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USS LANGLEY, the first American aircraft carrier, leaving Brooklyn Navy Yard. (Photo — Lou Cunningham)
NAVY WEEK

MESSAGE

The past twelve months have not been notable for activities calculated to produce harmony between nations. Indeed few periods in recent times have seen so many de-stabilising influences at work.

Despite widespread political, economic and military disorder, there are signs that all is not lost and the most significant of these is a growing appreciation of the interdependence of nations in this day and age. International groupings for economic or military reasons, and sometimes both, are not new especially in Europe; the EEC, NATO and Warsaw pact are fairly modern examples, as is ASEAN in our own region.

In a Paper published in 1978, the Navy League of Australia suggested that for their own future well-being and security, countries sharing common interests should co-operate on a world-wide as well as a regional basis. This seed fell on barren Australian ground, but the idea was powerfully reinforced in 1979 by Britain's Admiral of the Fleet Lord Hill-Norton, who recommended a world-wide maritime alliance to counter growing Soviet seapower and a threat to the trade routes. At about the same time, influential figures in the United States expressed similar thoughts on the desirability of wider international co-operation than exists at the present time.

While there are obvious political difficulties in achieving international economic and security co-operation on the scale proposed, at least in the short term, the concept is only commonsense. Over two-hundred years ago the American statesman and author, John Dickinson, wrote "by uniting we stand, by dividing we fall". Dickinson was referring to America's struggle for independence, but the principle applies as much in 1980 as it did in 1768 and we would do well to remember the words.

GEOFFREY EVANS
August, 1980

ACKNOWLEDGEMENTS

This Navy Week issue of "The Navy" was supported by Navy Public Relations, Sydney and Canberra; Historical Studies Section, Canberra; The Royal Canadian Navy; Royal New Zealand Navy; Peruvian Navy; Harry Adlam; Lou Cunningham; David Diment; James Gess; Tony Gracebrook, Vic Jeffreys, Michael Melliar-Phelps, John Mortimer and Ron Wright. The deadline for the November/December/January issue will be 24th October, 1980.

BUYNI (Violent). Designed by Lairds and built in Russia at Nev astrology to the basic British "27 knotter" pattern. 350 tons, 6,000 hp, one 11 pdr, five 3 pdr, three 16 inch torpedo tubes and 12-18 mines. In the above view she can be seen in the Port of Algiers after sustaining bow damage when entering that harbour. The BYEDONI (Grievous) of this class was the sistership which carried the injured Russian Commander-in-Chief to his surrender and subsequent captivity following the battle of Tsu-Shima. Further photographs of Tsarist warships appear on following pages. (Photo — Authors)

Front Cover

HMAS MELBOURNE — 25 years in commission. October, 1980. (Photo — Royal Australian Navy)

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THE NAVY
August/September/October, 1980
Page Five

PACIFIC SHIPYARDS
SEATTLE DIVISION
SEATTLE, WASHINGTON, USA
THE TSAR'S OTHER SHIPS

By:
ROSS GILLET &
MICHAEL MELLIAR-PHELPS

SAMSON. Typical of the small river patrol craft and gunboats used by the principal European 'Treaty' powers, SAMSON's name is displayed in Roman characters on the bridge dodger for easy identification by the other nations operating on the Manchurian waterways.

SOKOL (Falcon). Brand new and as yet unarmed prior to commencing trials in 1995, this sleek little 120 displacement ton destroyer sits in the basin of Alfred Yarrow yard in England (shortly after commissioning).

BOGATYR, (A Knight). Third of this name, and name-vessel of a 6 ship class of 6,645 ton protected cruisers, the German-built BOGATYR squats ignominiously on the rocks of Cape Bros, only three years after her launching in 1901. Note her forward twin 6 inch turret minus the guns in order to lighten the ship.

PAMIAT AZOVA (Memory of AZOV — A former Russian flagship at the Battle of Navarino Bay, 1827). Designed as an armoured cruiser to carry a main armament of two 9 inch and thirteen 6 inch guns. PAMIAT AZOVA was laid down in 1886 and completed four years later. The ship was reconstructed in 1904 and in 1919 became the torpedo school ship DIVNA (River).

GROMOBOR, (Thunderhead). Was built at the Baltic works in 1897 to 1900. She served up to World War I and was not scrapped until 1923. A cruiser of 13,229 tons she was crewed by 877 officers and men.

(Photo — Royal Navy)

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(Photo — Royal Navy)
This magnificent 5,557-ton vessel of superb proportions was launched in 1895 as the Royal Yacht and it is alleged was the design inspiration for the beautiful VICTORIA AND ALBERT of Great Britain. The German HOHENZOLLERN was similar; the principal difference being that her hull lines were marred by an aggressive Germanic ram bow. SHTANDART's three tall masts served the same purpose as those in today's BRITANNIA. She lived through the 1917 revolution and in her later years served as a naval auxiliary.

ANGARA (a river in Siberia). In this photograph, showing her alongside at Port Arthur, this transport and "volunteer cruiser" is at peace. But on the night of 8th February, 1904 she was caught up in the Japanese attack on the anchorage and lost an officer and several crew killed with many more wounded.

The Tsar’s Fleet Visits Toulon. The waters are alive with small sailing craft and steam naval pinnaces from the brooding black-hulled heavy units lying at anchor. In the background is (left) the battleship IMPERATOR NIKOLAI I and (right) the armoured cruiser ADMIRAL NARHINOV.
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...continued in 1901. She is seen here in tropical liveries for service in the Far East. A modern 13,300 ton, 18 knot battleship, armed principally with four 12 inch guns in two turrets, she was fitted with Krupp armour and was noted as being remarkably handy, answering the least touch of the wheel.

CESAREVITCH (Son of the Tsar). French-built at La Seyne and completed in 1901, she is seen here in tropical liveries for service in the Far East. A modern 13,300 ton, 18 knot battleship, armed principally with four 12 inch guns in two turrets, she was fitted with Krupp armour and was noted as being remarkably handy, answering the least touch of the wheel.

ADIMIRAL NAKHIMOV. This armoured cruiser of 8,524 tons and completed in 1888 was said to be a copy of the British IMPERIEUSE and WARSpite, plans of which the Russians contrived to obtain. It is as well that this exercise in design plagiarism did not succeed for the two British sisters were noted as being two of the worst designs in the Royal Navy. They were known as Britain's Bed Bargains and were not repeated.

