

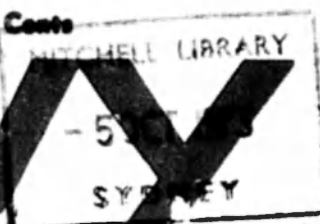
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A Message from . . .

The Minister for The Navy

The Honourable Lance Barnard, MP

This year Navy Week occurs at a time when the world is enjoying more freedom from international tension than it has known since the early 1930s.

The prospects for continued stability throughout the remainder of this decade are good. In the past year or two, because of the low-threat environment, the emphasis in the Royal Australian Navy has moved away from combat activities to forward planning. This does not mean, however, that the Navy can relax its operational standards. Indeed, a high state of operational readiness is being maintained under the stimulus of frequent and intensive international and local exercises involving all types of Fleet units.

Along with a desire for the highest possible technical and operational standards goes a concern for the morale of those who serve in our Navy. My Government places a high value on the profession of arms, and in our first year of office we have swiftly set about improving pay and conditions throughout the Armed Services.

This time of peace gives us an ideal opportunity to look into the future to evaluate any possible threats to Australia and the best defensive posture to take. But at the same time, we will maintain the highest possible technical and human standards within the Navy, which has served our country so well since it was founded by a Labor Government 60 years ago.

OUR COVER

Mine countermeasure ships of the Royal Australian Navy on exercise. RAN official photograph.

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A Message from the . . .

FIRST NAVAL MEMBER AND CHIEF OF NAVAL STAFF

Vice-Admiral Sir Richard Peek, K.B.E., C.B., D.S.C.

The primary task of the defence forces of Australia has always been the defence of Australia. The community decides what resources — manpower, material and finance — should be devoted to the defence of our country. The Navy League has an essential role in educating the community in this regard.

To me, it is self evident that an island continent can only be threatened from the sea or the air above the sea and I believe that the main Australian defence effort should be devoted to maritime forces.

At present we can foresee no threat to Australia for the next ten years but it has not proved possible in the past to forecast threats with any confidence even two years ahead — some of you will remember hearing in 1938 a radio announcement of "peace in our time" — just a year before the outbreak of the Second World War.

Naval ships take many years to design and build. From the original statement of a foreseen requirement to delivery to the Fleet takes from 8-10 years for a destroyer type vessel. Put another way, unless past experience is wrong (and we are able to get a long warning period), if we have to defend Australia, the Navy will do so with the ships, aircraft and submarines in the then current Fleet.

I hope that the Navy League of Australia will do all in its power to ensure that the Fleet is always of sufficient size and capability to defend our island continent should we ever be called upon to do so.

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Annual Message from the Federal President of the Navy League of Australia



**Commander F. G. Evans
MBE, VRD, RANVR.**

Just twelve months ago, in the President's Annual Message to members, I expressed satisfaction at the attention being given to the Navy and to maritime defence. It is difficult to express such confidence today.

As members of an organisation which lists maritime security at the head of its objectives, we must all be concerned when we see this security placed at risk by a weakened navy.

The effectiveness of the armed forces of any country depends upon the will of the people to support them, and I frankly disbelieve that Australians are so apathetic that they would permit our defence forces to suffer a prolonged period of neglect.

Nevertheless the desire to live a peaceful life and to be undisturbed in our daily activities is strong in most of us. Predictions that our country is unlikely to be under major threat for some years to come — fifteen seems to be the magic number — contribute to our ease of mind but at the same time create an atmosphere in which it is only too easy to put off decisions which ought to be made, without undue fuss.

It takes a conscious effort to remember that we live in a highly volatile world in which situations can and do change with great rapidity; in which many nations large and small have the means to back their national interests and aspirations; and in which Australia, large in area, with attractive resources and a small population, is one of the most vulnerable of all countries.

I believe that the Navy League has contributed much to Australia through its cadet organisation and this will continue. We have the desire and the ability to contribute still further in the wider area of national defence — by making first ourselves aware of the problems involved, and then others; of resisting complacency; by being critical when we consider it necessary; and constructive where possible. By being vigilant and adhering to our motto which is — "Keep Watch".

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HMAS MELBOURNE, the flagship of the Royal Australian Navy. She carries four Sky Hawk jet fighters, six Tracker aircraft and ten Westland Wessex anti-submarine helicopters.

Australia is an island continent. With an area of three million square miles, it is the world's largest island and it has a coastline exceeding 12,000 miles. Flanked by two great oceans — the Pacific Ocean to the east and Indian Ocean to the west — with no lands to the south until the Antarctic is reached and a chain of islands of various countries to the north, Australia is remote from the rest of the world. Most of its 13-million population is concentrated in a few major cities on the eastern seaboard.

Australia has always been a trading nation whose prosperity and very existence depends on free use of the oceans. Over 90 per cent of its exports and imports go by sea.

The country's geographical isolation is both an advantage and a disadvantage from the defence aspect. On the one hand, an invader cannot march into the country; he must come either on or over or under the sea. On the other hand,

Australia is not self-sufficient and its capability to sustain itself is directly related to the degree of freedom it has in its use of overseas trade routes.

The long coastline, the great areas of ocean which separate Australia from the rest of the world and its dependence on sea trade emphasise the importance of maritime forces in the defence of the country.

Australia's population base is rela-

tively small and the requirements of any of its defence forces must be considered against the availability of the country's manpower and other resources. Despite the magnitude of their potential task, the Navy must necessarily be modest by world standards in terms of manpower and equipment.

ROLES

The roles of the RAN are:—

— to organise, train and equip naval forces, including naval aircraft, for timely and sustained combat operations at sea;

— to detect and destroy enemy naval forces and sea commerce;

— to establish and maintain superiority in areas necessary for naval operations, including the protection of sea lines of communication;

— to conduct naval offensive operations against enemy forces and installations;

— to conduct naval reconnaissance and surveillance, anti-

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submarine warfare, the protection of shipping and hydrographic and oceanographic surveys.

e to provide naval support for land operations.

e to provide military sea transport support for the Australian Services, and

e to provide seaward defence of ports and anchorages.

In peacetime, the primary role is to maintain operational effectiveness of the capabilities required in the above roles, including the maintaining of an effective standard for joint operations with the ARMY and the RAAF and, in addition, wherever possible, to contribute to national development and to assist the civil population.

To carry out the roles assigned to it, the Navy must have a balanced and viable force with the capability to respond to a threat quickly, effectively and, if need be, alone.

THE FLEET

The Navy is comprised of over 50 ships as well as a fleet air arm and over 17,000 men and women. Major units of the fleet are the aircraft carrier, three destroyer squadrons and a submarine squadron. The offensive and defensive capabilities of these major units are backed by a mine countermeasure squadron, patrol boat squadrons and various support, training, oceanographic and survey ships.

The flagship of the Royal Australian Navy is the aircraft carrier, HMAS MELBOURNE, which carries Douglas Skyhawk jet fighter aircraft, Grumman Tracker anti-submarine aircraft and Wessex 31B anti-submarine warfare and SAR helicopters. More modern and larger Sea King helicopters are on order to replace the Wessex 31B helicopters. Various mixtures of aircraft can be carried to vary the ship's capability for strike, aerial defence or anti-submarine operations. HMAS MELBOURNE was first commissioned in 1955 and is due to be phased out of service in the early 1980s. A major study, which is considering Australia's future maritime air power requirements, including a replacement for MELBOURNE, is at present in progress.

Three US-built guided missile destroyers, HMA Ships PERTH, HOBART and BRISBANE, comprise the First Australian Destroyer Squadron whose main task is air defence but they also have formidable anti-submarine warfare and surface gunnery capabilities. The DDG's principal weapons are the Tartar guided missile system, 5 inch automatic guns and the Ikara anti-submarine system. All of these ships saw action in Vietnam where they served with ships of the US Navy's Seventh Fleet.

The Second Australian Destroyer Squadron includes the recently

modernised Australian-built Daring Class destroyers, HMAS VAMPIRE and HMAS VENDETTA. These all-purpose gun ships have formidable surface gunnery as well as anti-aircraft capabilities. A third Daring Class destroyer, HMAS DUCHESS, is being refitted as a training ship.

The Third Australian Destroyer Squadron consists of six Australian-built River Class destroyer escorts, HMA Ships YARRA, PARRAMATTA, STUART, DERWENT, SWAN and TORRENS, the last two having been commissioned in 1970 and 1971 respectively. These destroyer escorts are principally anti-submarine warfare ships and all are fitted with Ikara, 4.5" guns and the Seacat missile system for close-range air defence.

The First Australian Submarine Squadron comprises the four Oberon Class submarines, OXLEY, OTWAY, ONSLOW and OVENS. The first of these was commissioned in 1967. Two more Oberon Class submarines are being built in the United Kingdom.

Four Ton Class minesweepers and two minehunters make up the First Australian Mine Countermeasures Squadron — HMA Ships CURLEW and SNIPE (minehunters), HAWK, TEAL, IBIS and GULL. Of British design and construction, the ships were modified in the United Kingdom before joining the Australian fleet in 1962. Originally, all



The guided missile destroyer HMAS PERTH.

six ships were fitted as mine sweepers but CURLEW and SNIPE have since been converted to mine-hunters.

Twenty patrol boats have been built in Australian shipyards in recent years. These patrol boats form the First, Second and Third Australian Patrol Boat Squadrons and the PNG Patrol Boat Squadron. Their tasks include patrol duties, reconnaissance, fisheries surveillance, survey work, sea-air rescue and training in the waters around Australia and Papua New Guinea.

The support ships include the fleet tanker HMAS SUPPLY, and the destroyer tender, HMAS STALWART. The latter is the largest naval vessel wholly designed and built in Australia and it provides mobile maintenance support for the fleet.

It was announced in July 1973 that the former fast troop transport HMAS SYDNEY, which also served as a training ship, would be placed in reserve pending disposal. The only training ship at present is HMAS ANZAC, which will be paid off when HMAS DUCHESS joins the training squadron after her refit.

Australia's hydrographic task is undertaken principally by HMAS MORESBY and the newly commissioned HMAS FLINDERS. HMAS DIAMANTINA and HMAS KIMBLA are employed on oceanographic work. Eight landing craft are progressively being commissioned as they complete building to form the First Australian Landing Craft Squadron.

To replace HMAS DIAMANTINA, a new oceanographic ship HMAS COOK is being designed.

DEVELOPMENTS

Although not large, the Royal Australian Navy compares well with the navies of other middle powers. It is well armed, well trained, is technically advanced and possesses a wide range of capabilities.

The main objective is to maintain a balanced naval capability best suited to meet possible future operational situations. To this end naval planning has been, and will continue to be, directed to effect a change from an anti-submarine warfare oriented force to one with a more general purpose capability. This is reflected in the present Fleet, which has capabilities in all facets of naval operations, such as interdiction, surface and anti-submarine warfare, naval air operations, surveillance and patrol and support to the other Services including naval gunfire support.

OPERATIONS

Operating as it is now in a peacetime environment, the Fleet is largely devoted to exercises, although in the years 1967 to 1971, the RAN maintained a destroyer and other shore-based units in Vietnam, while in the 1950s Australian ships served with UN forces in Korea.

International exercises include the Rimpac (Rim of the Pacific nations)

series, ANZUK and Seato exercises as well as smaller exercises with Australia's neighbours, including New Zealand and Indonesia. Internationally, too, goodwill visits retain their importance and this year three of our ships took part in an extensive tour of Indian Ocean littoral States.

The RAN is responsible for charting an area of ocean which covers one-seventh of the earth's surface. The importance and magnitude of this task is continually emphasised as merchant ships grow larger and faster and their draughts increase. New, accurate charts, particularly for the comparatively shallow, hazardous waters of northern Australia and for new developing ports, are high priorities.

Oceanographic research, both for civil and military purposes, coupled with trials work are other scientific roles to which the Navy devotes considerable resources, time and effort.

As Australia has no Coastguard Service, another area which involves the Navy in peacetime is in the protection of national resources, including fisheries surveillance which is largely the responsibility of patrol boat forces deployed from Darwin and Cairns although other units in other areas may from time to time be diverted for this task.

The Navy, of course, acts in co-operation with the other Services and with the other departments of Government involved in maritime affairs. There is a growing involvement between all three Services which is resulting in increasing emphasis in inter-Service exercises.

Major areas in which the Navy co-operates with the Army is in the provision of sea transport, maritime support to land forces (particularly naval gunfire support and forward carrier aircraft strike support) and amphibious assault craft.

The Royal Australian Air Force works closely with the Navy, providing specialised long-range maritime patrol aircraft and the two Services operate a joint anti-submarine school. When employed in the anti-submarine warfare role, the control and co-ordination of Air Force long-range maritime patrol aircraft operating with naval forces are exercised through a Maritime Headquarters under naval command.

PLANNING

While there is no direct military threat to Australia or its sea communications at the present time, there is, nevertheless, a continuing need to maintain preparedness. This includes designing, ordering, building and equipping ships and training officers and men so that the maritime forces will be ready to react to any future threat or likely threat to Australia.

It takes a long time to build a ship and it takes years to train the officers and men to man them and operate their highly technical weapons and equipment.

Naval planners are required to assess what forces will be required in the future. Like all planners, they are required to take the first step in acquiring new equipment. Long lead times inherent in designing and constructing a large warship mean that

up to a decade or more may elapse before such a ship can be brought into service. Although it can never be certain what threats these warships will have to face in the future, the decisions to build larger ships possessing a wide range of capabilities have to be made in time to ensure that the major units of the fleet will be available to meet all contingencies. Small ships can be built comparatively quickly and, consequently, the determination of requirements for these ships can await more accurate assessments of likely future operations.

SUMMARY

The RAN of today has been built up by events and decisions of the past. Its future will be largely shaped by decisions to be made today.

It will be surprising if, in the light of Australia's geography, trade and economy, all of which clearly point to the importance of the oceans to our way of life, maritime forces are not provided in sufficient strength to maintain our sea communications, a task with which the RAN is charged.

Australia's first line of defence will remain the sea.



A Grumman S-2E Tracker four-seat anti-submarine attack aircraft lands aboard the flagship of the Australian Fleet, HMAS MELBOURNE.

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THE URUGUAYAN NAVY

Contributed by
RENÉ W. FUREST
for the Naval and Maritime Historical
Studies Centre, of Uruguay.

The Editor is indebted to Mr Felipe Montero, Charge d' Affaires en pied, Embassy of Uruguay, Canberra, ACT and Luis Regulo Roma, Capitan De Navio (CG), Director, Comando General De La Armada, Montevideo, Uruguay, for arranging the preparation of this article.

I feel a rare pleasure writing for the readers of "THE NAVY", since Australia and Uruguay seem to have some things in common: their capital cities, Canberra and Montevideo, both lie slightly over parallel 35 South, although opposite in the globe; Uruguay and Australia have similar resources: agriculture, cattle raising and wool; both countries are relatively young and were discovered and civilised by Europeans ... and, lately, some Uruguayans have settled in Australia, as a counterpart, perhaps, of the Australian eucalyptus that was introduced in Uruguay last century.

To begin with, let's summarise the history of the Plata River region and that of Montevideo. Although the river was discovered by the Spanish navigator Juan Diaz de Solis in 1516 and Magellan and Sebastian Cabot explored it in 1520 and 1527 respectively, it was only in 1580 that the Spaniards succeeded in settling on its shores, founding the city of Buenos Aires (earlier settlements were razed by the Indians).

As problems arose, it did not take a long time for the metropolitan colonial authorities to understand the strategic importance of the only sheltered bay that the river had, across from Buenos Aires, by the side of the hill called Monte (Mount) Video: this was the perfect site for the defence of the Spanish possessions against the pirates, smugglers and the ever-threatening ships of England and Portugal. Conversely, it would be a poisonous thorn in the side of the wealthy colony, should it fall to an enemy.

Although the orders for founding a city there were issued by the King of Spain many years earlier, the stronghold of St Philip of Montevideo was established during 1726: an advanced safeguard for Buenos

Aires ... a watchful eye over the "wide-as-a-sea" river

Thus, Montevideo was born mainly as a Military Post and a Naval Station. The Governors of Montevideo were high rank army or navy officers and the jurisdiction of the Naval Station reached as far as the Malvinas (Falkland) Islands, which



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were supplied, watched and protected by ships based in Montevideo. The city was sheltered by the big stones of strong ramparts over which the muzzles of a hundred cannons kept guard.

Montevideo was also a supply port and Prize Court for the Spanish privateers that ran after the English on the South Atlantic. Small as it was, our city also had its own corsairs when, in 1805, some merchants fitted for war a handful of ships in order to retrieve the money sent to Spain but captured by Commodore Sir Graham Moore off the Portuguese coast. Several brigs and sloops, manned by Montevideans (ORIENTE, REINA LUISA, SAN FERNANDO, DOLORES to mention a few) pursued and seized a number of British ships, off the African coasts or near India.

The War for Independence started in 1811, and naval forces appeared for the first time in 1816 when our national hero, General Jose Artigas, began the organisation of two squadrons to fight against the Argentinians and authorised privateering to combat the Portuguese. This was a very clever plan, in line with the bright military conceptions of Artigas, and it worked very well. The squadrons dominated the great streams that flow into the Plata River: the ships of Commander Justo Yegros ruled the Uruguay River, and Commander Pedro Campbell was the master of the Parana River with his schooners.

As for the corsairs, they swept the seas in all directions, and were a very serious menace to Portuguese shipping, between 1816 and 1821. Numbering around 50 brigs and schooners with beautiful names (REPUBLICA ORIENTAL, IRRESIS-

TIBLE, ARTIGAS, FORTUNA, REPUBLICANA, HEROINA, CONFEDERACION, VALIENTE, CONGRESO, INVENCIBLE, LEONA ORIENTAL, INTREPIDO) and with daring captains as Dieter, Leech, Doutant, Almeida, Chase, Daniels, Cathill, Nutter, Murphy and Jewett, they seized more than two hundred Portu-

guese ships off the coasts of Brazil, Africa, Caribbean, Madagascar, Spain and Portugal within firing range of the forts of Oporto and Lisbon.

Provided with "Letters of Marque and Reprisal" issued by Artigas, they sent their prizes to Montevideo, Colonia (Uruguay), Buenos Aires, the West Indies, Venezuela, Norfolk, Charleston, Savannah, Providence and, specially, Baltimore. And the corsairs carried on their private war against Portugal even after Artigas was defeated in 1820.

Independence was won, at last, on 25 August, 1825, after an almost continuous war since 1811. The Uruguayan flag was hoisted over the old Citadel where, during the previous 100 years, the flags of five nations had flown — Spain, England, Portugal, Argentina and Brazil. But independence did not mean peace: international and civil wars



Model of the ships used by Artigas' corsairs — 1816/1821.



Steamship GENERAL RIVERA — 1884.

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obscured the remainder of the 19th century.

The Navy was neglected during the peaceful years that followed independence, and around 1832 four schooners (AGUILA, LOBA, ESTRELLA DEL SUR, CONSTITUCION) were the only vessels in active service. However, in 1839 Uruguay declared war against the Argentinian dictator Juan Manuel de Rosas and the need for a fleet became apparent. The war lasted until 1852 and Montevideo was besieged for nine years, inspiring the Alexander Dumas book "Montevideo, or the New Troy".

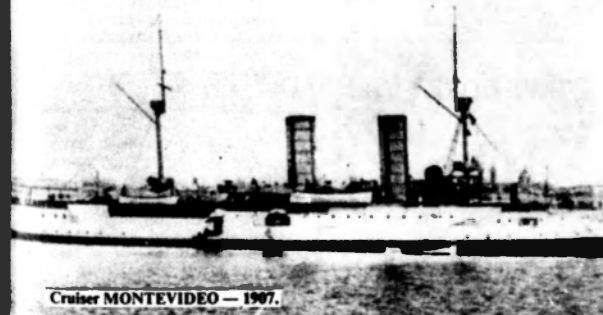
During the early period of the war some squadrons were organised, dominating the rivers Uruguay and Parana, and the approaches of Montevideo: LOBA, EUFRASIA, RIVERA, ESTRELLA DEL SUR, BERNARDINA, 18 DE JULIO, ATREVIDO and RONDEAU, were the names of some of the ships, and Fourmantin, Read, Sciurano, Hynes, Dagrumet, Pages, Dupont, were some of their captains. A handful of these schooners integrated the Franco-Uruguayan fleet that took by storm the strategic island of Martin Garcia, that commands the passages to the Uruguay and Parana Rivers.

Later on, a more important fleet was organised to fight against the strong force that Rosas put under the orders of Admiral William Brown, and several hard-fought battles kept Montevideo free from blockade. The commanders of the Uruguayan fleet were John H. Coe until 1842 and, from that date, Giuseppe Garibaldi,

who, returning to Italy in 1847, gained world fame as the hero of the war against Austria and the unification of his country. The

captains of our ships during this period were Shannon, Masson, Dupuy, Martinez, Beazley, etc. and their ships were brigs, sloops and schooners: SARANDI, PALMAR, CONSTITUCION, YUCUTUJA, MONTEVIDEANO, 25 DE MAYO, EMANCI-PACION, INTREPIDA, RESISTENCIA, LIBERTAD, LEGIONARIO, REPUB-LICANO, TERRIBLE.

