its pivoting bow launcher. The missile tracked to its target and destroyed the TRX 17. Kalkara then deployed its parachute and floated to the sea where it was recovered for re-use.

Benefits of the recently acquired Kalkara is that it does not need a runway, as does its predecessor, the Jindivik, to launch. By coincidence it was NEWCASTLE which fired on the last of the JINDIVIK flights.

calibre gun is necessary for peacetime tasking, and therefore whether the 40/60 gun mounting should be retained, replaced or removed, the LOTE will encompass the following principal areas:

- Systems – Electrical rewiring and renewal of switchgear, install reverse osmosis units, replace the windlass and air compressors, refurbish the galley, install new H2S and Freon alarm system, replace the internal communications and SRE systems and replace the gyro system.
- Boat and boat handling – Replace the seaboot with a new craft and replace the handling system for it.
- Hull – Repair/replacement of hull structure necessary to achieve an additional eight year life.
- Propulsion – Replacement of the main engines and gearboxes.

News in Brief

- The USN has paid off its last nuclear powered cruiser, USS CALIFORNIA. The high cost associated with refuelling the reactor and the non-MK-41 VLS has led to all CGNs paying off early.
- Morocco has announced it is purchasing two Floreal class frigates from France. The first is expected to be completed by 2000 and the second six months later.
- Problems have arisen with Greece's decision to purchase four Kidd class DDGs from the USN. Talks are in limbo with the four ships still on the market.
- Thailand has taken delivery of its second Knox class frigate after extensive modifications in the US.
- The Black Sea Fleet has recently paid off two of its larger units, the cruiser AZOV and the replenishment ship BREZINA. Both have been stripped of all weapons after being moored for two years. However, they still fly a Russian Navy flag so as the crew can keep receiving their pay.
- Turkey has announced it is buying two more FFG-07 class FFGs from the USN. The ships are USS REID and USS MARLON S. TISDALE. Egypt has also announced it is buying two more FFG-07 class frigates.
- The Turkish Navy has accepted its third Modified MEKO 200 class frigate.
- The Hellenic Navy has received its fourth HYDRA class frigate (essentially a MEKO 200). Due to an innovative building program total building time has been reduced to three years with fitting out in 18 months.
- Mexico has announced it has commissioned two Knox class frigates and has a third on order and planning a fourth.
- The second Seawolf class SSN, USS CONNECTICUT has joined the USN. Speculation persists as to the class's top speed with one source quoting a maximum speed of 44 kts and a quiet speed of 20 kts.
- South Korea has launched its third 3855 tonne Okpo class FFG.
- The Italian Navy is removing the bow doors on its SAN GIORGIO class LPDs as it feels over the beach amphibious warfare for large ships is no longer practical. Plans also call for the removal of the class's 76 mm gun and LCVP davits in favour of more helicopter spots.

Observations

From Geoffrey Evans

Questions Awaiting Answers

In a contribution to "Maritime Power in the 20th Century – The Australian Experience" Commodore Jack McCaffrie, a serving naval officer involved with forward planning, makes a number of observations concerning Australia's present maritime security arrangements and poses a series of questions relevant to future security. The writer believes issues raised by Commodore McCaffrie warrant more attention than they appear to have received so far – especially in the public arena.

Jack McCaffrie very properly raises the most important issue first – the direction of the country's national security policies as determined by the Federal Government. Referring briefly to the past-dependence firstly on Britain then on the United States followed by a brief dalliance with continental defence ("fortress Australia") to the present emphasis placed on engagement with countries in Australia's geographical region – McCaffrie sees the present policy as a continuing process despite many unknown facts and uncertainties.

Given the essentially maritime nature of the region the Commodore queries whether past policies have really been maritime orientated. Stating that overall defence spending has favoured the Army despite Navy and RAAF receiving the largest share of capital expenditure, he points to the demise of fixed wing naval aviation and consequential vulnerability of surface ships, and to the comparatively recent attention of the RAAF to maritime operations other than maritime patrol aircraft. The writer suggests the failure of successive Australian governments to support a viable Australian-owned shipping industry could be added to the list.

Commodore McCaffrie believes that events in the region, not least an increase in seaborne trade as major countries such as India and China grow in industrial strength, will cause maritime power to remain significant but not necessarily in the form its application has taken in the past.

He suggests possible options for the future structure of the RAN:

- As a navy free to operate throughout the region, with the intention of influencing strategy and able to engage in intensive conflict.
- A navy with limited reach and "more at home in our northern approaches than in the South China Sea".
- As a coastal protection force.