ALMAZ (Diamond). An armed yacht-cum-second-class cruiser. ALMAZ was the only ship, apart from two destroyers, to reach the safety of Vladivostock after defeat at Tsushima. For her duties in the conflict the vessel mounted four 11 pounder and eight 3 pounder guns and carried a massive complement of 330 officers and men. After transferring to the Black Sea in 1911, duties as a seaplane carrier in the Great War, she was presented to Belgium in 1919.

KORIETZ (Korean). The barque-rigged gunboat KORIETZ, seen here on a goodwill visit to France in 1900, was constructed with a pronounced ram-bow, seen clearly in this very rare photograph. KORIETZ was built in Stockholm, Sweden, between 1887-87 and ended her days on 7th February, 1904, when she was scuttled after action at Chemulpo, (Inchon, Korea) in which the ship hardly participated.

IZUMRUD (Emerald). The end of the protected cruiser, IZUMRUD, after grounding north of Vladivostock following Tsushima. A photograph of the ship's forward half after her crew had blown her up on 29th May, 1905. As built the cruiser mounted three funnels, three masts and displaced 3,983 tons. The destruction was particularly complete. While in service she and her sister JEMITCHUG (Pearl) were noted for their enormous coal consumption out of all proportion to their size and were reported to burn over 25 tons per hour at full power.

OREL (City). The 1899 vintage hospital ship OREL, first vessel to be sighted by the Japanese at Tsushima. Her existence in the Pacific Fleet caused many problems as she bore the same name as the first division battleship which in that contest means Eagle.
Naval Field Guns

By HARRY ADLAVI

In years gone by the Royal Navy was often called upon to wage war in foreign lands at a moment's notice. When this type of work happened, what was known as a Naval Brigade was formed and landed.

The word brigade in this instance had no bearing on the three or four battalion infantry brigade known in military circles, and in many cases the Naval Brigade consisted of fifty men or less. The word brigade in this instance really meant a party of sailors landed for shore operations.

In the formation of a Naval Brigade a field gun was usually included, ships of all shapes and sizes were issued with a field gun for this very purpose. The field gun varied from time to time, but it remains a fact that the navy favoured a gun of moderate calibre, fitted with a 7 pounder rifled muzzle loading field gun of 8 cwt. The gun was issued to the NSW Naval Brigade and is reputed to have been taken to China in 1900 when the NSW Naval Brigade went on service during the Boxer Rebellion. This particular weapon is carried on a field service carriage constructed of steel. The gun was built in 1885 and bears the registered number M407. As was the usual style in those days, there was no recoil gear fitted, and the gun had to be re-laid after each round.

The 5 pounder was only one of the many types of naval field guns in service at this particular time (1885) and going through the records we find that there was a 7 pounder QF gun as well. Even when the 12 pounder QF gun came into the service, the 7 pounder QF gun was still on issue. In the 1911 edition of 'Jane's' we find that HMS WALLAROO was armed with five 7 pounder QF guns. From this it could very well be assumed that the 3rd class cruisers of the Australian Auxiliary Squadron, of which WALLAROO was a member, carried these particular weapons.

The Queensland Maritime Defence Force was issued with at least two field guns, and more specifically to the Naval Reserves of that state. There were possibly others, but photographs of the 1901 training camp for the Queensland Naval Reserves show two guns, one designated the Maryborough Gun and the other the Townsville Gun.

The method of arming the state forces was well seen in these two field guns, the Townsville gun is a 6 pounder Armstrong breech loading gun and the Maryborough gun is a Hotchkiss 6 pounder QF gun. The main difference in this case is that the BL gun was loaded with a charge made up in a silk bag, as compared with the QF gun with its brass case.

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In the 1890's The NSW Naval Brigade on parade with an RML 9 pounder 8 cwt field gun and a Gatling machine gun. (Photo — R. Gilbert Collection)

Gatling guns on field carriages. The Gatling was the first successful machine gun, and a weapon which helped the British Navy establish itself as good land fighters.

The South Australian Gatlings were chambered for the .45 inch Martini Henry Rifle cartridge, and consisted of 10 barrels revolving round a common axis. Because the barrel group was encased in a cylindrical cover it gave the appearance of being a gun rather than a machine gun, and has been wrongly labelled in some old photographs.

I have been unable to find any records of the South Australian Navy ever having owned a field gun, but this does not mean that they did not. Records are difficult to locate in these modern times, and it is possible that the South Australians did at some time have a field gun or two on their ledgers.

At HMAS CERBERUS, the main training depot in Victoria, there are a pair of interesting field pieces. One is a 9 pounder Armstrong BL gun, ex Victorian Navy. This is, or was, in fair condition, and is a good example of the type of weapon sailors took ashore on field exercises. The trial is of wooden construction and is not fitted with recoil gear.

The other gun bears a brass plate saying that it is a 6 pounder Hotchkiss ex HMAS GAYUNDAH. This could be the Maryborough weapon. The gun was taken from the depot during WW2 and mounted as a decoy battery, which formed part of the defences of Westerport Bay. No ammunition was sent with the gun, so we can assume that it was only there for moral support.

Outside the Gunnery School Office at FND were a pair of 7 pounder field guns. I could never find out the origin of these two guns, but from the size of the wheels I would imagine that they were military equipment.

In store at Spectacle Island in Sydney is a 6 pounder QF Nordenfelt field gun. This weapon had an interesting career to its credit. Originally the gun formed part of the armament of HMYNS CERBERUS. In this role it was mounted on a normal ship's pedestal carriage, but in 1906 it was put on a field carriage. This is unusual, and could possibly be the only gun of this type modified by the Commonwealth Naval Force.

With the purchase of the “Fleet Unit”, the sea-going forces gained the standard 12 pounder 8 cwt field gun. Each cruiser carried one of these guns, and it is on record that the 12 pounder from SYDNEY was landed at Rabaul in 1914. It was later turned over to the army in Rabaul, and it would be interesting to find out whether or not the “swaddies” ever returned it.

To my knowledge this was the only time in WWI that the RAN sent a field gun ashore on warlike operations.

At this time the 12 pounders seem to have been issued in fair numbers. There were two at each Naval College, Jervis Bay and at least two at each Naval Reserve Depot. There was a battery at the main depot at CERBERUS. The 12 pounder was a typical naval field gun, and one of the main uses of a naval field gun was in naval funerals. Old timers will remember that long drag at the slow to Boot Hill. The funeral gun was kept in beautiful condition as befitted its duties. I was told a couple of years ago that the gunnery officer at Flinders Naval Depot decided that the funeral gun was obsolete and therefore not required. He had the little...
The gun was placed on a full war footing, ships were carried out, and the indirect fire control was tested. The crew lived under canvas and Christmas Dinner 1941 was eaten out in the open by the gun. In January 1942 Don Walker was told to bring the gun back to the depot, as it was required for use by the army. The site was evacuated and the gun returned to the gunnery school.