Near the end of the war (1851), our Navy had its first steamship, named RIO URUGUAY. Incidentally, during this war the first battle with steamers took place: some French and English side-wheelers were used in the battle of Obligado (1845), forcing entry into the Parana River by bombard-ing the batteries that the Argentinians had erected on the cliffs that dominated the crossing. The steamers demonstrated their superior manoeuvring ability by going up, down or across the stream with ease, while cannonading the

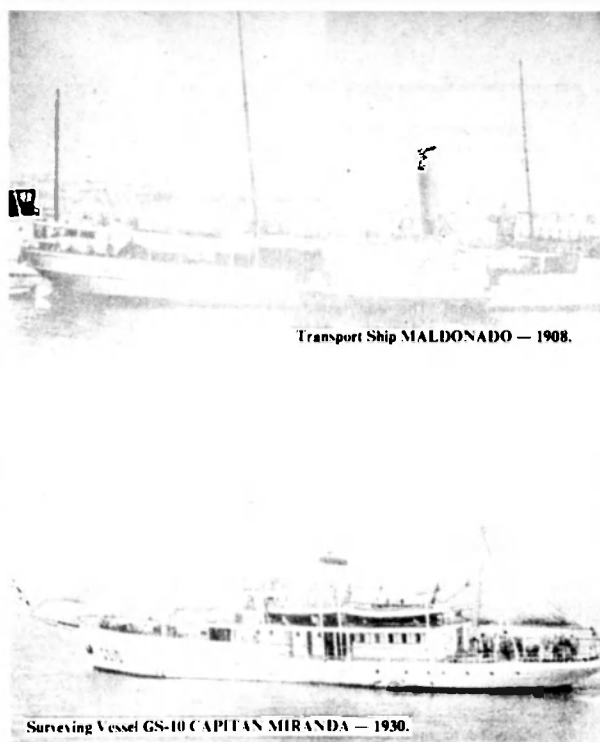


enemy. This experience was followed with keen interest all over the world.

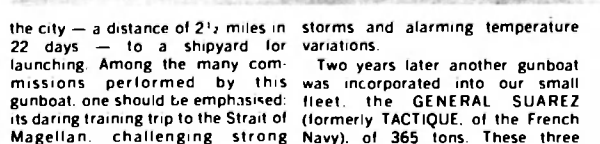
Ten years after this long conflict, a civil war compelled the Government to fit the steamships TREINTA Y TRES, VILLA DEL SALTO and GENERAL ARTIGAS, but only for the duration of hostilities. From 1865 to 1870 Uruguay, Argentina and Brazil were engaged in a war against Paraguay, and new ships had to be requisitioned for transportation of supplies and troops. Up to the turn of the century, new civil wars meant new steamships for patrol duties. Those better known include: MONTEVIDEO, COQUIMBO, RAYO, GUARDA, GENERAL ARTIGAS, PRESIDENTE, RIO NEGRO, REPUBLICA, CHAPICUY, LABRADOR, FE, VIGILANTE and TANGARUPA.

Since 1884, the core of this heterogeneous fleet became a more stable force: "the gunboats", as people fondly used to call these ships, with a collective term rather than by their individual names. During the administration of General Máximo Santos, tenth President of the Republic, the Uruguayan Navy received, for the first time, ships built for naval service: in 1884 two ships commissioned, the Gunboat GENERAL ARTIGAS (273 tons) built in Trieste, Austria-Hungary, for our Government and sailed to Montevideo by Uruguayan officers, and the Gunboat GENERAL RIVERA.

This last ship deserves a special paragraph. She was entirely built (hull and machinery) by the Arts and Crafts School of Montevideo, and her hull was hauled by soldiers and people through the main avenue of



Transport Ship MALDONADO — 1908.



Surveying Vessel GS-10 CAPITAN MIRANDA — 1930.

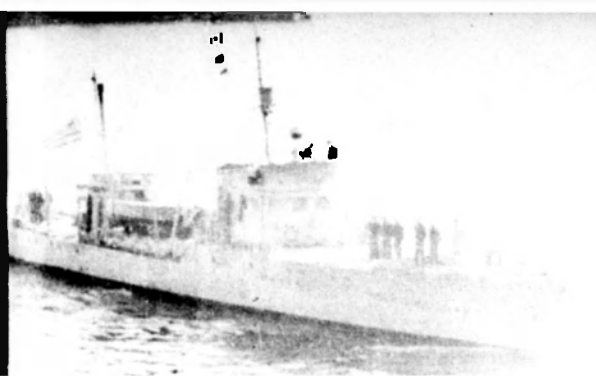
the city — a distance of 2½ miles in 22 days — to a shipyard for launching. Among the many commissions performed by this gunboat, one should be emphasised: its daring training trip to the Strait of Magellan, challenging strong

storms and alarming temperature variations.

Two years later another gunboat was incorporated into our small fleet, the GENERAL SUAREZ (formerly TACTIQUE, of the French Navy), of 365 tons. These three gunboats rendered outstanding services during many years of the history of our Navy: they performed many varied missions, in war and peace; logged many sea miles and were the cradle for many of Uruguay's naval officers.

During this period and up to around 1905, in addition to some small steamers belonging to the Navy (FLORES, FORTUNA, RAYO, LAVALLEJA, GUARDA, INGENIERO and CORSARIO) some 20 merchant ships were fitted for patrol and transportation tasks during several civil wars that were waged during those years.

The most distinguished officers of that time were Bayley, Escabini, Miranda, Romero, Risso and

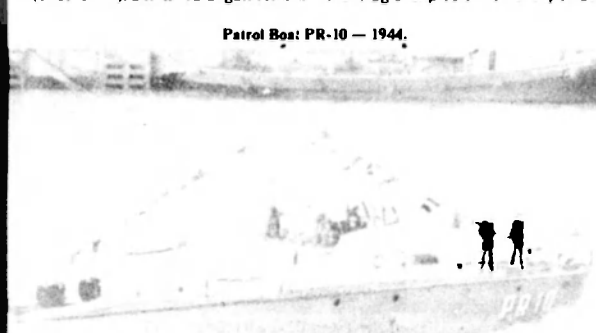


Patrol Ship PR-2 SALTO — 1936.

Gomensoro. With regard to the old units for new ones, modernising the fleet in only four years: in 1907 from England to Buenos Aires, in 1880, by invitation of the Government of that country.

Under President Claudio Williman (1907-1911), a new era began for our

Navy, with the substitution of old units for new ones, modernising the fleet in only four years: in 1907 the Gunboat 18 DE JULIO (543 tons) was bought, mainly with funds subscribed by the populace. It was started in 1903 by people touched by the tragic explosion of the powder



Patrol Boat PR-10 — 1944.

magazine of the Gunboat GENERAL RIVERA, in the harbour of Montevideo. The same year, the Protected Cruiser DOGALI (2,602 tons) was acquired from the Italian Navy and re-named MONTEVIDEO. In 1908 the Transport Ship MALDONADO, a paddle-wheel steamer of 600 tons, was purchased and the small Despatch Vessel ORIENTAL (88 tons) came from New York under the command of Lieutenant Eduardo M. Saez, in a dangerous trip that took 7 months and 7 days, occasioned by the need to land regularly on the shores of the Caribbean Islands or Brazil in order to fetch wood for the boiler furnace, as it was impossible to get coal in such small ports and the ship's bunkers were quite small. In 1910 the Cruiser URUGUAY (1,250 tons), built by a German shipyard in Stettin to the specifications prepared by our Navy, was commissioned. It was during this period that a drydock and workshops were constructed as part of the Naval Shipyard and Arsenal.

The cruisers MONTEVIDEO and URUGUAY were very active on patrol duty during World War I, keeping guard over the Uruguayan waters bordering the Atlantic Ocean, and Plata River. In 1918 the cruiser MONTEVIDEO took Dr Baltasar Brum, the Foreign Affairs Secretary, to the United States. The trip was made across the Atlantic Ocean, returning through the Pacific and the Strait of Magellan. A similar trip was made the following year by the cruiser URUGUAY, carrying to Mexico the corpse of the well-known poet Amado Nervo, who died in Montevideo where he was the Mexican Consul.

Between the two World Wars, our fleet underwent few changes, older

building



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ships were broken up, and few additions were made: in 1930 the *CAPITAN MIRANDA* (Surveying Vessel, 516 tons) arrived at Montevideo from Cadiz, Spain, where it was built to the specifications of our Navy. In 1936 the Ancona Shipyard, Italy, finished the three Patrol Ships *PAYSANDU*, *SALTO* and *RIO NEGRO*, each of 150 tons, ordered by our Navy. They were brought to Montevideo by Uruguayan crews in an epic crossing due to the very heavy seas and the low freeboard of these small ships.

At the beginning of World War II, it was again the Cruiser *URUGUAY* that patrolled our territorial waters, and was an eyewitness of the battle between the German pocket battleship *GRAF SPEE* and the Allied cruisers, *EXETER*, *AJAX* and *ACHILLES* off Punta del Este on 13 December, 1939.

It must be remembered that during World War II the problem of lack of cargo holds was solved by requisitioning two Italian and two Danish ships, to which must be added a German cargo detained in Montevideo for having assisted the battleship *GRAF SPEE* shortly before her blasting. Two of them, re-named *MONTEVIDEO* and *MALDONADO*, commanded by Navy officers, were sunk in the Caribbean Sea by German submarines.

During the war, the build-up of our Navy began: in 1944 the first ship of the types procured during this conflict arrived at Montevideo: the *B-1 MALDONADO* (ex *USS PC-1234*, 430 tons), now scrapped. In 1952 two Destroyer-Escorts were added: the *DE-1 URUGUAY* (ex *USS BARON*, *DE-166*) and the *DE-2 ARTIGAS* (ex *USS BRONSTEIN*, *DE-189*), of 1,520 tons. The following year our Navy was strengthened by the arrival of the frigate *PF-1 MONTEVIDEO* (ex *HMCS ARNPRIOR*, ex *HMS RISING CASTLE*, 1,590 tons). She was also used as a training ship, and was only decommissioned after 20 years of service.

In 1960 three young officers of our Navy, Ensigns Nader and Costa and Midshipman Firpo, in the ketch *ALFEREZ CAMPORA*, made a successful trip around the world, observing the Northern coast of Australia from the Torres Strait.

In more recent years vessels added to our Navy list include: 1969 the Net Layer Ship *AM-25 HURACAN* (ex *USS*



Destroyer-Escort DE-1 URUGUAY — 1952.



Destroyer-Escort DE-2 ARTIGAS — 1952.



Frigate PF-1 MONTEVIDEO — 1953.



Oiler AO-29 PRESIDENTE ORIBE — 1962.

NAHANT, AN-83, 855 tons) for using as a Buoy Tender and Salvage Ship; the three Mine Sweepers *MS-31 COMANDANTE PEDRO CAMPBELL* (ex *USS CHICKADEE*, *MSF-59*, 890 tons) in 1966, *MS-32 RIO NEGRO* (ex *M-686 MARGUERITE*, French Navy, ex *USS AMS-94*, 300 tons) in 1970, and *MS-33 MALDONADO* (ex *M-614 BIR-IACHEIM*, French Navy, ex *USS MSO-451*, 700 tons), also in 1970. In this present year, the *DE-318 DE JULIO* (ex *USS DEALEY*, *DE-1006*) of 1,940 tons, was acquired to replace the frigate *MONTEVIDEO*.

The Navy also has two oilers, that bring crude from the Orient to the Government refinery, serving at the same time as training ships since both oilers have accommodation and teaching facilities for 20 midshipmen and instructors: *AO-29 PRESIDENTE ORIBE* (37,500 tons, Tokyo 1962) and *AO-28 PRESIDENTE RIVERA* (37,500 tons, Spain 1972), a Light Ship, *LV-21* (800 tons) that is anchored at the edge of the Banco Ingles (English Bank), a very treacherous obstacle to the navigation in the middle of the Plata River; some patrol launches (*PR-10*, 11, 12); rescue launches (*PS 1*, 2, 3); Landing Craft (*LD-40*, 41), etc.

NAVAL AIR FORCE

In 1912, Ensign Attilio Frigerio, obtained his pilot's licence after training in Italy and upon his return to Montevideo advocated the need in Uruguay for a naval air service.

As a result of his efforts, the Aeronautic Service was created in 1925, with Attilio Frigerio as its first commanding officer.

In the beginning Army aircraft were used to train Navy pilots, but in 1930 the first aircraft for the Navy arrived: three Italian *CANT* flying boats. Two years later *Libertad* Island, in the harbour of Montevideo, was transferred to the Navy for an air base.

In 1942 six Sikorsky *OS2U* "Kingfisher" seaplanes were received,



Minesweeper MS-31 COMANDANTE PEDRO CAMPBELL — 1966.

equipped with the most modern equipment available at that time. The following year three Fairchild *PT-23* and a Grumman *Widgeon J4F*, a twin-engine amphibian, increased the small force.

During World War II, in 1943, a provisional post was established at "El Sauce" Lake, near Punta del Este on the Atlantic Ocean, as a base for the seaplanes that daily patrolled our territorial waters from Montevideo to the frontier with Brazil. In 1947 the Naval Air Force Base "Capitan Curbelo" was commis-

sioned in this place, with four landing strips beside its installations for seaplanes.

Near the end of 1949 ten *TBM "Avenger"* landed in "Capitan Curbelo" Base, flown from Dallas Texas, by Uruguayan crews. The following year a further six "Avengers", together with three "North American" *SNJ* were delivered.

Another Fairchild, *PT-26*, was transferred from the Army to the Navy in 1951, and in 1952 a group of twelve Grumman *F6F "Hellcats"* was



Patrol Boat PR-12 PAYSANDU — 1968.



Netlayer AM-25 HURACAN — 1969.

flown by Uruguayan crews from Fort Worth, Texas.

In 1956 the first PBM A-810 Martin 'Mariner' was flown from the United States, more SNJ trainers were added and the first helicopters for the Naval Air Force were placed in service: two Bell 47Gs.

At present, the Navy has aircraft from Grumman, Beechcraft, North American and Piper, as well as helicopters from Bell and Sikorsky.

At the beginning, the Navy pilots were trained in the Air Force School (Army) and specialised in foreign countries, mainly in the United States, but since 1950 the Navy has had its own School at the "Capitan Curbelo" Base.

THE NAVAL ACADEMY

Since the very beginning of our independent life, the idea of a Naval Academy was ever present. In 1829 the first plan was prepared, followed by another three years later.

In 1863, under the administration of President Bernardo Berro, a law was passed creating the Nautical College, but its life was very short. It was re-established ten years later, and many officers graduated prior to 1879 when it was closed due to reductions in Government expenditure.

In 1882 the National Maritime School opened its doors, however, three years later lack of funds forced the closure of the institution. In 1889 a new Nautical School was established and continued until 1894 when it too was closed for economic reasons.

A new project was discussed during 1889 and in 1902 a floating school was created using an old gunboat, but this school only lasted one year.

Finally legislation creating the Naval Academy was enacted and since that year this institution has functioned uninterruptedly. Here, officers for the Navy, Merchant Marine and Naval Prefecture are trained.

Besides the Naval Academy and the Specialisation School of the Naval Air Force already mentioned, three other teaching institutions are currently functioning — Naval War School (Post-graduation courses), Navy Specialisation School (for preparing specialised sailors) and the Navy Instruction Centre (for voluntary military training).



Minesweeper MS-32 RIO NEGRO — 1970.



Minesweeper MS-33 MALDONADO — 1970.



Oiler AO-28 PRESIDENTE RIVERA — 1972.



Destroyer-Escort DE-3 18 DE JULIO — 1973.

NAVAL SHIPYARD

The Navy has had its own Dry Dock since 1911, and it is also available to merchant ships. Its main dimensions are: Length 141.30 metres, breadth 19.50 metres; water level over stocks 5.44 metres; height of stocks 1.30 metres.

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PERSONNEL

A total of 546 officers and 4,898 men are on active service in Venezuela, including the Navy units, the Naval Prefecture and the Naval Fusileers Corps (Marines).

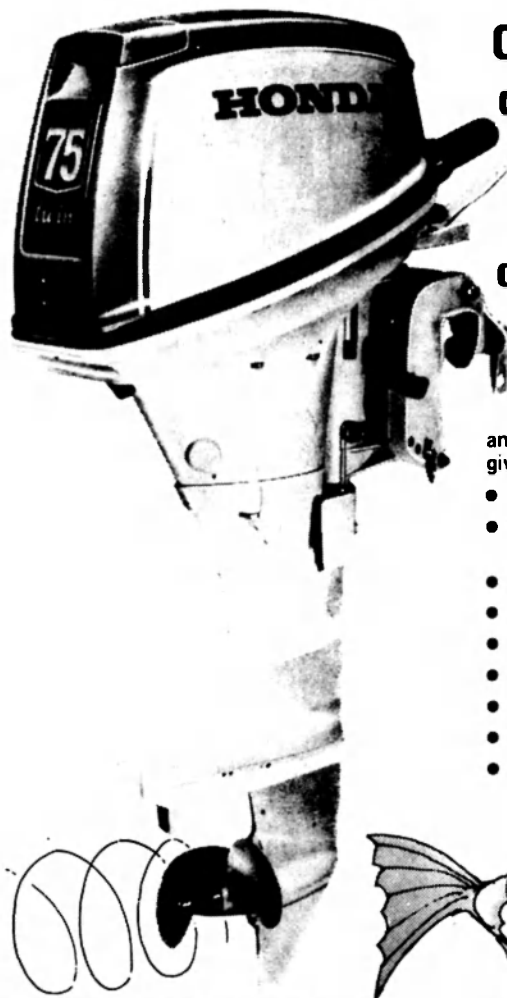
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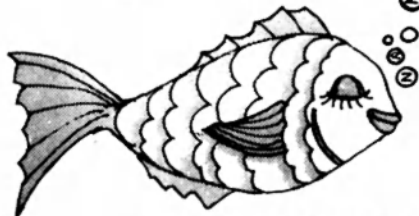
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Navy Week In Australia

Navy Week is one week in each year when Australians from coast to coast are urged to pay grateful tribute to those who have served and those now serving Australia at sea.

During this week it is fit and proper that a nation of free men and women give well-deserved honour and recognition to the patriotic and victorious achievements of its men of the sea. It is the week for Australians to re-dedicate themselves to those principles of freedom and self-government which they cherish. It is a week in which grateful citizens should salute their Royal Australian Navy and make sure that it is adequate to fulfil its contribution to our national security.

In the Royal Australian Navy the month of October has always held special significance. The 21st commemorates the 168th anniversary of the victory of the Battle of Trafalgar. Fought in the Atlantic, off the southern coast of Spain, it was the last great Naval battle to be fought under sail alone.

Sixty years ago, on 4 October, 1913, the Australian Fleet steamed into Sydney Harbour. Navy Week, 1973, was planned to coincide with the anniversary of the Fleet's entry.

The arrival of the ships in 1913 was an event Australians had looked forward to for half a century. They were their own ships, paid for by their own money and manned in large proportion by their own men; the nucleus of what they hoped would be their own Fleet.

The Squadron comprised the Battle Cruiser AUSTRALIA; Light Cruisers ENCOUNTER, SYDNEY, MELBOURNE and the Torpedo Boat Destroyers WARREGO, PARRAMATTA and YARRA.

It is appropriate at this time to recall the words expressed by the then Prime Minister of Australia. The Honourable Sir Joseph Cook: "Since Captain Cook's arrival, no more memorable event has hap-

pened than the advent of the Australian Fleet. As the former marked the birth of Australia, so the latter announces its coming of age, its recognition of the growing responsibilities of nationhood, and its resolve to accept and discharge them as a duty both to itself and to

the Empire. The Australian Fleet is not merely the embodiment of force, it is the expression of Australia's resolve to pursue, in freedom, its national ideals, and to hand down unimpaired and unsullied the heritage it has received, and which it holds and cherishes as an inviolable trust. It is in this spirit that Australia welcomes its Fleet, not as an instrument of war, but as the harbinger of peace."

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SUNDAY, 21ST OCTOBER

at 10.30 am

Interested Members of the Public are Cordially Invited to Attend

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BY: THE CHAPLAIN

We will meet to worship together as an outward demonstration of our essential unity as Christians.

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.

We are grateful that leaders in the Churches in Sydney have agreed to share in this Service and bring the distinction of their presence to this occasion.

The Right Reverend N. MacLeod, Moderator of the Presbyterian Church in New South Wales will preach the occasional sermon.

Participating clergy will include His Lordship Bishop Kelly, representing Cardinal Freeman, Roman Catholic Archbishop of Sydney, Reverend Colin W. Ritchie, President of the New South Wales Methodist

Conference and Archdeacon L. W. Long, representing the Most Reverend M. L. Loane, Archbishop of Sydney.

Music for the service will be provided by the East Australia Area Band of the Royal Australian Navy and musical items will be rendered by the choir from the Society of Saint Gerard Majella.

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.

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GARDEN ISLAND NAVAL DOCKYARD

**OPEN DAY — Sunday
21st October, 1973**

12.30 pm-5.30 pm

At time of publication berthing arrangements for ships and the timetables of events had not been finalised and visitors are requested to listen for the programme broadcast over the public address system. For location of activities refer map in centre of this magazine.

Programme of Events

12.30 pm	Gates open.
12.40-5.00 pm	Ships open for Inspection.
1.00 pm	Physical Training display — grassed area near main entrance gate.
1.30-2.30 pm	Band concert — grassed area near main entrance gate.
1.40 pm	Submarine diving and surfacing; also helicopter demonstrating sonar dunking. Location: Entrance of Captain Cook Dock.
2.20 pm	Clearance diving and helicopter display — mock battle. Location: Eastern side of Dockyard.
3.00 pm	Physical Training display — grassed area near main entrance gate.
3.30-4.30 pm	Band concert — grassed area near main gate.
3.40 pm	Submarine diving and surfacing; also helicopter demonstrating sonar dunking. Location: Entrance of Captain Cook Dock.
4.20 pm	Clearance diving and helicopter display — mock battle. Location: Eastern side of Dockyard.
5.00 pm	Band marching display — grassed area near main entrance gate.

Certain fixed displays will be situated in tents erected close to the grassed area near the main gate. The displays will include:—

Navy Cooking.
Naval Reserve Cadets — exhibit of activities and membership inquiries.
Diving gear and ordinance relics from Vietnam.

Torpedo Recovery vessels will carry visitors for a brief cruise taking in the Sydney Opera House. These vessels will operate during the afternoon from the Office Steps, near the Floating Dock.

Films of naval interest will be screened continuously in "Surfside 6", a pale green wooden building situated at the Southern end of the Cruiser Wharf.

