GROWTHMASTER

An entirely new concept in Life Assurance!

Now, for a level premium you get growing cover, that helps cope with inflation

INFLATION AND THE BUDGET
Both can affect the type of Life Assurance you will require in future. With inflation affecting you on one side and the new Taxation Rebate system on the other, there is a real need for a new type of Life Assurance policy. Greater Pacific Life has developed such a policy. It is called GROWTHMASTER. This specially developed policy puts the emphasis on pure life cover in a pattern suited to the needs in a typical family. At the same time it provides some protection against inflation.

GROWTHMASTER A COMPLETELY NEW CONCEPT

"Growthmaster" is a completely new concept in term assurance designed to provide protection in a pattern which corresponds to the typical cycle of family needs over the breadwinner's working life. "Growthmaster" combines a level premium with automatic GROWING COVER during the period in which you expect inflation and family responsibilities to increase your need for cover. Following this, a ten year period of level cover while your need for cover is stabilising. This is followed by reducing cover to age 65 by which age cover ceases.

KEY FEATURES OF GROWTHMASTER

1. During the period of growing cover, the sum assured increases at the end of each year by 10% of the initial sum assured.

2. The growing cover continues until the age selected by you from five alternatives - ages 35, 40, 45, 50 and 55. Thereafter cover ceases after ten years and then reduces to nil by age 65.

3. Cover is available against death only or against death or earlier total and permanent disablement.

4. Premiums are level and cease at age 60, which is five years earlier than the cessation of cover.

5. Once three years premiums have been paid the policy acquires a surrender value. This however may be small as there is no savings element in the policy.

6. The policy carries an option which enables you to convert the cover existing from time to time to a conventional assurance policy prior to age 60 with further evidence of health being required.

7. GROWTHMASTER is deal for "Key Man" Life Assurance.

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Honorary Secretary: D. P. Trickett, Esq, Box 1719, GPO Sydney, NSW, 2001
I have recently returned from visiting a number of countries and I had the pleasure of meeting their Navy Chiefs. By letter and through visits to Australia I have been in contact with senior officers of other overseas navies and also senior office bearers of organisations similar to the Navy League of Australia. The warmth of these contacts emphasised the common bond of the sea but I was also glad to note the common recognition of the continuing importance of the flexibility that is characteristic of seapower.

The seafarer has of necessity developed an ability to adapt to the changes in the elements and this undoubtedly has influenced his general outlook on life. But the seafarer is also aware of the advantages of flexibility that use of the sea gives to national strategy and military operations.

In the continuing appraisal of how to meet national interests in the face of rapidly changing attitudes and alignments flexibility is a very desirable capability. In my discussions with my overseas colleagues we came to the conclusion that navies still have a great deal to offer in protecting national interests because, amongst other things, of this essential quality.

Australia is a big country and it is not always possible for the RAN and the civilian community to make contact. In many cases the only Navy image is that presented by the Navy League or by the Naval Reserve Cadets, fostered by the Navy League. We of the “caretaker” navy are conscious of the dedication and hard work of our representatives who sponsor the case for seapower. We know that the maritime cause is in good hands.

Thank you and my best wishes.
Message from
THE
MINISTER
FOR
DEFENCE

The Honourable
W. L. MORRISON, MP

Navy Week this year comes at a time when important changes are in contemplation for the command and control of the Defence Force.

Already significant reorganisation has been achieved in the supporting defence administration. The changes recognise the increasing need for the development of a defence posture that is related to Australian needs in an international climate which calls for a greater degree of self-reliance.

The Services are being oriented to play more directly complementary roles, and to be able to operate jointly with the necessary balance of capabilities and the required unity of purpose. Emphasis in training is on an Australian Defence force operating as a single force in Australia's own national defence environment, its territories, and the surrounding sea and air space.

Nevertheless the Royal Australian Navy has a vital role to play in the present strategic environment. Not only must it sustain and exercise an adequate range of military skills and capabilities against the possibility of less favourable strategic circumstances, it is being called upon to support the civil authorities in the surveillance of a vast coastline of a relatively sparsely populated continent, and assist in the protection of the resources of a maritime zone which may in the future extend 200 miles out to sea.
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Annual Message from . . .

The Federal President of the Navy League of Australia

Commander F. G. EVANS, MBE, VRD, RANR

In last year's message to members of the League I referred to the apparent lack of public interest in national defence issues, and suggested our pre-occupation with economic problems as a major cause.

It could hardly be said that financial pressures have lessened during the last twelve months, but nevertheless I believe there has been a distinct change of attitude in the community towards defence in the period.

The commonsense of the Australian citizen is often greatly underestimated; but we do see what is going on about us, we do take note of reasoned argument on various issues, and we do form our own conclusions. There have been many violent changes in the "outside" world in the last twelve months; there has been a good deal of sensible debate about our somewhat exposed position, and the ability (rather than the willingness) of our friends to assist us in risky situations which are by no means inconceivable. All this has led to a healthy questioning of our defence capacity, and it will continue while we are in doubt.

I hope and believe the Navy League, by drawing attention to the maritime problems facing us, has played some part in re-awakening community interest in our national security. We must not slacken our efforts.
Now you can look ahead in the management of change

INTERDATA Model 8/32 Megamini™ brings you the best of two worlds

As the world's most powerful 32-bit minicomputer, the INTERDATA Model 8/32 Megamini™ brings power comparable to many mainframes, in a mini package at a mini price. It is available with up to 1 megabyte of memory. At present, its large-scale architecture offers the potential to address up to 16 megabytes of main memory.

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If you'd like to know more about any one of them, give us a call. We'd like to help you look ahead in the management of change.

Seaborne Air Platform SAP

By A. W. GRAZEBROOK
Federal Vice-President
The Navy League of Australia

SAP — Seaborne Air Platform — is a word that will be heard with increasing frequency in Australia over the next twelve months or so.

HMAS MELBOURNE (see photographs) the Navy's only carrier (or SAP) is due for retirement in the early nineteen eighties. The Government must decide soon how to ensure that Australia's Navy and merchantmen are to be protected against air, surface and submarine attack. The Government must decide whether Australia needs one or more major seaborne air platforms.

During the last few months, two overseas governments have made a number of decisions that will have a major impact upon Australia's defence problems — the equipment our potential enemies can buy and the equipment we need to defend our trade (upon which our economic prosperity depends) and our shores.

• Britain has decided to proceed with the development of a maritime Harrier — a VSTOL aircraft especially designed to work from ships.
• Spain has decided to build, in Spain, a Sea Control Ship — a nineteen-eighties version of the World War II escort (or “Woolworth”) carrier.
• The Through Deck Cruiser — the Royal Navy's Sea Control Ship — has survived the British Government's defence cuts.

The Maritime Harrier

The Harrier VSTOL aircraft (see photographs) has been in operational military service with the British Air Force, and US Marines, for several years. Both services have been delighted with its performance. However, their armament, handling equipment, and certain other features have been designed for close support of ground troops in combat. Although Harriers have landed on ships — in some cases quite small ships — on a number of occasions, the maritime version will require some modification if the optimum maritime capability is to be obtained.

The Harrier concept has a great deal to offer maritime forces:

• It is able to operate from much smaller platforms than conventional carrier aircraft.
• It can be fitted to outrange and drive off medium and short range SSGW armed surface craft.
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Page Ten

THE NAVY

Aug/Sept/Oct, 1979

THE NAVY

Aug/Sept/Oct, 1979

Page Eleven
A key feature of the SCS is its simplicity. This is a feature which has both advantages and disadvantages. The virtual elimination of armament, with the very expensive electronics that go with a modern armament, keeps the unit cost down. However, the protection provided by a ship borne armament must be provided by other warships — escorts armed with surface to air missiles (SAM) and surface to surface guided weapons (SSGW).

Although the United States developed the SCS concept and design, as yet Congress has not approved the US Navy’s request for funds to build a Sea Control Ship. It is the Spanish Navy which has become the first Navy to order a Sea Control Ship. The ship will be built in a Spanish yard — an advantage of the relatively simple design that is likely to be noted favourably by the Australian Government.

The new sea-going platform for the Royal Australian Navy is the SEA KING helicopter. The SEA KING will replace the Royal Australian Navy’s Wessex helicopters. Australia’s newest helicopter, the SEA KING, underwent its first test flights during June at the Royal Australian Navy’s air station at Nowra. The SEA KING is the first of 10, a submarine hunter which will replace the Navy’s Wessex helicopters.

### Sea Control Ship

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<td>Dimensions (feet)</td>
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<td>Propulsion</td>
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<td>Armament</td>
<td>2 20mm rapid fire guns</td>
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<tr>
<td>Aircraft</td>
<td>3 Harrier 14 Sea King</td>
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<tr>
<td>Helicopters</td>
<td>2 LAMPS ASW 9 Sea Kings</td>
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### Through Deck Cruiser

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<th>Details</th>
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<td>Dimensions (feet)</td>
<td>650 x 84 x 24</td>
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<td>Propulsion</td>
<td>4 Olympus gas turbines</td>
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<td>Gas turbines — at least two shafts</td>
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<tr>
<td>Armament</td>
<td>1 quadruple Exocet SSGW, 2 twin Sea Dart (SAM) Missiles</td>
</tr>
<tr>
<td>Aircraft</td>
<td>6 Harrier VSTOL</td>
</tr>
<tr>
<td>Helicopters</td>
<td>9 Sea Kings</td>
</tr>
</tbody>
</table>

Britain’s revolutionary jump-jet, the Hawker Siddelrey HARRIER, lands on the flight deck of the Royal Navy assault ship HMS FEARLESS.
Cockatoo Dockyard

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you're probably
not going

anywhere

HMS ARK ROYAL, an attack aircraft carrier. She is scheduled for
delivery upon completion of the
concrete dock. Reference: The
WEATHER, 19th January 1975.

Aug/Sept/Oct, 1975
It was probably as a result of their success with MOSKVA, and her sister LENINGRAD, that the Russians decided to build KIEV, the first of their 40,000 ton aircraft carriers. These big, 30 knot ships will be capable of operating 25 Freewheel VSTOL aircraft, together with 57 ASW helicopters. They will carry a heavy SAM armament, but no SSGW armament is planned.

For reasons which are not clear to observers, KIEV is expected to carry a surprisingly heavy gun armament — twenty-eight 57mm guns in two mountings on sponsons, either side of the quarter deck, and forward, at a height above sea level that is likely to make them wet in heavy seas.

In 1974, the Italian Navy announced its intention of constructing an additional helicopter cruiser, capable of operating VSTOL aircraft. This new ship will join the three helicopter cruisers (VITTORIO VENETO, ANDREA DORIA and CAIO DUILIO), already in service with the Italian Navy. Although, as yet, the Italians operate no VSTOL aircraft, they have conducted a series of deck landing trials with a Harrier. As is often to be expected, the Italian ships are designed for Mediterranean distances and sea conditions.

The Brazilian Navy's construction programme includes a new helicopter cruiser, presumably to replace her existing aircraft carrier N. A. DA CONQUISTA (which served as HMAS VENGEANCE, from 1953-54).

### An Australian Role

**For An SAP?**

HMAS MELBOURNE is a Seaborne Air Patrol (SAP) ship. It is the ships' hull, machinery and accommodation that are forcing her retirement. Her aircraft are not obsolete. On the contrary, the US Navy have this year requested the construction of more SKYHAWKS, and the SEA KING is widely regarded as the best anti-submarine helicopter in the world. Classed as a support carrier (CVS), MELBOURNE has two alternative aircraft complements. She is a ship with two interchangeable armaments that can be embarked according to the tactical role she is expected to perform.

MEBBURNOE'S Tracker aircraft and Sea King helicopters can provide a formidable anti-submarine force. Her SKYHAWKS are very effective aircraft in the anti-submarine role, as protection against hostile Long Range Maritime Patrol (LRMP) or long range SSGW control aircraft, and in support of ground troops operating in remote areas where the paucity of operational airfields suitable for land-based aircraft is a serious difficulty — a situation particularly applicable to many parts of Australia now, and, for cost and population distribution reasons, likely to obtain for the foreseeable future.

Australian trade must have protection against these forms of attack. A decision must be made as to how these forms of attack can be prevented after MELBOURNE's retirement.

It is the protection, not necessarily the ship, that must be replaced. This can be done in two ways:

1. Land-based aircraft and helicopters operating from the ship, that must be replaced.
2. VSTOL aircraft and helicopters operating from a Seaborne Air Platform.

The former method would require substantial expenditure upon submarines, but the latter is more practical. The much smaller crew would facilitate separate construction in Australia. Such ships may be deployed separately from the SCS. The fact that all three types, SCS, FFG and DDG, are US-designed would promote compatibility of systems and personnel in the ships.

Within the next twelve months, the RAN will have to make its choice. Until the RAN's choice is made, our naval problem may well be to complicate and delay the choice between two SCSs and one DDG. If the RAN does not make a choice, then the whole of South-East Asia will have the benefit of the paucity of operational airfields, which is likely to obtain for the foreseeable future.

**For The Ran — TDC or SCS?**

With the possible exception of the Russian ships, none of the types examined above are strategic strike weapons systems. They are not suited for launching opposed air strikes against targets overseas. Both the SCS, and the DDG, are capable of operating in the Atlantic. The TDC carries in one hull all the weapons necessary for defence against deep water surface, submarine attack, and air attack, with the advantages of the economy of scale. But all the eggs are in one basket — the whole unit would have to be deployed if only one type of threat were to materialise. The TDC is an expensive and complex ship that would be difficult, if not impossible, to build in Australia. The Sea Control Ships would need SSM/SSGW armed escorts (the patrol frigates, now known as FFVs).
HMAS NIRIMBA is the Royal Australian Navy Apprentice Training Establishment (RANATE) and is responsible for the training of Naval artificers in the various trades required in a modern and technical Navy. NIRIMBA was formerly an airfield and as such has had long connections with Australian aviation. Once part of a large property owned by local settlers, it was used by early aviation pioneers experimenting with power and glider flight. Part of the original airfield, outside the boundary of NIRIMBA, is still being used by the Department of Transport (ATG) for light aircraft.