We are lucky that a reel of snapshots of the gun were taken during the period. This seems to be the only photographic record of the incident. As far as we can ascertain, the whole exercise appears to have been forgotten, and it certainly does not appear in the official history.

As a point of interest in this period of time, the Royal New Zealand Artillery formed a battery, known as 144 Independent Battery in 1942, and this battery was armed with 3.7 inch howitzers. In the New Zealand Official History of this Battery we find that "Four of the guns had been used by the marines in two well known British cruisers". The bulk of this text is true, except that the field gun was manned by the seamen, and not the marines. It was usual for a cruiser to carry one howitzer, not two.

The main point that comes to the fore in this incident is that the naval field howitzer seemed to have been well used by the army, both here and in New Zealand.

When it comes to field guns being used ashore, we find that in two world wars the
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As regards the use of naval guns ashore, a full book could be written on this subject, but the Boer War of 1899-1902 did give a fair illustration of just how guns could be used when the exigencies of the service demand. As usual in any colonial war, the Royal Navy lived up to its reputation of being in the field from the beginning. The cruisers landed their 12 pounder field guns, and the boys in marched off pulling their guns, and carrying their rifles and field kits slung over their shoulders. A re-print from an 1899 paper depicts the field gun battery marching out of the naval base at Simonstown. A comment from an old soldier gunner is written on the back, “Bad enough towing your gun with the back. “Bad enough towing your gun with the back. As the war progressed, the navy aided the army’s 12 pounder 12 cwt gun, even though it was the same calibre, 3 inch, as the army’s 12 pounder and 15 pounder field guns, was an extremely accurate weapon, and had a greater range. It also was fitted with recoil gear, which the army guns were not.

As the war progressed, the navy added further by sending six inch ship’s guns to the front. These were usually mounted on flat-top rail trucks for transport, and they were thankfully received by the army. In the period of development immediately following the war the famous 18 pounder field gun was produced. This gun was a wonderful weapon, and it had recoil gear as well. The army were so pleased with the work done by the navy that in the 1911 Treatise on Military Carriages there is mention of “Carriage, Travelling, 4.7 inch QF.” Field guns have not been carried by ships of the RAN for some years now, but is hoped that it will not be forgotten. At the time of writing the Garden Island Dockyard is re-furbishing a small naval field gun that has been a relic on the Island for some years now. This gun appears to be a six pounder, and is fitted with a later model Armstrong breech. The gun was built as a rifled muzzle loader by Armstrong in 1881. In 1900 it was converted to a breach loader. The bore is plugged, but appears to have been about 2 inches in diameter. A brass plate attached to the carriage says that the projectile weighed 32 pounds. This surely must be an error. If we use the standard gunner’s formula D/2 we come up with 4lb. The four pounder does not appear in any gunnery text book for British service ordinance, but the bore closely resembles the old six pounder. The gun is suspiciously like the Townsville gun at the old 6 pounder. The gun is ordnance, but the bore closely resembles the old six pounder. The gun is suspiciously like the Townsville gun at the old 6 pounder. The gun is ordnance, but the bore closely resembles the old six pounder. The gun is suspiciously like the Townsville gun at the old 6 pounder. The gun is ordnance, but the bore closely resembles the old six pounder.

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European Report...

AFTTer weeks of speculation as to the final fate of the aircraft carrier ARK ROYAL it now seems certain that she will be towed from Plymouth before the end of August to be scrapped.

A trust was set up after she was de-commissioned with the object of buying her and mooring the old carrier in the Thames to be used as a museum and conference centre. The Thames was considered ideal with the closing down of most of London's up river docks. Consideration was given to the scheme but a survey showed that ARK ROYAL was in a very bad state, in fact beyond repair. After it was reported that she had been sold for scrap the trust offered more than she had been sold for, but the Ministry of Defence remained adamant that she should be broken up.

On the credit side HMS INVINCIBLE has been commissioned, the ship has made two visits to her home port, Portsmouth and is at present working up. She is due at her home port for Navy Days at the end of August.

The latest type 42 HMS EXETER D89 is at Portland for builders trials and is due to be handed over sometime in September. Following her will be SOUTHAMPTON D90, LIVERPOOL D92 and NOTTINGHAM D91. This will complete the first batch of 10 ships. Following will be an improved version, 16m longer and 1m wider, these measurements increasing the tonnage by 500 tons. It has been stated that the alterations will make them better seaboats and give them increased missile stowage. The names of the improved type 42s that have been laid down are: MANCHESTER D95, GLOUCESTER D96, EDINBURGH D97 and YORK D104. The first and name ship of the class HMS SHEFFIELD D85 is due to complete her first major refit this year.

The latest type 22 HMS BATTLEAXE F99 was accepted this year. Although classified as frigates they are big ships, bigger than the type 42s. Being brought up in the days when destroyers were bigger than frigates I was amazed by her size as I watched her sail into Portsmouth. Looking at Royal Navy types it seems that it is now the capabilities of the ship that decide if they are to be a destroyer or a frigate. It seems that ships with a mainly anti-aircraft role are destroyers, while ships with an anti-submarine role are frigates. The anti-surface role now appears to be taking a second place in both destroyers and frigates.

HMS ANTELOPE F170 has recently completed a refit during which she has been fitted with two triple torpedo mounts. There has been a lot of activity in the non-warship field, with an unusual number of support ships joining the fleet.

Two bulk oilers APPLELEAF A79 and BRAMBLELEAF A81 have been accepted. They were taken over while building for commercial owners and were launched as HUDSON CAVAILER and

HMS HAMPSHIRE, flying her paying-off pennant, 31st March, 1976. (Photo — James Goss)

August/September/October, 1980

THE NAVY

Page Twenty-Five
Why Did The Navy Choose TESTSSL?

Sensibly Styled Fishing Boats
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The Aluminium Boat the Experts are Changing To

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Four torpedo recovery vessels, TORNADO A140, TORCH A141, TORREADOR A142, and two degassing ships MAGNET A114 and LODESTONE A115, have been accepted, while seven water tractors, ADEPT A234, BUSTER A1, CAPABLE A, CAPABLE FLORENCE A, FRANCIS A147 and GENIEVE A are due to commission during the year.