5.30 pm — DOCKYARD CLOSED

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HMAS
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2:20
&
4:29

MOCK BATTLE
2:20 PM &
4:20 PM

NOT OPEN TO PUBLIC

NOT OPEN

TO

PUBLIC

CAPTAIN

COOK DOCK (Not Open)

1:40
&
3:40

The Dockyard (Except where shown) and certain Ships alongside will be open for inspection from 12:30 PM to 5:00 PM. Times of active displays are shown on this map.

Other Ships will be berthed at the Overseas Terminal, Circular Quay, Kirribilli Dolphins and Buoys off Cremorne & Kurraba Points.

NOTE: POSITION OF SHIPS
ON THIS MAP ARE
SUBJECT TO CHANGE

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PROGRAMME OF EVENTS *arranged for* NAVY WEEK, 1973

(Certain events and activities listed hereunder are subject to change as the Navy Week Programme had not been finalised at time of printing.)

NEW SOUTH WALES

WEDNESDAY, 17 OCTOBER Lunch Hour
THURSDAY, 18 OCTOBER Lunch Hour
FRIDAY, 19 OCTOBER 2.30-3.10 pm
SATURDAY, 20 OCTOBER 7.00-10.30 pm
SUNDAY, 21 OCTOBER 10.30 am
MONDAY, 22 OCTOBER to
TUESDAY, 23 OCTOBER Lunch Hour
WEDNESDAY, 24 OCTOBER to
THURSDAY, 25 OCTOBER 12.45-1.30 pm
FRIDAY, 26 OCTOBER to
SATURDAY, 27 OCTOBER 12.45-1.30 pm
SUNDAY, 28 OCTOBER to
MONDAY, 29 OCTOBER Lunch Hour
TUESDAY, 30 OCTOBER to
WEDNESDAY, 31 OCTOBER Lunch Hour
THURSDAY, 1 NOVEMBER to
FRIDAY, 2 NOVEMBER 9.00 am-5.00 pm
SATURDAY, 3 NOVEMBER to
SUNDAY, 4 NOVEMBER Various Times

Navy Band leads Waratah Princess Parade from Hyde Park to Sydney Town Hall.

Navy Band recital — Wynyard Park

Opening Ceremony — Sydney Opera House. Navy Band participating, including trumpet fanfare. Sydney Opera House. Navy Band will play near Opera House Restaurant.

United Religious Service. Garden Island Dockyard Church (general public invited to attend). Refer article near centre of magazine for detailed information.

Garden Island Naval Dockyard and vessels of the Royal Australian Navy and visiting navies open for public inspection (refer programme of events near centre of magazine)

Navy physical training display — Hyde Park.

Navy Diving display (diving tank in Hyde Park)

Navy clearance divers will operate from launches in Farm Cove (Opera House side).

Vietnam ordinance, photographic and diving displays and exhibit of torpedoes — Tent in Hyde Park.

Roselands Community Shopping Centre. Navy apprentices from HMAS Nirimba will demonstrate construction of fibreglass canoes and painting of ships' crests, etc. Navy Displays of photography, hydrography, knots and splices.

Navy Bands will play during the Lunch Hour period at —

MONDAY, 22 OCTOBER	HYDE PARK NORTH AND CIRCULAR QUAY
TUESDAY, 23 OCTOBER	MARTIN PLAZA AND AUSTRALIA SQUARE
THURSDAY, 25 OCTOBER	HYDE PARK NORTH
MONDAY, 29 OCTOBER	AUSTRALIA SQUARE
WEDNESDAY, 31 OCTOBER	HYDE PARK NORTH
THURSDAY, 1 NOVEMBER	HYDE PARK NORTH
FRIDAY, 2 NOVEMBER	AUSTRALIA SQUARE

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VICTORIA

SUNDAY, 30 SEPTEMBER

11.00 am

Naval Association Service at Christ Church, Toorak Road, South Yarra.

2.00-4.00 pm

Naval Reserve Cadet Training Ships LATROBE and YALLOURN open for public inspection.

MONDAY, 1 OCTOBER

WEDNESDAY, 3 OCTOBER

10.30 am-5.30 pm

Navy Week Golf Tournament at Waverley Golf Club.

12 Noon

Navy Band recital and PT Display, National Mutual Plaza, Collins Street, Melbourne.

1.00 pm

Navy Band recital — Melbourne City Square.

TUESDAY, 2, WEDNESDAY 3
THURSDAY, 4 OCTOBER

Cooking Demonstrations by the Navy at the SEC Showrooms, Flinders Street, Melbourne.

MONDAY to FRIDAY
1 to 5 OCTOBER

Navy Display at Southlands Shopping Centre, Nepean Highway, Cheltenham.

THURSDAY, 4 OCTOBER

FRIDAY, 5 OCTOBER

8.30 pm-1.00 am

Navy Band recital — Southlands Shopping Centre, Cheltenham.

Navy Band recital — Southland Shopping Centre, Cheltenham.

Navy Week Ball — HMAS LONSDALE, Port Melbourne (by invitation only).

SATURDAY, 6 OCTOBER

10.45 am

Navy Week Service, Melbourne Synagogue, Toorak Road, South Yarra.

2.00-4.00 pm

Naval Reserve Cadet Training Ships open for public inspection — TS MELBOURNE, Albert Park Lake; TS BARWON, Geelong; TS HENTY, Portland; TS MILDURA, Mildura; TS BENDIGO, Bendigo.

SUNDAY, 7 OCTOBER

10.00 am

Navy Week Mass — St Patrick's Roman Catholic Cathedral, Melbourne.

10.30 am

St Paul's Anglican Cathedral Seafarer's Service (attended by the Governor of Victoria)

3.15 pm

Shrine Memorial Service. (Parade will assemble at 3.00 pm on forecourt of shrine and after service will re-assemble (4.00-6.00 pm) at HMAS LONSDALE, Port Melbourne.)

TASMANIA

SATURDAY, 29 SEPTEMBER

THURSDAY, 4 OCTOBER

FRIDAY, 5 OCTOBER

SATURDAY, 6 OCTOBER

SUNDAY, 7 OCTOBER

Navy League Ball, Launceston.

Wreath Laying Ceremony, Hobart.

Navy Week Ball, Ulverstone.

Navy Ball, Hobart.

Parade and Wreath Laying Ceremonies at Launceston and Burnie.

Mariners' Service, St Georges Church, Hobart.

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QUEENSLAND

SATURDAY, 29 SEPTEMBER pm

SUNDAY, 30 SEPTEMBER

10.30 am.

12.30 pm

5.25 pm

MONDAY, 1 OCTOBER

WEDNESDAY, 3 OCTOBER

11.00 am

12.30 pm

NAVY DAY THURSDAY, 4 OCTOBER

12 Noon
to 2 pm

7.00 pm

7.30 pm

7.30 pm

7.30 pm

8.00 pm

FRIDAY, 5 OCTOBER

SATURDAY, 6 OCTOBER

7.30 pm

pm

SUNDAY, 7 OCTOBER

10.30 am

10.15 am

10.45 am

11.00 am

12.30 pm

Warana Spring Festival Aquatic Event.

Naval Parade and Commemoration Service, Central Park, Gladstone.

Navy Bowls Day at Wavell Heights Bowling Club, Brisbane

Sunset Ceremony by RANR Band (Organiser L. D. Miles, Phone 59 2142)

Navy Week Flying Handicap, Eagle Farm, Brisbane.

River Trip aboard RAN Landing Craft.

Navy Golf Day at Nudgee Golf Club, Brisbane (Organiser G. Joyce, Phone 66 7783)

(Navy Day School Talks at selected Schools throughout Queensland)

Navy Day Women's Luncheon at Naval Club Brisbane. Sponsored by Naval Wives Assn. Phone 31 1611 — Miss E. Nutt. Cost \$2.00

Navy Day Dinner at United Service Club Brisbane. Sponsored by Navy League of Australia — Col Fleming. Phone 98 2261. Dress — White Mess Undress. Cost \$10.00.

Navy Week Dinner at Queens Hotel Townsville. Contact D. Wilson, Phone 71 4838

Ex Navalmen's Dinner RSL Club Cairns. Reservations R. L. Garnaut, Phone 51 2131.

T/S PALUMA Open Night — Naval Reserve Cadets, Gibson Park, Stafford, Brisbane.

Maritime Supper Dance at HMAS MORETON, Brisbane Sponsored by RAN and Missions to Seamen — Cost \$5.50 Single. Reservations Mrs C. Udell, Phone 31 1611 or Naval Memorial Club, Phone 29 3651.

Navalmen's Reunion at RSL Club, Gladstone. Organiser J. F. Titmarsh, Phone Gladstone 72 1204.

Warana Spring Festival Aquatic Event.

Naval Church Parade, St Saviour's Church of England, Gladstone.

Naval Commemoration Service, Anzac Square, Brisbane (Medals to be worn).

March from Anzac Square to St John's Cathedral, Ann St, Brisbane — RAN, RANR, NRC Ex Navalmen and women headed by the Band of the RANR.

Seafarers' Service — St John's Cathedral, Ann Street, Brisbane.

Reunion Luncheon — Naval Memorial Club, 120 Edward Street, Brisbane (All Welcome). Smorgasbord. Cost \$1.60. Reservations Phone 29 3651.

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THURSDAY, 27 SEPTEMBER

FRIDAY, 28 SEPTEMBER

SUNDAY, 30 SEPTEMBER 11.15 am
7.00 pm

MONDAY, 1 OCTOBER

THURSDAY, 4 OCTOBER 12.00 Noon
7.00 pm

MONTH OF OCTOBER

HMAS TORRENS arrives.

HMAS TORRENS Chief Petty Officers' Cocktail Party.

Official Reception in HMAS TORRENS.

Navy Week Service, St Francis Xavier Cathedral.

Navy Week Service, St Peter's Cathedral.

Navy Week Golf Tournament. (Open to all past and present Naval personnel.)

Commemoration Service and Wreath Laying at State War Memorial. Rear Admiral A. G. McFarlane will represent the Naval Board.

Naval Officers Club Dinner at Naval and Military Club. Guest of Honour — Rear Admiral Stevenson.

Historical Display at State Public Library mounted by SA Chapter Naval Historical Society.

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Rear Admiral H. D. Stevenson, CBE, presently Chief of Naval Personnel will succeed Vice-Admiral Sir Richard Peek, KBE, CB, DSC as Chief of Naval Staff on 23 November, 1973.

The Minister for Defence, the Honourable Lance Barnard, has announced that Rear Admiral Stevenson, the present Chief of Naval Personnel, will be appointed Chief of Naval Staff for three years from 23 November, 1973. He will be promoted Vice-Admiral on taking up this post.

He will succeed Vice-Admiral Sir Richard Peek, KBE, CB, DSC, who will retire from the Navy on 22 November, 1973 after three years as Chief of Naval Staff.

In making the announcement, Mr Barnard paid tribute to the outstanding career of Vice-Admiral Peek, in both war and peace, since 1928. During the war he had served

with distinction receiving both the OBE and DSC, in recognition of his services. Later his commands included the Tenth Destroyer Flotilla and the RAN Flag ship HMAS MELBOURNE. Senior appointments

Appointment of CHIEF OF NAVAL STAFF

followed, including the posts of Deputy Chief of Naval Staff, Flag Officer Commanding HMA Fleet and Second Naval Member of the Naval Board.

Rear Admiral Stevenson, 54, entered the Royal Australian Naval College as a cadet midshipman on 1 September, 1932. He served in the Middle East and Pacific theatres during World War II. Post-war appointments included command of HMNZS ROYALIST and HMAS SYDNEY and MELBOURNE, Director of Plans Navy Office, Naval Officer-in-Charge Western Australia, Deputy Chief of Naval Staff, and Flag Officer Commanding the Australian Fleet. He attended the Imperial Defence College in 1966. He was awarded the CBE in January, 1970.

Visit by Japanese Ships

Two training ships of the Japanese Maritime Self Defence Force carrying a total of 160 cadets will visit Melbourne, Sydney and Darwin during September/October.

The destroyer KIKUZUKI and the frigate KATORI will call at Melbourne from 19-23 September, Sydney from 25-29 September and at Darwin from 10-12 October.

Two chartered aircraft will bring the Squadron Commander, Admiral Ishino, his official party and cadets on a morning visit to Canberra on 26 September where the Admiral will make official calls and later lay a wreath at the Australian War Memorial.

The party will also visit the Royal Australian Naval College, Jervis Bay.

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HMAS SYDNEY'S REPLACEMENT



The Government's announcement, that HMAS SYDNEY is to be retired immediately, gives rise to questions regarding the wisdom of making this decision before finalising plans for SYDNEY's replacement.

HMAS SYDNEY now fulfils two roles — fleet training ship and troop carrier. In the former role, she is supported by the destroyer HMAS ANZAC. In addition, HMAS DUCHESS is now in Williamstown Dockyard undergoing modifications to enable her to replace HMAS QUEENBOROUGH (which was discarded last year) and HMAS ANZAC. DUCHESS will not be able to provide training capacity to replace SYDNEY & ANZAC.

In an age when training requires ever increasing emphasis, it is hardly likely that the training abilities of SYDNEY are not required. Indeed, such is not one of the reasons given, by the Government, for SYDNEY's retirement. SYDNEY's strengths as a training ship included her spaciousness and flexibility of programme. When SYDNEY was not required as a troop carrier she was available for training, and vice versa. The nation cannot afford to have another first line warship downgraded to training ship without replacement in the line.

The question of replacing SYDNEY in her troop carrying role is more complex. There have been reports of various approaches under con-

sideration with probably the least practical, that of a fleet of passenger aircraft, being mentioned recently in a national newspaper. Of course, aircraft would have to be supported by a ship, of some sort, to give the necessary "heavy lift" for vehicles.

SYDNEY's strengths in her troop carrying role are her range, seaworthiness, ability to operate helicopters, assault craft, and "heavy lift" — the ability to load, on her flight deck, or in her hangar, a large number of all but the heaviest military vehicles. In short, SYDNEY can carry troops, equipment and vehicles, and land them in those parts of Australia where there are no airfields capable of handling heavy aircraft.

By A. W. GRAZEBROOK
Federal Deputy Vice-President,
the Navy League of Australia

Disadvantages are her ageing, and the old argument that "all the RAN's troop carrying eggs are in the one basket". Furthermore, there are the disadvantages of using a ship in a role for which she was not designed. These are best qualified by comparing the troop carrying capacity of the converted carrier HMS BULWARK with that of the purpose built USS IWO JIMA (LPH 2) —

Ship: BULWARK; Displacement: 23,300; Speed: 28; Crew: 1035; Troops: 900; LCVP: 4; Helicopters: 20. IWO JIMA: Displacement 17,000 light; Speed 20; Crew 528; Troops 2,090; LCVP nil; Helicopters 32.

IWO JIMA carries twice the number of troops with half the crew of BULWARK. IWO JIMA's poor heavy lift capacity is counter balanced by her higher helicopter complement. BULWARK's high speed, necessary for fleet operations in her aircraft carrier days, is now unnecessary. As a converted aircraft carrier, SYDNEY suffers from disadvantages similar to those of BULWARK.

SYDNEY's capacity as a troop carrier has not been developed to the same extent as that of BULWARK. This applies not so much to equip-

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HMAS ANZAC, built as a Battle class destroyer, she is now a training ship and is to be taken out of service during 1974.

ment as to the degree of training of her complement and troops. BULWARK's assault troops are specially trained Royal Marine Commandos, allocated to the ship for the full commission, whereas SYDNEY embarks Army personnel as necessary for exercises (as, for example, for the recent expedition to New Zealand).

In considering replacements for HMAS SYDNEY, a prime objective must be the advantages of the present SYDNEY, whilst eliminating her disadvantages. A need for her replacement must be confirmed and her role defined.

Up to the present, SYDNEY's troop carrying role has been predominantly that of transporting troops to and from Vietnam and Singapore. A series of assault exercises, which have received much less publicity than her transporting of troops to Vietnam, have demonstrated SYDNEY's potential as an assault ship. It is in this role that there is a need for improvement and replacement. Australia has a long coastline, and a very small population. There is no hope of ever having sufficient troops to station appropriate numbers at all points of the coastline. The answer to this problem is the mobility of the relatively few troops we do have. Provided there are large airfields in the vicinity of their destination, aircraft can move the troops them-

selves but the soldiers would have to wait for their equipment and supplies. A replacement for SYDNEY would fill the role of providing mobility on the Australian Continent admirably. The mobility conferred upon Australia's defence forces, by such a replacement, is essential.

It is essential that mobility be considered in the context of the continental defence of Australia. The Government must not allow their opposition to the use of such mobility in South East Asia or Papua New Guinea to influence them into making a serious error by restricting the mobility of the defence forces within the Australian Continent.

Before turning to the type of vessel needed to replace SYDNEY, consideration must be given to the Army's needs. The Army has a fleet of 48 vessels, the largest of which is 1400 tons dead weight. The most significant vessels are in process of turning over to naval manning. These are the eight new BALIKPAPAN Class Landing Craft (Heavy), reportedly not regarded by the Army as entirely successful. These vessels are suitable for coastal and island work in the Queensland Area. They lack the seaworthiness necessary to operate on the more exposed Australian Coast, and their carrying capacity is very limited. Some will be used for inshore hydrographic work.

The remainder of the Army's craft are essential, but small. There is a definite need for a seagoing ship, or ships, capable of transporting troops in battalion strength. Whilst the ARA (or CMF) would not need the vessel or vessels all the time, the RAN would need the remainder of the new vessels' time for the training role.

When considering types of ship to replace SYDNEY, the question of one big ship, or a number of small ships, must be resolved. This is the old problem of achieving the optimum economy of scale or having all 'one's eggs in the one basket'. The RAN can either use the minimum number of sailors to carry the maximum number of troops and equipment (ie build one big ship), or build a number of smaller ships, requiring more sailors to transport the same number of troops, and achieve flexibility — if one ship is sunk, or under repair, the whole capability is not lost).

As replacements for SYDNEY, there are three basic possibilities:—

1. One LPH, of the IWO JIMA Type, described above.
2. One LPD, of the Royal Navy's INTREPID or US Navy's AUSTIN Classes.
3. Two LSTs, of the USN's NEW PORT Type.

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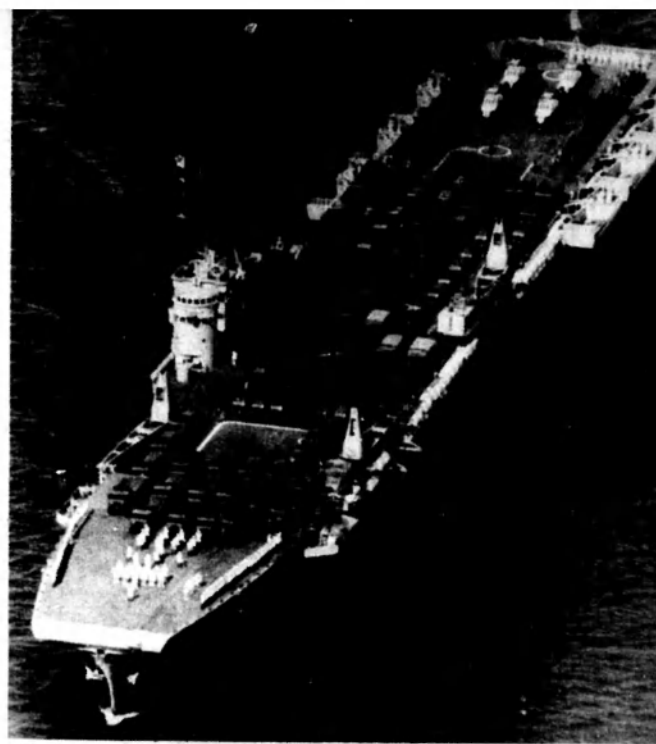
Type IWOJIMA (LPH): 18,300 tons
full load; Speed 20 knots (sus-
tained); 528 crew; 2,090 troops; 32
helicopters. ANCHORAGE (LSD):
13,700 tons full load; Speed 20 knots
(sustained) 397 crew; 376 troops;
equipped with removable heli-
copter platform. INTREPID (LPD):
12,120 tons full load; Speed 21
knots; Complement — 556 officers
and sailors plus 111 Royal Marines
and army personnel; 1,000 troops; 5
helicopters. NEWPORT (LST):
8,342 tons full load; Speed 20 knots
(sustained); 213 crew; 379 troops;
helicopter platform.

Regarding heavy lift capacity, that
of IWOJIMA is poor, with no assault
craft being carried. The LPDs have
excellent, heavy lift capacity, with
their dock aft allowing assault craft
to land troops and tanks, whilst the
ship herself is anchored in deeper
water. NEWPORT has the ability to
carry 500 tons of the heaviest equip-
ment, which must be landed by
beaching, or nearly beaching, the
ship herself.

Unit cost information is available,
but on bases which differ so widely
as to make unit costs incomparable.
It should be said that, in general,
costs of this type of ship are very
much lower than those of the more
sophisticated warships (eg the DDL),
because of the much smaller require-
ments for expensive electronic
equipment. This would produce
advantages in operating costs — a
less sophisticated ship requires a
lower portion of her time in dock-
yard hands, and demands fewer of
the scarce and expensively trained
electronics maintenance personnel.

The LPH type has been reported as
under consideration as a replace-
ment for MELBOURNE, on the basis
that an LPH can operate helicopters
and could operate STOL aircraft.
Thus, two LPH could replace MEL-
BOURNE and SYDNEY — a distinct
attraction, although the very expen-
sive electronic aircraft control
equipment would lie idle when the
ships were performing their LPH
role. The poor heavy lift is a distinct
disadvantage.

The heavy lift capability of an LPD
is attractive. This is paid for with a
relatively limited helicopter
capacity. The USN and RN frequently
operate their LPDs in conjunction
with LPHs. The British are operating
their LPD INTREPID, in her current



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dual role of cadet training ship and
assault ship, very successfully.