Commodore McCaffrie refers in some detail to deficiencies in the present and planned warfighting capability of the RAN's principal surface combat ships, with particular attention given to area air defence inadequacy; among other things this limits the RAN's ability to integrate with the USN. The Commodore sees the America-Australia relationship continuing but perhaps in a lesser degree as American power in the region contracts and if Australia takes advantage of her industrial capacity to become less dependant on a major ally (his reference to RAN shortcomings would seem to place the present navy somewhere between the first two options mentioned above – G.E.)

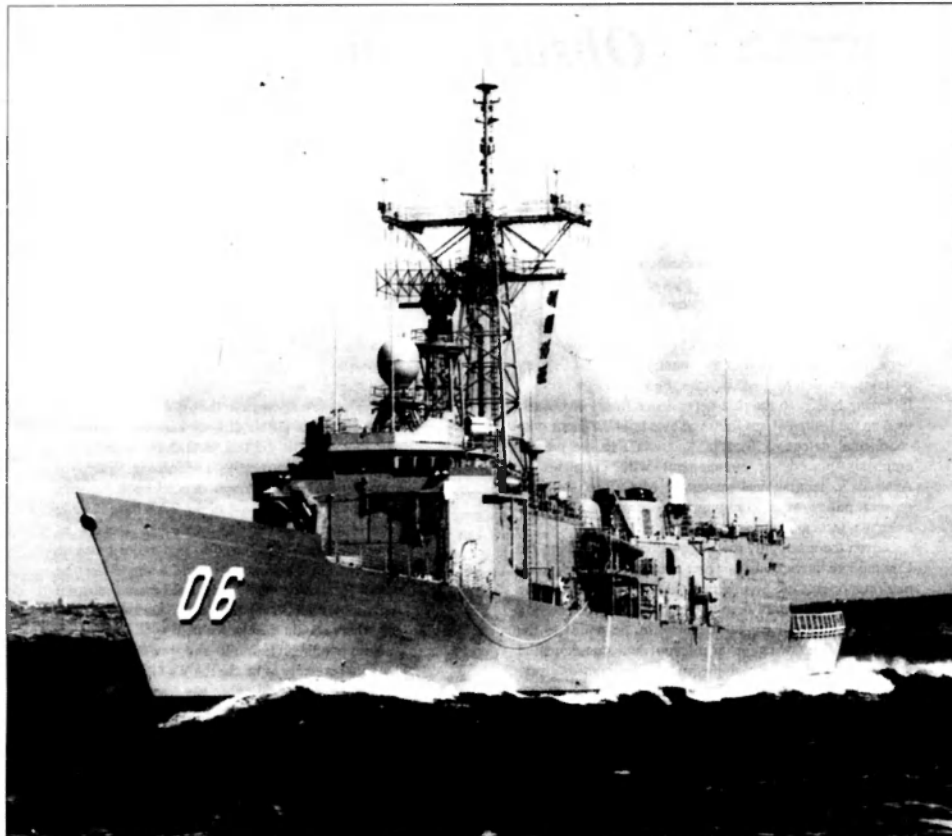
Reference is also made to other weakness in Australia's ability to exercise maritime power or to influence events:

- Nominally a two-ocean navy but lacking adequate afloat replenishment support to enable two forces to engage in sustained operations simultaneously.
- Questionable ability to protect modern 24 + knot merchant ships with escorts not much faster than the Merchantmen.
- Mining: Insufficient means to keep open other than a handful of Australia's more than 60 trading ports in an emergency.
- Amphibious capability: a recognized ADF need requiring close Navy and Army co-operation, not always achieved. Should the ADF be looking at commercially available 50 – 60 knot craft, possibly with helicopter or V/STOL aircraft facilities?
- Infrastructure: currently undergoing intensive examination, combat forces depend upon logistics support which, in the case of the RAN have already been reduced. Should the two-ocean concept be revisited, asks McCaffrie: Can two major bases be afforded? On which coast should a single fleet be based? Would the West Coast need more industrial support? Forward support bases – are they needed and where should they be located?
- People: finding, training and retaining skilled operators is likely to be the RAN's biggest problem in the future. "Should we examine lateral recruitment as a source of people at a variety of levels? Should we employ people more on a contract basis, with options of extension? If people are becoming less attracted to whole careers with one employer, how are we to grow our future leaders?" Writes the Commodore.

An important issue raised by McCaffrie – and certainly relevant to Australia – concerns the extension of territorial and sovereign rights, linked to an increasing demand for maritime resources often resulting in a scarcity of the resource. Should navies perform a policing function or is this a task for civil coastguard type regulating authorities. Commodore McCaffrie believes the RAN does have a peacetime task "one which contributes to the maintenance of national interest and sovereignty and which has every chance of extending into the future". (It is worth noting the Navy League has argued for years that policing the country's air space and territorial seas is a proper function of the ADF in peacetime just as it would be in war or an emergency – GE.)