Across the Channel four of the new Dutch frigates are serving in the fleet. The vessels include KORTENER F907, CALLEIGHN F808, VAN KINSBERGEN F809 and BANCKERT F810. Hollands neighbour: Belgium now has all four of their Westhinder class frigates in service. They are the WIELINGEN F910, WESTDEP F911, WANDDEP F912 and WESTHINDER F913. Although quite small ships when compared with western frigate construction they are well armed. For the anti-surface role there are 4 Exocet. For air defence Seawasps and 1 100mm gun. Frigate launchers. Each is powered by Gas Turbines and Diesels and has a top speed of 28 knots. The Gas turbine is brought in when high speed is required. With diesels only they can maintain 15 knots. The vessels are lightweight, one of the crew being only 160. I see their role as mainly a coastal one against fast attack craft and submarines with a limited air defence. A deep sea anti-submarine role would be limited, as they do not operate a helicopter. They would be useful as part of a task group of other ships with helicopters. The class will certainly give useful training to officers and men of the Belgian navy who for the past 30 years have operated only mineweepers.

Dear Sir,

After reading Mal Stephens’ interesting article on the Sydney-based Dutch submarines K IX and K XII (“The Navy” May/June/July issue) I felt some light should be thrown on the other pair which arrived in Fremantle after escaping from the Japanese invasion of the Dutch East Indies.

The two in question K VIII (sister of K IX) and K XI (sister of K XII) arrived in Fremantle in August, 1942. The battle-damaged K VIII was paid off on 27th August, 1942. She was moored in the Swan River at Keane’s Point until being stripped and then towed to Jervoise Bay in Cockburn Sound during August, 1945. The boat founded approximately 100 yards offshore and lay there until it was blown up by explosives in 1958. The slightly larger K XI was a defensive submarine based at Fremantle until she was paid off in August, 1943. The 815 ton submarine was also stripped of fittings and had been partly demolished at the North Wharf near the Fremantle railway bridge when it founded.

After several futile attempts K XI was raised and towed out to a point outside Rottnest Island known as the “ships’ graveyard” and scuttled in September, 1944.

Yours Sincerely,

Western Australian Division,
Navy League of Australia

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NAVY LYNX ORDERS ANNOUNCED BY WESTLAND

Orders for 32 more Navy Lynx helicopters were recently announced by Westland Helicopters. With spare, ground support equipment and training, the orders are worth £65 million.

Of these latest orders, ten will go to the Royal Navy, which had previously ordered 40 Lynx helicopters, and 14 are for the French Navy, taking their total to 40 Lynx. A further eight are to be supplied to an un-named customer.

The total Lynx order book for Navy and Army versions now stands at 283. Of these 179 are for the maritime forces of Britain, France, the Netherlands, Federal Republic of Germany, Denmark and Norway, Brazil and the Argentine.

HM AS FREMANTLE SAILS ON DELIVERY VOYAGE TO AUSTRALIA

The first of 15 new patrol boats for the Royal Australian Navy, the British-built HM AS FREMANTLE, sailed from the United Kingdom for Australia in early June. The patrol boat, which was commissioned into the RAN three months ago and arrived in Sydney on 27th August.

The 220 tonne HM AS FREMANTLE, under the command of Lieutenant Commander Bob Thomas, and a crew of 22, sailed to Australia via the Mediterranean, Suez Canal and Indian Ocean. En-route she visited a number of ports for fuel and stores.

The fast patrol boat, which was built by Brooke Marine at Lowestoft, England, was laid down in September, 1978, and launched in February, 1979.

SWAN HUNTER COMPLETE IRANIAN REPLENISHMENT SHIP KHARG

The 20,000 ton deadweight replenishment ship KHARG, ordered by the then Imperial Iranian Navy in 1974, has completed final acceptance trials and now awaits handing over to her owners.

The timing of this, however, is a matter of some political embarrassment — the builders, Swan Hunter, will doubtless be anxious to obtain the balance of her price; the US at the present time, would rather she were not delivered; and others, anticipating the last point, would say, possibly with some justification, that she could be better used by the RN.

A large and powerful vessel, the KHARG is intended to act as a full replenishment ship having considerable ammunition and dry cargo capacity, as well as a multi-liquid capability.

FIRST NUCLEAR-POWERED VESSEL RETIRED

The maritime history of the world passed another milestone on 3rd March, when the US Navy retired the USS NAUTILUS, the first nuclear-powered ship.

Second of the Fremantle class, WARNAMBOOL, is shown here being prepared for launching in October, 1980. (Photo — Navy Public Relations)
The submarine which took to the sea in January 1955, was decommissioned at Mare Island Naval Shipyard in Vallejo, California, near San Francisco. The Navy essentially had retired NAUTILUS last May, when it was decided that it had become outmoded and could not be modified to compete with modern boats. NAUTILUS has been offered as a national historic ship and be placed on public display at the Washington DC Navy Yard.

ESSEX CONVERSION STUDY
A $312,500 contract has been placed by the US Maritime Administration with M. Rosenblatt & Son, consulting naval architects, to undertake analysis and design studies relating to the proposed conversion of an Essex class aircraft carrier — one of a 24 ship series built during World War II — to a civilian manned Military Equipment Transport (MET).

AUSTRALIAN SHIPBUILDER STUDIES FEASIBILITY OF BUILDING SUBMARINES IN AUSTRALIA
The Minister for Defence, Mr D. J. Killen, announced on 8th July, that an Australian shipbuilding company, Vickers Cockatoo Dockyard Pty Ltd, of Sydney, was examining the feasibility of building conventionally-powered submarines in Australia.

Mr Killen said that the present Oberon class submarines are being progressively modernised with new sensors, weapons and a computer based fire control system. In addition, highly effective long range Mark 48 torpedoes were being purchased from the USA. The submarines would also be capable of launching Harpoon anti-ship missiles.

Mr Killen said: “While the Oberon class submarines have many useful years of service ahead, if we are to seriously contemplate Australian industry having a major role in their replacement it is not too early to investigate the feasibility of building conventionally powered submarines in Australia”.

Mr Killen said that a team of experts from Vickers recently had visited a number of overseas submarine designers and builders to assess the practicability of Australian involvement in the local construction of non-nuclear powered submarines.

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The Visit Of The Great White Fleet To Australia

The visit of the United States' "Great White Fleet" to Australia in August and September, 1908, may be seen as a calculated step on the part of the Australian Prime Minister, Alfred Deakin to "nudge" the British Government into a position of support for Australia's naval aspirations while, at the same time, furthering the cause of closer US/Australian co-operation.

The "Great White Fleet" as it was popularly known, consisted of 16 pre-dreadnought battleships — practically the whole US battle-fleet. The names of the ships give an instant geography lesson of the United States: Connecticut, Kansas, Vermont, Minnesota, Georgia, New Jersey, Rhode Island, Nebraska, Louisiana, Ohio, Missouri, Virginia, Wisconsin, Illinois, Kentucky and Kearsage. Travelling with the fleet were several auxiliaries including a hospital ship.