In the very early years of World War II, the aerodrome was used as an alternative for RAAF Richmond and in 1942 it was used by the USAF as an operational airfield. Later in the war it was commissioned as a support airfield for the Royal Navy's Pacific Fleet. At the end of the war, the RAAF once again assumed control and the airfield became known as RAAF Schofields. During this time it was the base for the No 22 City of Sydney Squadron.

In 1951, the RAN took over the field as an Aircraft Repair Yard for the Fleet Air Arm, the School of Air Maintenance being moved here the following year. HMAS NIRIMBA was commissioned in April, 1953. It was not until July, 1956, when the RAN's Apprentice Training Scheme was introduced, that NIRIMBA was established solely as the training centre for all Naval apprentices.

Programme for Open Day, Sunday, 28 September, 1975

11.30 am
NIRIMBA open to visitors.
11.30 am-4.30 pm
Slot car racing.
Pony rides.
Merry-go-round.
Foden vintage steam truck rides.
Miniature steam train rides.

12.30 pm
Gymnastics display.
1.15 pm
RAN Band recital.
2.00 pm
RAN helicopters flying display.
Sepak Takraw - Malaysian football.
3.10 pm
Gymnastics display.
4.00 pm
Sepak Takraw — Malaysian football.
RAN helicopters flying display.
5.00 pm
Ceremonial spectacular — beat retreat.
5.30 pm
Visitors depart.

HMAG NINIRIMA — the workshop area is in the background and apprentices' accommodation block in the foreground.
How to get to:
H.M.A.S. Nirimba
B.A.H. Apprentice Training Establishment
Quakers Hill

Officer.

The apprentices spent 3\(\frac{1}{2}\) years with the Fleet putting the skills into practice. At the end of his five-year apprenticeship the basic skills and then go to sea for two years at NIRIMBA learning the basic and mechanics, advanced welding, precision soldering and other short courses.

Within each branch are sections which specialise in respective facets of the branch.

In addition to the training of RAN apprentices, NIRIMBA undertakes the training of RAN sailors as mechanics, direct-entry naval shipwrights, Papua New Guinea Defence Force apprentices, and Royal Malaysian Navy apprentices and mechanics. It also conducts advanced welding, precision soldering and other short courses.

Mechanicians achieve craft status during the adult Naval service by selection and a two-year course at NIRIMBA, at the successful completion of which they are regarded the equal of the artificers produced by apprentice training.

RAN technical sailors who entered as adult sailors will also receive their advanced technical training at NIRIMBA along similar lines to that of the mechanicians, with eventual recognition of successful completion of an apprenticeship.

Vacation training at university under-graduates, both uniformed and civilian, is becoming an increasing commitment of NIRIMBA.

Outside normal working hours, a large number of activities are available to apprentices. Theatre parties enable apprentices to visit most of the live theatres in Sydney for a small charge and cinemas for about $1. Recent films are also shown in the NIRIMBA Assembly Hall one night a week. A library, games room and television rooms are provided, as well as a canteen in which parents and friends may be entertained. Also, in each divisional block specially decorated guest rooms have been made available.

NIRIMBA has facilities for most popular sports — rugby, football, soccer, hockey, athletics, tennis, basketball, cricket and others. There are clubs for those interested in rifle and trap shooting and boxing.

NIRIMBA has teams in the normal Wednesday afternoon inter-ship competitions and teams also compete in a number of the local weekend competitions with considerable success.

A master plan to replace the existing wartime structure by brick buildings has been drawn up and is being implemented. These include new accommodation buildings and dining rooms for both the ship's company and apprentices and a sporting complex with swimming pool.

NIRIMBA offers young men of today a chance to learn a trade under the best possible conditions and with modern equipment. The opportunities for further studies at the Royal Melbourne Institute of Technology or the University of New South Wales are available. They are also offered the facilities to pursue any of a large number of activities and sports in free time. These are prospects that few other employers could offer.

The opportunities for promotion are considerable. On completion of his first two years of apprentice training, a technical sailor is promoted to the rank of Seaman. He spends a minimum of two years in that rank to complete his apprenticeship and, if he has qualified in other respects, he could become eligible for promotion to the rank of Leading Seaman at this time.

A minimum of three years is necessary in that rank before promotion to Petty Officer. After four years' service as Petty Officer, promotion to Chief Petty Officer can be considered.

The Flag Officer Commanding East Australia Area inspects the Passing Out Parade of Apprentices at HMAS NIRIMBA, June, 1975.

The Future

Outstanding apprentices have an opportunity to compete for cadetships at the RAN College, HMMS CREWSWELL, Jervis Bay, ACT. Other avenues for promotion to commissioned ranks are available to personnel after completing their apprenticeships.

Should a technical sailor decide to leave the Navy after serving his term of engagement, he will find that as a highly trained technician he will be much sought after in private industry.

**OUR COVER**

Units of the Australian Fleet at sea — in the foreground, the aircraft carrier MELBOURNE and fleet oiler SUPPLY. In the background, two guided missile destroyers of the PERTH class and a RIVER class frigate. (Department of Defence, Navy, official photograph.)

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August 1975
The Ecumenical Service for Navy Day, 1975, will be held at 10.30 am, Sunday, 5 October, in the Garden Island Dockyard Church.

We will meet to worship together as an outward demonstration of our essential unity as Christmas. Together we shall thank God for those who have given so much in securing the protection and safety of our Country, and pray that we may be responsive to his will and guidance in the years to come.

This special service has been arranged by the Senior Naval Chaplains. Monsignor F. Lyons will preach the occasional sermon and the choir will comprise brothers of the Order of St Gerard Majella. Other clergy participating in the service will include Chaplain W. J. Bates (Presbyterian) and Chaplain Walter Wheelock (C of E).

The Flag Officer Commanding East Australia Area, Rear Admiral N. E. McDonald, will read the Naval Service.

Prayer, music will be provided by the RAN East Australia Area Band.

So far as is known, the first Service to be held in this Church was in 1902, and was a thanksgiving Service for peace at the end of the South African War.

The first stained glass windows were installed in 1904. Since then the Church has been beautified by many Memorials, all of which tell their own poignant story.

For many years the Church has been used for all Church Services held in Garden Island. Protestants and Roman Catholics have come to feel that it is their Church.

An ecumenical spirit has always existed in the working relationships between serving Chaplains. But this has grown in the new atmosphere of unity and trust which we believe is God's will for His Church. It is appropriate therefore that we should together thank God for His grace and pray for His guidance in the future.

There are a number of groups which hold their Annual Church Services here — amongst them are Sydney Legacy, the Naval Association of Australia, The Naval Reserve Cadets, Sea Scouts and Sea Rangers. We hope that some from these organisations as well as interested members of the public will join with us in this Service.

Interior of the Garden Island Dockyard Church showing the memorial window honouring Australia's First Submarine Flotilla.
**PROGRAMME OF EVENTS**

**arranged for NAVY WEEK, 1975**

**SOUTH AUSTRALIA**

**Thursday, 2 October**
Naval Officers' Club Dinner

**Friday, 3 October**
Commemoration Service and Wreath-laying at State War Memorial (fly-past of 4 Skyhawk attack bombers).
Luncheon at Naval and Military Club.
Reception at Official Residence hosted by Naval Officer-in-Charge, South Australia (by invitation).

**Sunday, 5 October**
11.15 am: Commemoration Service, Saint Francis Xavier Cathedral.
7.00 pm: Memorial Service, Christ Church, North Adelaide.

**Monday, 6 October**
Naval Week Golf Tournament, Riverside Club.

**NEW SOUTH WALES**

(See also individual articles and details of events scheduled at HMAS Albatross and HMAS Nirimba)

**Sunday, 28 September,**
11.30 am-5.00 pm
Open Day HMAS NIRIMBA, Quakers Hill. (Refer story and programme of events.)

**Monday, 29 September,**
12 noon-2.00 pm
Navy Band Concert, Circular Quay.
Naval Display team, Westfield Shoppingtown, Parramatta.

**Tuesday, 30 September,**
12 noon-2.00 pm
Navy Band Concert, Hyde Park.
Naval Display team, Westfield Shoppingtown, Parramatta.

**Wednesday, 1 October,**
12 noon-2.00 pm
Navy Band Concert, Wynyard Park.
Naval Display team, Westfield Shoppingtown, Parramatta.

**Thursday, 2 October**
12.00 noon: Fly-past over Sydney by Navy Aircraft from HMAS ALBATROSS, Nowra
12.00-2.00 pm: Navy Band Concert. Martin Plaza
12.30 pm: Navy contingent changing the guard. Cenotaph. Martin Plaza.
12 noon-2.00 pm: Naval Display team, Westfield Shoppingtown, Parramatta. Navy Band recital at night.

**Friday, 3 October,**
12 noon-2.00 pm
Navy Band Concert. Westfield Shoppingtown, Parramatta.

**SATURDAY, 4 October**
AM: Naval Display team. Westfield Shoppingtown, Parramatta.
PM: Navy Week Race meeting, Randwick — Navy Band in attendance.
2.00-5.00 pm: Training Units of the Naval Reserve Cadets will be open for public inspection. Cadets will stage special displays of radio equipment, fire fighting, boat rescue. Visitors will witness training programmes in gunnery, mechanical engineering, cooking, physical training, boating and signals.

**Training Ships (shore establishment)**

ALBATROSS — The Basin, Wollongong Harbour
TOBRUK — Royal Australian Navy Drill Hall, Wharf Road, Newcastle
HAWESBURY — Gosford
CONDAMINE — Addiscombe Road, Manly Vale
VAMPIRE — Aquatic and rowing Club, Tweed Heads
VENDETTA — CMF Drill Hall, Cofts Harbour
PARRAMATTA — Ella Street, Rydalmere

**Sunday, 5 October**
10.30 am: Ecumenical Church Service, Dockyard Chapel. Garden Island (Refer separate article, visitors may park cars within the Dockyard.
1.00 pm-5.00 pm: Open Day ISLAND NAVAL DOCKYARD (see separate article and map).
Fly past over Sydney by Naval Aircraft.
Open Day, Naval Air station, HMAS ALBATROSS, NOWRA — Static displays ONLY (Refer separate article).

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**CLAY, BAYEAU**

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**Page Twenty-five**
GARDEN ISLAND NAVAL DOCKYARD
OPEN DAY — SUNDAY, 5th OCTOBER, 1975
1.00 pm-5.00 pm
(See Programme of Events)

CHAPEL / SAIL LOFT
DIVER'S HUT
MAIN WORKSHOP
CAPTAIN COOK DOCK
MAIN ENTRANCE
HATCHED AREAS ON MAP
NOT ACCESSIBLE TO PUBLIC

1.00 pm: Garden Island Open to visitors.
1.15 pm: Radio controlled model boats display.
1.30 pm: Physical training display.
1.45 pm: Sea King helicopter display.
2.00 pm: Diving and helicopter display.
2.15 pm: Physical training display.
2.30 pm: Radio controlled model boats display.
3.00 pm: Band concert (3.00-3.45 pm.)
3.15 pm: Submarine display.
3.45 pm: Sea King helicopter display.
4.15 pm: Diving and helicopter display.
4.50 pm: Beat Retreat ceremony.
5.00 pm: Visitors depart Garden Island following Beat Retreat. (Certain Workshops will be open for inspection throughout the afternoon.)

PT DISPLAYS & BAND RECITALS

HMAS ALBATROSS
Naval Air Station, Nowra
OPEN FOR PUBLIC INSPECTION ON SUNDAY AFTERNOON, 5 OCTOBER, 1975

Programme of Events
For Navy Week, 1975

20th September — Navy Week Reception, Wardroom.
30th September — Navy Golf Day.
1st October — Yacht Race to HMAS ALBATROSS.
2nd October — Navy Week Dance at White Ensign Club, Nowra.
3rd October — Navy Week Display.
4th October — OPEN DAY.
5th October — Submarine display.

The RAN Air Station at Nowra, on the NSW South Coast, was commissioned as HMAS ALBATROSS on 31 August, 1948. The airfield, built during the war for use by the RAAF, actually saw service as a Naval Air Station when taken over by the Royal Navy as a base for aircraft from aircraft carriers of the British Pacific Fleet.

With its satellite airstrip at Jervis Bay, the Air Station provided training and support facilities for the Carrier Air Groups during their brief respite in Australian waters.

Since 1948, the same support has been provided for the RAN aircraft carriers HMAS Ships SYDNEY, VENGEANCE and MELBOURNE.

HMAS SYDNEY brought the first post-war squadrons from the United Kingdom when the 20th Carrier Air Group arrived in May 1949. The aircraft were Fairey Fireflies and Hawker Sea Furies, the Sea Fury being accredited as being the fastest piston aircraft at that period.

Eighteen months later, two more squadrons forming the 21st Carrier Air Group came from the United Kingdom.

During the ensuing years, new aircraft have been added and the old aircraft relegated to training squadrons or passed from Service use.

In 1953, ALBATROSS received its first helicopters, Bristol Sycamores, used primarily for search and rescue duties and for training.

VAMPIRE jet trainers arrived in 1954, and in 1956 HMAS MELBOURNE arrived from the United Kingdom with the second generation of carrier-borne aircraft.
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Above:—
The Grumman TRACKER carrier-borne anti-submarine attack aircraft. The Royal Australian Navy has 14 of the S-2E variant and these aircraft will be on display at HMAS ALBATROSS during Open Day, 5 October.