The large LSTs have their
attractions. Two units, built con-
secutively, would spread unit con-
struction costs over a greater period.
Their heavy lift capacity is excellent.
The flexibility of two units would be
an advantage, in terms of the "eggs
in one basket" argument. Heli-
copter capability is limited to a
landing pad only.

As with the DDL, the relatively

small RAN is faced with the need to
acquire vessels which can fill a multi-
purpose role, whereas the USN and
Royal Navies are large enough to
develop special purpose vessels to
fill various roles. All the vessels listed
above are special purpose vessels.

Whilst it is reasonable to say that
HMAS SYDNEY is elderly and should
be replaced, the roles outlined in this
article demonstrate that, when she
retires, HMAS SYDNEY must be
replaced and that fact must be faced.

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HMAS TORRENS, a destroyer escort of the River class which carried 30 Naval Reserve Cadets as crew for the voyage from Adelaide to Sydney.



Able Seaman Graham Petts of the Naval Reserve Cadets prepares to hoist signals aboard HMAS TORRENS. Graham is from the Training Ship BENDIGO in Victoria.

CONTRIBUTIONS INVITED

The editor invites persons to submit articles, photographs and drawings (black ink) for inclusion in the magazine, but regrets that no payment can be made for contributions submitted. Contributions should be addressed: The Editor "The Navy", Box C178, Clarence Street Post Office, Sydney, N.S.W., 2000, Australia.

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Naval Reserve Cadets got a taste of Navy life, when they sailed from Port Adelaide to Sydney as "crew members" aboard HMAS TORRENS in July.

During their four-day voyage, 30 cadets from three States helped regular Navy sailors in the general running of the ship.

TORRENS, the newest of six Australian-built River-class destroyer escorts, is part of the Third Australian Destroyer Squadron.

The 2,700-ton ship carries a normal ship's company of 250 officers and men and has a top speed of more than 30 knots.

The cadets came from South Australia (7), Victoria (10) and New South Wales (13).

Ties between the Naval Reserve Cadets and the Navy are very strong. Both organisations have an interest in the sea and maritime affairs as well as a desire for interesting and stimulating activities in a sea environment.

Most of the Reserve training work is done by volunteer officers and instructors.

More than 2,500 cadets belong to 45 units throughout Australia. The aim is to achieve a healthy youth organisation with a strong Naval flavour, offering to the boys fun, adventure, challenge and activity.

Units develop local character by drawing their strength and support from local communities. Lads also develop self-reliance and a sense of values.

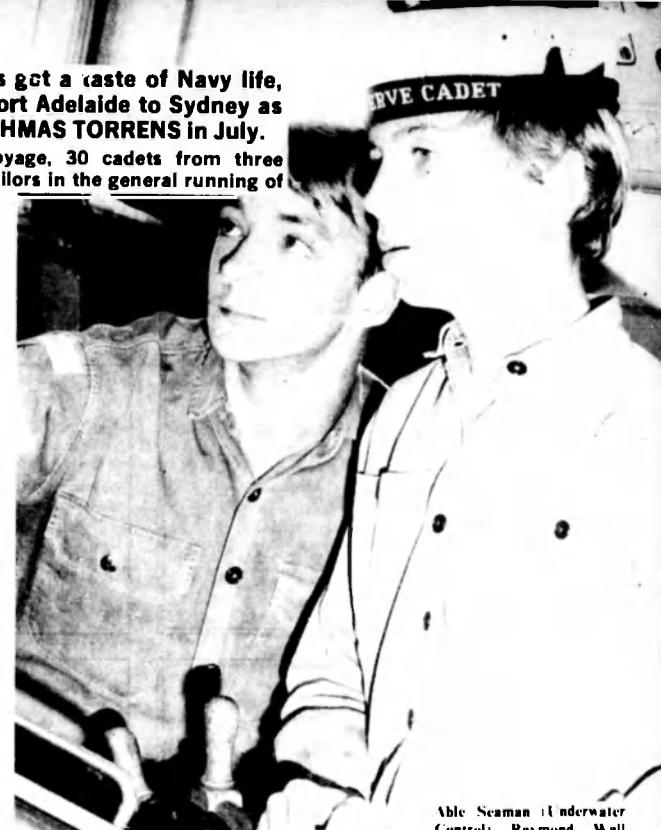
Other sea-minded organisations, such as the Navy League, help the Cadet programme remain successful.

Many branches of the League have provided powered, sailing and pulling craft, as well as giving financial support. In Victoria, the State branch has recently acquired

the 57-foot yacht Winston Churchill for use as a training craft.

When RAN vessels reach ports of call, cadets often visit them while ships' officers attend Cadet meetings.

Naval Reserve Cadet A. B. Gregory, 17, from the Training Ship DNEV, gives a Seacat missile a coat of paint while on a training voyage aboard HMAS TORRENS.



Able Seaman (Underwater Control) Raymond Wall from Llandudno, New South Wales is shown how to keep a steady course at the helm of HMAS TORRENS.

A navigation lesson on the bridge of HMAS TORRENS. An attentive student from the training ship CANBERRA, Cadet Petty Officer Michael McDonald.



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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.

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.

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ARDENT'S RESCUE

At 10.50 am,
23 July, the radio
crackled into life,
"MAYDAY, MAYDAY,
FISHING BOAT ALECIA ON
FIRE ... THREE MILES
SOUTH BABEL ISLAND ...
DROPPED DINGHY OVER
THE SIDE ... GETTING
INTO BOAT
NOW".



Lieutenant John Riley, Commanding Officer of HMAS ARDENT.

Lieutenant John M. Riley, Commanding Officer of the Attack Class patrol boat HMAS ARDENT, immediately ordered full speed and the ship turned north heading for the scene some 50 miles away. An "Operational Immediate" signal was then sent to COMAUSFLT, NOIC VIC and the Marine Operations Centre in Canberra notifying them of ARDENT's intentions and estimated time of arrival on the scene.

Before ARDENT reached the stricken craft the highly efficient Marine Operations Centre had radioed the patrol boat full information about ALECIA, her crew, safety equipment and fire fighting capabilities. This vital information helped ARDENT plan her fire fighting operations.

During the two hours it took "Riley's Raiders" to arrive on the scene the crew members broke out

the ship's fire-fighting gear, donned fireproof clothing and prepared themselves for the rescue.

Another fishing craft, the TELAKA (from Lady Barron on Flinders Island), arrived alongside the burning vessel before the Navy ship, but could do little to render aid. TELAKA helped the ALECIA crew pour what little foam she had on board to combat the fire. ALECIA was then taken under tow by TELAKA. This manoeuvre unfortunately proved useless and the tow-rope was slipped to give ARDENT additional room for manoeuvring.

ARDENT arrived alongside the stricken vessel at 1 o'clock just

before one of ALECIA's fuel tanks exploded in a shower of burning oil and black smoke.

ARDENT'S crew members started to spray foam over the burning 38-foot, wooden-hulled, cray fishing boat but the foam could not penetrate to the heart of the fire because of the glassed-in wheelhouse.

A boarding party from ARDENT, consisting of Lt Gordon Hunt (on loan from the RN), ERA Stephen Crawford, ABMTP-1 Alan Deem and LSMTDP Wayne Brown jumped onto the burning deck from the fo'c'sle as Lt Riley held the patrol boat in position.

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HMAS ARDENT leaves Westernport on her fisheries
surveillance patrol. After only two days at sea ARDENT rescued
two fishermen from their burning fishing boat.

Once on board the four men broke the wheelhouse glass and some protective woodwork and then poured gallon after gallon of foam into the stricken craft.

Lt Gordon Hunt, a gunnery officer stationed aboard the Navy Training Establishment at Westernport, Victoria, HMAS CERBERUS, helped direct the rescue operations before leading the boarding party onto ALECIA.

Lt Hunt said: "By the time we reached ALECIA, the boat was half under water and the heat was so great that the fire had burnt through her hull and the water in her was ablaze.

"When we were on board, ALECIA started to sink, so we had to get off very smartly. We didn't want to leave just then because we were trying to set water pumps in operation to try and clear some of the water out of the lower decks.

Lt Riley had to keep ARDENT positioned at ALECIA's bow because she was carrying another 45 gallons of diesel oil and some high pressure

propane gas bottles used for cooking. He said: "I felt that by staying in front of the ship it lessened somewhat the dangers of being sprayed with burning oil from exploding fuel cells and possible shrapnel from detonating high pressure gas bottles."

Despite the efforts of all concerned ALECIA went down about 35 minutes after ARDENT's arrival.

When ALECIA went to her watery grave the Navy ship departed for Lady Barron on Flinders Island to reunite the two men with their families. ALECIA's skipper, Mr John McCarthy and his crew member Mr Alwyn Mansell both praised ARDENT's efforts to save the boat.

Mr McCarthy said he was "more than satisfied" with the assistance ARDENT provided. At one stage, he said, they were sure the fire had been put out, but it began again shortly before ARDENT arrived.

Lt Riley said that it was unfortunate that ARDENT was so far away from the fishing boat when he received their MAYDAY distress call.

but very well pleased with the way his men handled themselves in the emergency.

Although not required to do so, Lt Riley often monitors the fishermen's radio frequency just in case there is a MAYDAY call.

ARDENT's complement of 18 men regularly go through rescue drill procedures to keep them at the peak of readiness for such emergencies. The ship has frequently rescued small craft in difficulty, but the ALECIA fire was her first real drama.

With almost 30 years of sea experience in three navies including three and a half years in command of HMAS ARDENT, Lt John Riley is as much at "home" in treacherous waters as he is in his own living room.

ARDENT's primary duty is fisheries surveillance which is keeping a lookout for vessels illegally fishing in Australian territorial waters.

HMAS ARDENT's patrol is Victorian, Bass Strait and island waters and the East Coast of Tasmania.

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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".

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(The Editor is indebted to the officers of the Information Service of the British High Commission in Australia for their ready assistance in the compilation of this article.)

Pyrotechnic Signal For Divers

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The nylon pouch is secured around the signal and the bracket by velcro tape.

To operate, the tape is pulled, the signal freed from the pouch and the operating sleeve given a three-quarter turn and pulled clear of the

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body of the signal. Freeing the signal from the pouch allows water to enter one compartment of the signal, activating the battery and opening a hydrostatic switch. Separating the sleeve from the signal breaks a safety wire and short circuits the system as a safety measure. The signal is then released to float to the surface at approximately one metre per second. When the water pressure is sufficiently reduced (about one metre below the surface) the hydrostatic switch closes, thus completing

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The signal can be supplied with white or green flares as an alternative to the standard red. Fluorescent green dye marker can be added if required.

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THE Navy

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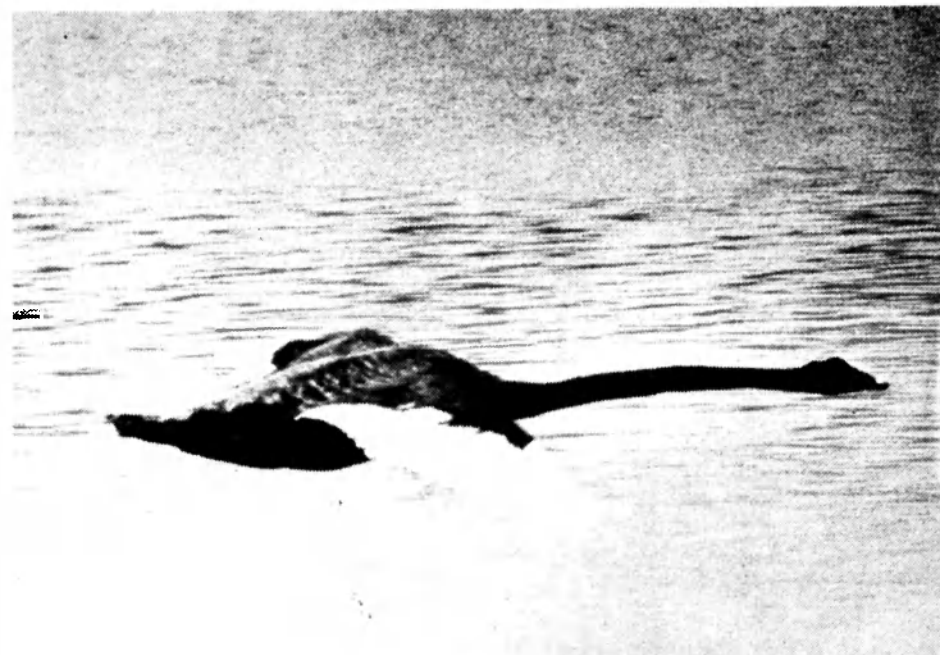
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Vol 35

NOVEMBER-DECEMBER-JANUARY, 1973-74

No 4

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Keel Laid for Fourth LHA



An artist's impression of the landing helicopter assault ships (LHA's) building for the US Navy.

The keel was laid last August for the fourth in a series of five giant amphibious assault ships being produced at Pascagoula, Miss, for the US Navy by Ingalls Shipbuilding division of Litton Industries.

Setting of the keel marked the start of hull erection on the 820-foot vessel, which is already well into fabrication and assembly stages. Meanwhile, hull erection on the first

three vessels continues while fabrication and assembly is under way toward laying of the keel later this year for the fifth ship, final in the series.

Designated as Landing Helicopter Assault ships (LHA's), the new vessels, designed by Litton and the first of their kind for the Navy Fleet, will transport a battalion of marines for amphibious landings via helicopters and landing craft.

The lead ship in the series, TARAWA (LHA-1), is in an advanced stage of hull erection and will be launched in December.

CONTRIBUTIONS INVITED

The editor invites persons to submit articles, photographs and diagrams (black ink) for inclusion in the magazine, but regrets that no payment can be made for contributions submitted. Contributions should be addressed: The Editor, The Navy, Box C172, Clarence Street Post Office, Sydney, N.S.W. 2000, Australia.

The Editor does not hold himself responsible for manuscripts, though every effort will be made to return those with which a stamped and addressed envelope is enclosed.

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Self-Contained Rocket Line Thrower

A ready-to-fire compact rocket line thrower is of a novel design that does away with the separate pistol, rocket, lines and cartridges of conventional equipment.

Instead, the unit, developed by a British firm specialising in marine life-saving equipment, comprises a moulded plastics container/launcher, 13in long and 7½in (330mm and 190mm) in diameter, into which are packed a rocket, firing mechanism and a 300yd (275m) line of ½in (12.5mm) circumference with a breaking strain of 600lb (272kg).

The complete "Speedline International" weighs only 10lb (4.5kg) and has a calm-weather range of over 250yds (about 230m). Its compactness and lightness make the line thrower easy to operate and stow.

For operation, a transparent plastics cover is removed and the looped end of the line, indicated by a multi-lingual label, is secured to a heavy line or holdfast. An arrow on the handle points in the direction of aim and the unit is balanced so that, when the handle is grasped close to the arrow, the container is at the correct firing angle. A squeeze trigger in the handle is secured by a clearly and multi-lingually labelled split pin. Once the pin has been removed, the unit is ready for firing. Should the line not be fired after all, the pin, which is secured by a loop to the handle so that it cannot be lost, can be replaced easily.

Clear pictures on the body of the container show the correct firing procedure. Date stamps on both the

rocket and cartridge/firing mechanism can be read without removing the cover. So far the equipment has been approved by a number of National Authorities.

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*Persons commencing subscriptions to "The Navy" magazine within Australia during the quarter commencing APRIL (i.e. sub. for 1½ years) should remit \$2.70; JULY (sub for 1½ years) \$2.30; and OCTOBER (sub for 1½ years) \$1.90.

Subscriptions for shorter periods than 12 months cannot be accepted.

In accordance with modern accounting practice, receipts for subscriptions will not be forwarded unless requested.

OUR COVER

BY ROYAL COMMAND — UP PERISCOPE

HRM Princess Anna, Mrs Mark Phillips, gets a Captain's eye view of things from the command deck of Britain's nuclear submarine HMS COURAGEOUS.

The Princess, under the watchful eye of Commander R. G. Fry, gave the Royal Order "Up Periscope" when she took part in a training exercise beneath the waters of the Firth of Clyde off the west coast of Scotland.

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Nautical Notes from all Compass Points

By "Sonar"

CANADA Promotion

Rear Admiral Douglas S. Boyle became Commander of Maritime Command, with headquarters in Halifax, during August, succeeding Rear Admiral Robert W. Timbrell, who retired after 36 years of service.

Admiral Boyle was chief of personnel at National Defence Headquarters, Ottawa. Before coming to Ottawa in January, 1971, he was Commander of NATO's multinational naval force in the Atlantic.

Blowpipe Missile

Canada's armed forces are to be equipped with the man-portable Blowpipe missile weapon system, described as the "only shoulder-launched weapon capable of engaging both aircraft and ground targets". Shorts, who designed the Blowpipe system, already have it in quantity production for the British Army and Royal Marines, and the Canadian contract (the size and value of which has not been announced) is the first of what Shorts predict will be a number of export orders for both troop operation and in naval application, with multiple launchers fitted even on patrol and similar small craft.

Marine Work Horses for All Seasons

Rotork Sea Trucks, similar to these undergoing acceptance trials for the



It is called BLOWPIPE and is designed to defend your position against attack from aircraft. It can also be used to attack armoured vehicles, small naval craft and other surface targets at ranges of approximately 3km. The complete system weighs about 47lb (21kg) including IFF unit. If you have to move, you can carry it with you and if you are being transported you can fire it from your transport. It is always ready for immediate use.

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Royal Navy off the South coast of England, are fulfilling an important role in Canada assisting in the transport of large quantities of oil and other petroleum products (see photograph). 'Shell' are using two of these craft as pushers — specially adapted with quick-release "pusher" linkages on the bows — for shallow-draught barges on a tanker-to-shore shuttle service under extremely adverse weather and tide conditions to supply Fort Chimo, an important settlement in the Arctic.

The Rotork Sea Truck is a versatile "workhorse" of three tons capacity and has an air-ram effect under the bows which enables the craft to ride on a cushion of foam, thereby reducing "drag" and improving considerably the load speed stability factors.

FRANCE

New Construction

DRYADE (Hull No 678), a coastal transport of personnel, started on the slip in January, 1972, launched on November 8, 1972, completed in February, 1973.

Builders: Societe Francaise de Constructions Navales

This new transport is a sister to the **ARIEL**, **KORRIGAN**, **ALPHEE**, **ELFE** and **FAUNE**, delivered by these builders to the French Navy from 1964 to 1971.

Main particulars are as follows:—
Length overall: 40.50 metres, 132ft 10in.

Moulded breadth: 7.45 metres, 24ft 5in.
Depth: 3.30 metres, 10ft 10in.
Aft draught: 2.85 metres, 9ft 4in.
Propelling set: Two MGO diesels x 865 hp.
Speed: 16 knots.
Passengers: 400.

New Tugs

Orders for Chantiers et Ateliers de la Perriere (Lorient):—
Two 1,000 hp tugs for the French Navy.

Hull number 379 to be delivered at Toulon on January 15, 1974.

Hull number 380 to be delivered at Brest on May 1, 1974.

Main particulars to be:—
Length overall: 28.25 metres, 92ft 8in.

Length between pp: 25.30 metres, 83ft 11in.

Moulded breadth: 7.60 metres, 24ft 11in.

Depth: 4.00 metres, 13ft 1in.

Loaded draught aft: 4.30 metres, 14ft 1in.

Propelling set: One MGO diesel Mk V 16 ASHR 1,000 hp (1350 rpm) with Messian reduction gear and Kort nozzle.

Boillard pull: 18T.

NATO

Exercise Dawn Patrol 73

An extensive NATO naval and air exercise, involving surface ships, submarines and aircraft of five nations, has been conducted

NAUTICAL NOTES

throughout the Mediterranean from June 5 to 15, 1973.

This test of NATO forces called **DAWN PATROL** had been scheduled by Admiral Richard G. Colbert, United States Navy, Commander-in-Chief, Allied Forces Southern Europe (AFSOUTH) whose headquarters are in Naples, Italy.

The manoeuvres involved more than sixty warships and some two hundred aircraft. Forces from Greece, Italy, Turkey, the United Kingdom and the United States participated in operations involving air defence, anti-submarine warfare, amphibious operations and surveillance.

A highlight of the exercise was a multi-national amphibious landing on June 12.

The five participating NATO countries provided ships ranging in size from aircraft carriers to fast patrol boats. Allied tactical aircraft operated from NATO countries in the Southern region. Carrier-based planes flew missions providing further air cover and ground attack capability. Maritime patrol aircraft also took part.

Exercise Swift Move

A combined NATO Striking Fleet Exercise named **Swift Move** has been completed in the Norwegian and North Seas. And Soviet warships showed a keen interest.

More than 20,000 men, 34 ships and 250 land and sea-based aircraft from Canada, Denmark, the Federal Republic of Germany, the Netherlands, Norway, the United Kingdom and the United States participated in the exercise.

Soviet interest in the NATO exercise became evident when a **Kresta II** Class guided missile cruiser was seen in the area, while a **Kanin** Class guided missile destroyer, an intelligence gathering trawler and a fleet tug continued to shadow the task groups.

A Soviet Juliett Class submarine was sighted on the surface near the exercise.

Exercise **Swift Move** was one of a series of regularly scheduled NATO training exercises designed to test the readiness and effectiveness of the NATO Striking Fleet Atlantic to provide support to alliance nations of the Atlantic community.

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NAUTICAL NOTES

SEATO

France to Stop Contributions

France has advised the South-East Asia Treaty Organisation that after June 30, 1974 (the end of SEATO's next financial year), she will not make any financial contribution to SEATO.

At present France pays 13½ per cent of the annual budget of US\$1,720,000.

SEATO Secretary-General, Mr Sunthorn Hongladarom, said that notwithstanding this move he was confident SEATO would remain an effective instrument in promoting development, stability and security in the South-East Asian region.

He noted that France had ceased to participate in the military activities of SEATO in 1967 and that its participation in civil activities had been severely limited.

France had not, he said, indicated any intention of withdrawing from the SEATO Treaty, the Manila Pact of 1954.