The main purpose of the world cruise of the fleet was, primarily, to show the flag. In addition, however, the fleet became an instrument of US foreign policy designed to overwhelm the Japanese who were, following their defeat of Russia in 1904, the chief naval rivals to America in the Pacific.

When Prime Minister Deakin invited the Fleet to include Australia on their itinerary, the British authorities were very concerned because, by strict protocol, the invitation should have been issued through the British Foreign Office. However, the British authorities, faced with the fact that the invitation had already been issued, overcame their consternation at Australia's show of independence and confirmed Deakin's invitation.

The enthusiasm of the public welcome given to the Fleet in Sydney and Melbourne fully justified the invitation. The enthusiasm of the public welcome given to the Fleet in Sydney and Melbourne fully justified the invitation.

The actual arrival of the fleet was well reported in the press. They spoke of the "wave of enthusiasm which swept around the harbour as the fleet made its stately entry" which was witnessed by nearly 500,000 people. An American reporter who travelled with the fleet, Franklin Matthews stated:

"It is almost impossible to put into words anything that will tell the story of the enthusiasm and the sentiment that inspired a demonstration which overwhelmed not only those who received it but those who gave it also..."

Matthews went on to say:

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The Flagship of the Great White Fleet USS CONNECTICUT. (Photo — United States Navy).

The visit nearly started on a tragic note, although it had an amusing side. The grand entrance by the 16 battleships went wrong when 4 of the 16 battleships carried away the first mooring anchors and bulled towards the crowded wharves. Luckily, the ships just managed to steer away at the last moment.

The incident was a true omen of the overwhelming Melbourne welcome. Matthews speaks of the visit as a whirlwind and merry-go-round with too much hospitality. Sperry counted 17 dinners, dances and parties in a single day. That the ordinary American sailor enjoyed himself may be readily gauged from the number of desertions. Sydney had 30 deserters but Melbourne had 300, perhaps because, according to press reports, the Melbourne girls "threw their arms around the bluejackets and permitted themselves to be kissed" (1). The sailors certainly had a wild time in Melbourne. One unfortunate result of this was the disastrous parade by the fleet on 31 August, with lurching and reeling sailors marching to a "drunken" rendition of "Columbia, the Gem of the Ocean". President Teddy Roosevelt was so shocked by the behaviour of the sailors when the report of the procession reached him that he made the penalties given to the sailors even harsher.

The Great White Fleet left Melbourne on 5 September, but the excellent impressions made by the visit were long-lasting. The sailors certainly had a wild time in Melbourne. One unfortunate result of this was the disastrous parade by the fleet on 31 August, with lurching and reeling sailors marching to a "drunken" rendition of "Columbia, the Gem of the Ocean". President Teddy Roosevelt was so shocked by the behaviour of the sailors when the report of the procession reached him that he made the penalties given to the sailors even harsher.

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Another phrase of Matthews sums up the visit of the fleet as a whole: "...the inherent kinship between the two peoples was manifest as a genuine and hearty thing..."

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When given this book to review I was delighted, as the subject of "MONITOR" has always been one of my pet interests. This particular book is the most complete work on the subject I have encountered to date. From beginning to end I have thoroughly enjoyed every word, as Lieutenant Miller we have an author who is completely devoted to his subject.

The book really commenced in 1973 when a team of eight midshipmen at the US Naval Academy carried out Operation Cheesebox, an exercise devoted to what was really a design study and historical research of USS MONITOR, a ship that had been lost at sea 111 years before. Evidently the eight midshipmen carried out a thorough research, and came up with some very interesting results.

All the written evidence that could be obtained was brought together and even tank tests were carried out to ascertain the operating qualities of the ship. At this stage the actual wreck of the ship had not been located, although it had been reported at different times, and in different locations. In 1974, the wreck was positively identified and is now designated as a marine sanctuary.

Edward Miller's book is the complete record of the whole operation, and the author is well qualified to put this work before the public. Not only was he engaged in the research done at the Naval academy, he was actively engaged in the search and location of the wreck, and must be now regarded as the "Monitor Expert". It is very refreshing to see that an officer of such tender years has carried out this work. Too often have we seen the ground work carried out by the junior officers and ratings, and then a senior officer writes a book giving the impression that it was all his own work.

As for the book itself, we find that it comprises two main sections. The first part deals with the designer of the ship, the Swede John Ericsson, a man who must be regarded as one of the greatest inventors of all time. We follow his career from the early days in Sweden, and here we find his great talent was appreciated at an early age. At sixteen years he was given control of six hundred men whilst also charged with providing the full working drawings for the famous Gota Canal in Sweden.

We see how Ericsson gained the contract to build the first steam plants, but this hot air engine can be regarded as the main reason why he eventually ended up in the United States. Ericsson was doing his military service in 1820 when he decided to put his invention on show in England. He was given one year's leave of absence from the army, and off he went, never to return.

In England he designed a steam locomotive, "The Novely", and also designed a screw propeller. His work was to be regarded as the main reason why he eventually ended up in the United States. Ericsson was doing his military service in 1820 when he decided to put his invention on show in England. He was given one year's leave of absence from the army, and off he went, never to return.

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THE NAVY
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would appear that USS MONITOR was the first ship to be fitted with the now familiar balanced draught system. To keep the upper works as low as possible, "MONITOR" was given two very short funnels, draught being obtained by both forced and induced draught fans. One interesting point arises in the fact that Ericsson was not to be fully paid for the ship until it had been tested in action, and if it failed he had to return what had been paid to him. In actual fact, Ericsson was the owner of "MONITOR" when she fought the Confederate "VIRGINIA".

The events as to the trials and commissioning of "MONITOR", as well as the voyage to Hampton Roads are fully described. The famous action between the two ships is naturally well and truly covered. "MONITOR"'s career is fully covered and her final voyage, which resulted in her loss is well described indeed. Much use has been made of letters and statements from persons involved and this ensures that the reader has a very good background to the actual loss of the ship and its rescue.

The second section deals with the attempts to locate "MONITOR", and here we realise that a great task was undertaken. Although there had been many reported findings of the wreck, it was virtually impossible to locate the old turret ship, and when it was finally located it was found to be at least twenty miles from the supposed position.