One notable omission from the McCaffrie treatise is reference to nuclear weaponry of any kind. Perhaps this is due to a belief by people in their right senses that a war in which nuclear weapons are used is inconceivable. One wonders.

Commodore McCaffrie is on the whole optimistic about the role and future of the RAN as a major contributor to the nation's security. Many questions and issues however must be addressed and answers found. By listing a few of the Commodore's concerns in "Observations" the writer



writer hopes THE NAVY's readers will do their part to ensure that defence does not continue to languish in the public's consciousness.

- Edited by David Stevens and published by Allen & Unwin.

Defence Maritime Services

Several readers were intrigued by references in the January – March issue of THE NAVY to Defence Maritime Services and photographs of a former RAN torpedo recovery vessel and a new navigation training vessel to take over the role of the former patrol boat ARDENT.

Defence Maritime Services (DMS) is a product of the 1997 Defence Efficiency Review; it is a private company owned jointly by Australian subsidiaries of the giant P&O and Serco organisations to perform functions previously undertaken by the Defence Force, for example tug boat and other harbor services. It has been reported that at the time the P&O-Serco venture to provide services was the largest contract ever awarded under the Departments commercial support program.

Navy has loaned some vessels to DMS that are now manned by civilians as are company-owned craft. DMS has specific obligations to the Defence Department but can offer its services to other potential users.

In the case of the new navigation training vessel, Navy remains responsible for the training and to that extent it can be a "mixed crew" vessel when personnel are under instruction. The writer understands the scheme is working satisfactorily.

WINSTON CHURCHILL

Many former members of the ASCC/NRC including the writer were saddened to learn of the loss of the WINSTON CHURCHILL and three members of her crew while taking part in the Sydney to Hobart yacht race.

WINSTON CHURCHILL was chartered from Mr. Graham Warner, a well-known businessman and yachtsman, by the Victorian Division of the Navy League in 1973 at peppercorn rental (\$1 pa.) with the object of providing sail training facilities for NRC cadets.

The NRC Training Officer (LDCR Ray Applebee), an experienced yachtsman was appointed as skipper of the 52 foot auxiliary cutter which had been on charter in the South Pacific and required extensive repairs and maintenance work; this was carried out by the skipper and a small "permanent" cadet crew which had been appointed to assist with the training of less experienced cadets. WINSTON CHURCHILL was based at Williamstown and became a familiar sight on Port Phillip Bay for the next two years, even venturing to Hobart with her young crew on at least one occasion.

From time to time WINSTON CHURCHILL was used "for Navy League purposes" and the writer, who happened to be President of the Division at the time, recalls that on one occasion he had on board the then Federal Treasurer Frank Crean and his wife Mary; the editor of *THE AGE*, Graham Perkin; and the newly appointed NOIC Victoria, Commodore Brian Murray (later to become Governor of Victoria).

As can happen on Port Phillip Bay a squall struck unexpectedly causing WINSTON CHURCHILL to heel sharply and the distinguished guests to seize any fitting that looked reasonably secure. The writer well remembers the newspaper editor urging Australia's Treasurer to take care lest he disappear overboard and the Treasurer's response "I expect you wish I would – you could really have something worthwhile to write about". All in good fun even if everybody did get wet.

The writer's successor, Alan Burrows, who took over shortly afterwards had much to contend with during the charter as Navy was naturally concerned in the early stages about the safety of its cadets; however, he and skipper Applebee coped well and two years and nearly 2000 nautical miles later all concerned bid farewell to WINSTON CHURCHILL with regret as a new owner took the yacht to a new home.

88 Editions Later

This edition of The Navy also marks the close of an era. After a record 22 years in the editorial chair, our respected editor Ross Gillett has called it a day.

Ross began writing for The Navy in the mid 1970s, usually a topical or historical piece on the RAN or an allied navy. In 1978 he took over from Dennis Trickett, after Dennis' 13 years with the magazine. Not long later The Navy took on larger format with new types of articles, a regular world news column and a growing band of contributors from around Australia.

In 1982 Ross joined the RANR as the Public Affairs Officer for the Sydney Port Division. However, within one month he had assumed the role of PAO for the RAN in Sydney, whilst still satisfying his Reserve obligations.

In the mid 1980s The Navy magazine moved to glossy paper and with it, an improved photographic reproduction for all members of the League. Colour front and later back covers followed and occasionally inside the magazine.