Sea Venom all-weather fighters and Gannet turbo-prop anti-submarine aircraft. In 1963, Wessex anti-submarine helicopters were added to the list of front-line aircraft and two Westland Scout helicopters were acquired for survey work, one being permanently detached to HMAS MORESBY, a Navy survey ship. The Scout has since been replaced by the Bell 206B Kiowa helicopter.

The year 1968 saw the complete re-equipping of the carrier-borne force of the Navy. The Douglas A4G Skyhawk replaced the Sea Venom, while the Gannet bowed out to the Grumman S2E Tracker. At the same time the Wessex 31B was extensively modernised to become the Wessex 31B. These new aircraft became operational at sea in 1969, once again from HMAS MELBOURNE, which completed an extensive refit in that year.

Early in 1971 the Macchi twin-seat jet trainers arrived at HMAS ALBATROSS. Another new arrival has been the HS 748 turbo-prop aircraft, which replaced the RAN Dakotas. At present the HS 748 is used mainly for communication and logistic support, trials etc.

RAN Air Station Nowra has a complement of 205 officers, 14 warrant officers, 1560 sailors and 67 WRANS when front-line squadrons are disembarked.

Below—
The Navy's newest aircraft, the SEA KING helicopter has a maximum normal operating speed of 114 knots and can climb to a ceiling of 10,000 feet. These aircraft will be on display at HMAS ALBATROSS during Open Day.

Wessex 31B. These new aircraft became operational at sea in 1969, once again from HMAS MELBOURNE which completed an extensive refit in that year.
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The Navy League of Australia
Notice is hereby given that the Annual General Meeting will be held in the Board Room of Associated Steamships Pty Ltd, Ground Floor, 90 William Street, Melbourne, at 4.30 pm on Saturday, 6 December, 1975.

BUSINESS
1. To receive the Report of the Executive Committee and to consider matters arising therefrom.
2. To receive the financial statement for the year ended 30 June, 1975.
3. To elect Office Bearers for 1975/76: (a) Federal President, (b) Federal Vice-Presidents (2), (c) Federal Council (d) Auditors.

The Navy League of Australia
(Related to ACT)

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The Navy League of Australia
Notice is hereby given that the Annual General Meeting will be held at the Royal Melbourne Yacht Squadron, The Esplanade, St Kilda, Victoria, on Monday, 27 October, 1975 at 8.30 pm for the purpose of considering and if thought fit of passing, the following resolutions:

(a) To vary the annual contributions payable by each Division to the Federal Treasurer of the League pursuant to Article 110 hereof.
(b) To vary the annual contribution payable by each Territorial Branch to the Secretary of the Executive Committee of its Division pursuant to Article 110 hereof.
(c) To vary the annual contributions payable by each Territorial Branch to the Executive Committee for the year ended 30 June, 1975.
(d) To receive the Accounts of the Victorian Division for the year ended 30 June, 1975.
(e) To elect the Executive Committee for 1975/76.
(f) To appoint an Auditor.
(g) General Business.

The Navy League of Australia
(Victorian Division)
Notice is hereby given that the Annual General Meeting of the Victorian Division will be held at the Royal Melbourne Yacht Squadron, The Esplanade, St Kilda, Victoria, on Monday, 27 October, 1975 at 6 pm.

BUSINESS
1. To receive the report of the Executive Committee of the Victorian Division for the year ended 30 June, 1975.
2. To receive the Accounts of the Victorian Division for the year ended 30 June, 1975.
3. To elect the Executive Committee for 1975/76.

The Navy League of Australia
(Victorian Division)
Notice is hereby given that the Annual General Meeting of the League will be held at the Royal Melbourne Yacht Squadron, The Esplanade, St Kilda, Victoria, on Monday, 27 October, 1975 at 8.30 pm for the purpose of considering and if thought fit of passing, the following resolutions:

(a) To vary the annual contributions payable by each Division to the Federal Treasurer of the League pursuant to Article 110 hereof.
(b) To vary the annual contribution payable by each Territorial Branch to the Secretary of the Executive Committee of its Division pursuant to Article 110 hereof.

Notice is hereby given that the extraordinary general meeting of the League will be held at the Royal Melbourne Yacht Squadron, The Esplanade, St Kilda, Victoria, on Monday, 27 October, 1975 at 8.30 pm for the purpose of considering and if thought fit of passing, the following resolutions:

(a) To vary the annual contributions payable by each Division to the Federal Treasurer of the League pursuant to Article 110 hereof.
(b) To vary the annual contribution payable by each Territorial Branch to the Secretary of the Executive Committee of its Division pursuant to Article 110 hereof.

Please support our Advertisers who make possible the publication of this Journal.
THE NAVY

Page Thirty-two

"The Civilian Arm of the Navy"

The principal objective of the Navy League of Australia is to stress the vital importance of Sea Power to the Commonwealth of Nations and the important role played by the Royal Australian Navy.

The League supports the Navy Reserve Cadets who are administered by the Royal Australian Navy, which Service provides technical training for boys who intend to serve in the Navy or Merchant Service, also to those sea-minded boys, who do not intend to follow a sea career, but who given this knowledge will form a valuable reserve for the Naval Service. We invite you to swell our ranks and keep up to date with Maritime Affairs to help build an ever increasing weight of informed public opinion. The Navy League will then become widely known as the most important influence in the life of the Australian Nation.

The League consists of Fellows and Associates. All British subjects who support the objectives of the League are eligible for membership. Members receive copies of the League's magazine "The Navy".

To: The secretary, The Navy League of Australia. (Division).

Sir,

I am desirous of becoming a Member of the Navy League of Australia with whose objects I am in sympathy.

Name (Mr/Mrs/Miss/Rank). Please Print Clearly.

Street. Suburb.

State. Postcode.

Signature. Date.

Enclosed is a remittance for $4.20 being my first annual subscription.

AFTER COMPLETION, THIS FORM SHOULD BE DISPATCHED TO YOUR DIVISIONAL SECRETARY — NOTE LIST OF ADDRESSES ABOVE

DIVISIONS
Victoria — Box 227, Post Office, Hawthorn, 3122.
Queensland — 39 Pinnacle Street, Camp Hill, Queensland, 4152.
Tasmania — 3 Warralleigh Street, Tarcoon, 7006.
South Australia — 9 Albert Place, Camden Park, 5038.
Western Australia — Box 735, PO, Fremantle, 6160.
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Application for Membership

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From time to time members of the Navy League are asked "what do you do, what are your aims?". This happens especially when members are inviting their friends to join, and the answer is not as simple as it should be.

The "aims and objects" of the League are set out in 21 paragraphs of the Memorandum and Articles of Association of the Navy League of Australia. They are printed in full at the end of this article.

It will be seen that many of the objects are of a formal or legal nature, but the essential "working aims" so to speak, are quite straightforward and can be summarised thus:

1. To convince our fellow Australians that we are a maritime nation, and that an effective Navy and a healthy Merchant Service, are essential to Australia’s well being.

2. To actively encourage the training of sea-minded youngsters so that their knowledge of the sea is increased and their interest maintained in later life.

In the Memorandum our objects are worded in the broadest sense, and refer to the maritime interests of the British Commonwealth rather than to those of Australia alone; whilst accepting this concept, and maintaining contact with the Navy League of other countries (as we do), in practical terms we have to look to our own affairs first. How then do we achieve our objects of maritime security and cadet training?

As cadets were the main cause of the formation of the Navy League in Australia it is appropriate to mention their first, and to look briefly at the history of the League in our country.

From the nineteen twenties until shortly after World War II the League in Australia consisted of two or three State Branches and Sub-branches of the United Kingdom Navy League; these Branches operated several groups of "Navy League Cadets" totalling 300 or so in Victoria and New South Wales.

The question of Royal Australian Navy assistance for cadets arose in 1946, but the Naval Board of the day wished to deal with an Australian Navy League rather than State back which had arisen.

I have written at some length on the cadet activities of the League, partly because there is a widespread lack of appreciation of the effort put into the sea cadet movement in Australia by the Navy League; incalculable in terms of time and effort, invaluable when measured by the tens of thousands of dollars raised over the years — not least by its lady members. Also to assure members that there is a continuing need by cadets for Navy League assistance. The Navy is providing the basic framework in which the cadet movement can function, but there are facilities which for one reason or another are simply not available from Naval sources — cadet facilities in unit headquarters, sporting equipment, even boats which are nearly always in short supply. This is the area in which the Navy League can do so much at the present time and successfully fulfill our "cadet aims".

Maritime Aims: A lesser degree of responsibility for financing and administering a cadet organisation has enabled the League to place more emphasis on its wider maritime objectives. It is perhaps inevitable, due to the fact that a great deal of "homework" had to be done to enable the League to obtain an understanding of the maritime problems facing Australia (especially as they relate to the Navy) that the onus for developing this side of our activities has fallen on the Federal Council rather than on the State Divisions. This is a reversal of the roles of the Federal Council and the State Executives hitherto, as with cadets "the action" is in the States.

It is essential however for the Federation as a whole, which after all are the Navy League, to become just as involved with maritime defence issues, etc., as they have been with cadets. This is
In this Navy exercise the Naval Reserve Cadets didn't go to sea. The nearest they got was Lake Narracan, the pondage area for the Yallourn Power Station in the Latrobe Valley.

But it was a bush exercise as the task was to find two bushwalkers, missing, believed lost.

The operation was a practice run by the Moe branch of the State Emergency Service and officers from training ships, VOYAGER and LATROBE, the names given to two units of Australian Naval Reserve Cadets.

The Latrobe cadets, who come from the Latrobe Valley area, were hosts at the camp in bushland on the shores of Lake Narracan. The Voyager cadets are based at Williamstown. Most of the cadets' officers are former Navy men.

Chief Petty Officer Alan Grubb said he was concerned at the lack of support the Cadet Movement was getting from teenagers. It was one of the best youth groups in Australia and everything was supplied.

Learning how to use breathing apparatus in case of a fire, Kevin Broberg, 14, of Yallourn, carries Alan Turner, 14, of Morwell.

The CO of TS LATROBE, Yallourn, Lt Ernest Clegg and Jim Coulam, pull in the pride of the fleet, a privately owned launch. Lt Clegg served in both the RN and RAN.

WHERE IT IS

The Cadet salute from Gary Mooney, 14, of Morwell.

Left:—
Greg Oliver, 15, of Morwell, on spud peeling duty.

Below:—
Rowing the heavy whaler on Lake Narracan.

Right:—
The Cadets walking across the rope bridge they had constructed.

Below:—
The Cadets learning how to use a rifle.

Bottom Right:—
Part of the exercise was to locate injured boys and carry them out of the bush.
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Naval Reserve Cadet News

VICTORIA

NRC UNIT RECEIVES FREEDOM OF ENTRY FOR MZR UNIT

On Friday, 25 April, 1975, a most unusual honour was conferred upon TS LATROBE. The training ship was received the Freedom of Entry to the City of Moe in Gippsland, Victoria, and it is believed that this is only the second time in Australia that a Cadet Unit has been given such a distinction.

TS LATROBE was formed in 1962 and named for both its location in the Latrobe Valley and the former Australian Mine Sweeper HMAS LATROBE. Since formation, the Unit has always enjoyed a close and cordial association with the many organisations and municipal bodies in the area. There exists a particularly close relationship with the Australian Army for it is in their Drill Hall in Yallourn that the Unit has its headquarters, and holds parades and other activities.

In 1964, TS LATROBE was judged the Best Unit in Victorian Division and last year again received this award. The Freedom of Entry ceremony was held outside the Moe City Offices with His Worship the Mayor Cr J. Baillie who was an instructor with the Unit.

"Pass Through Naval Reserve Cadets with His Worship the Mayor at the Moe City Hall. The usual right and privilege by returning to the Unit was again received this award."

...impressive proceedings.

On the 6-7-8 June, the unit had the honour of leading the 1975 Anzac Day March to the Moe War Memorial and the return to the RSL Hall. The Salute for this March Past was made by Commander Mr De V. Salmon, RAN.

...leading the 1975 Anzac Day March to the Moe War Memorial and the return to the RSL Hall. The Salute for this March Past was made by Commander Mr De V. Salmon, RAN.

TASMANIA

(COMPILED BY LIEUT. J. J. LEE)

A seamanship camp was held at TS LEVEN when headquarters on the weekend 16-17 May and a similar camp was held at TS MERSEY on 6-7-8 June, 1975.

During the following promotions were announced:

Lieutenant Commander Doug Ballie, TS DERWENT, 1-5-75.
Lieutenant Commander Michael Strudwick, TS EMU, 2-5-75.

During the weekend of 14 June, HMAS PARRAMATTA visited Hobart and was open to NRO personnel. PARRAMATTA delivered a 25ft life cutter to Hobart for MZR Unit, which they had purchased from disposables. The cutter was then transferred to Devonport by rail by the kind permission of the Minister for Transport, Mr. Chisolm, MHA. TAMAR Unit held a seamanship camp at Devonport during the weekend 16-17 June.

The unit had the honour of leading the 1975 Anzac Day March to the Moe War Memorial and the return to the RSL Hall. The Salute for this March Past was made by Commander Mr De V. Salmon, RAN.

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Join the NAVAL RESERVE CADETS

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

The Naval Reserve Cadets are administered by the Australian Naval Board. The Naval Reserve Cadets provide for the spiritual, social and educational welfare of boys and to develop in them 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 held on Saturday afternoon and certain Units hold an additional parade one night a week. 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 wire and ropes, and 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, the Mercantile Marine or the Royal Australian Naval Reserve, but there is no compulsion to join these Services.