UNITED KINGDOM

Contracts Placed for Study of Submarine Launched Missile

The Ministry of Defence has now placed contracts with British industry for a detailed study of the missile aspects of a submarine launched, air flight anti-ship missile, known as USGW (underwater to surface guided weapon).

Prime contractors for the missile study are Hawker Siddeley Dynamics Ltd, who will be supported by Marconi Space and Defence Systems Ltd and Bristol Aerjets Ltd. The complex data handling aspects will be studied by Gresham Lion Group in association with Ferranti Ltd. Special trials equipment which will be needed will be manufactured by Brown Bros of Edinburgh and EMI Electronics.

Prince Charles' Next Naval Appointment

Lieutenant The Prince of Wales left HMS MINERVA on September 20. After leave and naval courses, he will join another Leander frigate, HMS JUPITER, early next January in the Far East.

During Prince Charles' seven months in HMS MINERVA he has visited the Caribbean, South America, the USA and Canada. He has gained his bridge watch-keeping certificate and ocean navigation certificate, and been promoted from sub-lieutenant to lieutenant. Naval activities he has seen or taken part in include surveying, salvage work and aircraft carrier operations.

As the representative of the Queen, he attended the Bahamas independence celebrations. As the Prince of Wales, he opened the Prince of Wales Bastion on St Kitts.

Courses to be completed by Prince Charles before the end of the year are those for destroyer navigating officers, divisional officers and flight deck officers.

Chief of Naval Staff

Admiral Sir Edward Ashmore, KCB, DSC, to be Chief of the Naval Staff and First Sea Lord in March, 1974 in succession to Admiral Sir Michael Pollock, GCB, MVO, DSC, ADC.

Biographical Notes

Admiral Sir Edward Beckwith Ashmore was born in December, 1919 and entered the Royal Naval College, Dartmouth, in September, 1933. He served as a midshipman in HMS BIRMINGHAM on the China Station until shortly before the outbreak of World War II. Early in the war he served in HMS JUPITER in the Home Fleet and took part in the Norwegian Campaign, a night action off The Lizard and bombardments of Genoa and Cherbourg.

He took part in Russian convoy operations and was awarded the Distinguished Service Cross when serving in HMS MIDDLETON during a convoy to Malta in June, 1942. After specialising in communications in 1943, he served on the staff of the Commander-in-Chief Home Fleet.

From 1944 to the end of the war he was Flag Lieutenant and Squadron Communications Officer to the Flag Officer 4th Cruiser Squadron in the British Pacific Fleet, serving with the British Task Force in support of the Okinawa and subsequent operations, and was Mentioned in Despatches.

In 1946 he qualified as a Russian interpreter and afterwards was Assistant Naval Attache in Moscow. He was promoted commander in 1950 while serving in HMS

VENGEANCE as Squadron Communications Officer in the 3rd Aircraft Carrier Squadron. As a commander, he served in the radio equipment department of the Admiralty, and then took command of the despatch vessel HMS ALERT on the Far East Station.

He was promoted captain in 1955 when Commander of HMS MERCURY, the Navy Signal School, and served as Assistant Chief of Staff (Communications) on the staff of the Commander-in-Chief Allied Forces Northern Europe, in Oslo. From 1958 to 1960 he was Captain (F) of the 6th Frigate Squadron in command of HMS BLACKPOOL.

From 1960 to 1962 he was Director of Plans at the Admiralty, and then Director of Plans to the Chief of Defence Staff in the Ministry of Defence with the rank of commodore. In 1963 and 1964 he was Commander British Forces Caribbean Area and Senior Naval Officer, West Indies.

He was promoted Rear-Admiral on January 7, 1965 and served from March, 1965 to February, 1967 as the Assistant Chief of Defence Staff (Signals) in the Ministry of Defence, with responsibility for general signals policy and joint communications.

Admiral Ashmore was appointed Flag Officer Second-in-Command, Far East Fleet in April, 1967 and Vice Chief of the Naval Staff in December, 1968.

He was promoted Vice-Admiral in July, 1968 and Admiral in November, 1970.

He took over as Commander-in-Chief Western Fleet in September, 1971, and became Commander-in-Chief Fleet in November that year. This appointment also carries the NATO posts of Commander-in-Chief Channel (CINCHAN) and Commander-in-Chief Eastern Atlantic Area (CINCEASTLANT).

Latest Commando Ship Goes to Sea

HMS HERMES, formerly a conventional 27,500 ton aircraft carrier with an angled flight deck, recently went back to sea after conversion to a helicopter-carrying Commando ship (see photograph). Equipped with Sea King and Wessex helicopters she will carry a Royal Marine Commando of several hundred men

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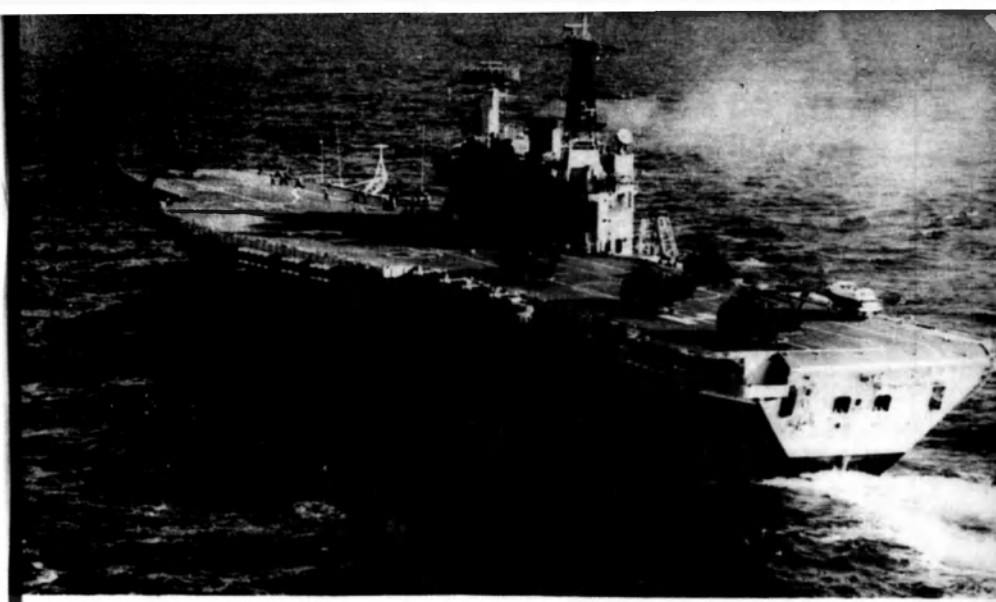
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NAUTICAL NOTES

and be able to airlift them ashore at short notice.

The "new" HERMES will also have a secondary role as an anti-submarine ship to support the fleet. Her Sea King helicopters, armed with detection devices and anti-submarine weapons, may be used as a defensive "screen" or in submarine hunting operations.

The ship will "work up" — a series of intensive exercises designed to bring crew and equipment up to maximum efficiency before joining the considerable British naval forces committed to the North Atlantic Treaty Organisation (NATO).

Launch of New Survey Ship

HMS HERALD, the Royal Navy's new ocean survey ship, was launched on Thursday, October 4 from the Leith shipyards of Robb Caledon Shipbuilders by Mrs Mary Hall, wife of the Hydrographer of the Navy, Rear-Admiral Geoffrey Hall.

When completed, the 3,000 ton HMS HERALD will join the Navy's survey fleet in its work throughout the world — work which has become more imperative with growing use of

the new and still bigger breed of deep-draught supertankers.

The new ship, based on the earlier Hecia class of ocean survey vessels but incorporating a range of improvements, will have a ship's company of 127.

She will be part of the world's oldest and most professional survey fleet — in line of succession to HMS CHALLENGER, which laid the foundations of modern oceanography during her three-year global journey of a century ago.

Britain Requires 32 More Jindiviks

Britain has confirmed that it has a requirement for a further 32 Australian-designed Jindivik pilotless target aircraft, valued in excess of \$4m, to be built in the Department of Supply's Government Aircraft Factories (GAF) in Melbourne.

The order — to be spread over four years — would be regarded as a further example of the contribution made towards Australian offset policy objectives by British defence procurements in Australia.

This latest order would bring the total number of Jindiviks to 466, including 278 for other countries: Britain (226), the US (42) and

Sweden (10). Export earnings total about \$25m.

In Australia, orders include 163 for the Joint UK-Australia Weapons Project at Woomera and 25 for the Royal Australian Navy.

Jindivik (the "Hunted One") can fly at more than 1000 km/hr at altitudes up to about 21,000m. It has a variety of wing configurations, with a maximum span of nearly 10m.

Cameras fitted at the wing tips film a missile approach and accurately calibrate and assess the missile behaviour.

The current production model is the Mk 3B which, with its variants, is designed to represent a high-speed low-level aircraft threat in the development of the latest generation of guided missiles and the training of guided-missile crews.

Various structural changes have been made to meet this requirement — control equipment has been redesigned to take advantage of more compact and lighter solid-state electronics, and fuel management techniques are being studied to permit high-acceleration manoeuvres.

The Mk 3B also incorporates towed target systems, so that the aircraft itself is no longer the target.

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NAUTICAL NOTES

On a signal from the ground, Jindivik will stream one or two targets which are specially equipped with infra-red or radar augmentation devices to simulate a threatening formation of aircraft. These targets can be winched back to Jindivik in flight.

New Branch for Fleet Air Arm

Because of the Royal Navy's expanding use of helicopters, the aircrewman branch of the Fleet Air Arm is to be re-formed. This Admiralty Board decision was made known to the Fleet recently.

Naval ratings have been employed on specific aircrew duties for many years, but after World War II the aircrewman branch lapsed because of the limited numbers required, and a system of loaning ratings from their parent branch was introduced.

Increased helicopter operation has meant that this is no longer satisfactory. About 250 ratings are now needed for such duties as sonar operators, search-and-rescue winchmen and missile aimers.

Ratings currently on aircrew duties will be offered transfers to the new branch, and others will be recruited from among junior ratings of other branches. They will be given basic flying training in one of the branch roles, and will be "cross-trained" in other roles later.

New Military Hovercraft

At the Royal Navy Equipment Exhibition at Greenwich in September the British Hovercraft Corporation revealed details of new hovercraft especially developed for coastal defence forces and mine counter-measure operations.

HOVERBORNE STRIKEPOWER

Two major developments were represented, in model form, by the twin-engine BH.7 Mk 6 Fast Patrol Hovercraft based upon the well proven BH.7 and the twin-propeller SRN6 Mk 6A Fast Interceptor.

The BH.7 Mk 6 is a lengthened version of the standard BH.7 and is capable of carrying a wide variety of weapons systems to counter intruders. A typical weapons system could include four ARM or Active General Dynamics Standard surface/surface missiles backed by a 76mm Oto Melara dual purpose

radar controlled gun with HSA combined fire control and surveillance radar.

Maximum speed for this 90-ton craft in ideal conditions would be 68 knots.

The SRN6 Mk 6A, a prototype of which is about to be launched, is designed primarily for use as an offshore interceptor and in this role it is capable of carrying an Hispano Suiza twin 30mm gun backed by a 7.62mm general purpose machine gun.

Based upon the highly successful SRN6, this craft has increased power, performance and manoeuvrability.

MINE COUNTERMEASURES

For mine countermeasure operations, the fully-amphibious hovercraft offers distinct advantages over conventional displacement vessels.

Firstly, it is virtually immune to underwater explosions as the shocks from these tend to be absorbed by the air cushion beneath the craft.

Secondly, since the craft does not employ underwater propulsion or have any solid structure immersed in the water, it transmits only a minimal underwater signature thus reducing its vulnerability to moored and influence-type mines.

Tanker for Royal Fleet Auxiliary

The fifth of the Navy Department's new small fleet tankers, RFA BLACK ROVER, was launched on Thursday, August 30 by Mrs Trewby, wife of Vice-Admiral G. F. A. Trewby, Chief of Fleet Support.

With an overall length of 461 feet, a beam of 63 feet and a deadweight tonnage of approximately 7,000 tons, vessels of this type have been designed to replenish HM Ships at sea with fuel, fresh water, limited dry cargo and refrigerated stores in all areas of the world, and whilst under way. A helicopter landing platform is provided, served by a stores lift, to enable stores to be transferred at sea by helicopter.

The ship is driven by a single four-bladed controllable-pitch propeller powered by two Pielstick 16-cylinder medium-speed marine diesel engines. The engines and propeller may be controlled directly from the bridge, or from a noise-insulated and

air conditioned compartment within the engine room. A bow transverse thrust unit is fitted to make manoeuvring easier in harbour and confined waters.

The ship will be manned by a Merchant Navy complement of 47 officers and men of the Royal Fleet Auxiliary Service. The accommodation includes cafeteria messing, a recreation and hobby room and cinema. The vessel is air conditioned for service in tropical and cold climates.

USA

Heavy-Lift Helicopter Prototype

USN has awarded a \$26,500,000 contract to Sikorsky Aircraft to continue development of the YCH-53E heavy-lift helicopter prototype, designed for shipboard operation by both Navy and the USMC.

Cost of developing two prototypes is estimated by USN sources at \$44,400,000, a quarter of which has already been spent, and the Navy hopes this will be followed eventually by approvals to build two production prototypes, and phase in a production run of 70 helicopters of the type.

Lightning Test Laboratory

The Navy officially opened its first lightning test laboratory on May 9 at the Naval Air Test Centre, Patuxent River, Maryland. Called the "Lightning and Precipitation-Static Environmental Test Laboratory", the facility will test Navy aircraft and components by exposing them to extreme weather conditions in a controlled environment. Using high voltage generators, the lab is capable of producing lightning flashes of more than two million volts. The lab covers some 47,000 square feet of floor space and can accommodate as many as three C-130 aircraft at one time. The electrically shielded test area can be completely enclosed and darkened to permit observation and photography of the various effects of high-voltage on aircraft. The "Lightning Lab" is the only one of its kind in the Department of Defence, and is operated by the Electronic Warfare and Reconnaissance Branch of the Weapons Systems Test Division at NATC Patuxent River.

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NAUTICAL NOTES

First "Cains" Equipped Flight

USS INDEPENDENCE (CV-62). The first carrier launch of an aircraft equipped with the new "Cains" (Carrier Aircraft Inertial Navigation System) was conducted recently by a modified S-2E from the deck of this aircraft carrier.

The Cains system is the airborne equivalent of the Inertial Navigation Systems which provide highly accurate navigational information for nuclear-powered submarines and aircraft carriers.

Prior to take-off, the aircraft Cains system is set using a radio data link with the ship's own Inertial Navigation System. The Cains system then computes the aircraft's position on the flight deck and aligns itself with the earth's latitude and longitude co-ordinates. During flight, Cains gives a continuous readout of the plane's geographical position, velocity and altitude.

The Cains system is also being tested for use in the Navy's new F-14 and S-3 aircraft, as well as the E-2C.

"Donald Duck" Eliminators for US Navy

Major Contract for Marconi Deep Sea Helium Speech Processors

The United States Navy is buying British systems capable of overcoming the deadly "Donald Duck" effect which oxy-helium has on deep-sea divers' speech. The systems, worth, with spares, a total of 23,000 pounds sterling, were developed for the Royal Navy by Marconi Space and Defence Systems Limited, a GEC-Marconi Electronics company from Admiralty Research Laboratories designs.

The "Donald Duck" effect results from divers having to breathe an oxy-helium mixture in depths of greater than 600 feet, where air cannot be used safely. The mixture, being much less dense than air, produces changes in the speed of sound, and therefore in the pitch of a speaker's voice. This rises to an extent where it becomes completely unintelligible to the listener. In emergency situations, the lack of effective com-

munications can mean life or death to the diver.

More Gas Turbine Ships

The Navy is planning to introduce as many as 50 ships with gas turbine propulsion systems into the fleet within the next seven years. Included in that number will be the DD-963 Spruance class destroyers (see photograph), patrol frigates and patrol hydrofoil craft.

Additionally, consideration is being given to using modified versions of the powerful, economical and highly responsive gas turbine engines, such as those propelling jumbo jetliners, for use on combatant ships of every variety.

Development of the Gas Turbine Systems Technician (GS), recently announced, is intended to provide the skilled personnel necessary to run these sophisticated propulsion plants of the future.



US Navy Spruance class (DD-963) destroyer. These multimission destroyers are capable of anti-submarine warfare, air defence against aircraft and missiles, shore bombardment and surface warfare. They can also provide gunfire support for amphibious assaults and land warfare, escort military and merchant convoys, perform surveillance and trailing, participate in blockades and handle search and rescue missions.

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NAUTICAL NOTES

Diving Programme Initiated

The Navy has inaugurated a research programme to study hydrogen as a breathing gas for diving. Five volunteer divers are engaged in a series of pressure chamber dives which include breathing a mixture of 97 per cent hydrogen and three per cent oxygen for periods of two hours at a simulated ocean depth of 200 feet.

This diving programme covers a series of 24 dives, with eight using a hydrogen-oxygen mixture, eight on helium-oxygen and eight using nitrogen-oxygen as the breathing mixture. Comparisons will be made of the effect of these various gas mixtures on the same diver subjects.

Called Project Hydrox II, the series of dives is a follow-up to exploratory dives by animals and men with non-explosive mixtures of hydrogen and oxygen. Since this mixture could become explosive when mixed with room air, a special control system has been specifically developed for the same handling of the gas.

The experimental Hydrox II dives should add greatly to the information on the use of hydrogen-oxygen breathing mixtures and thereby provide a better indication of its potential use in Navy deep diving operations. Data gathered could serve as the basis for further experiments designed to probe the ultimate depth limits for divers with this mixture.

New Hydrofoil Being Built

The Boeing Aerospace Company is building two high-speed, missile-carrying, hydrofoil patrol boats (PHM's) for the Navy.

Patterned after the Navy's successful Tucumcari, a 58-ton hydrofoil, the PHM's will be several times larger and will operate at speeds in excess of 40 knots.

VENEZUELA

Fast Patrol Boat

The Venezuelan Navy Day, July 24, was chosen for the launching of the second of six, 37 metres fast patrol boats Vosper Thornycroft are

budding for the Armada Republica de Venezuela.

The craft, ARV INDEPENDENCIA, was launched at Portchester by Senora Maria Lourdes de Cuevas, wife of Captain Jesus Cuevas Picon, VN, the Venezuelan Naval Attache to Italy.

The six boats have been designed specifically to meet Venezuelan requirements. A maximum speed of over 27 knots is provided by twin Mtu (Motoren und Turbinen-Union) diesel engine installations. Each boat will have a crew of 20, housed in air conditioned accommodation. Three of the craft (including INDEPENDENCIA) will be armed with Oto Melara 76mm guns and smaller weapons. The other three will have Otomat anti-ship missiles.

The launching of ARV INDEPENDENCIA follows the launching on June 1 of the first Venezuelan craft, ARV CONSTITUCION. Both vessels are due to be delivered in 1974. The total value of the contract is over six million pounds.

WESTERN GERMANY

Wings for the German Navy

At a special ceremony at the end of March, members of the Federal German Navy received their British "wings" on successful completion of the Basic Observer Course at the Royal Naval Observer School.

The wings were presented by Captain J. B. Robathan, RN Commanding Officer of RNAS Culdrose, and Captain zur See H. Schneider, Federal German Navy, Commodore of German Naval Air Wing No 5 at the Naval Air Base at Kiel, flew from Germany to witness the presentation. Eleven Senior Rates of the FGN were also awarded Certificates of Competency after six months of courses on Sea King maintenance during the ceremony.

This is the second such course for students from the German Navy and the third and last course joined Culdrose on May 7. Graduates from all three courses will be returning to the base over the next 18 months for further training in Sea King Search and Rescue helicopters, 22 of which the Bonn government is purchasing from Westlands. In all 48 pilots, 20 observers (to be known as Search and Rescue Operations

Officers — SAROO's), and 20 winch operators will receive the benefit of the experience gained by Royal Navy crews in Sea Kings in the last few years. This specialist training has already been given to the Indian Navy and the Royal Norwegian Air Force and still other countries are showing an interest in both the Sea King and training from the Fleet Air Arm.

New Fast Patrol Boat

S43: A fast patrol boat with anti-surface missiles, started on the slip on March 27, 1972, launched on March 7, 1973

Builders: Constructions
Mecaniques de Normandie, France.

On December 18, 1970, an agreement was concluded between the DMA (Technical Department of the French Defence Ministry) and the corresponding department of the German Federal Republic, according to which twenty fast patrol boats would be built for the Bundesmarine under the supervision and responsibility of the French DMA.

Particulars are as follows:—

Welded steel hull of "COM-BATTANTE II" type
Light alloy main bulkheads and superstructures.

Displacement: 234 tons light, 250 tons average, 265 tons full load.

Main dimensions:—
Length overall: 47 metres, 154ft 2in.

Length between pp: 44 metres, 144ft 4in.

Breadth: 7 metres, 23ft.

Maximum draught, fully loaded: 1.90 metres, 6ft 3in.

Armament: Four MM EXOCET launchers for anti-surface missiles supplied by the French Ste Nationale Industrielle Aerospatiale (SNIA) set on main deck; One 3" automatic quick-firer OTO-MELARA Mk CS 1 (62 calibres) (bow); One 40mm BOFORS aft (70 calibres).

Complement: 30 including 4 officers, 3 warrant officers, 14 petty officers and 9 hands.

Propelling set: Four MTU diesels Mk MD 872 x 3000 hp each (1790 rpm) four shafts.

Electricity supply: Three diesel-driven 90 kw generators 450 volts AC, 3-phase, 60 periods.

Speed: 35 knots.

Autonomy: 3 days at cruising speed.

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BALTIC, 1854-55.

HELIGOLAND, AUGUST 28, 1914.

ATLANTIC, 1943-44.

BISCAY, 1943.

By
A. M. Shannon
RANR

The History of the Name ARCHER



HMAS ARCHER at speed in Broken Bay. Courtesy of CDR E. Dwyer, RANR I

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I have endeavoured to give an accurate and brief history of the name ARCHER.