After the success of the RAN's 75th Anniversary in 1986 and the 1988 Bicentennial Naval Salute, Ross was appointed senior Navy PAO in Sydney providing media and PR services to both the Maritime and Support Commanders. In 1998 he became the Regional Director – Defence Public Affairs for New South Wales, initially based at Pyrmont, then moving back at Garden Island.

Always the first to admit he couldn't have managed without the help of many other Navy League members. The Navy is now in 1999, the best naval type of magazine available in Australia and is used by many of the world's reference books for information and data.

We all wish Ross the best for the future and pass on our gratitude for his numerous editing and writing achievements over the past two decades and two years. BZ

Book Reviews

THE BATTLE OF THE RIVER PLATE

By Dudley Pope
Published by Chatham
Reviewed by Ross Gillett

Now approaching 60 years since the famous naval encounter, The Battle of the River Plate is one of the world's best known sea fights. To complement the movie and various documentaries, Chatham has in 1999, republished the original book, first published in 1956 by William Kimber and Co. Ltd.

Spanning over 200 pages, this new A5 size publication is the full account of the naval events off the neutral Uruguayan port of Montevideo in December 1939. The Second World War had only been in progress for three months (since 03 September 1939) and the victory was a welcome bonus for the struggling Royal Navy.

The allied pursuit of the German Navy pocket battleship GRAF SPEE became the first major naval pursuit of the conflict, involving the three British cruisers, HM Ships AJAX, EXETER and ACHILLES (manned by the New Zealand Division of the Royal Navy) off the River Plate on 13 December 1939. Although EXETER was severely ravaged by the early gunfights, the damage sustained by GRAF SPEE forced her commanding officer, Captain Langsdorff to seek shelter in the safe port of Montevideo.

To avoid a larger British force reportedly off the port (a dis-information campaign waged by the Royal Navy), the German Captain made the historic decision to scuttle his proud ship under the watchful eyes of the world's media.

The author, in his description of the action and supported by a number of drawings and charts, drew upon actual first hand accounts of serving personnel from both sides, the result being a highly valuable account of this famous naval battle. Highly recommended.

THE VUNG TAU FERRY HMAS SYDNEY and Escort Ships (Vietnam 1965-72)

By: R. Nott and N. Payne
Reviewed by: LCDR Greg Swinden

The year 1998 was certainly a bumper year for Australian Naval histories concerning the Vietnam War. Firstly we had 'In the OCEANs Dark Embrace' by Lex McAulay which described the role of Clearance Diving Team 3. Then came 'Up Top' by Jeffrey Grey (the RAN's history as part of the Official History of Australia in South East Asian Conflicts series) and last but by no means least 'The Vung Tau Ferry.'

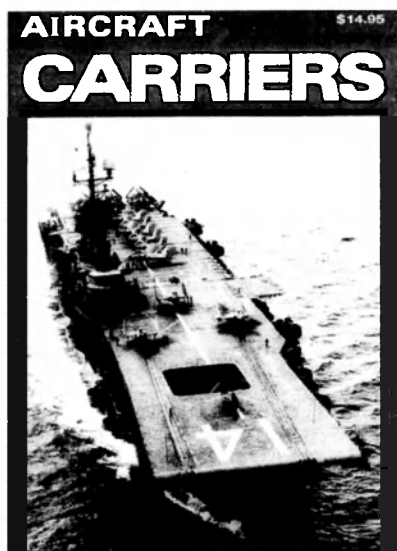
Effectively the number of books written about the RAN in the Vietnam War has doubled in the space of a year. The Vung Tau Ferry details the involvement of the Fast Troop Transport HMAS SYDNEY in her 25 voyages to South Vietnam between May 1965 and November 1972. The book also includes details on her escort ships (Frigates or Destroyers) and the voyages made by the MV (later HMAS) BOONAROO and the MV (later HMAS) JEPARIT.

This history describes the events which lead up to SYDNEY being used as Fast Troop Transport, her time in South Vietnamese waters and there are a number of interesting stories from several of her crew and soldiers who were transported to and from Vietnam. The book also goes into depth concerning the lengthy fight, by the Vietnam Logistic Support Group, to gain official recognition for the role played by SYDNEY, and her escorts, which culminated in the issue of the Vietnam Logistic and Support Medal in 1992.

This later fight for official recognition makes interesting reading and reminds me of a story told to me by one of my high school teachers who had served in SYDNEY as a Naval Reservist. He claims that several SYDNEY sailors attempted to have Australian troops ashore fire on the vessel, in order to strengthen future claims that the ship had served in a 'War Zone'. Who knows, but why in this case, let the truth spoil a good story.