In this section, we find modern technology being used to locate an old time problem. Deep water photography was to be the final solution, and I was very impressed by the mosaic made up from all the under-water photographs taken. This shows the full picture of "MONITOR" as she lies on the bottom of the sea today, and is a truly remarkable achievement. Considering that "MONITOR" is lying on the sea bed 210 feet below the surface, the location and identification has been a really worthwhile effort on the part of all concerned.

As for the presentation of the book itself, it is excellent. The only thing missing that one would expect to find is the usual full page of specifications. The text supplies just about all the information that one would require, so that slight omission can be passed over. Early photographs seem to be very hard to locate but there are some very good ones taken aboard after the famous fight. As all are taken near the turret the reader gets a very good idea of the massive construction of this important piece.

Page Thirty-Nine
The Role Of
UNITED STATES' MARITIME
POWER IN THE INDIAN OCEAN

By A. W. Grazerbrook

The past six months have brought news that has major implications for the United States Navy’s role in the Indian Ocean in particular and for the Australian region in general:

- The United States’ Naval Shipbuilding Programme for the next five years has been increased.
- The United States has formed and deployed a major Indian Ocean Task Force.
- Claims that this is to be a permanent deployment are supported by plans to upgrade further the United States Navy’s base at Diego Garcia and studies of the feasibility of base porting United States Navy ships at Cockburn Sound.
- Authoritative United States visitors to Australia have expressed the United States intention to increase both the quality (i.e., deploy newer and more effective ships) and number of ships in the Seventh Fleet — the Fleet responsible for providing and directing US Task Groups in both the Western Pacific and Indian Ocean.

These changes have important implications for Australian Maritime Power. The capabilities of the US ships to be deployed in the Indian Ocean could tell us a lot about their intended role. Published US statements and a study of what the US Navy has actually been doing in the region tell us a lot more.

- In both composition and outlook the USN is primarily a “high” force — a force designed and trained to meet the intensive threat from Russia with which the US and the rest of NATO has been confronted in the Atlantic, Arctic, and Mediterranean for several decades, and which the US must be able to meet in the North Western Indian Ocean and adjoining waters.
- A study of President Carter’s revised and enhanced Five Year Naval Shipbuilding Programme shows that emphasis on the “high” capability is to be maintained.
- Those offices in the US Navy who recognize the importance of an ability to operate more numerous but less capable maritime forces in the “low” scenario — e.g., protection of trade — are not in the ascendency amongst those who make the major decisions in the Pentagon.
- There is a growing re-acceptance in the United States of both the potential and the need for strategic projection of maritime power in the Indian Ocean, Western Pacific.

Whilst this last development is unquestionably a return to sound strategic thinking, and very much to Australia’s advantage, it is also a change most welcome to the professional leaders of the US Navy. The preponderant NATO emphasis of President Nixon and his successors, and the coincident temporary ascendency of the “doves” in the US Executive and Legislature, had forced the US Navy to justify its existence in preparation for an emergency in the NATO North Atlantic and Western European environment.

It was being argued that:
- There was neither scope nor need in the NATO environment for a major maritime power projection capability — NATO already has ports and airfields in all the land areas to be defended. The distances across the sea areas surrounding Europe were so short that aircraft carriers would not be required in the attack role.
- Any European war would be so short, even if strategic nuclear weapons were
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### TABLE A  
**UNITED STATES FORCES IN THE INDIAN OCEAN**  
**DECEMBER, 1979**

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<tr>
<td>KV141</td>
<td>aircraft carrier</td>
<td>1945</td>
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<tr>
<td>CV35</td>
<td>aircraft carrier</td>
<td>1946</td>
</tr>
<tr>
<td>DD215</td>
<td>nuclear powered guided missile cruiser (S)</td>
<td>1956</td>
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<tr>
<td>CG29</td>
<td>guided missile armed cruiser (T)</td>
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The data presented is compiled from Press Reports.

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The potential of that flexibility was demonstrated very effectively late in 1979, when the United States had to put together carrier battle groups of ships some of which were not designed for the purpose in 1980, the low naval shipbuilding programmes of the past five years, or with the resultant decline in the capacity of the United States to build new warships, mean that improvements can only be achieved by depleting other areas such as the Mediterranean or Eastern Atlantic.

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The United States Navy in the Indian Ocean and Western Pacific offers the chance for the United States the opportunity to use her higher capability maritime forces, the need to provide them by deploying other areas (also of vital importance to the United States and, in terms of treaty commitments, avoiding a priority over the Indian Ocean and Western Pacific) does not re-emphasise again the point made repeatedly by our sister League (The United States Navy League) and by the more perceptive and far sighted US Legislators.

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the US must now be unavoidably and dangerously short of warships for some years to come — at least until the ten years or so that are required for the improved shipbuilding programme to be completed.

Therefore, with the declared intention of the United States to deploy more, and more modern, forces in our region, the key question for Australia becomes the roles and the priorities amongst these roles, to which the United States will assign its naval forces in the Indian Ocean in the light of the fact that even the improved forces are most likely to be insufficient to perform all the roles that need to be performed.

A whole range of factors, from the nature and capability of the forces available, through the US political scene and the nature of the growing Russian maritime threat, to the professional preferences of the leaders of the United States Navy, suggest that the United States' priorities in the Indian Ocean are likely to be:

1. Tracking and destruction of Russian SSBNs and SSNs.
2. The strategic projection of maritime power, in the form of carrier battle groups and amphibious and the rapid deployment force, in support of allies or defence of United States interests in the north west Indian Ocean.
3. The protection of military Sea Lines of Communication (SLOC) with US land and land based air forces in Asia, the Indian Ocean and the Middle East.
4. The protection of military SLOCs with US allied forces.
5. The protection of oil movements from the Middle East to the United States and Western Europe.
6. Protection of other merchant shipping movements.

The probable relegation of the protection of trade to the sixth priority is of special significance to Australia and highlights a fundamental difference between Australian and United States interests in the Indian Ocean and Western Pacific.

Australia is absolutely dependent upon seaborne trade. Over 40 percent by weight of our imports are oil. Our biggest customer, Japan (upon whose prosperity we depend) is wholly dependent upon imported oil with which she would be incapable of processing the raw materials which she buys from us.

As we see every time there are industrial difficulties, the economies of several Australian States quickly slow down and eventually virtually stop if coastal movement of seaborne oil is impeded.