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

SENIOR OFFICERS, NAVAL RESERVE CADETS:
NEW SOUTH WALES: Staff Office Cadets, HMAS Watson, Watsons Bay, NSW, 2030.
QUEENSLAND: Staff Office Cadets, HMAS Morton, Box 1416T, GPO Brisbane, 4001.
WESTERN AUSTRALIA: Staff Office Cadets, HMAS Leeuwin, PO Box M, Fremantle, 6160.
SOUTH AUSTRALIA: Staff Office Cadets, HMAS Encounter, PO Box 117, Port Adelaide, 5015.
VICTORIA: Staff Office Cadets, HMAS Lonsdale, Rouse Street, Port Melbourne, 3207.
TASMANIA: Staff Office Cadets, HMAS Huon, Hobart, 7000.
AUSTRALIAN CAPITAL TERRITORY: Staff Office Cadets, HMAS Watson, Watsons Bay, NSW, 2030.

TO: The Senior Officer,
Naval Reserve Cadets,
I am interested in joining the Naval Reserve Cadets and would be pleased to receive further information.

NAME ________________________________
STREET ______________________________
SUBURB ______________________________
STATE OR TERRITORY __________________
POSTCODE ____________________________
PHONE No. ____________________________
AGE _________________________________
(please print clearly)

Please address your envelope to the Senior Officer in your State or Territory — see list of addresses above.

---

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Pag* Forty-two
THE NAVY
Aug/Sept/Oct, 1975

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

SENIOR OFFICERS, NAVAL RESERVE CADETS:
NEW SOUTH WALES: Staff Office Cadets, HMAS Watson, Watsons Bay, NSW, 2030.
QUEENSLAND: Staff Office Cadets, HMAS Morton, Box 1416T, GPO Brisbane, 4001.
WESTERN AUSTRALIA: Staff Office Cadets, HMAS Leeuwin, PO Box 56, Fremantle, 6160.
SOUTH AUSTRALIA: Staff Office Cadets, HMAS Encounter, PO Box 117, Port Adelaide, 5015.
VICTORIA: Staff Office Cadets, HMAS Lonsdale, Rouse Street, Port Melbourne, 3207.
TASMANIA: Staff Office Cadets, HMAS Huon, Hobart, 7000.
AUSTRALIAN CAPITAL TERRITORY: Staff Office Cadets, HMAS Watson, Watsons Bay, NSW, 2030.

TO: The Senior Officer,
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Aug/Sept/Oct, 1975
THE NAVY
ANZUK

Disbandment of ANZUK Force

On 1 January, the three-nation ANZUK force, based in Singapore, ceased to exist. Components of the joint force, drawn from the military forces of Australia, New Zealand and Britain, had earlier reverted to national command since 31 January, 1974, ending an arrangement set up on 1 November, 1971, under the Five Power Defence Arrangements for Malaysia and Singapore.

Under the terms of these Arrangements, the continuing partners declared their readiness to consult on measures to be taken to meet any form of threat, whether organised or supported, or the threat of such attack, against Malaysia or Singapore. There is no agreement in the Arrangements for the parties to station troops in the region and Australia is withdrawing its ground forces from Singapore in the latter part of 1973.

Australia continues to honour the full terms of the Five Power Arrangements, and its two squadrons of Mirage aircraft based at Butterworth, the flight of Tengah and the Australian naval units based in Singapore have remained with the agreement of both Malaysia and Singapo.

The Prime Minister has previously stated that the Mirage Squadrons will remain as long as they remain relevant to the needs of both nations and to the realities of the region.

In a statement to the House of Commons on 3 December, 1974, the British Secretary of State for Defence, Mr Roy Mason, MP, announced his government's plans to withdraw British forces in Singapore and Malaysia under the Five Power Arrangements, except for a small group which will continue to contribute to the integrated Air Defence System for both countries. The British decision did not flow from the separate decision to disband the ANZUK Joint Force structure, but followed a long period of consultation with the governments of the alliance countries, US, UK and Australia, and this period of consultation will not affect Australia's commitments and undertakings under the terms of the Five Power Defence Arrangements that the consultative provisions of the Arrangements will remain, and it is anticipated that exercises with Singaporean and Malaysian forces will continue in the future.

BRAZIL

Lynx Helicopters

Brazilian Navy has placed an order with Westland-Aerospatiale for nine Lynx helicopters, with deliveries to begin in early 1973. The Lynx is to be operated by Brazilian Navy on air-sea rescue and general duties. It is aimed to replace the Alouette III, operated mostly by the Navy and Army, in this role. The Lynx will also be operated by the Air Force on air-sea rescue missions in Brazil.

ITALY

New Orders from Italian Yard

Late last year saw the first launch of the new-generation Riva Trigoso yard of Cantieri Navali Riuniti. A 1600-ton hydrographic survey ship, the Ammiraglio Mattei, was launched and named. This ship was equipped with a helicopter landing-pad and is propelled by two Grandi-Motori-Trieste diesels. The hull is stabilised, with a particular view of providing optimum conditions in the hydrographic laboratories.

FRANCE

Minehunters

The French Navy is to provide 30 more minehunters to the Ill Bolle. As a result, five wooden-hull ocean-going sweepers, obtained from the United States as long ago as 1953, are to be converted into minehunters. The wire sweepers will be retained at the port, but will be fitted with a minehunting sonar in order to be useful in mine countermeasures waters.

The main role of the minehunters will be to locate and destroy minefields in the region. The minehunters will have both a passive and an active sonar system, as well as a magnetic anomaly detector. The minesweepers will be fitted with a new sonar system, similar to the one used in the DUBBO in the present Trinity. The new sonar system is capable of detecting and locating mines, and the minesweepers will be armed with torpedoes. The minesweepers will be fitted with a new sonar system, similar to the one used in the DUBBO in the present Trinity. The new sonar system is capable of detecting and locating mines, and the minesweepers will be armed with torpedoes. The minesweepers will be armed with torpedoes. The minesweepers will be fitted with a new sonar system, similar to the one used in the DUBBO in the present Trinity. The new sonar system is capable of detecting and locating mines, and the minesweepers will be armed with torpedoes.
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**Aug/Sep/Oct, 1975**
**THE NAVY**

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**Aug/Sep/Oct, 1975**
**THE NAVY**
firms which also produces LAS sights for the Royal Navy. The ODF has been supplied to Brooke Marine for their new FB65 building for the Oman Navy.

The advantage of an optical sight is that it functions well at ranges up to 10km, at a time when radar sensors may well have to be switched off to avoid giving away one's position. Low-flying aircraft and sea-skimmer missiles can be tracked more easily than by radar, and the ODF is, of course, totally immune to ECM (see photograph).

USA

Naval Surface Force Formed to Meet Changing Navy Needs

On 1 January, 1975, the new Naval Surface Force for both the US Atlantic and Pacific Fleets were formed.

Termed NAVSURF (LANT/PAC), the new commands encompass the old Amphibious, Cruiser-Destroyer and Service Force type commands. Each command is expected to be fully operational by July.

Consolidation is expected to bring about better utilization of resources and more effective management. The first commander of NAVSURFLANT, headquartered in Norco, is Vice Admiral Robert E. L. Adamson; the first commander of NAVSURFPAC, headquartered at the Naval Amphibious Base Coronado, is Vice Admiral Robert S. Saizer.

New insignias were designed for each command showing their respective fields of responsibility; the Atlantic and Pacific oceans. The Surface Warfare breast insignia is featured on each and the three stars on both sides of the circle represent the flag rank of the commander and the combination of the three original surface type commands that consolidated to form the new commands.

Ship Classifications to Change

From 1 July, the Navy will be making a series of important changes in its ship classifications and designations. The revisions are designed to eliminate inconsistencies in ship class names and designations and to emphasize the offensive capabilities of surface combatant ships. Generally, the new classifications (which will also involve some hull renumbering) will conform to the terminology used by other navies of the world.

Under the new system, ships now classified as Guided Missile Frigates (DLGs or the nuclear-powered DLANs) — except USS Farragut class DLGs — will become Guided Missile Cruisers (CGS or CGNs). This will affect 27 ships. In addition, the two Guided Missile Light Cruisers still active with the fleet — USS Linge Rock (CLG 4) and Oklahoma City (CLG 5) — will drop the word "Light" from their classifications and become CG 4 and CG 5.

The 10 Guided Missile Frigates of the Farragut class, which are somewhat bigger than the other DLGs, will become Guided Missile Destroyers and renumbered as follows:

Old Hull No. New Hull No.

DDG 6  Farragut  DDG 37
DDG 7  Linge Rock  DDG 38
DDG 9  McConough  DDG 39
DDG 10  Cassin Young  DDG 40
DDG 12  King  DDG 41
DDG 13  Mahan  DDG 42
DDG 14  Dahlgren  DDG 43
DDG 15  Molly Pitcher  DDG 44
DDG 16  Dewey  DDG 45
DDG 17  Truxtun  DDG 46

Escort Ships (DEs) and Gunboat Escort Ships (DEGs) will become Frigates (FFs) or Guided Missile Frigates (FFGs). In addition, the new Patrol Frigates (PFs) — the first of which will be completed about 1977 — will also be reclassified as Guided Missile Frigates (FFGs) and given new hull numbers in sequence with the FFGs already in commission USS Glover, now classified as an Escort Research Ship (AGRE 1) will become a Frigate Research Ship (AGRF 1).

Patrol Gunboats (PGs), reclassified as the Patrol Combatant, but will still be designated PGs. The new missile-firing Patrol Hydrofoils (PHIs), now under construction, will be classified as Patrol Combatants (PHIs).

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An artist's concept of the new, developed version of the Type 21 frigate design offered by Vosper Thornycroft. The above picture shows the Seawolf PSI system intercepting simultaneously a sea-skimming missile and a high-flying aircraft, while the ship engages an enemy fleet with Exocet missiles.

Vosper Thornycroft Announce
Type 21 with Seawolf

The original Type 21 frigate design was carried out by Vosper Thornycroft, in collaboration with Yarrow Shipbuilders, under a Ministry of Defence (Navy) contract, and resulted in a compact and versatile ship of 3000 tons displacement.

Eight ships were ordered, three from Vosper Thornycroft and five from Yarrow Shipbuilders; two are now in service. The first, HMS AMERICAN, has now been with the fleet for more than a year, and is just completing her most successful Part 4 and weapon evaluation trials. She has proved to be very popular with her crew, and has amply demonstrated her excellent sea keeping qualities.

The Seawolf missile system has been developed by the British Aircraft Corporation and Marconi Radar Systems Limited for the Royal Navy as a self-defence system for ships, capable of intercepting missiles and aircraft flying at speeds in excess of Mach 2. In its existing form, as intended for installation on the Royal Navy Type 22 Frigate, the system is designated GWS 25, and consists of two six-round launchers, associated tracker radars, and a back-to-back surveillance radar operating in S and L bands.

For this new version of the Type 21, Vosper Thornycroft have adopted a lightweight launcher variant designated Seawolf/PSI. This uses the same 910 tracker radar, associated data processing equipment and command guidance system as the GWS 25, but the launchers are lightweight twin-
Consists of 4.5" Mark 8 gun for shore defense areas, while aft the superstructure, anti-missile/anti-surface targets, a double headed tracker radar, while the two associated surveillance radars, carried on the foremast, provide optimum detection of high-speed sea-skimming missiles.

In the new Type 21, four twin-barrelled SeaWolf launchers are carried, arranged in two groups of two, one forward of the bridge and one aft on the deck each side of the helicopter hangar. This arrangement avoids interferences to system availability during launcher reload and provides enhanced System capability against stream targets. Each of the two groups has its own 90 ton target radar, while the two associated surveillance radars, carried on the foremast, provide the full system.

Minor changes only are required to the original Type 21 design to accommodate the new anti-missile/anti-aircraft system. This involves some additional topweight, to maintain the same stability, an increase of about two tons in the beam when the beam is envisaged. This is comparable with the development which resulted in the Royal Navy's broadbeam Leander-class frigates. No significant effects on performance or on sea keeping qualities are expected to result from this beam increase.

Structural changes are mainly concerned with incorporating the tracker radar offices and providing space for the launcher and associated facilities below decks, which involves some modification in the wardroom and captain's accommodation areas.

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The project definition studies are the first step in a two-stage acquisition process and will be funded by the Australian Government. They will provide detailed information on costs and the capabilities of the craft in meeting Australia's needs.

Mr Morrison, the Minister for Defence, expects to announce early in 1976 the successful companies and a construction contract for the new craft will probably be let to a company over a year from then. The new craft would probably be built in Australia although the possibility of constructing lead craft overseas will also be considered.

The new class will complement, and to a greater extent, the ex-HMAS SYDNEY which was included on the same tender schedule are still under consideration. A decision will be announced shortly.

PRINCESS ANNE TO LAUNCH NEW SUBMARINE

Her Royal Highness, the Princess Anne, Mrs Mark Phillips, will launch the Australian submarine, HMAS OTAMA, at Greenock, Scotland, on Wednesday, 3 December, 1975. The OTAMA is the sixth Oberon class submarine to be built in Scotland for the Royal Australian Navy. Four sister-ships, now serving in the Australian Fleet OXLEY, OTWAY, OVENS and ONSLAW were built in the same shipyard. Another sister-ship, ORION, was launched in September, 1974, and will be completed in 1977.

HMAS OTAMA will become the first ship to bear this name which is an Australian aboriginal word meaning porpoise or dolphin.

SALE OF EX-HMAS SYDNEY

The former Royal Australian Navy aircraft carrier SYDNEY has been sold to Dong Kuk Steel Mill Co Ltd of Seoul, South Korea. The successful bid was $673,516. It is a condition of sale that the SYDNEY will shortly be towed to South Korea where it will be broken up for scrap metal recovery.