This hardcover book is well illustrated with several interesting and very clear photographs and also includes a comprehensive list of all personnel who served in the RAN during Logistic Support Operations during the period 1965-72.

The Vung Tau Ferry is available for \$29.95 (which includes postage) from the author R.T. Nott of 6 Shillington Place, Wishart QLD 4122 and cheques/money orders should be made payable to R.T. Nott. The book is an excellent addition to the Navy's history of the Vietnam War and one which all keen Naval historians, and those interested in Australia's role in the Vietnam War should have on their bookshelves.



UNITED STATES AIRCRAFT CARRIERS

Part 1: 1922 to 1947
Published by: Topmill Pty Ltd
Cost: \$14.95
Reviewed by Joe Straczek

This new book from Topmill covers the first 25 years of American Aircraft Carriers, from the first ship, USS LANGLEY, through to the ultimate Midway class, the first 'super' carriers completed in the late 1940's.

One hundred and thirty five 'flat-tops' are described and illustrated in the book. These comprise sixteen classes of fleet, light fleet, escort, training and large aircraft carriers. All of the ships are extremely well illustrated, with supporting side elevation and flight deck technical drawings of every type.

The carrier information is presented via general remarks, a technical description, armament as built and updated, air group details and operational summaries covering war and peace, with a ship/class technical table, including a listing of all class hull numbers. Arranging the facts and figures in this manner allows the reader to jump between types for an easier comparison between these statelype men-o-war.

For many years, in fact since the late 1920's, America's aircraft carriers have been their most successful ships in both peace and war, in the latter providing the main spearhead during the Second World War, Korea and Vietnam. Peacetime allowed these giants of the oceans opportunities for the public of the world to tour the various ships and inspect thousands of shipborne fighters, bombers, torpedo aircraft and reconnaissance.

United States Aircraft Carriers, Part 1, 1922 to 1947 is a professionally assembled historical/technical book, describing as it does the full spectrum of ships, the purpose built and those converted from cruisers, merchant ships and paddle steamers. By far the most successful classes of carriers described in the book are the 24 strong Essex class fleet carriers and the 50 strong Casablanca class escort carriers which served across the Pacific in a multitude of roles.

A full page of ten starboard profile identification plans, 27 technical drawings, 21 colour and 88 black and white photographs provide the basis of a very well illustrated United States Aircraft Carriers 1922 to 1947. At least twelve of the photographs are full page images, the remainder half page, with all printed on high grade glossy paper. Seven pages of career tables complete this excellent book, setting out in a very readable format, the ships, their hull numbers, commissioning/decommissioning dates, a complete listing of the individual carrier designations as built and in later life, dates of later upgrades and final fates.

This book and the subsequent United States Aircraft Carriers Since 1948 (112 pages including 24 pages in colour, to be published May, 1999) will provide many hours of fascinating and enjoyable reading for all naval and carrier enthusiasts. Part 1, 1922 to 1947, an excellent read, is recommended to all readers.

GET THE BLOODY JOB DONE The Royal Australian Navy Helicopter Flight Vietnam and the 135th Assault Helicopter Company 1967-1971

By: Steve Eather
Published by: Allen & Unwin
Cost: \$22.95 (soft cover)
Reviewed by Vic Jeffery

Get The Bloody Job Done is the story of the RAN Fleet Air Arm in action during the Vietnam War. This small group of naval personnel were the hardest fought Australian aviation unit to serve in Vietnam and suffered a much higher casualty rate than the RAAF or Australian Army units.

The men of RAN HFV were all heroes. Nearly all the maintenance and support staff voluntarily flew on operations as door gunners, sharing the hazards of action with their aircrew colleagues. Ironically it was known as EMU an appropriate acronym for the Experimental Military Unit. 'Emu' became the 135th's call sign. The words 'get the bloody job done' were quoted in a congratulatory signal sent by the commander of ground troops after an action near Chi Lang and subsequently were adopted as the 135th's motto.

The book is divided into four sections covering each of the RANHFV's four contingents which saw active service between 1967-71. Supporting the book are 35 photographs, maps and tables along with seven appendices including a Roll of Honour, Unit Awards, Awards to Members of the RANHFV and RANHFV Nominal Roll. Highly recommended.

SOUTHERN OCEAN FISHING Policy Challenges for Australia

Wollongong Paper on
Maritime Study No. 7.
Edited by:
Sam Bateman and Donald R. Rothwell

This monograph examines the policy and legal implications of alleged illegal fishing in Australia's Exclusive Economic Zone adjacent to Heard and McDonald Islands in the Southern Ocean. Published in late 1998, the book is available from: Centre for Maritime Policy University of Wollongong, NSW 2522.