ARCHER was used by the Royal Navy from 1801 to 1946, and then the name was given to the Fast Patrol Boat belonging now to the Royal Australian Naval Reserve, Sydney Port Division.

Between 1814 and 1849 an order by the Royal Navy for a 1st Class Steam Gun Vessel to be built at the Deptford Dockyards, and to be named ARCHER, was cancelled. No other information is available on this proposed ship.

I wish to preface this history by pointing out that while there is undoubtedly a wealth of material existing on these ships, limited time available to me has prevented any sort of exhaustive investigation into their histories. However, the present account is compiled from the various sources that were available to me. With time available for a comprehensive search into the records on these ships, no doubt a far more interesting history of the name ARCHER could have been compiled.

HMS ARCHER (1801-1815)

Type: Gun Brig
Displacement: 179 Tons
Builder: Perry of Blackwall.
Launched: April 2, 1801.
Armament: 12 Guns.

There were many Gun Brigs or Gunboats built by various shipyards around the coastline of England. There were no classes in these ships although the majority of these were the same with slight variations. HMS ARCHER was built by the Ship-builder Perry of Blackwall which was situated on the Thames.

To give some idea of the size of HMS ARCHER the following are dimensions of another Gun Brig of the same tonnage:—

Length of Gun Deck: 80' 2"
Length of Keel: 66' 0"
Breadth: 22' 7"
Depth: 9' 5"
Complement: 50 Men

The armament of 12 guns could have been made up as follows:—

Ten 18 pounders
Two 18 pound Carronades

For information the carronade was first made at Carron in Scotland in 1774. It was lighter and shorter than the long gun (cannon). The advantage of a carronade was that being light it could be mounted where a

heavy gun could not, and since it threw a much larger shot than a long gun (cannon) of the same weight, at the short ranges, then, usually it did more damage, and the smashing effect of its shot was increased by the charge being smaller and the muzzle velocity less.

HMS ARCHER took part in various actions during the English-French War.

On January 3, 1804 HMS ARCHER (Lieutenant J. Sherriff) was off Boulogne on the French Coast where she captured the French Lugger No 432 which was armed with only two guns.

As a ship in the Squadron commanded by Captain E. W. C. R. Owen in HMS IMMORTALITE (36 Guns), HMS ARCHER (Lieutenant J. Price) on July 19, 1804, while stationed off the Boulogne Roads together with the ships HMS HARPY and HMS BLOODHOUND were ordered to run in and open fire on the French Ships. These French Ships were attempting to stand off from land because of the bad weather in the Boulogne Roads. Fire was kept up for several hours to the annoyance of the enemy without achieving any results.

In August, 1804, a considerable

British Squadron, composed of nearly twenty vessels, cruised off Boulogne under the command of Rear Admiral T. Louis in HMS LEO-PARD (50 Guns). HMS ARCHER was a member of this Squadron.

Early on the morning of August 25, 1804, the Brigs HMS BLOODHOUND (Lieutenant H. Richardson) and HMS ARCHER (Lieutenant J. Price), got into distant action with some Luggers which were rounding Cape Gris-Nez very near to shore.

On April 24, 1805 HMS ARCHER was a member of a British Squadron under the command of Captain R. Honynman in HMS LEDA (38 Guns). In the action that followed on April 24 and 25, HMS ARCHER captured two Dutch Schuyts. These are Gunboats armed with 18 guns, 1 howitzer and 168 men.

HMS ARCHER was sold on December 14, 1815.

HMS ARCHER (1849-1866)

Type: Wooden Single Screw Sloop.
Displacement: 973 Tons
Builder: Deptford Dockyard.
Launched: March 27, 1849.
Armament: Two 68 pounders, twelve 32 pounders
Dimensions: Length 186ft, Breadth 34ft.

This ship was built at the Deptford Dockyard which is situated on the

Acknowledgements

I wish to acknowledge that the information contained in this story has been compiled from the following:—

A History of the Royal Navy by Sir William L. Clowes
Modern History of Warships by W. Hovgaard
Naval Operations by J. Corbett and H. Newbolt.
Carrier Operations in World War II by J. D. Brown.
HM Destroyers by Lieut Cmdr P. K. Kemp RN (Rtd)
Destroyers by Captain T. D. Manning, CBE, RNRV
Genesis of the Royal Australian Navy by G. L. Macandie
Brassey's Naval Annuals — Various years
Jones Fighting Ships — Various years
Illustrated London News.
The National Maritime Museum.
The Imperial War Museum.
The Ministry of Defence, Naval Historical Library.
The Sydney Sun.
British Destroyers by E. J. March.
British Naval Aircraft 1912-1958 by Owen Thetford.
The Swordfish Saga by B. J. Hurren.
The Log of HMS ARCHER 1857 by J. T. Gowlind.
Aircraft Carriers by N. Polmar.
British Aircraft Carriers by W. G. D. Blundell.

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Thames. It had a 202 horsepower steam engine as well as sail for the propulsion power.

HMS ARCHER (Commander J. N. Strange) was on the African Station in an attempt to stop the Slave Traders and Piracy.

In 1850, the natives about the mouth of the Benin River were guilty of numerous acts of Piracy and early in 1851 while the British Consul tried to arrange matters peaceably at Warri, one hundred miles upstream, a factory at the mouth of the stream was attacked by the people of Bonbee and Battary. Consul Beecroft sent, therefore, for a larger man-of-war; and, on March 23, HMS ARCHER anchored off the bar, and having left two of her boats and twenty men under Lieutenant N. B. Bedingfield of HMS JACKAL, departed to pick up another of her boats which she had left off Lagos.

She returned on the 26th and, on the 27th, joined HMS JACKAL off Factory Isle. That afternoon Strange and Bedingfield, in their gigs, reconnoitred Bonbee, and were fired at. On the 28th, the place was attacked by five boats of HMS ARCHER and three of HMS JACKAL, containing ninety-two Officers and Men including fourteen Krooman (one of a Liberian coastal Negro people who are skilful as boatmen and seamen). Lieutenant G. A. E. Ridge led in HMS ARCHER's pinnace under heavy musketry fire. Below the town were three guns on shore and five canoes, each mounting a 3 pounder swivel; but these made little serious

opposition and the place was taken without loss on the side of the attackers. On the 29th another town was taken, and, as the first had been destroyed. Again there were no casualties. Further operations were happily rendered unnecessary, by the submission of the offenders.

HMS ARCHER saw action during the War with Russia in the Baltic Sea. On July 23, 1855 a landing party from HMS ARCHER (Captain E. Heathcote) and HMS DESPERATE (Commander R. D. White) took possession of Arensburg on the Island of Osel in the Gulf of Riga.

July 30, 1855 HMS ARCHER together with HMS CONFLICT dispersed some troops and destroyed some public buildings at Windau on the Courland Coast, just outside the limits of the Gulf of Riga.

On August 6, 1855, HMS ARCHER and HMS DESPERATE landed a detachment near Dome Ness, destroyed a sloop and some Government Buildings, and repulsed a body of Cavalry.

September 12, 1855, HMS ARCHER together with HM Ships HAWKE, CONFLICT and CRUISER received the peaceful surrender of Pernau, in the Gulf of Riga.

HMS ARCHER together with HM Ships CONFLICT, DESPERATE and GORGON were slightly engaged by the Batteries at the mouth of the Dwina River on September 27, 1855.

Almost the last service of the Gulf of Riga Squadron of which HMS ARCHER was a member, seems to have been rendered in the mouth of

the River Raa, on October 3, 1855 by HMS ARCHER and HMS DESPERATE, with their boats. A few small vessels and some stores were destroyed.

On June 17, 1856 HMS ARCHER sailed on an American Survey Expedition from Plymouth. The ship proceeded via Madeira and Barbados to Greytown now known as San Juan Del Norte in Nicaragua arriving there on July 21, 1856.

While stationed at Greytown HMS ARCHER carried out various cruises to Central American ports. The ship sailed for England from Greytown on April 15, 1857 calling at Port Royal, Jamaica, arriving at Deptford Dockyard on June 1, 1857.

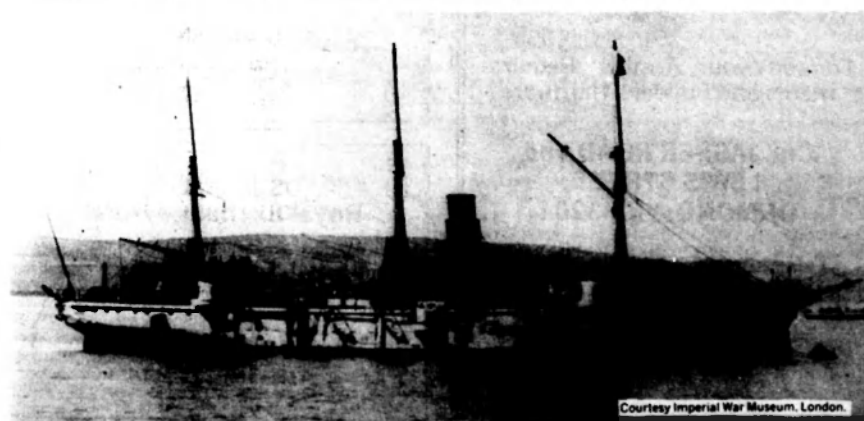
HMS ARCHER (Captain F. Marten) was again on the African Station in 1865 where her boats were engaged against River Pirates in the Congo River.

HMS ARCHER was sold and broken up in 1866.

HMS ARCHER (1885-1905)

Type: Torpedo Cruiser.
Displacement: 1770 Tons.
Builder: Messrs Thomson. Cost 97,449 pounds.
Launched: December 23, 1885.
Armament: Six 6 inch, Eight 3 pounders, Ten Torpedo Tubes.
Dimensions: Length 225ft. Breadth 36ft.

Complement: 172.
This ship was built by Messrs Thomson's Shipbuilding Yard which is situated on the Clyde River in Scotland.



Courtesy Imperial War Museum, London.

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HMS ARCHER was designed as a Torpedo Cruiser or Scout, she had to be faster than the large protected and armoured Cruisers, their armament might be light. However, because of their speed which was barely equal to that of the more powerful Cruiser of the First Class, these Scouts were unsatisfactory. This Class of Ship was, however, useful for many other duties in connection with the protection and destroying of commerce, visitation and search of Merchant Vessels, and service in the Colonies.

The ARCHER Class Torpedo Cruiser may be regarded as one of the forerunners of the modern Scout Cruisers. The Hull was of extremely light construction and unprotected, the armament was relatively heavy, consisting of six 6 inch Breech Loading Guns and eight above-water and two underwater Torpedo Tubes.

This ship was somewhat unusual in being a Torpedo Cruiser, a vessel built to utilise the newly invented Whitehead Locomotive Torpedo. The design was not a great success, being rather too small for the armament, and not a good sea boat.

The ARCHER Type Ship was described in the "Times" of December 24, 1885 —

"This vessel is the first of the six vessels of the Scout Class which were contracted for in May of this year to be built for the Admiralty. These vessels were given to Messrs Thomson as the result of a competition into which 38 firms were invited to engage. The ARCHER is 225 feet long between her perpendiculars or about 240 feet overall. Her beam is 36 feet and her depth 19 feet. Her displacement tonnage is 1630 tons in what is called her normal sea-going condition, or 1810 tons when fully equipped with all the coals and stores she can carry.

The speed of the vessel is expected by the Admiralty to be more than 16½ knots; her builders, judging by the exceedingly successful results of the speed trials of the SCOUT, are looking forward to nearly 18 knots in this vessel. She is propelled by twin screws, and has engines of 4000 indicated horsepower. The boilers are four in number and of the Navy Type, having tubes in the ends of the furnaces; the total weight of the machinery is 350 tons, a weight which in an ordinary merchant steamer's machinery would only be

capable of being accompanied by about 2200 indicated horsepower.

The gun armament of the ARCHER consists of six 6 inch breech loading rifled guns, mounted on central pivoted carriages and eight machine or rapid-firing guns. The Torpedo armament consists of ten tubes, one forward and one aft, each firing in a fore and aft direction above the water, two on each broadside under cover of the poop or forecabin, and one on each broadside in the open part of the middle of the ship. There were also two underwater tubes, one on each side. The protection afforded to the guns and torpedo tubes is partly by means of a shield over the rear of the guns or torpedo tubes to protect the men firing, and partly by means of plating one inch thick on the ship's side. The ship herself relies upon her very extensive system of subdivisions for her protection, the part near the waterline in particular being minutely divided. The coal bunkers are also arranged to give protection to the boilers, engines and magazines, and the whole of the vital parts are covered by a watertight deck, a little below the waterline.

The vessel has very strong steering gear, placed under the water and acting on a rudder of nearly 100 square feet of area. It is expected that the time to turn a complete circle with both screws going ahead, will be as little as four minutes, and that the diameter of the circle will not exceed 300 yards. With one screw going ahead and the other astern, the time will be about the same but the circle will naturally be much less. The amount of coal which the ARCHER can carry is sufficient to drive her at 10 knot speed for 7000 nautical miles or for about 2500 nautical miles at full speed.

The vessel has two complete decks, the upper and the lower. She also has a poop and forecabin deck, each about 50 feet long, between which is a high bulwark forming a hammock netting and giving the vessel an unbroken sheerline from stem to stern. The bow is formed with a clipper-shaped stem above the water and a projecting ram below the water. The stern is formed like an ordinary merchant ship's, and the appearance of the vessel is very yacht-like which is somewhat unusual in warships. Her rig is to be

of the three masted schooner type with a crow's nest or military top on the foremast for working a machine gun.

The vessel is built of steel throughout, and every precaution has been taken to ensure the proper strength with the greatest lightness."

When the war with Russia appeared imminent in 1885 (it never eventuated) the question of increasing Naval Power in Australasian Waters was to be taken up seriously.

Admiral Tryon was of the opinion that the colonies must be prepared against:—

1. Possible attack by a small squadron of Ironclads.
2. Bombardments of cities.
3. Destruction of trade and with it the recuperative power of the country for years.
4. Demands on cities for bullion, stores and coal.

Admiral Tryon stated the Admiralty considered the most suitable vessels for the proposed service were vessels of the ARCHER Class and also fast sea-going Torpedo Vessels. In their Lordships' opinion, five ARCHERS and two sea-going Torpedo Vessels would in a time of war with the Imperial Squadron on the Station give a very fair offensive and defensive protection.

HMS ARCHER took part in the Naval Manoeuvres in 1888. She was the inshore vessel of the second line of the blockade of the western side of Bereshaven in south-west Ireland where she was attacked by three torpedo boats. This was on the night of 3rd-4th August, and in the opinion of the Committee HMS ARCHER was lost.

The opinion on the behaviour and sea-going qualities of, or the defects in, the ARCHER Class ships as obtained from the reports of the Admiral in Command of the Squadron to which they were attached.

Six of the ARCHER Class were employed during the manoeuvres. The Officers lately in command of these vessels report that, from the limited experience gained as to their behaviour and sea-going qualities, they appeared to be good sea-boats, but would not keep their speed in a head sea, and, owing to the great weight in the bows, they pitch heavily.

They are quick rollers, and consequently unsteady gun-platforms.

They are all handy vessels.

It is reported, unanimously, that the armament is too heavy, and consequently the vessels are "crank"; that the weights on the fore-castle are too great, and the fore-castle itself is not strong enough for the weight it has to bear of the RACON. The only vessel of the class which appears to have experienced anything like a heavy sea, it is reported that on one occasion, when going 10 or 11 knots against a moderate swell, a sea was taken onboard which carried away everything moveable on the fore-castle, broke in the fore-hatch, which was battened down, tore away the iron stanchions supporting the fore-castle, and the beams were bent down three inches.

It would seem that the weights forward are too great for vessels with such lines, and this naturally causes them to pitch heavily. The bower anchors appear to be stowed unnecessarily far forward, and the spare anchor is before them again (on the port side); each anchor weighs 40 cwt, and the cat davits 25 cwt each; the two 6 inch guns, with their mountings, weigh a little over 25½ tons. Thus over 34 tons of dead weight are carried on the fore-castle.

The Committee are of the opinion that much of this weight "in the eyes" of the ship should be reduced, and suggest that the "bowers" should be stowed further aft, the spare anchor removed to a position near the mainmast, and that the two 6 inch guns on the fore-castle should be replaced by 5 inch, by which latter means alone a saving of over 15 tons would be effected.

They submit that the proposal to substitute 5 inch for 6 inch guns throughout is, in view of the "crank" nature of these vessels, as reported by their late captains, worthy of the most serious consideration.

The observations of Admiral Sir Arthur Hood of the report of the ARCHER Class is as follows: "I quite concur in the view that these vessels are too heavily weighted forward, and should have preferred the substitution of 5 inch guns for 6 inch, one pilot-house instead of two, and the anchors, especially the sheet anchor, stowed further aft: they are handy vessels with very fair speed, and will be useful on foreign stations."

In the report given to the Editor of the "Times" on these Manoeuvres and Observations, the ARCHER Class section was as follows: "The ARCHERS, eight in number, were represented in the recent mobilisation by six vessels. They sit well on the water. End on to the wind, they ride the sea with easy motion. They are powerfully armed; they have good coal endurance, and a high speed on the measured mile. It has been objected that we have attempted too much within the limits laid down for displacement, that we have carried reductions of weight too far in hulls and engines, and that the ships are overloaded with armament and overcrowded with men. It would be easy to reduce the weight of armament by substituting 4 inch for 6 inch guns.

It is more difficult to devise a remedy for the shortcomings of the ARCHER Class under steam. It would obviously be unreasonable to rely on a speed at sea equal to that attained on the measured mile. The Admiralty tables point out that not more than about two-thirds of the full power developed under fixed and most favourable conditions can be expected in continuous steaming at sea. The measured mile power and speed is a standard performance, absolutely identical for all ships of war, and is needed by shipbuilders and engineers for comparison of form and proportions. The ARCHERS could work at sea with two-thirds of their extreme power, or even more, if, like mail steamers, they made definite runs at an unchanging speed. What tries the boilers is to lie still or crawl about with banked fires, and then make a rush at full speed. The ordinary work in the engine-room of a man-of-war is a poor preparation for a sudden and excessive strain on men and machinery. It is when the utmost effort is called for that the disadvantages are felt of the want of that ample space and good ventilation which are easily afforded in a merchant ship, where there are fewer compartments, and where there is no necessity to keep machinery below the water line.

It is a question whether even under the new regulations, the trials of ships are sufficiently severe before they are passed into the service. A voyage at full speed to Gibraltar and back for Cruisers of the ARCHER Class would discover many weak

points, and afford a much-needed opportunity of training for engineers and firemen. I would not recommend additional vessels of the ARCHER type.

HMS ARCHER was on the China Station in 1894. During her time on this station she went to Korea where the Japanese Troops had insulted the British Consul-General and his family. Commander R. W. S. Rogers, the Captain of HMS ARCHER, deemed it wise to land an armed party of 30 men to protect the Consul-General from further insults by the Japanese Troops after a formal apology was made.

On September 7, 1900 HMS ARCHER (Commander J. P. Rolleston) sailed from Sheerness to relieve her sister ship HMS MOHAWK on the Australasian Station. HMS ARCHER sailed via the Suez Canal arriving in Sydney on November 14, 1900.

The ship stayed on the Australasian Station until she started her homeward voyage on December 5, 1903 arriving in Plymouth on February 23, 1904 then proceeding to Sheerness arriving there on February 24, 1904.

HMS ARCHER was sold to Forrester, Swansea on April 4, 1905.

HMS ARCHER (1911-1921)

Type: Destroyer.

Displacement: 775 Tons

Builder: Yarrow. Cost 103,642 pounds.

Launched: October 21, 1911.

Armament: Two 4 inch. Two 12 pounders. Two 21 inch Torpedo Tubes.

Dimensions: Length 240ft. Breadth 25ft 6ins.

Complement: 72.

This ship was built by the Yarrow Shipbuilding Yards on the Clyde River in Scotland.

HMS ARCHER was one of the "I" Class Destroyers, all told there were 23 in this class.

This ship had three Yarrow Boilers, each with a pressure of 250lbs per square inch powering Brown-Curtis Turbines on two shafts. The SHP was 18,537 which gave the ARCHER a speed of 30.31 knots on her trials whereas her designed speed was 28 knots. The two ships of this class built by Yarrow, ARCHER being one, had an improved type of Steam Superheater.



Courtesy Imperial War Museum, London

The Superheater gave an economy of about 10% at full speed, 15% at low power, the engine rooms were drier and more free from vapour as the leakage with superheated steam was less than with saturated, the turbines could be warmed up more quickly and with less risk of priming.

The trials of HMS ARCHER were run in a gale, Force 7 to 9, that is, the wind velocity was from 28 to 47 knots. These ships were more strongly built with high forecastles in order to maintain full speed in heavy seas.

Their armament was 2-4 inch Breech Loading MK VIII guns on PV mountings, each gun had 120 rounds of ammunition, two 12 pounder 12 cwt Quick Firing Guns on PVI mountings, each gun had 100 rounds of ammunition, two 21 inch Torpedo Tubes mounted singularly and four 21 inch torpedoes were carried. The projectiles carried were:—

4 inch — 72 common shells, 168 lyddite, 28 practice.

12 pounder — 60 common shells, 140 lyddite, 20 practice.

This class of ship was the first to be fitted with a 20ft motor boat, also

had a 25ft Montagu Whaler and a 13½ft dinghy.

During the First World War, HMS ARCHER served with the Grand Fleet until October, 1916. During this period she saw action in the Battle of Heligoland. It was in this action that HMS ARCHER won her Battle Honours.

HMS ARCHER was a member of the 1st Division of the 1st Destroyer Flotilla, this Flotilla was led by Captain Blunt in the light cruiser HMS FEARLESS.