On the other hand, whilst the United States' seaborne trade in the Indian Ocean and Western Pacific is unquestionably valuable to her, it is nowhere near as significant to the United States as our seaborne trade is to Australia.
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months as against the 20 months taken to

rebuilds took no less than 3 years and five

Taking "INTREPID" as an example we

detailed and it seems odd that in most

money expended on their modernisation.

sections, carriers up to 1950 and carriers

produced a very enlightening

Details of special equipment carried by each class are described and the

changes in gunnery are well and truly covered, including some brief

statistics of the weapons under discussion. By way of a change the book is divided into two basic sections, carriers up to 1950 and carriers after 1950. In the latter section we find not only new construction but alterations carried out on existing carriers. This of course covers the very large "ESSEX" class built in the second world. One is left with the feeling that the "ESSEX" were very good ships, and well worth the money expended on their modernisation. The various modernisation schemes are detailed and it seems odd that in most
cases it took longer to update the ship than it did to build it in the first instance. Taking "INTREPID" as an example we find that her SCB-27C and her SCB 125 rebuilds took no less than 3 years and five months as against the 30 months taken to build the ship. The selection of photographs is nothing short of excellent and apart from the, to be expected, full views of the ships, we find many photos of various details such as superstructure deck edge lifts, angled flight deck arrangement and an unusual view of the "island" fitted to the nuclear-powered "Big E". There are many line drawings, all of fine quality, to describe the ships during the different periods of their careers. Taken all round, this is one of the best illustrated books I have had the pleasure to review.

Aircraft Carriers of The US Navy deals only with the fleet and light fleet carriers, and does not include the escort carriers. It is to be hoped that there will be a second volume of this work that will cover the CVE's. Two rather unusual carriers are covered. They are "Wolverine" and "Sable", surely the only aircraft carriers ever commissioned using paddle wheel propulsion. These two flat tops were used for pilot training on the American Great Lakes and had no hangar stowage for aircraft, being purely and simply floating flight decks. Their inclusion is very commendable as these unusual ships receive very little coverage in the normal run of reference books.

Going through the photos I was very impressed with the range selected, and as I normally favour one shot in particular it took some time to come up with a "pet". I finally settled on two. One was the second "YORKTOWN" going astern with her 20 knots, the other was the massive flight deck of "FORRESTAL". The photos, by the way, are all black and white, and don't let that deter you.

I found Aircraft Carriers of the US Navy a well presented, well researched book, worthy of the Conway imprint. A must for career buffs.

"THE FLEET SUBMARINE IN THE US NAVY"

By Cmdr J D Alden, USN (Retd)

Published By: Arms & Armour Press

Reviewed By: ROSS GILLET

Price: $42.00

The book under review is a well written and profoundly illustrated technical history of the USN fleet submarine. Each class is described in full and in most instances is accompanied by line drawings. Photographs depict the boats at most stages of construction and at the various times during their careers.

The multitude of configurations to which the Gato, Balao and Tench classes were modified post-war are also all fully explained and illustrated. It is this chapter, I feel, which proved one of the most interesting.

Over 210 boats of the three classes were altered to twelve new roles, including that of Guanay, Radar Pickers, Cargo, Oiler, Hunter Killer, Reserve Trainer, Guided Missile and Amphibious configurations. Some boats were in fact modified to one role and later redesigned another.

Further chapters are devoted to US Fleet Submarines transferred to foreign navies and boats which have been preserved as memorials. In respect to the latter, fourteen of the boats preserved are open for inspection. A further, vessel, not open, is USS PAMPANITO, which unfortunately has right of access to it hailed by Harry Bidges, one of the San Francisco Port Commissioners, who claims the display of the submarine to be glorification of war.

The text throughout "The Fleet Submarine in the US Navy" is very readable and interesting. Finally a table at the book's end provides a complete fleet list of all boats. I can recommend no better book for the submariner.

"FIGHTING SHIPS OF AUSTRALIA, NEW ZEALAND AND OCEANIA"

By GRAEME ANDREWS

Published By: A. H. & A. W. REED

Reviewed By: JOHN MORTIMER

PRICE: $1.95

This is the third edition of a series produced by Graeme Andrews on the Australian and New Zealand Navies. The present edition has been considerably expanded and also includes a detailed account of the Papua New Guinea, Fijian, Solomon Islands and Tongan maritime forces.

Introductory chapters are provided on "Parroting the Pacific Ocean — A Problem for Smaller Nations" and "The Argument for Sea Control". The former
chapter commences with a number of observations on the problems of policing the vast economic resource zones in our region and then proceeds to introduce the various regional navies. In summary the author suggests that there may be a place for small craft of the Hawker de Havilland 'Carpentaria' or 'Attack' classes in the inventories of regional navies, including those of Australia and New Zealand. This is a rather uncertain conclusion in view of the deficiencies expressed by both these navies with their larger existing patrol craft, i.e. 'Attack' and 'Lake' classes) in relation to their seaweeding and endurance capabilities — a point which is subsequently discussed by the author in his examination of these vessels.

The chapter on "The Argument for Sea Control" does not, as its title suggests, examine maritime strategy, but rather makes a critical appraisal of recent and forshadowed hardware developments in the RAN and RNZN. Overall, the author argues that both navies have suffered a decline in capability in recent years. These introductory chapters are followed by a presentation on the ship characteristics of the various maritime forces covered, together with some details of defence infrastructure and aircraft. The data on ships has been considerably expanded from earlier editions and now includes details of modernisations of the larger vessels, their radar and sonar systems. This chapter provides the main body of the book, but does suffer from a few editorial mistakes — an almost inevitable feature of such factual presentations.

The book is well presented with photographs of almost all ships discussed. One minor criticism however is that the publishers with a few of the photographs have cut off part of either the bow or stern section of some ships.

On balance the book is a welcome addition to the limited amount of information available on regional navies and at a modest price is well within the finances of all interested readers. It is recommended reading particularly so those with an interest in existing vessels of the RAN and RNZN.
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Nameship and leadship of her class, HMCS IROQUOIS, was commissioned by Marine Industries Ltd, Sorel, Canada, and commissioned on 29th July, 1972. The ship is powered by two gas turbines with a top speed of 29 knots plus. Two Sea King helicopters are housed in the large hangar aft of the bridge. (Photo — Royal Canadian Navy.)

HMCS PROVIDER cost $17.5 million to build. She normally carries three Sea King helicopters, although six aircraft can be stored. (Photo — Royal Canadian Navy.)

HMCS YUKON pulls away from the replenishment ship HMCS PROTECTEUR and another frigate. (Photo — Royal Canadian Navy.)

A small research ship for anti-submarine research, HMCS ENDEAVOUR was first commissioned in March, 1965. She is able to turn in 2.5 times her own length. Unarmed, ENDEAVOUR carries one small helicopter and has a range of 10,000 miles at 12 knots. (Photo — Royal Canadian Navy.)