The ex-HMAS SYDNEY was on the training ship, ex-HMAS ANZAC which was included on the same tender schedule are still under consideration for a three-year term.

The new class will complement, and to a greater extent, the ex-HMAS SYDNEY which was included on the same tender schedule are still under consideration. A decision will be announced shortly.

The exercise will be conducted across the full breadth of the Tasman Sea, the first occasion on which a New Zealand-sponsored exercise has been conducted in this manner.

Opposing forces will sail from each side of the Tasman Sea and carry out a series of exercises designed to test ships and aircraft in aspects of maritime warfare.

PATROL CRAFT FOR THE RAIN

Eleven Australian and overseas shipbuilders have been invited to tender for project definition studies contracts relating to the supply of a new class of patrol craft to the Royal Australian Navy.

Selection of the 11 companies resulted from an exhaustive evaluation by the Department of Defence. Responses received from 34 companies from 10 countries who had supplied proposals in response to invitations to register interest in the project.

The project definition studies are the first step in a two-stage acquisition process and will be funded by the Australian Government. They will provide detailed information on costs and the capabilities of the craft in meeting Australia's needs.

Mr Morrison, the Minister for Defence, expects to announce early in 1976 the successful companies and a construction contract for the new craft will probably be let to a company over a year from then. The new craft would probably be built in Australia although the possibility of constructing lead craft overseas will also be considered.

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Patrol Craft for the Rain

Eleven Australian and overseas shipbuilders have been invited to tender for project definition study contracts relating to the supply of a new class of patrol craft to the Royal Australian Navy.
AUSTRALIA'S NAVAL CONSTRUCTION PROGRAMME

BY A. W. GRAZEBROOK, FEDERAL VICE-PRESIDENT, THE NAVY LEAGUE

During his August 28 speech to the Parliament, the Minister for Defence (Hon W. L. Morrison) commented at length on Australian Naval Construction Projects. The League welcomes and recognises the importance of this statement.

LANDING SHIP LOGISTICS

The first in a series of new landing ships has been built 3400 ton modern transport with an over-the-beach and helicopter landing capability. The British Sir BEDFORD type has been selected as a basic design.

The British prototype, Sir LANCELOT, was completed in January 1964. After a year's trials had enabled the lessons learned from the first ship to be incorporated in the design, the second ship (and first of the production series) was laid down as the first of the Sir BEDFORD Class. After ten years' service, the type is regarded as most successful.

The design will be modified to suit Australian requirements. Although the details of the modification were not given, an artist's impression of the ship shows one significant modification. Two LCAs will be handled by crane from the well deck.

The British ships displace 3270 tons light and 5674 tons full load. Two Mistral diesel drive the ship at a maximum speed of 17 knots, or 8000nm at 15 knots. Speed of construction was a feature - five of the six British ships took less than two years to keel laying to completion.

The Australian ship will have a 'lift' of 2000 tonnes. Whilst this lift can be varied to suit circumstances, a typical lift could comprise 340 tonnes cargo or 18 helicopter landings, or a combination of both. The well deck is capable of transporting up to 19 Mistral landing craft. The acquisition of this ship is essential to the movement of tanks and heavy equipment around Australia.

The intention to build these two submarines was first announced in March 1975. Advance was expected in 1974 and 1975. Now, ORION and OTAMA will not be delivered before May and December, 1977.

OBERON DELAY

Mr Morrison alluded briefly to the delay in commissioning ORION and OTAMA, the fifth and sixth OBERON Class submarines now building for the RAN at Scott Lithgow's in Britain. The intention to build these two submarines was first announced in March 1975. Advance was expected in 1974 and 1975. Now, ORION and OTAMA will not be delivered before May and December, 1977.

PATROL CRAFT

Mr Morrison stated that he hoped to let tenders shortly for a project definition study for the patrol craft to be built for the RAN. The acquisition of this ship is essential to the movement of tanks and heavy equipment around Australia.

He also announced that he expected that he plans to make a decision regarding a particular design later this year.

This ship has been talked about since well before 1969. The Liberal-Country Party Government in 1969 had said that they would have to relieve an escort shortage by keeping escorts at sea longer through operating an underway refuelling oiler. The Government has already declared surplus the number of Ikara and Tartar missiles that can be carried on board the RAN's DDGs and DEs. By supplementing both fuel and ammunition supplies, an AOE would have ensured greater endurance for our escorts.

OMISSIONS

Conspicuous by their absence from the Minister's Statement were three items:

Seabeam Air Platform: Replacement Mine Countermeasures Craft: The Minister did not comment upon the studies that have been underway for several years regarding the future provision of Seaborne air cover.

In April, 1974, Mr Barnard told the House of Representatives that: "Further proposals will later be made for the acquisition of additional destroyers of a type to be determined at that time. Mr Morrison did not comment upon this matter."

As did the Minister give any indication of the future of the RAN's Mine Clearance Force. The Government has already declared surplus two of the Navy's six craft. In January this year, Vice-Admiral Sir Richard Peers - immediate past Chief of Naval Staff - stated that the remaining four will be worn out by 1977.

THE FUTURE

In outlining the programme introduced by himself and his predecessors, Mr Morrison expressed some good intentions and was fairly specific on a number of points. The Navy League shares the anxiety of two of Australia's foremost newspapers, expressed in their 30th August editorials, to see the Minister's good intentions translated into ships in service.

The programmes are a start. More decisions particularly regarding Seabeam Air Platform and Mine Countermeasures Craft are needed next year.
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Message from the Federal President of the Navy League of Australia, Commander Geoffrey Evans

CADETS

All Navy League members will know that the Commonwealth Government's decision to scrap the Army School Cadet Corps has been extended to include the Naval Reserve Cadets and the Air Training Corps.

Following representations to the Defence Miniser (Mr W. Morrison) by the Naval Board and the Federal Council of the Navy League, and due to the involvement of the League with the sea cadet movement for many years, the NRC has been reprieved until 30 September next year. Prior to that date we have to work out how the League can operate with little or no Government support an organisation which at the moment consists of some 2100 officers, instructors and cadets.

The League deplores the decision to abolish the Australian cadet system, which it carried out will give us the unenviable distinction of being the first country in the English speaking world to discount the value of Service-supported youth training; it is a mistake of some magnitude, and contrary to the wishes of the Australian community as tabulated in the 1974 Millar Report on the Army School Cadet Corps.

A number of schools and organisations have expressed their intention of maintaining a cadet system based on military practices. This will be extremely difficult if the Services are not allowed to provide material support.

The Federal Opposition has stated its intention of reinstating a cadet system at such time it gains office. The problems associated with the creation or destruction of a cadet organisation whenever a Government changes will be obvious to anyone with even the slightest knowledge of cadet training and the continuity of effort it requires.

The League advocates, and has made its views known to those nation of alternative methods of cadet administration. Cost related to "military value" is said to be the reason for abolishing our cadet organisations. New Zealand with a quarter of our population and the same proportion of cadets, manages to run its cadet system at one-twentieth the cost of our own. Clearly there is scope for investigation.

Whilst urging the Government to reconsider its decision on cadets generally, we must nevertheless prepare ourselves to accept responsibility for sea cadets for an indefinite period. I have no doubt the individual Units can continue to function effectively if given the chance — what they will need is back-up support, and this must flow from the Federal Council, the State Executives, Local Committees, and every League member.

The Navy League is faced with a formidable task, but we must tackle it, and for the sake of the sea cadets of today and tomorrow we have to succeed.

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Join the NAVAL RESERVE CADETS

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

The Naval Reserve Cadets are administered by the Australian Naval Board. The Naval Reserve Cadets provide for the spiritual, social and educational welfare of boys and to develop in them 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 held on Saturday afternoon and certain Units hold an additional parade once a week.

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 wire and ropes, general sporting activities and other relevant 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, the Merchant Marine or the Royal Australian Naval Reserve, but there is no compulsion to join these Services.

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

SENIOR OFFICERS, NAVAL RESERVE CADETS:

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

QUEENSLAND: Staff Office Cadets, HMAS Morton, Box 1418, GPO Brisbane, 4001.

WESTERN AUSTRALIA: Staff Office Cadets, HMAS Leeuwin, PO Box 55, Fremantle, 6160.

SOUTH AUSTRALIA: Staff Office Cadets, HMAS Encounter, PO Box 117, Port Adelaide, 5013.

VICTORIA: Staff Office Cadets, HMAS Lonsdale, Rouse Street, Port Melbourne, 3207.

TASMANIA: Staff Office Cadets, HMAS Huon, Hobart, 7000.

AUSTRALIAN CAPITAL TERRITORY: Staff Office Cadets, HMAS Watson, Watsons Bay, NSW, 2030.

TO: The Senior Officer, Naval Reserve Cadets, I am interested in joining the Naval Reserve Cadets and would be pleased to receive further information.

NAME ____________________________

STREET ____________________________
SUBURB ____________________________

STATE OR TERRITORY: ____________________________ POSTCODE: ____________________________

PHONE No. ____________________________ AGE AND DATE OF BIRTH: ____________________________

(Please Print Clearly)

Please address your envelope to the Senior Officer, Naval Reserve Cadets, in your State or Territory — see list of addresses above.

Nov/Dec/Jan, 1975-76 THE NAVY PageThirty
USS WASHBURN (LKA 108), an Amphibious Cargo ship of the Rankin class, she was commissioned on 17 May, 1945.

**United States Amphibious Forces**

**THIRTY YEARS LATER**

With the war's end in 1945, the USN found itself with almost 1500 large amphibious vessels (LSTs and larger), and an equal number of medium landing ships (LSMs), and infantry landing craft (LCIs).

The year saw hundreds of these vessels scrapped and/or sunk, with the remaining ships being placed in mothballs. However, these opinions changed during the Korean War, when numerous amphibious landings were undertaken. One at Inchon by 70,000 American troops cut off advancing North Korean units in a most successful operation.

The first post-war built LST TALBOT COUNTY was completed in September, 1947. She and her sister ship, TALLAHATCHIE COUNTY, possessed improved cargo capacities over the war built LSTs. Following these two ships, came fifteen Terrebonne Parish class and seven Suffolk County class LSTs. Displacing 5800 tons, the Terrebonne class carried six 3 inch guns and 395 troops. The Suffolk County class, which appeared in 1957, were the first LSTs to be air conditioned. Speed was increased to 17 knots and 600 troops were carried.

Experiments in landing troops from helicopters were carried out during this period resulting in the conversion of the Anzio Class Escort Carrier, THETIS BAY, to an Assault Helicopter Transport, for use by marines in amphibious operations, being authorised in 1955. Conversion of another Escort Carrier, THETIS BAY served only to 1964.

The TULARE, an Amphibious Cargo Ship (LKA), with the PAUL REVERE and FRANCIS MARION, Amphibious Transports (LPA), joined the force in 1956, 1958 and 1961 respectively. These ships were acquired by the USN during construction and converted from Mariner design merchant ships. Also joining the amphibious forces during this period were the eight...

By ROSS GILLETT
ship, Thomaston Class Dock Landing Ships (LSD). Each of these vessels can reach 22 knots and carry twenty-one LCM 6 or three LCU, and six LCM landing craft. Crewed by 400 men, the Thomaston class ships carry 340 troops and were originally equipped with sixteen (later twelve), 3 inch anti-aircraft guns.

Heavy Lift amphibious ships were placed in service 1959-61, when the Essex Class Aircraft Carriers, BOXER, PRINCETON and VALLEY FORGE were relegated to the LPH role. Formerly classed as Attack Carriers and Anti-submarine Carriers, the three Essex Class were modified to carry 30 helicopters and berth 1500 troops. All built during 1945-46, the carriers possessed a speed of 33 knots, this being one of their main advantages over the other ships.

Developed from the LSD, the first Amphibious Transport Dock (LPD) RALEIGH was commissioned in September, 1962. This ship was followed by another fourteen similar vessels by July, 1971. Improvements over the LSD included a more balanced load of assault troops and equipment, vehicle garages and helicopter deck, and later a telescopic hanger. Up to six UH-46 helicopters can be carried alongside a wharf. The ships were armed with four, 3 inch anti-aircraft guns.

As in the case of the LKAs over-ordered and outdated LSDs were paid off to the "mothball" fleet. Con-structed programmes were called for, and five Anchorage Class LSDs, capable of over 20 knots, were commissioned 1969 to 1972. These ships are designed to transport pre-loaded heavy landing craft to a designated area and discharge them rapidly. Over 370 troops are berthed on board, while the crew numbers 397 men. Construction cost of each ship was approximately $11.5m.

The modern Newport Class LSTs began service in June, 1969. This class, numbering twenty ships, is considerably larger than their war-built predecessors. Their speed of 20 knots did not allow the bow door of the earlier LST classes. As a result of this, a 112 foot ramp is extended over the bow to allow loading and unloading of the tanks and other equipment. A stern gate is also provided to unload amphibious tractors into the water, or to off-load vehicles alongside a wharf. The ships are armed with four, 3 inch anti-aircraft guns.

The Tank Landing Ship (LST) BRISTOL COUNTY. Ships of this class were the first to depart from the bow-door design developed by the British earlier in World War II.

LPDs lift capacity includes 900 combat equipped troops with tanks, artillery and vehicles. The two JIMA Amphibious Assault Ship (LPH), emerged in 1961, and introduced with here a vessel capable of carrying over 2000 troops at a sustained speed of 20 knots. Usually 32 helicopters (28 troop carrying), are embarked, to lift the marines and their equipment ashore. The helicopters are stored and serviced in the hangar deck, which is connected to the flight deck by two large elevators.