21st CENTURY WARSHIPS Profile No. 4 (Revised Edition) Including; RAN Support Ships Since 1911 and Defence Maritime Services

Published by: Topmill Pty Ltd
Cost: \$14.95
Reviewed by Joe Straczek

This revised edition of the earlier Profile No. 4 includes up to 20 new pages of editorial and colour photographs, with information updated to March, 1999. 21st Century Warships begins with a detailed description of all of the new RAN warship classes.

Beginning with the Anzac class frigates and Collins class submarines, the book also includes the completely modernised auxiliary transports MANOORA and KANIMBLA, the new Huon class coastal minehunters and Leeuwin class hydrographic vessels and plans for the modernisation of the Adelaide class guided missile frigates.

A separate section is devoted to Defence Maritime Services, the new organisation devoted to providing all support services to the RAN, including towing, lighters, personnel transport, training, submarine rescue and general purpose requirements.

The 100 page 21st Century Warships will become an excellent addition to the reader's naval library, and at only \$14.95, will not set the finances back too much.

FLYING STATION - A Story of Australian Naval Aviation

By:
The Australian Naval Aviation Museum, friends and volunteers
Published by: Allen & Unwin
Reviewer: Joe Straczek

FLYING STATION - A Story of Australian Naval Aviation is the story of naval aviation in Australia. Although the modern RAN Fleet Air Arm celebrated its 50th Anniversary in late 1998 the story of naval aviation in Australia goes back a lot longer.

Aircraft were carried onboard RAN units during the Great War and after. In the 1920s an attempt was made to

establish a dedicated Fleet Air Arm, but this was scuttled by the establishment of the Royal Australian Air Force. RAAF aircraft operated from HMAS ALBATROSS and the Navy's cruisers up to, and including the early stages of the Second World War.

After the war, and acting on the experiences of that conflict, the RAN acquired two aircraft carriers and the aircraft to operate from them. This fledgling force, like the RAN shortly after its formation, was soon thrown into the thick of battle with the deployment to Korea of HMAS SYDNEY. Since then the members of the Fleet Air Arm have served in the Vietnam and Gulf Wars and participated in peacekeeping and numerous humanitarian operations in Australia and overseas. Through fire, flood and cyclones the Fleet Air Arm has responded to the nations call for help.

FLYING STATION - A Story of Australian Naval Aviation is in many ways an autobiography. It is an autobiography in the sense that those who wrote the story are very much part of the story. It tells the story of the ships, squadrons, aviators and their wives. Recollections of Nowra in the 1950s make for interesting reading.

The book is written in an easy to read style, packed full of information and illustrated with a wide variety of photographs, many from personal collections. If anything is missing from this book it is an appendix detailing aircraft types, squadrons and ships. This omission is however, not of any major consequence.

FLYING STATION - A Story of Australian Naval Aviation is a book that will sit comfortably on the flight deck of any bookcase and is highly recommended for anybody interested in aviation, naval history or who just wants a good read.

BATTLESHIPS OF WORLD WAR TWO

An International Encyclopedia

By: M.J. Whitley
Published by Arms & Armour Press, London.
Distributed in Australia by New Holland Publishers, Suite 411, 14 Aquatic Drive, Frenchs Forest, NSW.
Price: \$110.00
Reviewed by: Vic Jeffery

There have been a number of fine books published on battleships over recent years, and Battleships of World War Two is another worthy addition to this list.

This 320 page encyclopaedia covers 42 classes and 135 ships, either serving or under construction during World War Two. It includes the battleships of 12 countries Argentina, Brazil, Chile, France, Great Britain, Italy, Japan, Soviet Union, Sweden, Turkey and the United States. Lavishly illustrated with 229 good quality photographs and 43 detailed line drawings, Battleships of World War Two commences with a history of the development of the battleship from 1840 up until the present. It contains a complete coverage of design, modifications and service history with full technical data, specifications, armament, armour, speed and complement for each ship.

Technically there are a few "stowaways" in this authoritative work with the British battlecruisers HOOD, RENOWN, REPULSE and the German GNEISENAU and SCHARNHORST included. Then you have the German 'pocket battleships' ADMIRAL GRAF SPEE, ADMIRAL SCHEER and LUTZOW, along Sweden's SVERIGE, DROTTNING VICTORIA and GUSTAV V included because they carried 11 inch or larger guns. For this same reason the coastal defence ships of Finland, Norway and Siam have been excluded because their main armament was smaller.