HMCS OJIBWA is an Oberon class submarine built in England by H. M. Dockyard, Chatham. The name of OJIBWA was taken from a tribe of North American Indians. OJIBWA and her two sisters carry Mk 37C ASW torpedoes only. (Photo — Royal Canadian Navy.)
Fasten your harness and lower your visor because, folks, in this remarkable film you are catapulted into the Mach 2, JP-4, and afterburner world of the up-front 1980s Carrier Air Group. This is Tomcat Territory; the habitat of the twin-tailed ho-rod and its 4-fb mobile home called the USS "Nimitz" (picted).

The theme of this film is unusual to say the least, and in the hands of a less capable director would have resulted in a very expensive piece of pure farce. Briefly, the story revolves around the supposition that, because of a sudden and extremely violent electrical atmospheric disturbance at sea, a modern, fully armed and equipped nuclear-powered aircraft-carrier is projected backwards through a time-warp and re-appears the day before the catastrophic December 7, 1941 attack on Pearl Harbour.

She is faced with the fact that, less than a half-hour's jet-powered flight away from her is steaming the main force of the Imperial Japanese Navy's carrier fleet. The Commanding Officer of the "Nimitz" is thereby presented with a problem not covered in the Annapolis syllabus, to wit: do nothing or use the awesome 1980s fire-power at his veritable galley and bilge pumps. Ropes, wire, chain, talurit, jackets, boots, shoes & clothing, compasses, depth sounders, navigation equipment, aluminium masts and terminal rigging, flares and all safety equipment.

The twin-engined Grumman F-14 "Tomcat" carrier-fighter with its variable-sweep wings exhibits whip-snap handling characteristics that have to be seen to be believed, and in this film you really see why this aircraft (and others like the land-based F-18 and F-16) is such a worry to the Soviets.}

The in-flight sequences are nothing short of breath-taking and are photographed to a standard not seen since the film "Battle of Britain". It is worth noting that the famous American firm of Tallman Aviation with its converted B-52 camership-was employed on both films.

The skeptical patron might look askance at a plot which surmises that a warship of today's black shoe navy might be expected to re-fight a brown shoe war. But, in this film, the concept is treated very well. Don't miss this one; it will be money well spent.

Kirk Douglas takes the role of the CO of the "Nimitz" and Marlin Sheen (of "Apocalypse Now" fame) is the Defence Department Systems Analyst who boards the carrier shortly before the incident. Charles Durning plays the totally disbelieving pre-war United States Senator, with the delectable Katherine Ross as his Secretary(?). The remainder of the cast take their roles with equal conviction but, in this film, the concept is treated very well. Don't miss this one; it will be money well spent.
FOUR anti-submarine and two general purpose versions of the Vosper Thornycroft Mk 10 frigate currently serve with the Brazilian Navy. These ships were built in Southampton (four) and at Rio de Janeiro (two). The first, NITEROI, commissioned on 20th November, 1976, and the last, LIBERAL, in late 1978.

The class are exceptionally economical in personnel, amounting to a 50 per cent reduction of manpower in respect to other ships of their size and complexity. In 1979 a seventh ship of the type was ordered from Rio de Janeiro, to be used as a training ship.

**Mk 10 Specifications**

- **Dimensions:**
  - Length overall: 424 feet
  - Length bp: 400 feet
  - Breadth: 44' 4" feet
  - Draught (max): 13' 6" feet

- **Displacement:**
  - Standard: 3,200 tons
  - Full Load: 3,800 tons

- **Machinery:**
  - 2 Rolls Royce Olympus Gas Turbines, 56,000 bhp
  - 4 MTU Diesels, 18,000 shp

- **Speed:**
  - 30 knots on gas turbine
  - 22 knots on diesels

- **Endurance:**
  - 5,300 miles at 17 knots (2 diesels)
  - 4,200 miles at 19 knots (4 diesels)
  - 1,300 miles at 28 knots (gas turbines)

- **Provisioning:**
  - Naval Stores: 45 days
  - Provisions: 60 days
  - Bunkers: 480 tons
  - Helicopter Fuel: 26 tons
  - Fresh Water: 50 tons

- **Armament:**
  - Vickers 4.5 inch mk 8 gun
  - Twin Exocet 55mm Launcher (four missiles)
  - Ikara A/S missile Launcher (ten missiles)
  - 40mm L70 gun
  - 175mm twin-tube A/S Rocket Launcher
  - Triple Mk 32 A/S Torpedo Tubes
  - Depth Charge Rail
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  - WG 13 Lynx Helicopter

- **Complement:**
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"BLACK PRINCE", sister ship to "BELLONA", and acquired at the same time. Allocated to "BELLONA" as the single cruiser in commission. Declared surplus to needs in 1961, and was sold to New Zealand to Eastern buyers.

"BELLONA", a modified "DIDO" class light cruiser, scuttled by the RNZN after the end of WW2. Armed with 5.25 inch guns, this class saw the end of the 6 inch gun cruisers on the New Zealand station. Returned to the United Kingdom in the mid 1960s.

HMNZS "ROYALIST", commissioned 17-4-56, was a modified "DIDO", but had been modernised before transfer to New Zealand. She remained as the sole cruiser in the RNZN until paid off in March 1966. In January 1966 she was towed away from Auckland for scrapping, bringing an end to forty eight years of cruisers on the New Zealand station.
Probably the best known of the New Zealand cruisers, "ACHILLES", seen here paying off in Auckland, 17-7-46. She played a very important part in the destruction of "GRAF SPEE" in 1939, and suffered heavy battle damage in the Solomon Islands campaign. Underwent a large refit in the UK 1943-44, but rejoined the RNZN in May 1944. As the Indian "DELHI" she is still afloat.

HMNZS "GAMBIA", largest of the "Kiwi" cruisers, commissioned 23 September 1943, with the crew from "ACHILLES". After the cessation of hostilities "GAMBIA" reverted to the Royal Navy.

CORRECTION
The February/March/April issue of "The Navy" featured the Royal New Zealand Navy Today and unfortunately included a number of errors/omissions:

OTAGO & TARANAKI, although described as "Whiteby" class by "Janes", they are more properly classed as "Otago" class.

WAYATE, has had her mortar removed and is fitted with 2 x 3 torpedo tubes mountings.

OTAGO, is scheduled to remain in an operational role until 1981/82, and TARANAKI has been reduced to a "Resources Protection and Sea Training" role. She has also had her 40/60 bofors removed, the latter being replaced by a 40/40 bofors. There is no intention to replace the "Lake" class patrol craft.

The Editor would like to express his thanks and apologies to the RNZN for these additions and amendments.

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