The class of seven ships has demonstrated its versatility with GUAM operating as an interim Sea Control Ship, and the INCHON undertaking mine clearing operations in Vietnam and Egypt. Each LPH is defensively armed with 3 inch guns and Sea Sparrow point defence missiles. Only the INCHON, the last ship completed, is fitted out to carry landing craft, two LCVPs being carried on davits.

With the older LKAs being reduced to reserve, five new construction ships were ordered in 1965 and 1966. These ships, designated as the Charleston Class, cost approximately $11m per ship. They carry over 220 troops and 18 LCM landing craft for the amphibious operations (see photograph of USS ST LOUIS). Although no aircraft are embarked, a helicopter deck is located on the stern. The class displace 20,700 tons and are armed with eight, 3 inch anti-aircraft guns.

As in the case of the LKAs over-ordered and outdated LSDs were paid off to the "mothball" fleet. Con-
Minister for Defence has seen fit to
show the curious name of St Vincent
with the exploits of a naval officer
interesting and well told, is the des-
Particular appeal, more than th^ form
the Third World.
the Navy of Soviet Russia in the last
time when one considers the rise of
Navy in the latter year, which are
early as the first decade of the 20th
but they also give us some
understanding of the degree of
which caused the mutinous
in the revolution of 1917
find such horrendous ways of dis-posing of their officers as throwing
them into the boilers... alive!
The book has an appeal not only
for its historical background but
even more for its novelty. Whist countless
novels have been set in the Navy of
of the First World War, a book dealing
with such a time of peace as the
is rare indeed.
would still recommend this book
to the father or mother looking for a
Christmas present for the teenage
son or daughter with an interest in
the Navy in particular and the sea in
general. I would also suggest to
those same fathers and mothers that
they would quite enjoy reading this
time themselves.

JANES FIGHTING SHIPS 1975/76
Edited by Captain John E. Moore,
FRGS, RN (retd). Published by
Macdonald & Co (Publishers) Ltd.
London. Reviewed by: A. W. Grazebrook

The publishing of Janes Fighting Ships
has become an annual event
reflecting the continuing world
over. This year was no exception,
with Australian radio and major
dailies stimulating our enthusiasm for
the annual publication. Some weeks
later. We were not dis-appointed. Once again, Captain John
More. RN. who has managed to compile
much new information with the
standard naval reference work.
New features this year include im-
proved type designation, a resume
of naval construction programmes,
and a dedicated presentation of the
mission and naval aircraft sections.
One can not and not only what has not many, naval
aircraft are in the service of each
navy.

The resume of new construction
programmes, though not always
consistent with the details in the
sections, does highlight the
resurgence in world naval con-
struction. Sixty-four nations appear
in the summary of major naval pro-
grames.

Consolidating the improvements
in last year's edition, national
sections applicable to our own
region have again been updated.
The iranian section includes an
elevation of the six new SPRUANCE
frigates - the type they are better
than the RAN's World War II cruisers
the first of which is due for
commissioning.
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elevation of the six new SPRUANCE
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the first of which is due for
commissioning.

On the other side of the Far
Eastern political fence, the navies of
South Korea, the Philippines and
Taiwan still show little progress in
modernisation. Virtually all signi-
ficant frigates are of World War II vintage. It is to be
regretted that the compiler of these
sections, Mr Norman Polmar, has not
accepted the standard type
classifications used by the editor
throughout the rest of the book.

As we have come to expect, Mr
Norman Polmar's US section is most
informative, not only as regards
details and photographs of ships, but
also as to the tactical role
of weapons and sensor systems.
New photographs include the first of
the SPRUANCE class "destroyers" and
the colossal nuclear powered
aircraft carrier NIMITZ. Mr Polmar is to
be congratulated on producing the
welcome US rationalisation of ship classi-
fications. This change must have
come when Mr Polmar was half way
through his annual task, and occas-
ionally return to this considerable
inconvenience.

Readers who recall the depth
of information in the Soviet sections
of 20 years ago cannot but admire the
achievement of Captain Moore in
presenting, once again, the extent
of detailed information included
this year. A resume of the building
programme highlights the fact that
the Russians are continuing their
Naval expansion, building aircraft
 carriers, cruisers, destroyers,
eorts, submarines (both fleet and
patrol), hydrofoils, MCM craft and
amphibious vessels.

The United Kingdom section in-
cludes updated particulars of the
Type 22 Escorts, the first of which
has now been laid down. Surface
to air and surface to surface missiles
provide protection against surface
and air attack. Anti-submarine capa-
Bility will be provided by two Lynx
helicopters only. The ASW torpedo
tubes have been deleted, as have the
two 40mm guns originally included
in the design.

The French section includes particulars of the planned nuclear
powered helicopter carrier, as well as their ongoing programme of
submarine and escort replacement.
their new AGOSTA type oceangoing
submarines are selling well in the
export market, with the South
Africans and Spaniards as firm
buyers.

With the increase in the number of independent
countries, the editor's job becomes annually more
complex. In this edition over 125 separate
nations are listed. This com-
parres with the 97 listed in the
1965/66 edition. When combined
with the world resurgence in naval
construction, the rapid disposal of
obsolete craft by the more mature
nations, and the rapid development
of new weapons and sensor systems,
the editor's task becomes difficult
indeed. He is to be congratulated
upon producing a book which is a
must for any naval correspondent
who hopes to achieve a qualitative
performance, and any person who
wishes to make a serious study of
military defence.

BEWARE, BEWARE THE BIGHT OF BENIN
(A novel of the British Navy in 1891)
BY PHILIP McCUTCCHAN
Arthur Barker Limited, London
Our copy supplied by Hicks Smith
and Sons Pty Ltd. Sydney. Price in
Australia $6.30.
Reviewed by: IRARA

When I originally thought about
reviewing this novel, it struck me
that it would be the ideal gift for
a young man with some interest in
naval history and particularly a
young man who was a member of the
Navel Reserve Cadets. Also, the
Minister for Defence has seen fit to
bring the Cadet system back from
the dead and I fear that Cadets will be a
thing of the past.

This is an interestingly written
novel dealing with a period of history
which is not particularly well
known. The author has a particular interest
in naval affairs generally and has
obviously done in a considerable
amount of study to ensure authen-
ticity.

The novel is set in 1891 and deals
with the exploits of a naval officer
with the curious name of St Vincent
who hopes to achieve a qualitative
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CONTRACTORS AND SUPPLIERS TO THE RAN

Season's Greetings to the Navy from...
Hydraulic Loaders for Awkward Handling Operations

By Sten Lagerman

Despite all the discussion in recent years about modernisation and mechanisation in industry, many people in the marine industries remain unaware of the increased efficiency and financial savings to be obtained from small, easy-to-operate mechanical aids — whether mounted on board ship or at the dockside.

Such equipment must be thoroughly reliable under all weather and site conditions and strong enough to perform the required lifting duty. It should also be able to handle a wide variety of loads, even where access is restricted.

These considerations apply in marine applications whether the equipment is ship or shore-based. One range of loaders now widely used for these purposes is manufactured by the Swedish company HIAB-FOCQ which has developed hydraulically-powered loaders over many years and established considerable expertise in their design.

THE EQUIPMENT

The HIAB range consists of hydraulically-powered loaders with capacities from 2 ton-metres to 15 ton-metres. In standard form, the loaders can work at boom extensions ranging between 0.5 metre and a maximum of 7.1 metre. But extra-extension booms can increase the maximum range to between 6.0 metres and 11.4 metres. All units can rotate through at least a complete circle, most through 410°.

Figure 1 shows a typical loader, the Type 950. This is rated at 9 ton-metres, with a maximum reach of 6.5 metres when fitted with a standard boom. The boom system, attached to the vertical body of the loader, consists of an inner boom joined to an outer boom which carries the hydraulically controlled extension. The two-stage telescopic extension is guided by three rollers, two above it and one below, and a sliding lug. Lateral guidance is provided by two sliding lugs on each side mounted at the end of the outer boom.

The lifting force is applied through two hydraulic cylinders, connected in parallel, mounted on the loader body. All the cylinders, including the outer-boom drive and the extension control, are double-acting (i.e., there is positive hydraulic action in both directions).

The loader is rotated about its base by means of two horizontal racks, driven by hydraulic pistons, which mesh with a gear ring attached to a kingpost. The kingpost is connected by two bearings to the loader body.

The HIAB 950 can lift 5000 kg at 1.9 metres extension or 1375 kg at 6.5 metres extension. An alternative version with a one-stage hydraulic extension has a maximum reach of 5 metres.

The variety of winches, hooks, grabs, clamps, buckets, slings, claws, jaws and other handling attachments which can be fitted to such loaders is virtually limitless in shape and configuration. The only limiting factor is the loader's carrying capacity. Thus any loader can be quickly modified to handle loads of different sizes and shapes — ranging from boxes, bags and cartons to fishing tackle, bricks, bundles of timber, palletised cargo or cubic metres of sand. For marine installations a winch is the most common accessory.

FIG 1

OUTREACHES RANGING BETWEEN 0.5 METRE AND A MAXIMUM OF 7.1 METRE, BUT EXTRA-EXTENSION BOOMS CAN INCREASE THE MAXIMUM RANGE TO BETWEEN 6.0 METRES AND 11.4 METRES. ALL UNITS CAN ROTATE THROUGH AT LEAST A COMPLETE CIRCLE, MOST THROUGH 410°.

THE SAME LORRY CAN ALSO DELIVER GOODS TO RAIL TERMINALS, BUILDING SITES OR CUSTOMERS' FACTORIES.

The HIAB 550 crane and hydraulic winch, mounted fore-and-aft in the bow, provides ample lifting capacity for markers weighing up to 1 tonne. Uses include moving pumps and ventilation apparatus aboard vessels in distress, recovering sunken cars, and launching and recovering the vessel's own rubber dinghy (Fig 4).

OTHER SHIPBOARD USES

In ports and harbours everywhere, ancillary vessels such as tugs, bunkering lighters and pilot cutters assist larger ships by fetching supplies and spare parts, thus minimising turn-round times. To fulfil this function efficiently, the workboat must carry her own handling equipment. Other vessels use loaders for buoy-laying. Fig 3 shows the 33-ton vessel TONNELEN-LEGER which lays and moves navigational markers among the East Frisian shoals off North Germany. A HIAB 550 crane and hydraulic winch, mounted fore-and-aft in the bow, provides ample lifting capacity for markers weighing up to 1 tonne.

Uses include moving pumps and ventilation apparatus aboard vessels in distress, recovering sunken cars, and launching and recovering the vessel's own rubber dinghy (Fig 4).

CARGO HANDLING

For loading and unloading all conventional types of marine cargo at high speed and low labour cost, particularly to and from smaller vessels, lorry-mounted loaders are widely used. Whatever the cargo, the ability to drive onto the quay and load directly into a ship using the shipper's own equipment — already fitted with the correct handling attachments for the product — inevitably saves time for both the shipper and the shipping company. The same lorry can also deliver goods to rail terminals, building sites or customers' factories.

Oil terminals normally have few dockside cranes because pumps and hoses move the oil. The heavy hoses themselves need moving. Fig 2 shows a HIAB loader lifting hoses aboard a tanker at Gothenburg, Sweden.

FIG 3

FIG 4

Delivering supplies to lighthouses, where cargo-handling facilities seldom exist, is another use for the shipboard loader.

THE NAVY

Nov/Dec/Jan, 1975-76

Page Twenty-one
Fishing vessels too have found mechanical loaders equipped with hydraulically powered pulley-blocks ideal for hoisting heavy trawl tackle aboard in all weather and sea conditions.

British Petroleum's new system for cleaning oil slicks first encloses the slick in a floating boom, then recovers the oil at up to 100 tonne/h with a hydraulically powered "skimmer". The latter is supplied as a packaged unit together with a HIAB 950 loader. When spillage is sighted, any suitable vessel can carry the package to the site where the skimmer is lowered and later recovered using the loader (Fig 5).

Finally, pipelines on the sea bed often need protection from anchors or fishing equipment. Using a deck-mounted HIAB 970 loader with clam-shell bucket, one such line, the outflow from a sewage plant near Stockholm, was covered with gravel from the ship's hold at more than 90 tonne/h.

Whether operating on board or from the dockside, the simple hydraulic loader is a versatile workhorse which can liberate larger, more costly mechanical-handling installations, reduce labour costs, cut handling time and, in short, handle most of the awkward, time-consuming jobs that exist on or beside the water.

**MASSIVE HOVERCRAFT TAKES A BOW**

One of the largest hovercraft yet built has made its public debut in Britain.

The fully amphibious VT 2, built by Vosper Thornycroft Ltd of Portsmouth, was on show at the Royal Navy equipment exhibition at Greenwich, London (October, 1975). The hovercraft, capable of speeds of up to 60 knots, is propelled by two giant ducted fans, each four metres in diameter — the largest ever manufactured. Each is driven by a 3400 brake hp Rolls-Royce Proteus gas turbine. The pitch of the fan blades can be varied for controlling thrust and for manoeuvring.

The craft is 30 metres long and 13.3 metres wide. It can clear 1.5 metre-high obstacles and operate over sand, mud flats, shallows or debris-strewn water.

The hovercraft can carry loads of up to 32 tonnes and has a vehicle bay measuring 21 metres long, five metres wide and three metres high.

A full width door and ramp at the bows and a 4.4 metre stern door and ramp permit through-loading.

With a full pay load ten and a half tonnes of fuel can be carried, giving a range of 300 nautical miles. Overloads can be accepted at a small sacrifice of performance.

The craft can be offered as a logistic support vessel, carrying, typically, heavy guns, light tanks and scout cars or a complete company of 130 men with their equipment and vehicles. It is also suitable as a missile-armed, fast patrol vessel.

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CHANGE OF ADDRESS

Important notice to Subscribers to "The Navy" and Fellows of the Navy
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in status or postal address. (Refer page one for address.)