On August 28, 1914, a British light cruiser, HMS ARETHUSA was damaged by a German Warship SMS STRASSBURG in an early action in the Battle of Heligoland. On the second clash between these two ships, HMS ARCHER in company with HM Destroyers ACHERON, ATTACK and HIND swept down close to the SMS STRASSBURG. As they passed they fired their torpedoes at her, forcing her to turn away.

Although, by her turn, she succeeded in evading the torpedoes, she was no longer willing to face the Destroyer attacks and disappeared into the haze at high speed. Having

successfully driven off the SMS STRASSBURG, the Destroyers HMS ARETHUSA to screen her as she continued on her way home at 10 knots, her maximum speed.

HMS ARCHER from October, 1916 until August, 1917 operated from Devonport and from September, 1917 until the end of the war she served in the Mediterranean where she was attached to the Aegean Squadron.

HMS ARCHER was sold to Ward, Rainham on May 9, 1921.

HMS ARCHER (1941-1946)

Type: Escort Carrier.

Displacement: 9000 Tons.

Builder: Sun Shipbuilding Yard, Chester, Pennsylvania.

Launched: December 14, 1939.

Armament: Three 4 inch. Fifteen 20mm AA.

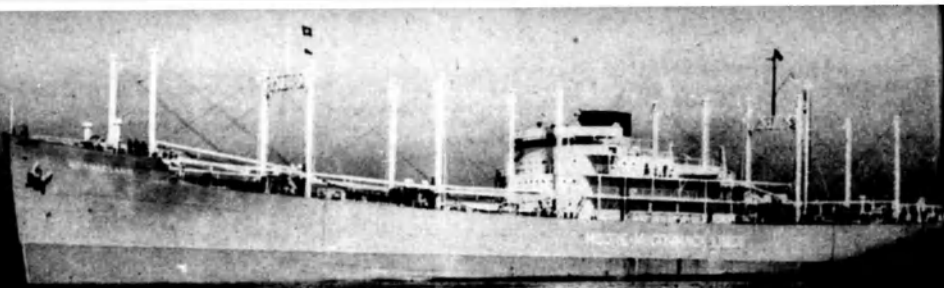
Aircraft: Fifteen (9 Swordfish, 819 Squadron — 6 Martlets, 892 Squadron).

Dimensions: Length 469ft. Breadth 66ft.

Complement: 555.



Courtesy Imperial War Museum, London



M/S MORMACLAND. She was commissioned into the RN in 1941.

HMS ARCHER was originally built as the Merchant Ship MORMACLAND. She was commissioned into the Royal Navy on November 17, 1941.

The most numerous type of Aircraft Carrier to see action with the United States Navy and the Royal Navy was the Escort Carrier, converted from Merchant Hulls, complete, under construction or adapted from the keel up. The conversions, simple at first, became more complex and sophisticated as the war progressed and the disadvantages of the early ships became apparent.

Although the concept of such conversions dated back to the early thirties, when the Naval Staff were considering means of augmenting carrier strength in the event of war, the first "Auxiliary" Carrier did not commence operations until September, 1941, a full two years after the outbreak of war. An ex-German prize, EMPRESS AUDACITY (ex HANOVER) was fitted with the barest essentials for the operation of half-a-dozen Martlet Fighters and in the course of just four months of convoy escort on the Gibraltar run, HMS AUDACITY demonstrated the value of continuous daylight air cover for the protection of Merchant Ships in convoy. In addition to the destruction of several shadowers, her aircraft sighted and drove down several U-boats, which would otherwise have been able to reach an attacking position — an example of the negative side of Anti-Submarine success.

Despite the success of this small fighter carrier, which enjoyed primitive operating conditions only paralleled by those in the MAC Ships,

only four other British-built Escort Carriers became fully operational during the war. The Ministry of War Transport was both to release the large fast ships of the type required for conversions, apparently not fully appreciating what subsequent events were to prove, namely that the saving of Merchant Shipping under close Carrier Escort would have fully justified the sacrifice of the freight-carrying capacity of those ships converted to the Escort Carrier role.

Thus it was that the bulk of the Escort Carriers to serve with the Royal Navy were built in the United States, where the prototype CVE, LONG ISLAND, had entered service shortly before Pearl Harbour. An almost identical sister, ARCHER, was ordered for the Royal Navy, together with four other vessels which differed from her only in displacement and propulsion details. All were diesel-powered and had a wooden flight deck with just one lift, serving a hangar which occupied approximately half the length of the ship. One CVE, CHARGER, was retained by the United States Navy for training, but the other four vessels began operations with the Royal Navy during 1942. The first to see action was HMS AVENGER with a North Russian Convoy in September, 1942 and the other two ships of her class joined her for the invasion of North Africa in the following November. HMS ARCHER was plagued with machinery defects and saw only brief operational service on Trade Protection in the summer of 1943.

The diesel engines of HMS ARCHER developed 9000 bhp and gave her a speed of 17 knots.

The invasion of North Africa took place on November 8, 1942 and on D-Day plus five HMS ARCHER arrived off the coast with an additional 35 Army Fighters which she flew off to Port Lyauley. Four of these P40's crashed on landing.

HMS ARCHER (Captain J I Robertson RN) joined the Battle of the Atlantic in May, 1943 and on the 23rd of the same month a Swordfish of her 819 Squadron became the first aircraft to sink a U-Boat with rockets. U-752 being the victim.

Three of her Swordfish had been fitted with the rockets before she left port with this convoy.

A Swordfish piloted by 21-year-old Sub-Lieutenant H. Horrocks RNVR had gone 15 miles from the carrier when he sighted a U-Boat on the surface, presumably proceeding on one engine and charging her batteries with the other. Fortunately there was considerable low cloud, and making full use of this as cover the Swordfish was able to make a surprise attack on the submarine, immediately scoring a disabling hit. The U-Boat was apparently so damaged that notwithstanding repeated attempts to dive to safety, she was unable to do so. Giving up the attempt, her next move was to man her guns and open fire on the patrolling Swordfish, which promptly called up a Martlet Fighter from HMS ARCHER. The Martlet, piloted by a New Zealander, Sub-Lieutenant W. G. Bowles, RNZNVR, dived on the enemy with her guns blazing, killing the U-Boat Captain on the bridge, several men of the gun crews, and scattering the remainder, who rushed back into the submarine. The Swordfish then made another attack on the now listing

boat, which was seen to be down by the head, and as fumes rose from her and oil spread out on the surface, the crew began to pour out onto the deck. The Swordfish signalled to them to surrender, and the men hurriedly abandoned ship, jumping into the sea. As they swam away, the U-Boat suddenly rolled over to port and sank by the bows. The survivors of her crew were picked up by the destroyer HMS ESCAPE. The whole action lasted about 20 minutes, and HMS ESCAPE picked up 13 survivors including the one and only surviving officer Lieutenant H. Schaufel (U-Boat's crew approximately 65).

This attack by rockets was made only seven months after the first Swordfish experimental firing. The rockets were fired in pairs, and were arranged in series of fours under each wing, giving the aircraft that Christmas Tree effect which so much horrified aerodynamical purists.

On July 4, 1943, a joint announcement by the Admiralty and Air Ministry described a two day battle against a pack of U-Boats in Mid-Atlantic by convoy escorts which included the Escort Carrier HMS ARCHER, carrying Swordfish and Martlets. One U-Boat was destroyed 'or certain and the announcement reported the probable destruction of a second and damage to several more. Close air cover was also provided at the beginning of the convoy's passage by the Canadian Eastern Air Command, and in the later stages by the Coastal

Command. The Battle began when a U-Boat on the surface moving towards the convoy, was sighted by one of HMS ARCHER's aircraft, was attacked with depth charges and forced to dive, so that it was unable to get into attacking range. The next morning a submerged U-Boat was attacked by another naval aircraft, many miles from the convoy, and was probably destroyed. There were several such incidents. Later, another naval aircraft attacked a U-Boat on the surface 15 miles from the convoy and destroyed it, leaving its company in the sea to be picked up by HMS ESCAPE. After this past incident the U-Boats had had enough and the convoy was unmolested from then on.

This communique was about the action described previously on the sinking of U-752.

From May, 1943 to July the same year HMS ARCHER covered three Trans Atlantic convoys and made one Anti-Submarine sweep.

As mentioned previously HMS ARCHER was unfortunately plagued by machinery defects throughout her brief career and was reduced to Care and Maintenance in October, 1943, after just one more Atlantic Anti-Submarine sweep.

HMS ARCHER was handed over to Messrs Alfred Holt as the Merchantman EMPIRE LAGAN on March 15, 1945 and returned to the United States Navy on January 8, 1946. Her name was changed to ANNA SALEN in 1949, then changed to TASMANIA in 1955, and finally to UNION RELIANCE in 1961. She was finally

scrapped at New Orleans in March, 1962.

It should be noted that several of the Passenger Liners now serving Australia have distinguished war records.

One of them, Sitmar Line's FAIRSKY was once a World War II Aircraft Carrier with the Royal Navy.

FAIRSKY began its sea life as an American Liberty Ship carrying cargo. In December, 1942, it was transformed into an Escort Carrier of the ARCHER Class.

Then named USS BARNES, it was lent to the Royal Navy and renamed HMS ATTACKER. At one time during her wartime career HMS ATTACKER was commanded by the late Rear Admiral H. G. Farncomb, CB, DSO, MVO. RAN Sitmar bought the ship in 1957.

HMS ARCHER'S AIRCRAFT

Fairey Swordfish (819 Squadron)

Uninspiring to look at, this somewhat uncouth biplane was responsible for some of the finest and most telling actions in the air war as it developed during 1940. It was the chief striking force in the action by the Fleet Air Arm against the Italian Fleet at Taranto on the night of November 11 and 12. It was used for attacks on enemy positions at the time of the Norwegian and Low Countries campaigns. And it may be said to have proved itself as a valuable weight carrier for all kinds



Courtesy Imperial War Museum, London.



of naval purposes. It is a normally braced biplane of metal construction with the wings fabric covered, and it is able to carry either a load of bombs, a single torpedo (18 inch), which is slung between the divided undercarriage legs, or rockets.

This carrier-based Torpedo-Spotter-Reconnaissance Aircraft had a crew of three for reconnaissance, or two for operational strikes and was built by the Fairey Aviation Co Ltd. Hayes, Middlesex.

The Swordfish was powered by a 750 hp Bristol Pegasus XXX 9 cylinder radial air-cooled engine driving a Fairey type 3 blade airscrew.

Dimensions: Span 45ft 6ins (folded 17ft 3ins) Length 36ft 4ins Height 12ft 10ins. Wing Area 607 sq ft.

Weight: Empty 5,200lbs, loaded 9,250lbs.

Performance: Maximum Speed 139 mph at 4,750ft. Cruising Speed 104-129 mph at 5,000ft. Climb: 10 minutes to 5,000ft. Range: 456 miles with normal fuel and one 1610lb torpedo. Maximum range for reconnaissance with no bomb load and extra fuel (236 gals) 1030 miles. Service ceiling 10,700ft.

Armament: One fixed, synchronised Vickers gun forward and one Lewis Vickers "K" gun aft. Provision for one 18 inch 1610lb torpedo or one 1500lb mine below the fuselage or 1500lbs of bombs composed of:—

(a) two 500lb bombs below the fuselage and two 250lb bombs below the wings, or

(b) 500lb below the fuselage and two 500lb bombs below the wings, or eight 60lb rocket projectiles below the wings.

Grumman F4F-6 Martlet (892 Squadron)

This American Carrier-borne fighterplane which had taken part in

extensive operations in the Pacific, was used in the British Fleet Air Arm where it was known as the Martlet. There were slight differences in the equipment of the plane in the two services, but in other respects they were identical.

A single-seat Carrier-borne fighter all metal stressed-skin construction, built by the Grumman Aircraft Engineering Corporation, Bethpage, Long Island, NY, the Martlet was powered by a 1200 hp Pratt and Whitney Twin Wasp R1830-86 engine.

Dimensions: Span 38ft Length 28ft 11ins Height 9ft 2 1/2ins Wing Area 260 sq ft.

Weight: Empty 4,649lbs. Loaded 6,100lbs.

Performance: Maximum speed 330 mph at 19,500ft. 290 mph at sea level. Cruising speed 297 mph at 19,500ft. Climb 3,300ft per minute. Range 1,150 miles. Service ceiling 28,000ft.

Armament: Six 0.50 calibre machine guns in the wings.

HMAS Archer (1968)

Type: Attack Class Patrol Boat.
Displacement: 140 Tons.

Builder: Walkers Ltd. Maryborough, Queensland.

Launched: December 2, 1967

Dimensions: Length 107ft o/a: 100ft w/l. Breadth 20ft. Depth 7ft 6ins.

Armament: One 40 60 Bofor Gun, two 0.5 Browning Machine Guns, one 2 inch Rocket Flare Launcher.

Complement: 19 (3 Officers, 16 Sailors).

Patrolling Australia's 12,000 miles of coastline is a mammoth task. The task grows when Australian responsibility for Papuan and New Guinean waters is added.

Patrolling is important to a country's security and safety. And it is also important to guard against intrusions into fishing waters.

The 20 Attack Class Patrol Boats are the ships to which much of this task falls. At present, they are deployed around the Australian Coast and in Papua New Guinea.

Five of the Patrol Boats are based at Manus Island, and they are crewed by sailors recruited largely from the mainland and Islands of Papua and New Guinea.

Despite their size, the ships carry a wide range of equipment. Included is high definition navigation radar, HF and UHF radio equipment, gyro and magnetic compasses and echo sounder. They are armed with a 40-60mm Bofor gun, machine guns and light automatic weapons.

They have proved their versatility and usefulness by acting in support of the Royal Australian Navy's surveying ship HMAS MORESBY during survey operations. This has resulted in a significant increase in HMAS MORESBY's output.

The Patrol Boats are fully air conditioned and there is sufficient freezer space on board to provide crews with quality food, even while at sea for extended periods. The ships have many facilities of their larger sister ships to make the crew comfortable.

The 20 boats were built by Queensland Contractors, with the first being commissioned in November, 1967.

HMAS ARCHER is one of these Attack Class Patrol Boats and she is the first ship in the Royal Australian Navy to bear this name. She was built by Walkers Ltd. Maryborough, Queensland at a cost of \$4800,000.

HMAS ARCHER was laid down in July, 1967, launched on December 2,



1967 and commissioned into the Royal Australian Navy on May 15, 1968, under the command of Lieutenant A. V. Horne, RAN.

1,350rpm. HMAS ARCHER has attained the speed of 24.9 knots. Its construction is a steel hull and aluminium superstructure.

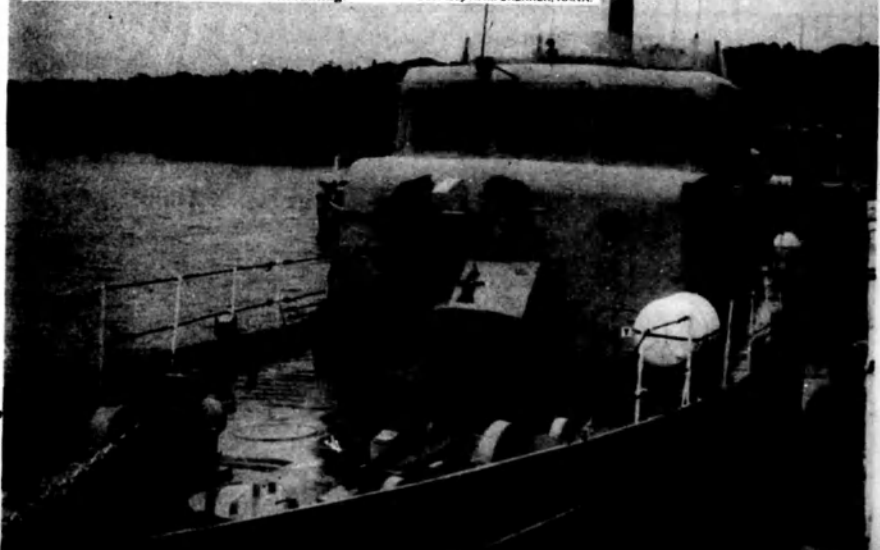
mander T. R. Vasey, VRD, RANR, on behalf of the Sydney Port Division from Rear Admiral G. J. B. Crabb, CBE, DSO, RAN.

She is powered by two Paxman 16 cylinder YJCM Diesels capable of producing in excess of 3,000 horsepower, driving twin screws and giving the ship a speed of 21 knots at

HMAS ARCHER was commissioned into the Royal Australian Naval Reserve on November 9, 1968 at HMAS WATERHEN. The ship was accepted by Lieutenant-Com-

Since being commissioned as a Training Ship for the Royal Australian Naval Reserve HMAS ARCHER has been used continuously in an extensive training programme.

The Forecastle of HMAS ARCHER. Note the painting of an Archer on the Bofor Mounting. Courtesy A. M. Shannon, RANR.





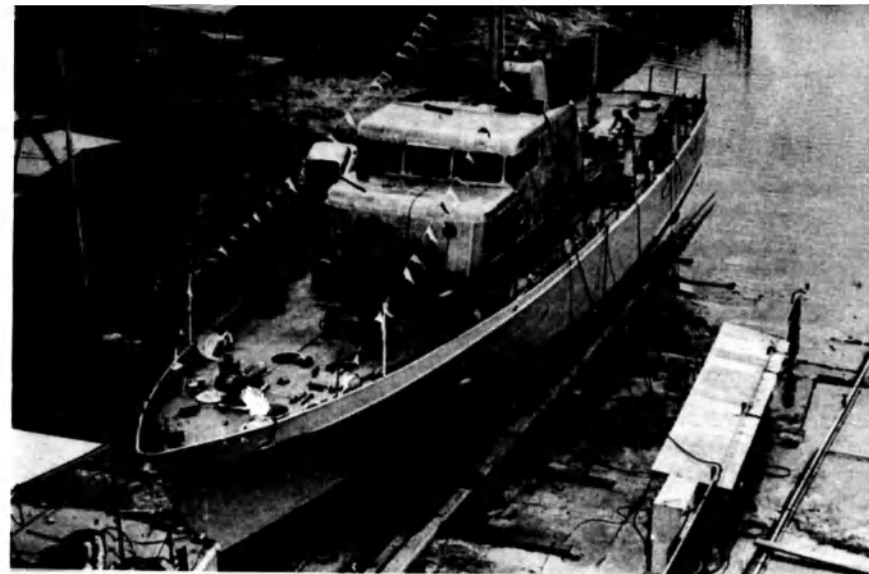
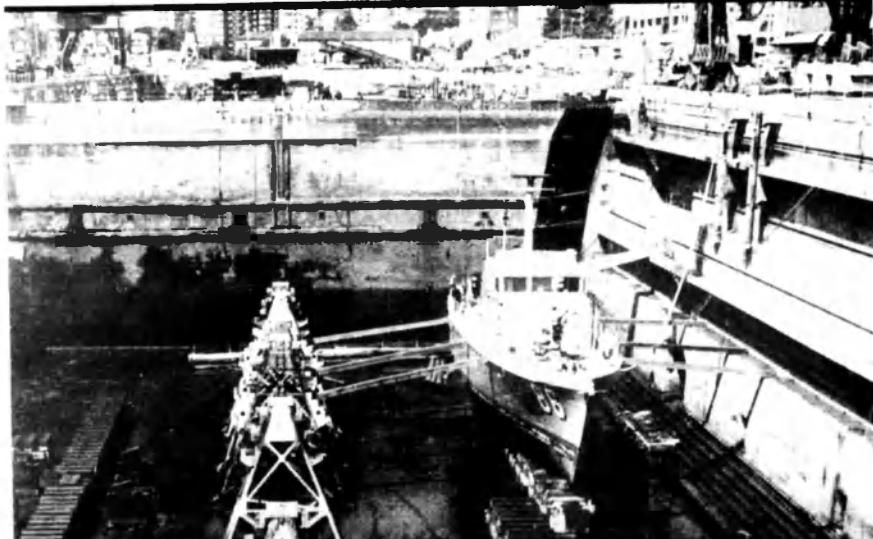
Right:
Showing the Patrol
Boats on the Slips
under Construction.

Courtesy RAN



Below:
HMAS ARCHER on
the bottom of the
Captain Cook Dock.

Courtesy RAN



A Patrol Boat ready for launching.

Courtesy RAN



HMAS ARCHER proceeding down Sydney Harbour.

Courtesy RAN

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Canadian order for . . .

BLOWPIPE MISSILE

Shorts have won a multi-million pound order from the Canadian Government for Blowpipe, the shoulder-launched weapon which can be fired against aircraft and ground targets.

The announcement was made at the Paris air show and coincided with a visit by Minister of State for Northern Ireland, Mr David Howell.

The value of the order and the number of weapons concerned has not been revealed — at the request of the Canadian Government.

But it is understood that the order is a valuable one.

Blowpipe is already in quantity production for both the British Army and the Royal Marines.

A Shorts spokesman said the new order followed a closely-detailed study of the weapon by the Canadian armed forces. He added that a number of countries were showing interest in naval applications of Blowpipe, by which multiple launchers could be fitted to the smallest craft.

New World-wide Opportunities

Mr Howell said Shorts now stood poised to exploit new world-wide opportunities predicted for the international aerospace industry, thanks to its management and skilled workforce.

Mr Howell said it was fitting that the show — one of the two most important in the aerospace

calendar — should see the unveiling of full details of the SD 3-30 airliner, which Shorts hope to have flying in the late summer of next year. Speaking of the wide range of work which Shorts carries out, he said: "The company's world-wide standing is evidenced by its collaboration work on international

aircraft, including wings for the Fokker Fellowship jet liner and components for the Boeing 747 and Lockheed Tri-Star.

"Its international status is further marked by its overseas sales of the Skyvan and exports of its highly successful Seacat and Tigercat missile systems."

LIGHTWEIGHT GUNFIRE CONTROL SYSTEM

Two International leaders in naval weapon control systems have collaborated to create one of the most cost-effective, lightweight gunfire control systems available today.