Apart from being a handy ready reference, Battleships of World War Two is a most enjoyable read. Available in Australia shortly, it is recommended reading.

* * * * *

"No Conspiracy" says Report

The Chairman of the JSFADT, Senator David MacGibbon, recently tabled the Committee's report into the loss of HMAS SYDNEY in November 1941 off the coast of Western Australia with the loss of all 645 men on board.

The debate over the fate of SYDNEY has continued over the years, and unfortunately there has been a great deal of speculation and theorising, with many alternative accounts of the events of November 1941, including that the ship was in fact sunk by a Japanese submarine said Senator MacGibbon.

The Committee has largely confirmed the commonly held account and has found no convincing evidence of third party involvement or a conspiracy on the part of the RAN, the Admiralty or the Australian Government, then and now to keep the story from the Australian public.

Interest in the loss of this proud fighting ship has grown over the years rather than diminished. The Committee received submissions from over 200 groups and individuals and held hearings in Canberra and four state capitals.

The inquiry examined the circumstances of the sinking, and has made in total 18 recommendations including:

- That the Australian Government review the operations of the Archives Act 1983 in regard to World War II material, to provide full public access to all material;
- That attempts be made to locate the grave of the unknown sailor on Christmas Island, and that if accurately located, that the remains be exhumed with a view to attempting to identify the person;
- That a search be undertaken to locate the final resting place of SYDNEY, following some further work in defining the search area. The Commonwealth Government should match public donations to the HMAS SYDNEY Foundation Trust for the purpose on a dollar for dollar basis up to a total of \$2 million;
- The establishment of a research grant scheme in the name of HMAS SYDNEY, and the construction of a memorial in Fremantle.

US Navy Traditions

Change of Command Tradition

The Change of Command Ceremony is not prescribed specifically by U.S. Navy Regulations, but rather is an honored product of the rich heritage of naval tradition. It is a custom wholly Naval, without an equivalent counterpart in the Army or Air Force. Custom has established that this ceremony be formal and impressive - designed to strengthen that respect for authority which is vital to any military organization. Parading all hands at Quarters and public reading of official orders stem from those days when movement of mail and persons was a slow process. This procedure was designated to ensure only duly authorized officers held command and that all aboard were aware of its authenticity.

The heart of the ceremony is the formal reading of official orders by the relieving officer and the officer to be relieved. Command passes upon utterance by the relieving officer, "I relieve you, Sir (or Ma'am)." The officer being relieved responds, "I stand relieved." This simple procedure is duplicated hundreds of times daily throughout the Navies of the world as each watch officer passes responsibility to his or her relief in the conduct of each ship's routine.

Why is a ship referred to as "she"?

It has always been customary to personify certain inanimate objects and attribute to them characteristics peculiar to living creatures. Thus, things without life are often spoken of as having a sex. Some objects are regarded as masculine. The sun, winter, and death are often personified in this way. Others are regarded as feminine, especially those things that are dear to us. The earth as mother Earth is regarded as the common maternal parent of all life. In languages that use gender for common nouns, boats, ships, and other vehicles almost invariably use a feminine form. Likewise, early seafarers spoke of their ships in the feminine gender for the close dependence they had on their ships for life and sustenance.

Wetting Down a Commission

In the old Navy, an officer's commission was handwritten on heavy parchment. According to some sources, the newly commissioned or promoted officer held a dinner for his shipmates and friends. During the course of the evening, the new commission was rolled into a cone, the small end folded up to form a cup. This paper cup was passed around the table for all the guests to toast the new officer. Thus, the new commission was "wetted down." Considering the importance of the document, however, this interpretation may be doubtful. Commissions in the early U.S. Navy were signed and issued by the President and were of great legal and personal value.

According to other sources, the wetting down party was once quite a rough and tumble affair. It was the custom for the officer to wear his new uniform or stripes for the first time at the wetting down. The guests would then proceed to christen the uniform, the occupant, and the commission with whatever liquid refreshment (paid for by the victim) was available. Over the years, however, Navy life has become more calm, the price of gold braid has skyrocketed and a literal christening is not usually condoned. It might even be considered downright unsociable.

Who shines the ship's bell

An old Navy tradition has it that the ship's cook shines the ship's bell and the ship's bugler shines the ship's whistle. This tradition may still be observed in some of the ships of the modern Navy. However, in normal practice, the ship's bell is maintained by a man of the ships' division charged with the upkeep of that part of the ship where the bell is located.

* * * * *

Divers Clear Portsea Bomb

Navy Clearance Divers from SYDNEY have disposed of a potentially lethal bomb in the water off Point Nepean, near Portsea.