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Rank

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Present address: __________________________

I will be moving from the above postal address on
(date)
New address: __________________________
(please include your postcode)

I am a "Subscriber or "Fellow of the ( ) Division of the Navy League
(" delete inapplicable words)

Signature: ______________________________

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Nov/Dec/Jan 1975-76


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**Queensland Division — Navy League of Australia**

**ANNUAL REPORT — June, 1975**

During this financial year every Branch has maintained a high level of activity in fund raising and improvements to their headquarters. This has always been the style of the Queensland Division, with emphasis on the development of local facilities with area support, to maintain a Navy orientated youth movement, rather than becoming involved in gratuitous, technical or strategic advice to the Department of Defence or the Government of the Day. The Naval defence of the nation is guided by very competent professionals.

This policy has been implemented mainly because of our geography and Branch dispersal, and after twenty-two years of great progress seems to be most appropriate for this Division. The Navy League of Australia operates throughout Australia as a public company, incorporated in April, 1966. Since then many of its commitments have changed or disappeared, leaving the first active Divisions with the basic responsibilities of support for the Navy wherever possible, the management of their properties, and assistance to “The Navy” magazine.

A Federal Council meeting was convened in Melbourne this year but as the Director of Naval Reserves and Cadets was not attending, the management of their properties, and assistance to “The Navy” magazine, the need for an annual Federal Council has long passed and if the Defence Department has any requirement to discuss it can best be handled by the appropriate agent in the Divisions.

Communications with Defence during the past year have been minimal, and the previous amicable discussions with the occasional visitor have not been held. The Queensland Division regrets this, but perhaps it indicates that local affairs are proceeding without the need for consultation. This Division has developed a useful and friendly association with the Department of Administrative Services and their prompt and generous help, first given by the now retired Chief Property Officer, Mr Frank Husham, has been constantly maintained.

The Queensland Lands Department redesignated the boundary of the South Coast lease, thus increasing the area available to TS TVALKYRIE by several hundred square metres without alteration to the rental. This Branch has carried out extensive improvements to the two-storied headquarters, and completely replaced the sewage system to cope with future Naval Reserve Cadet camps which may be held there.

Great credit is due to the President, Mr J. Spiers, Secretary Mr G. McCulchen and their supporters that these most expensive works were put in hand and completed so promptly.

The success story of the Bundaberg Branch continues and extensions to the building at the Port are completed and are in use.

A project which involves an extensive improvements to the two-storied headquarters, and completely replaced the sewage system to cope with future Naval Reserve Cadet camps which may be held there.

The success story of the Bundaberg Branch continues and extensions to the building at the Port are completed and are in use.

The Cairns Branch appears to be developing as the star of the Division. Led by Mr G. McKaigue, the President, a considerable number of local organisations have been involved in refitting MV TRITON and the ship will be operational by the end of this year.

A project which involves an overhaul of main engines and auxiliaries, slipping and painting, with volunteers working at weekends shows a degree of leadership and cooperation, but perhaps it indicates that local facilities with area support, to maintain a Navy orientated youth movement, rather than becoming involved in gratuitous, technical or strategic advice to the Department of Defence or the Government of the Day. The Naval defence of the nation is guided by very competent professionals.

**The Navy**

Nov/Dec/Jan, 1975-76
A COMPARISON OF DEFENCE SPENDING AND POPULATION RATIOS

by PHILLIP GOURLAY

Table I

<table>
<thead>
<tr>
<th>Country</th>
<th>Army</th>
<th>Navy</th>
<th>Air Force</th>
<th>All Reserves</th>
<th>% of GNP</th>
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<tbody>
<tr>
<td>USA</td>
<td>16.0</td>
<td>19.0</td>
<td>10.0</td>
<td>25.0</td>
<td>6.2</td>
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<td>USSR</td>
<td>94.8</td>
<td>25.0</td>
<td>47.4</td>
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<td>3.98</td>
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<td>CHINA</td>
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<td>5.00</td>
<td>56.0</td>
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<td>4.70</td>
<td>3.50</td>
<td>16.3</td>
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<tr>
<td>JAPAN</td>
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<td>4.70</td>
<td>3.50</td>
<td>16.3</td>
<td>3.1</td>
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<td>3.00</td>
<td>12.0</td>
<td>3.1</td>
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<td>22.0</td>
<td>12.0</td>
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<td>12.0</td>
<td>3.1</td>
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<td>0.3</td>
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<td>22.0</td>
<td>22.0</td>
<td>67.0</td>
<td>1.0</td>
</tr>
<tr>
<td>NEW ZEALAND</td>
<td>93.5</td>
<td>3.00</td>
<td>3.00</td>
<td>12.0</td>
<td>3.1</td>
</tr>
<tr>
<td>AVERAGE FOR</td>
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<td>10.2</td>
<td>10.2</td>
<td>10.2</td>
<td>1.0</td>
</tr>
<tr>
<td>ALL COUNTRIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AVERAGE FOR</td>
<td>10.2</td>
<td>10.2</td>
<td>10.2</td>
<td>10.2</td>
<td>1.0</td>
</tr>
<tr>
<td>UK &amp; USA</td>
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<td>22.0</td>
<td>22.0</td>
<td>67.0</td>
<td>1.0</td>
</tr>
<tr>
<td>AUSTRALIA</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.0</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Table I was prepared in an endeavour to compare Australia's military manpower figures with a representative sample of the armed forces of other nations. As Australia is a rich industrialised nation it would appear logical to compare it with other industrialised nations. However, as most of our neighbouring countries have underdeveloped agrarian economies a ratio of two industrialised countries to one agrarian country was decided upon as a reasonable compromise.

Six known nuclear nations were chosen (USA, USSR, UK, France, India and China) — the manpower figures for these nations will be found conservative as nuclear arms take a larger percentage of the budget for a relatively small percentage of the manpower. In other words if these nations had no nuclear capability they would have a bigger conventionally armed force for the same defence budget. Two Warsaw Pact countries (East Germany and Poland) were chosen to balance the two NATO countries (UK and France). Sweden and Switzerland were chosen as they are neutral nations. Two nations on a war footing were introduced (Syria and Israel) and these will have inflated manpower figures. Singapore, Malaysia and New Zealand were introduced as they are small countries (two large Asian nations are already included, viz. India and China) and close neighbours. Japan was introduced as another large Asian nation and because of its anti-military posture. This gives a total of sixteen countries (eight industrialised, four agrarian and four having a mixture of both, or falling into unique categories).

The UK and USA were given a separate average in Table I, because as our principal allies and protectors in past years, and hopefully in the future, they should reasonably be able to expect Australia to allocate at least as large a percentage of national resources and manpower to defence as they do. The UK is an island like Australia, and the USA can be considered one, as none of the United States neighbours on the North American continent can be remotely considered as a military threat.

Nations in South America or Africa were not listed as they do not appear to constitute a credible threat to Australia, and we are not as likely to become involved in overseas wars on these continents as we are in Europe, Asia or the Middle East.

The manpower figures in Table I are obtained by dividing the actual manpower figures of these nations by the population ratio. This provides the manpower which the armed forces of those nations would have if they had Australia's population and enables I believe, a direct comparison.

From examination of the figures of Table I, a further table can be drawn up giving the number by which Australian defence manpower figures would have to be multiplied to obtain the average of the other countries (or to obtain the average of the UK and USA).

Table II

<table>
<thead>
<tr>
<th>Average Manpower</th>
<th>Army Yearly</th>
<th>Navy Yearly</th>
<th>Air Force Yearly</th>
<th>All Reserves</th>
<th>% of GNP</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL COUNTRIES</td>
<td>3.3x</td>
<td>0.6x</td>
<td>1.6x</td>
<td>5.5x</td>
<td>0.8</td>
</tr>
<tr>
<td>UK &amp; USA</td>
<td>1.6x</td>
<td>1.6x</td>
<td>1.6x</td>
<td>5.5x</td>
<td>0.8</td>
</tr>
</tbody>
</table>

It can therefore be calculated that Australia would have to increase the Army and Navy by 60% the Air Force by 50%, the Reserves by 180% and defence spending by 70% to bring our defence effort to a comparable one with our principal allies.
WORLD'S LARGEST "PLASTIC" WARSHIP
Assembly of the mould for the new class of Mine Counter-Measure Vessels (MCMV) for Britain's Royal Navy, which, on completion, will be the largest ships built of glass reinforced plastic anywhere in the world. The new class, designed by the Ministry of Defence, will be built by Vosper Thornycroft in Southampton, Southern England.

The Royal Navy will be the first service to put a class of GRP MCMVs into operational use. The ships are to be fitted with the latest British minesweeping and minehunting equipment and will be powered by twin diesel engines.

The decision to build the class follows a number of years' research, development and testing carried out by the Ministry of Defence in close cooperation with the builders. Throughout, the quest has been for material having the necessary qualities of strength, stiffness and durability for the hull of a warship, while exercising little or no magnetic influence.

PRINCE CHARLES GIVES HIS FIRST PUBLIC FLYING DISPLAY
His face bearing the look of total concentration, Prince Charles carries out the all-important pre-flight checks on his Royal Navy Wessex Mark V helicopter, before demonstrating his skills as a pilot in public for the first time. The Prince, a lieutenant in the Royal Navy and a fully qualified helicopter pilot, was taking part in a mock assault during a recent international Air Day at the Royal Naval Air Station, Cundrove, in Western England. The display was watched by 30,000 people.

ALL IN ONE
A rare sight captured off Portland in southern England as all the modern types of helicopter currently in use with the ROYAL Navy line up for a spectacular flypast. Together they comprise a basis for one of the most versatile and effective naval helicopter forces in the world.

From the top they are: The Sea King, the world's most advanced anti-submarine helicopter, which is also used for search and rescue operations. The Royal Navy are currently training personnel from many nations who are buying this helicopter. Next three Wessex, a Mark 3 for anti-submarine duties; a Mark 5 troop carrying aircraft; and a Mark 1 now mainly used for search and rescue work. The Lynx, which will enter service in 1976, incorporates the latest engineering technology and will replace the Wasp in many frigates and guided missile destroyers. The Wasp, which operates from frigates in anti-submarine and anti-fast patrol boat roles. Finally the Gazelle, an advanced fast helicopter which has recently become the Fleet Air Arm's basic helicopter trainer.

HMS ANTELOPE, second of the Royal Navy's 2500-ton Type 21 AMAZON class frigates to be built by Vosper Thornycroft. She has recently gone into service with the Royal Navy. The Type 21 was designed by Vosper Thornycroft in collaboration with Yarrow Shipbuilders under a Ministry of Defence contract, and eight have been ordered for the Royal Navy.

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The famous ship, VICTORY, flagship of Lord Nelson at the Battle of Trafalgar, permanently preserved in dry dock in Portsmouth Naval Dockyard.

Preserving Britain's Maritime Past

The Maritime Trust, founded by Prince Philip, Duke of Edinburgh, in December, 1969, to preserve ships of historic importance, recently reached its first fund-raising target of one million pounds. The money, given and promised by individuals, companies and trusts and spread over a ten-year period, has already saved many important vessels from oblivion—not all of them glamorous sailing ships.

One of the most remarkable warships of all, which the Trust hopes one day to be in a position to restore, is WARRIOR, the first fully armoured iron ship in the world and the forerunner of the dreadnought battleships. Launched in 1860, she is still in a good state of preservation and for some years has been serving as an oiling jetty at Milford Haven, Wales. She has just been placed in dry dock for a thorough examination.

To restore her to her former glory may well cost £2 million and rather than exhaust the Trust's funds at the outset, seeing that the ship is in no immediate danger, it was decided to concentrate on more attainable objects.

Another important vessel is the fine 150-year-old wooden frigate UNICORN at Dundee, where until recently she had been serving as headquarters ship of the local Royal Naval Reserve. Two years ago the UNICORN, with the help of the Maritime Trust, was docked for inspection and repair and her hull was found to be in such excellent condition that she only stayed in dry dock for 48 hours.

The Trust also helped with the arrangements for docking the frigate FOUDROYANT, owned by the Foudroyant Trust and still used for youth training in Portsmouth Harbour. Some seven years older than UNICORN, she is one of the oldest ships afloat.

MARTINE TRUSTS

The Trust now manages the CUTTY SARK on behalf of the Cutty Sark Society and also owns Sir Francis Chichester's yacht Gipsy Moth IV, berthed nearby at Greenwich. Both of these attract large numbers of visitors to London. Many ship preservation societies have sprung up in recent years and the Maritime Trust has used part of its funds to assist some of them, including the SS GREAT BRITAIN Project already mentioned, and the RN.BELFAST Trust which has been instrumental in bringing this fine cruiser, representing the Royal Navy of World War II, to a permanent berth opposite the Tower of London.

During her first year of display the future she attracted 550,000 visitors, a figure twice that of any other ship.

The Trust is also helping with the excavation of Henry VIII's warship the MARY ROSE, lost with nearly all her hands in July, 1545, it lies entombed in mud some 45ft (14m) below the waters of the Solent off the south coast of England. It is, as it is hoped, the hull of the MARY ROSE is found to be complete it should be possible to raise her, using methods already successfully employed with Sweden's VASA.

What a triumph it would be if the MARY ROSE could return to Portsmouth roughly 470 years after she was built there.

LAST DESTROYER

Reverting to more modern warships, the Trust has been set up with financial support from the Maritime Trust to preserve HMS CAVALIER, the last World War II-type destroyer.

The Trust is also helping the Windermere Nautical Trust to put on view its fascinating collection of Victorian and Edwardian steam pleasure craft, some of them salvaged from the bottom of Lake Windermere. Nor are racing yachts being neglected: the J-class ENDEAVOUR I, which in 1934 came second in the America's Cup, has been bought with a view to restoration by a south coast of England firm of yacht builders in co-operation with the Trust.

It has long been an aim of the Trust to acquire and restore an old harbour or shipyard where the seafaring crafts of working, iron, wood, wire and rope can be maintained. The ancient west country port of Morwihan is being considered as a place of interest in its own right which could be put to this use. Interest in ship preservation is growing apace. At the first Congress of Maritime Museums held two years ago at the National Maritime Museum, Greenwich, both of these attract a large number of visitors to London.

Changing from the trust to a tractor farm, is that of the MARY ROSE could return to Portsmouth under the authority of the Tower of London. It is evident that the Trust is in step with international thought.

As far as Britain's maritime treasures are concerned, the work of saving them for present and future generations depends on the people themselves, for the tasks can only be carried through with public support. The Trust's strong foundation is the first target is an encouraging sign that this support is forthcoming.
The Maritime Trust, founded by Prince Phillip, Duke of Edinburgh, in December, 1969, to preserve ships of historic importance, recently reached its first fund-raising target of £1 million. The money, given and promised by individuals, companies and trusts and spread over a ten-year period, has already saved many important vessels and restored a number of small local vessels.

The Maritime Trust now manages the Brixham trawler PROVIDENT, built in 1928, and is present on charter to the Island Sailing Club of Salcombe in the west country, trading under sail and as a fish vessel. Over other craft fully restored in the west country is the Thames barge CAMBRIA (see photograph), the last of her kind trading under sail alone and one of the vessels bought and restored by the Maritime Trust.

Vessels fully restored include the last West Country trading schooner KATHLEEN AND MAY, the Thames barge CAMBRIA (see photograph), the last of her kind trading under sail alone, and the last steam drifter LYDIA EVA. Many ex-Royal Navy men will welcome the Trust's purchase of the Foudroyant. for in the days when battleships formed the main strength of the Fleet many such vessels were bought or chartered by the Admiralty to act as tenders to the big ships.

The Trust also helped with the arrangements for docking the frigate FOURDROYANT, owned by the Foudroyant Trust and still used for youth training in Portsmouth Harbour. Some seven years older than UNICORN, she is one of the oldest ships afloat.

The CAMBRIA, the last Thames sailing barge to trade under sail alone and one of the vessels bought and restored by the Maritime Trust. The Trust is also helping the Windermere Nautical Trust to put out to sea its fascinating collection of Victorian and Edwardian steam pleasure craft, some of them salvaged from the bottom of Lake Windermere. Nor are racing yachts being neglected: the J-class ENDEAVOUR I, which in 1934 came nearest of all British challengers to winning the America's Cup, has been purchased with a view to restoration by a south coast of England firm of yacht builders in cooperation with the Maritime Trust.

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Interest in ship preservation is growing apace. At the first Congress of Maritime Museums held two years ago at the National Maritime Museum, Greenwich, ship preservation was one of the most widely discussed subjects. The Trust is in a position to be of considerable help to any other society which is interested in preserving ships. The Trust is also helping with the excavation of Henry VIII's warship, the MARY ROSE, lost with nearly all hands in July, 1545. It lies entombed in mud some 45ft (14m) below the waters of the Solent off the south coast of England. If, as is hoped, the hull of the MARY ROSE is found to be complete it should be possible to recover some of this preservation and for some years has been serving as an oiling jetty at Milford Haven, Wales. She has just been placed in dry dock for a thorough examination.
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The principal objective of the Navy League of Australia is to stress the vital importance of Sea Power to the Commonwealth of Nations and the important role played by the Royal Australian Navy.

The League supports the Naval Reserve Cadets who are administered by the Royal Australian Navy, which Service provides technical sea training for boys who intend to serve in the Naval or Merchant Services, also to those sea-minded boys, who do not intend to follow a sea career, but who given this knowledge will form a valuable reserve for the Naval Service.

We invite you to swell our ranks and so keep up to date with Maritime Affairs to help to build an ever-increasing weight of informed public opinion. The Navy League will then become widely known and exercise an important influence in the life of the Australian Nation.

The League consists of Fellows and Associates. All British subjects who support the objectives of the League are eligible for membership.

Members receive copies of the League's magazine "The Navy".

THE NAVY LEAGUE OF AUSTRALIA
APPLICATION FOR MEMBERSHIP

To: The Secretary,
The Navy League of Australia, (Division).

Sir,
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(Mr) Name (Mrs)...
(Rank)...

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My remarks to you today concern the Navy, where we are, where we hope to go, and the direction we are moving. It is very much the message I have recently presented to the committees of the Congress associated with military appropriations.

As you are aware, there is great competition within our society as to the allocations of our limited national income. There are few who will argue that a Navy is not needed — the argument is in the degree — how strong and how much of our national income should be so allocated.

Because there are some in our society who will decry spending for a strong Navy as being counterproductive to a growing economy, we must ensure that the message for an adequate level of national military strength is heard and understood.

So, I want to preface my remarks today with some general observations concerning the country's defense posture in a time of domestic economic stress. We are all aware of the strains which a defense budget approach costing 100-billion dollars places on a national treasury already pressed by other commitments. The American public is no longer willy-nilly about military spending, at 16 per cent it reaches a point of total government spending, at 16 per cent it reaches the lowest point since before World War II, and we are all aware of the strains which a defense budget approach has been cut almost in half since the Vietnam high. As a percentage of total government spending, at 16 per cent it reaches the lowest point since before World War II, and our military manpower has been reduced by some 600,000 compared to the mid-60s before we began our Vietnam expansion.

The second is that the Soviets currently have shown no abatement in the trend toward steady build-up of their own military capabilities. The most recent intelligence data show that in every meaningful category of defense expenditures, the Russians continue to invest more than we do. Calculated in dollar prices, the Soviets currently outspend us by 25 per cent in military personnel, 20 per cent in overall procurement, 20 per cent in research and development, 20 per cent in general purpose forces, and 60 per cent in strategic nuclear offensive forces. In the period since 1960 the Soviet Union has expanded its military manpower by well over a million men and has deployed a massive capability in the Soviet Far East. The third point that must be made is that these contrasting US and Soviet trends have occurred against a backdrop of shifting power relationships in the world — to which the changing US-Soviet military balance has itself contributed significantly.

We know that the Soviets continue to see merit in shifting that balance to their own advantage. For this reason, I would expect them to continue increasing their real spending on military power by the three to five per cent annually that has characterized their actions over the years ahead.

All of this suggests that we are entering a period of significantly changed relationships in the world, and that many of the comfortable assumptions concerning the ability of American military power to maintain peace, stability, and assure the protection of our own vital interests may be challenged in the years ahead.

With that by way of background, I would like to turn now to the role of the Navy in maintaining the kind of American military power necessary to deter the Soviet Union from even thinking about using its military capabilities. The three fundamental points that must be kept in mind, however, concerning the military posture which the President has asked the Congress to support in fiscal year 1976.

The first is that the defense budget, if approved as submitted, will represent about five per cent of our limited national income, which a defense budget approach — the argument is in the degree — how strong and how much of our national income should be so allocated.

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With that by way of background, I would like to turn now to the role of the Navy in maintaining the kind of American military power which I think is essential to our national security interests in the future.

In doing that, I believe it is important, particularly on this occasion, to outline for you the naval philosophy which I believe should guide our efforts. So, I shall deal with some rather basic questions: What is the Navy's primary mission? — Is that mission relevant in today's world? — What size should the Navy be? — And, finally, can the Navy carry out its mission?

First, I must remind ourselves that the primary mission of the
United States Navy is to gain and maintain control of the seas, and to utilise that control in support of national policy. By “control of the seas” I mean the assurance that we will have continued free use of international waters wherever and whenever required by our essential national interests.

Into the foreseeable future, I am convinced there will be no diminution of the national requirements for this Navy mission. Indeed, a number of trends suggest it will increase. The United States is essentially an island nation. Two of our States lie overseas. Much of our foreign trade is intercontinental. The US is not independent in terms of raw materials. We must import 35 percent of our current oil consumption. By volume, ninety-nine percent of our overseas trade is carried by ship. Economic interdependence is a fact of modern daily life.

Our political and security relationships equally involve our overseas activities. The United States has defense treaties with 43 other nations, and a bilateral US base arrangement. We are currently renegotiating base rights with both Spain and Portugal, involving bases such as the Azores and Rota.

— The base structure in Thailand has been substantially reduced in the past years.

The Navy must not only provide a worldwide military presence in peace time, but must always be prepared to carry out its combat missions. The Navy must be able to strike potential conflict areas. Maintaining this readiness posture is increasingly complicated by the continuing growth of the Soviet Navy — not so much in increased numbers of ships as in the steadily improving quality of their forces which translates into significant advances in overall warfighting capability. The threat to the security of our vital interests in the Indian Ocean has grown considerably. Our presence there is to demonstrate our interests in the Indian Ocean are critical to us.

For today we have a diminishing overseas base structure, but we must sustain the Navy to maintain a modern fleet, sized to the needs of our future security requirements. What size will the Navy be? First, it should include as a priority national programmes, an adequate strategic fleet ballistic missile submarine force. Secondly, it should be large enough to maintain effective naval forces in the Eastern Atlantic, the Mediterranean and the Western Pacific, including periodic presence in the Indian Ocean.

By effective naval forces, I mean offensively powerful enough to prevail over potential hostile forces routinely deployed into the Theatre of Operations, andlogically equipped to operate in their area of responsibility. These forces must be large enough to maintain and support our interests around the world, and to maintain our essential commitment, is becoming increasingly difficult. For today we have a diminishing overseas base structure, with additional uncertainties for the future.

— Our relationships with Turkey are under stress.

— Greece is reviewing the status of her NATO relationships, and bilateral US base arrangements.

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To do this in the all volunteer atmosphere is demanding. We must strive to make a service career as attractive as we can within the unavoidable limitations imposed by military life.

But we must be realistic. In spite of expanding commitments, diminishing force levels, increasing Soviet capabilities and the challenge of the all volunteer force, we must face today what we have in hand. We cannot set aside our responsibilities while waiting for a 600 ship Navy. We must concentrate on getting the most we can out of what we have, to gain the best possible level of capability, today.

To this end, the Navy has set for itself Five Primary Goals.

The first is readiness. Overall fleet readiness is our most important goal. The true measure of the Navy's value to the nation shall always be its ability to carry out its missions — whatever the place, time or circumstance.

The second is flexibility. Perhaps the major value of modern naval forces is their unique flexibility. Recent events have clearly demonstrated the worth of a navy capable of responding to a wide spectrum of tasks ranging from the projection of national power for the protection of American citizens and interests, to humanitarian missions. Because it is impossible to predict accurately in every instance where or how the Navy will be called upon to respond, we must pursue the concepts and capabilities that give us that flexibility.

The third is offensiveness. At the very heart of deterrence is the self-evident statement that nobody starts a war he expects to lose. Our ships and aircraft must be able to credibly demonstrate an ability to inflict unacceptable losses upon any enemy. A clear realization of this ability by potential adversaries will significantly contribute to the prevention of a conflict.

The fourth is balance. Without proper balance, a military force loses its flexibility, becomes more easy to counter, and its effectiveness is reduced. Therefore, no single area of naval warfare — aviation, surface, submarine, amphibious, or support — can be excessively emphasized at the expense of others.

The fifth is personnel professionalism. No matter how modern the ship or advanced the aircraft, we will never attain the full design performance of the available technology unless we have the experienced, motivated, and competent personnel to maintain and to operate our weapon systems.

This leads to the final question: Can the Navy carry out its missions and tasks in support of our national strategy today?

My answer to that question is a qualified "yes." Qualified, because there is an infinite number of circumstances in which a US-Soviet conflict could be cast. But I consider that today, by a small margin, in significant scenarios — particularly those involving vital US national interests — the US Navy could successfully carry out its mission against the Soviet threat, but not without suffering painful losses.

A second qualifier must refer to this particular time. Today we have the forces which provide the capability for marginal success. But further erosion of our force levels, or even maintenance of the status quo in the face of the continued growth of Soviet maritime capability, could reverse the balance for success which currently resides in our favour. Under these projections, the US would no longer be able to prevail at sea in the defence of our most vital national interests.

Today, we can accomplish our mission. We are facing our current responsibilities squarely and with confidence. Nevertheless, current adverse trends were to continue, Soviet maritime power could gain a clear military advantage. Thus, the full support of the Congress for the Navy budget — now and in the critical years just ahead — is absolutely necessary if we are to maintain the same degree of confidence in the future. In short, and in a very literal sense, the proposed Navy programmes represent a reaffirmation of US determination to maintain a maritime power whose ability to use the seas for its essential national purposes can be successfully challenged by none.

As the Secretary of Defence has recently observed, we are at the point in our defence capabilities where any further significant reductions can put in peril our ability to defend those interests that the nation has campaigned as vital over the three decades since World War II.

If we are to abandon those interests now, it should be done as a conscious act of national policy only after the most careful deliberation, and with a full awareness of all its consequences for things we hold important.

I do not think the American people — even during a period of difficult internal stress — want to take drastic action.

I personally do not believe we could look to the future with any sense of confidence or security if we were to do so.

But we are in danger of stumbling into this situation unconsciously by continuing to cut away at our ability to maintain military balance, to deter actions hostile to our essential interests, and to support a diplomacy intended to bring peace and stability to areas that are important to us.

The Navy's plans for the future reflect a keen awareness that the United States will continue as a maritime nation and must, therefore, continue to possess the required maritime strength. That awareness needs to be shared by the citizens of this country, and you — the Navy League — can contribute importantly to this awareness. I urge you all to continue to work actively toward this realization in the interest of your Navy and your country.
Seasonal Greetings to the Royal Australian Navy from

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