The bomb was discovered about 300 metres off Point Nepean in 17 metres of water by members of a local dive club. A team of six divers from the Sydney based Clearance Diving Team One, led by Chief Petty Officer Mark Skelton, disposed of the shell.

Chief Skelton said the bomb was relatively safe while in the water but would become unstable and highly dangerous if unwittingly taken from the water.

"Once removed from the water, it would weep chemicals. They would crystallise and become highly sensitive to shock. If dropped or hit in any way the explosion could kill or maim.

"These divers did exactly the right thing by leaving it alone and alerting authorities, rather than trying to move it," he said.

The Navy Divers worked with the assistance of Melbourne's Army Bomb Squad in setting the charges, while water police patrolled the area.

Members of the Dolphin Research Institute assisted the team in safeguarding the dolphins in the area. It is not known how the bomb came to be off Point Nepean.

STATEMENT of POLICY

Navy League of Australia

The strategic background to Australia's security has changed in recent decades and in some respects become more uncertain. The League believes it is essential that Australia develops capability to defend itself, paying particular attention to maritime defence. Australia is, of geographical necessity, a maritime nation whose prosperity strength and safety depend to a great extent on the security of the surrounding ocean and island areas, and on seaborne trade.

The Navy League:

- Believes Australia can be defended against attack by other than a super or major maritime power and that the prime requirement of our defence is an evident ability to control the sea and air space around us and to contribute to defending essential lines of sea and air communication to our allies.
- Supports the ANZUS Treaty and the future reintegration of New Zealand as a full partner.
- Urges a close relationship with the nearer ASEAN countries, PNG and the Island States of the South Pacific.
- Advocates a defence capability which is knowledge-based with a prime consideration given to intelligence, surveillance and reconnaissance.
- Believes there must be a significant deterrent element in the Australian Defence Force (ADF) capable of powerful retaliation at considerable distances from Australia.
- Believes the ADF must have the capability to protect essential shipping at considerable distances from Australia, as well as in coastal waters.
- Supports the concept of a strong Air Force and highly mobile Army, capable of island and jungle warfare as well as the defence of Northern Australia.
- Supports the acquisition of AWACS aircraft and the update of RAAF aircraft.
- Advocates the development of amphibious forces to ensure the security of our offshore territories and to enable assistance to be provided by sea as well as by air to friendly island states in our area.
- Advocates the transfer of responsibility, and necessary resources, for Coastal Surveillance to the defence force and the development of the capability for patrol and surveillance of the ocean areas all around the Australian coast and island territories, including in the Southern Ocean.
- Advocates the acquisition of the most modern armaments and sensors to ensure that the ADF maintains some technological advantages over forces in our general area.
- Advocates measures to foster a build-up of Australian-owned shipping to ensure the carriage of essential cargoes in war.
- Advocates the development of a defence industry

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

As to the RAN, the League:

- Supports the concept of a Navy capable of effective action off both East and West coasts simultaneously and advocates a gradual build up of the Fleet to ensure that, in conjunction with the RAAF, this can be achieved against any force which could be deployed in our general area.
- Believes it is essential that the destroyer/frigate force should include ships with the capability to meet high level threats.
- Advocates the development of afloat support capability sufficient for two task forces, including supporting operations in sub-Antarctic waters.
- Advocates the acquisition at an early date of integrated air power in the fleet to ensure that ADF deployments can be fully defended and supported from the sea.
- Advocates that all Australian warships should be equipped with some form of defence against missiles.
- Advocates that in any future submarine construction program all forms of propulsion, including nuclear, be examined with a view to selecting the most advantageous operationally.
- Advocates the acquisition of an additional 2 or 3 Collins class submarines.
- Supports the development of the mine-countermeasures force and a modern hydrographic/oceanographic fleet.
- Advocates the retention in a Reserve Fleet of naval vessels of potential value in defence emergency.
- Supports the maintenance of a strong naval Reserve to help crew vessels and aircraft in reserve, or taken up for service, and for specialised tasks in time of defence emergency.
- Supports the maintenance of a strong Naval Reserve Cadet organisation.

The League:

Calls for a bipartisan political approach to national defence with a commitment to a steady long-term build-up in our national defence capability including the required industrial infrastructure.

While recognising current economic problems and budgetary constraints, believes that, given leadership by successive governments, Australia can defend itself in the longer term within acceptable financial, economic and manpower parameters.



Who said the RAN could not support a small carrier? HMS SUCCEED represents the UKA USS ROVER during RIMPAC 98 (RAN)



HMAS NEWCASTLE 'lets fly' with a
Standard SM-1MR during RIMPAC 98