The two companies, Marconi Radar Systems Limited, a GEC-Marconi Electronics company and Sperry Gyroscope, are well established in this field and between them account for many of the advances in weapons achieved since World War II.

Designed for any size of warship from fast patrol boats upwards, the System is capable of maintaining rapid and accurate control over small and medium calibre guns against air, surface or shore targets.

The System is fully automatic thus keeping manning requirements to a minimum; with only one man required to operate the fire con-

trol system is an essentially supervisory role.

This new gunfire control system incorporates a Marconi Tracking Radar and a Sperry Predictor. The Marconi Radar Type ST802 has been selected from the Marconi 800 Series of weapon radar systems. It is an autonomous X-band tracking radar designed specifically to function in naval gun/missile systems. The Sperry Predictor is based on the Bracknell designed 1412 general-purpose computer which is entering service with many navies including the Royal Navy as part of the Exocet missile system.

By using equipment designed specifically to meet the requirements of modern naval weapon systems Marconi and Sperry offer a solution to the gunfire control problem with the emphasis on high performance and reliability together with ease of operation and maintenance.

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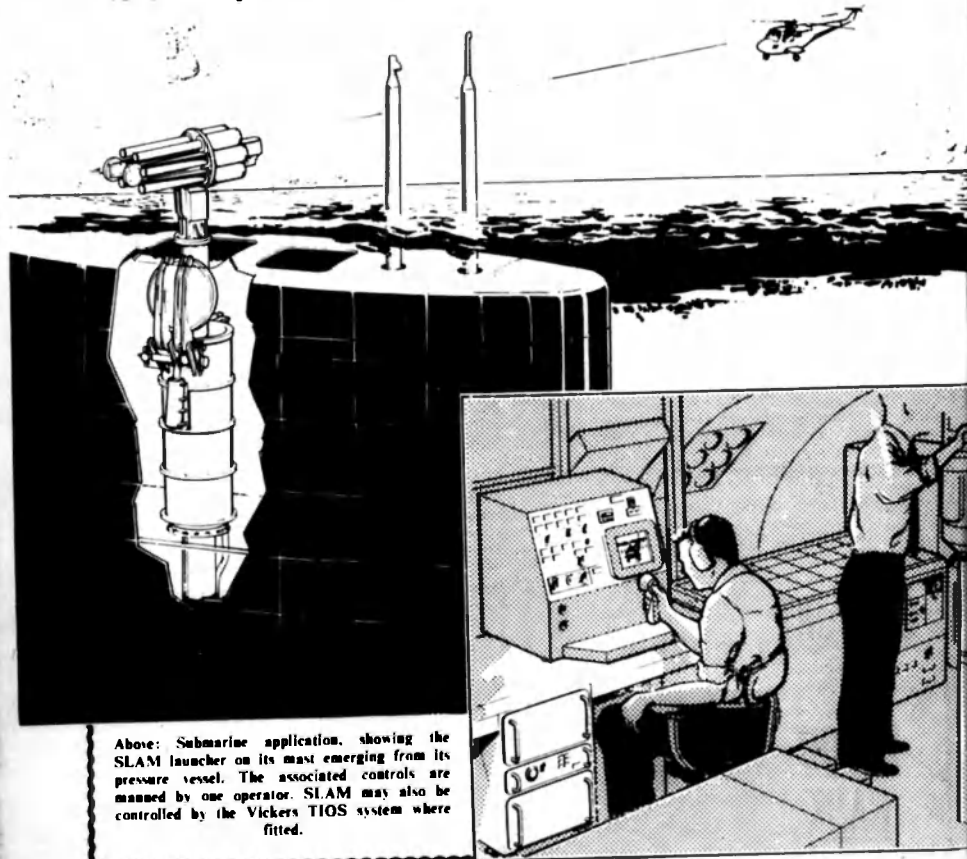
Telephone: 223 2768

SLAM

A submarine launched air-flight missile system

By WILLIAM CHARLES COLVIN, DSc.

The requirement for a submarine launched airflight missile has been known for some years now but it is worth restating requirements for such a system.



Above: Submarine application, showing the SLAM launcher on its mast emerging from its pressure vessel. The associated controls are manned by one operator. SLAM may also be controlled by the Vickers TIOS system where fitted.

In recent years, there has been a strong accent on the use of submarines in the prime role of submarine killer, and their weapon systems have tended to become specialised for this purpose. By its ability to move in three dimensions and so take advantage of oceanological conditions, the submarine can operate in hostile waters with the minimum risk of revealing its presence. Also it can detect shipping at long range.

With the appearance of the helicopter as one of the most popular anti-submarine weapons it is necessary to give the submarine weapons system an anti-aircraft capability, in addition to its other roles of engaging surface skimmers, either in offensive action or self defence, and to policing action in peace or small local wars, where forcing ships to stop for examination is one example.

SLAM is a compact, self-contained space-stabilised launcher, aimer and tracker system based on Short Bros' man-portable Blowpipe missile designed primarily for military use. It is under naval development by Vickers, for close-range defence and attack against helicopters, fixed-wing aircraft and surface vessels, and due to go to sea this year.

Originally conceived in the marine field for submarine applications, either for installation in new construction or as retrofit — with the Oberon class particularly in mind, SLAM is equally well-suited for inclusion in the weapon outfit of small craft such as fast patrol boats, hydrofoils and hovercraft.

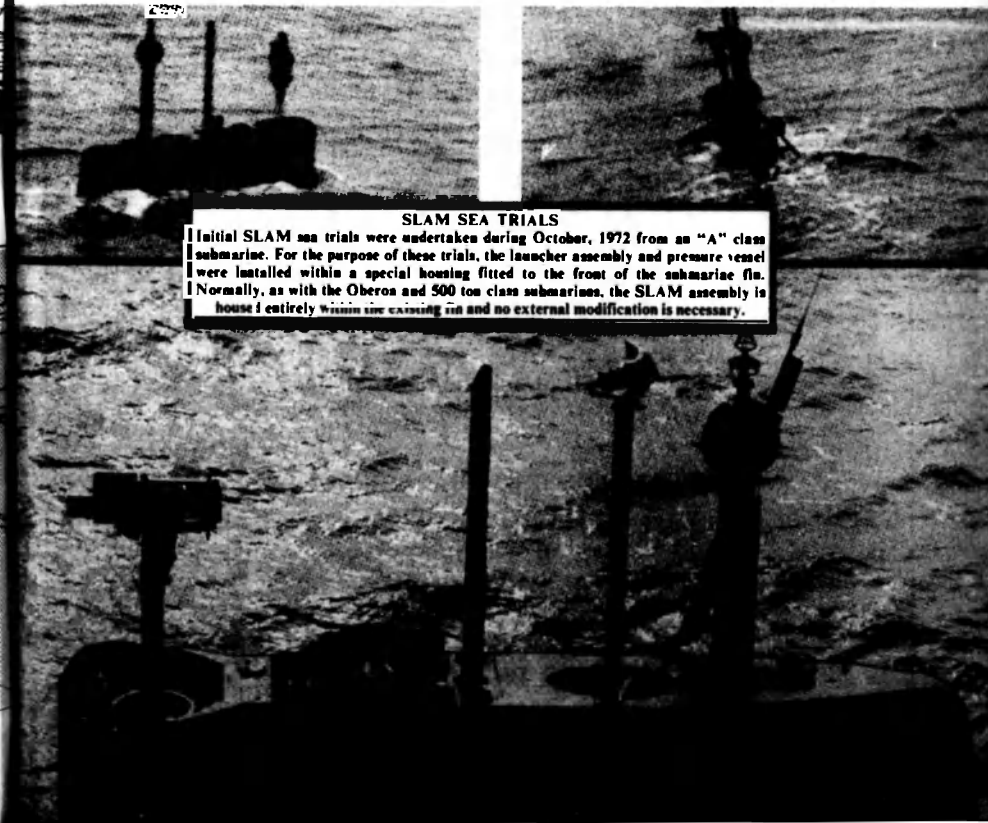
The basic missile, Blowpipe, is a supersonic, close-range (up to 3,000yds) weapon of simple but effective design which, in its sealed canister, has a maintenance-free life of six years.

Missile guidance is on the line-of-sight radio command principle already in proven service with many navies in Short's Seacat.

The ability to use the weapon down to a very short range is imparted by the automatic gathering system which employs flare-sensing to bring the missile onto the line of sight. This facility is switched out at a fixed time from launch when the system reverts to visual tracking.

The warhead of Blowpipe is primarily of the blast type, but has an armour piercing capability. Impact and short-range proximity fuses are carried in the nose of the missile.

Blowpipe comes in a canister which provides protection and a sealed environment for the missile, as well as containing the transmitter aerial and firing initiator. The Vickers launcher carries six Blowpipe missiles clustered round a watertight enclosure housing a TV camera, missile control equipment,



SLAM SEA TRIALS

Initial SLAM sea trials were undertaken during October, 1972 from an "A" class submarine. For the purpose of these trials, the launcher assembly and pressure vessel were installed within a special housing fitted to the front of the submarine fin. Normally, as with the Oberon and 500 ton class submarines, the SLAM assembly is housed entirely within the conning tower and no external modification is necessary.

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Studies have been completed for fitting a surface version of SLAM to fast patrol boats.

and gyro sub-system for launcher stabilisation.

In the original marine design projection, which was related to the 'Oberon' class submarine, SLAM can be installed in two main ways: in either conception the launcher is retractable into a pressure vessel to ensure integrity when the vessel is dived. The submarine need not surface to fire its missiles and the retractable launcher ensures that there is no degradation of underwater performance.

The launcher can be fitted in place of the radar mast as a 'clip-on' installation which is particularly suited for submarines having a multi-role fleet application which do not always call for a SLAM capability.

Alternatively a permanent fit can be achieved by mounting the launcher in place of the ECM mast with other suitable provision made for retaining ECM capability.

The operating sequence in a submarine installation is simple:

(1) The target is detected by radar. ECM passive sonar or visually through the search periscope.

(2) Bearing information is fed to launcher and operator.

(3) The launcher mast is raised and automatically aligned in azimuth, the search periscope can be released for other duties.

(4) Operator seeks target elevation and tracks target on TV display.

(5) Missile is fired and gathered automatically on line-of-sight prior to manual guidance.

(6) Operator guides missile onto target by joystick control.

Once the first target is accounted for, the weapon can be moved on to

the next; no countdown period or checkout is necessary.

Six rounds give an adequate capability for most engagements and reloading can be readily carried out at a convenient quiet period.

This procedure will not alter significantly in surface applications although the overall design problem differs in three main ways:

(a) Surface craft motions, particularly those of hovercraft and fast patrol boats, are faster and more complex.

(b) Surface craft are more vulnerable to attack from low-flying, high-speed aircraft presenting further missile guidance problems.

(c) No pressure vessel structure is required on surface craft, hence lighter installations, all important on smaller craft, are possible.

The SLAM system is designed on the modular principle so that differing requirements can be accommodated without major redesign. It can be as easily retrofitted to existing craft as integrated with new construction.

The pre-production SLAM unit is currently undergoing system tests at Barrow in preparation for guidance firings at a UK range. Some interesting development work is being carried out in conjunction with UMIST (University of Manchester Institute of Science and Technology) on the servo control side where use has been made of recent advances in high current switching transistors to produce a class D servo amplifier for the control of both launcher motors. It is hoped that by producing an IKW

amplifier of this type a significant reduction in cost can be made in the control system of the launcher. Its application to other systems in the control field is under investigation.

Particular problems have been posed in pressure vessel manufacture using aluminium, but this unit is now complete and entering the system test phase. The problem of providing positive action switches on the hatch and locking bolts of the pressure vessel has been overcome using a unique design developed in conjunction with Honeywell Switches, and it is hoped that the spin off data can be applied to other switch applications in the deep sea environment, in which Vickers are heavily involved.

SPECIFICATIONS

(Submarine-launched version)

Environment: Wind up to 37 km/h (20 knots). Wave impingement up to 2930 kg/m² (600 lb/ft²). Temperature 0 deg C to 55 deg C. Water pressure, without pressure vessel protection 7000 kg/m² (10 lb/in²). Sea state up to State 4.

Shock: Designed to meet shock levels laid down by the British Ministry of Defence (Navy).

Vibration: Designed to meet Defence Specifications DEF 133 Section N2.

Ship motion: Roll rates up to ± 10 deg in 6 sec.

Tracking rate: 10 deg/sec.

Slewing rate: 40 deg/sec.

Training angle: ± 360 deg.

Elevation angle: -10 deg + 90 deg.

Accuracy: Spatial pointing accuracy of $\pm 1/2$ deg.

Periscope on Australia

by *Grommet*

Rimpac Exercise

Three Australian vessels, HMA Ships MELBOURNE, BRISBANE and STUART, together with long-range maritime patrol aircraft from No 11 Squadron RAAF participated in a four-nation exercise named RIMPAC 73 in the Hawaiian Islands area from September 10-21.

RIMPAC 73 ("rim of the Pacific") was designed to test all phases of allied naval operations, including anti-submarine and anti-air defensive operations.

The Australian vessels joined 16 units of the United States Navy and vessels/aircraft from Canada and New Zealand.

In all, 24 ships, 20 aircraft and 14,000 men were involved.

Gift of HMAS CASTLEMAINE to the Maritime Trust of Australia

The Australian Government has given the Bathurst Class minesweeper HMAS CASTLEMAINE to the Maritime Trust of Australia, Victoria.

The decision was taken in the light of the aim of the Trust to establish a Maritime Museum for Victoria to preserve and exhibit items of historical interest on ships and the sea. The Government considered it appropriate that the CASTLEMAINE — because of its association with Victoria — should be included in the proposed Museum.

HMAS CASTLEMAINE, built by the Melbourne Harbour Trust at Williamstown, was launched in 1941 by Dame Pattie Menzies. The ship is one of the last remaining of the 60 corvettes built in Australia in World War II and named after local cities and towns.

She had a most impressive war record. Operational service involved escorting convoys in Australian waters and the New Guinea theatre, engagement on survey duty out of

Darwin and mine clearance operations in the Hong Kong area. The ship was paid off in December, 1945, having steamed some 117,000 miles on war service.

Until 1971, when declared for disposal, the corvette rendered useful service as an immobilised training vessel at Flinders Naval Depot, Victoria.

Navy to Navy Talks With USN

The talks took place in Canberra during September, and participants discussed a range of subjects of practical common interest, including plans for development of forces, concepts of operations by future ships, comparisons of effectiveness of ship types, the practicalities of operations with other forces and each other coastal patrolling, the sharing of resources, particularly training resources and personnel exchanges.

The United States delegation was led by Rear Admiral Billy D. Holder, Director of Strategic Plans and Policy Division, Office of the Chief of Naval Operations and the Australian team by the Deputy Chief of Naval Staff, Rear Admiral H. D. Stevenson, now Chief of Naval Staff.

Visit by Japanese Squadron

Vice Admiral J. Ishino, Commanding Officer of the Japanese Maritime Self-Defence Force Squadron is welcomed to Melbourne by Commodore D. H. D. Smyth, Naval Officer in Charge, Victoria (see photograph). The Squadron comprising the destroyer KIKUZUKI and the frigate KATORI, were in Melbourne for a three-day good will visit during September, prior to calling at Sydney and Darwin. More than 10,000 people were shown over the ships during a one-day public inspection in Melbourne.



PERISCOPE ON AUSTRALIA

Naval Board Appointment

Captain M. P. Reed will become Chief of Naval Technical Services on January 22, 1974, on the retirement of Rear Admiral B. W. Mussard. Captain Reed will be promoted Rear Admiral on taking up his appointment.

Survival Trials Successful

The arduous raft survival trials for the Defence Department in Darwin Harbour have been successfully completed and the 55 sailors and soldiers who took part have now returned to their normal duties.

The tests were held for the Armed Forces Food Science Establishment to find a more acceptable survival ration to replace the water and glucose pack presently used in service life rafts. Officers of the Departments of Health, Northern Territory, Science and Works assisted Defence Services personnel with the planning and conduct of the trial.

The men were embarked in five 20-man Naval pattern inflatable life rafts which were moored offshore in a remote part of the harbour.

A shore support camp was set up to make daily medical checks on the men during the four-day aloft phase. Their medical condition and subjective reactions were recorded.

No food or water was given on the first day but on subsequent days each man received 125gms (4oz) of a new variety of glucose — a caramel fudge confection — and 500mls (1 pint) of water.

The weather was mainly hot and clear except for a brief rainsquall on the first night, accompanied by 30-knot winds.

They then had to endure choppy seas for the next 12 hours.

The 24-hour post trial phase began on September 18, and the men re-

hydrated and slowly resumed their normal physiological functions.

Morale remained high throughout the four days and overall the men withstood the ordeal well.

It will be some time before the formal analysis of the trials data will be completed.

SIZE OF US NAVY CREWS

Crew size of the Navy's newest and most modern destroyer escort ships may be substantially reduced and verbal speed commands from the bridge eliminated as a result of new automation in the engine room.

Litton Industries' Guidance and Control Systems division, Woodland Hills, Calif. is designing a new automation system that will make it possible to operate the main engines and other power plants of the ships with computers, thereby requiring only half the present-day engine room personnel.

Litton recently was awarded a \$323,000 contract from the Naval Ship Systems Command for Phase 1 of a two-part programme to design and develop a modified engineering plant system for one of the Navy's DE-1052 Knox-class destroyer escort ships. There are 46 of these ships in service or designated for

the fleet. During the next 4½ months, the Litton division will prepare the overall system designs and specifications and initiate the detail design of the automated system.

The 18-month Phase 2 portion of the programme, which has a total value of \$2.29 million, calls for completion of design fabrication, installation, test and evaluation of this system, which will automate the steam propulsion plant, electrical power plant and auxiliary systems. Installation of the automated ship control system will be performed by National Steel and Shipbuilding Company, San Diego, under sub-contract to Litton's Guidance and Control Systems division.

The Knox-class escort the Navy is constructing is the largest group of destroyer-type ships built to the same design by the United States since the end of World War II. These ships have a full load displacement of 4,100 tons, and a speed in excess of 27 knots. The ships have been built by three private US shipyards.

Best wishes and a welcome to all Naval Personnel from the

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BELGIAN ANTI-SUBMARINE ESCORTS

Another major export order, worth nearly 300,000 pounds sterling including spares, has been won by the Controls Division of Vosper Thornycroft. The contract has been secured against stiff competition, and follows a year's negotiation.

Vosper Thornycroft will supply propulsion machinery control systems for four ASM (Anti-submarine) escort ships being built for the Belgian Force Navale. The warships, to be built by Cockerills (Antwerp) and Boelswerf NV (Temse) for commissioning in 1976-78, will incorporate CODOG (combined diesel or gas turbine) twin screw propulsion: in each ship one diesel will drive its respective shaft or a single gas turbine can drive both shafts. Gas turbines will be Rolls-Royce Olympus. Cockerills Seraing will supply the diesels, and the controllable pitch propellers will come from the Dutch firm, Lips NV. The vessels, each of about 2,000 tons displacement, will be used to strengthen NATO's maritime defences under the Channel Command.

The basic design for the control systems will be that developed by Vosper Thornycroft over a decade of controlling their own high-technology combined propulsion warships. In 1966, a comprehensive system was produced for the Mark 5 frigates built for Iran, on which twin Olympus gas turbines and diesel engines were controlled and monitored remotely. A refined

and developed system was produced for the Mark 7 frigate (Libya). Recent orders for six Vosper Thornycroft Mark 10 CODOG frigates for Brazil gave an opportunity for the Controls Division to update the system to incorporate the latest technological advances. The Belgian controls will be based on those for the Mark 10 frigates.

As it is a requirement to design the control system for the ASM Escort ships to achieve optimum ship manoeuvring performance within the design limitations of the machinery and transmission system, hybrid computer simulation of the ship and propulsion system will be carried out to derive the essential controlling parameters, and to investigate different control schemes which would enable these parameters to be met.

Features of the system include:—

1. A hybrid design utilising the advantages of solid state electronics for signal processing with pneumatics for the actuating media. After processing, the signals are changed from dc voltages to dc currents and transmitted to the machinery spaces, where they are converted into proportional

pneumatic signals.

2. Use of power demand levers instead of proportional (speed proportional to setting) levers. Each lever is spring-biased to a central detent position corresponding to unchanging power: power changes are demanded by movement of the lever forward or aft of centre. The sense of the demand reverses as the zero power position is passed. The signals initiated by the lever are converted to control terms for engine speed and propeller pitch in an electronic control unit. An advantage of this type of control lever over the proportional type is that it simplifies changover from one remote control station to another.

3. A modular form of packing engineered in accordance with the Versatile Console System (VCS) concept. Each module is responsible for a specific control task and is independent of other modules, except under engine changeover condition, so that withdrawal of a particular module has a minimal effect upon the system.

4. Use of potentiometers as input devices. Modern high precision types are used, resulting in a simple system of high reliability at a comparatively low price.

5. Built-in test facilities. A solid state voltmeter is provided which can readily be connected to over 100 test points on the electronic control unit. This is accomplished with little extra wiring.

With compliments and best wishes to all Naval Personnel from

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BOOK REVIEWS

The New Jane

Jane's Fighting Ships, 1973-74. Edited by Captain J. E. Moore, RN (Retd). Published by Sampson Low Marston & Co Ltd, London.

Reviewed by: A. W. Grazebrook, Federal Deputy Vice-President, The Navy League of Australia.

The arrival of the new Jane's Fighting Ships is an annual event awaited with pleasurable anticipation by this, and many other, enthusiasts. This year's book, with the retirement of Ray Blackman from the Editorship after over twenty years, and his succession by Captain John Moore, RN retired, promised to be an exceptional event.

A number of changes were apparent at once. The practice of drawing all silhouettes to one scale, at the beginning of each national section, has been discontinued in favour of drawings to varying scales designed to present broadside elevations of smaller vessels in a way which permits presentation of a larger amount of detail and use for recognition purposes. The drawings are included with individual ship classes, and are often much more informative than the available photographs.

Whilst this new approach to silhouettes has the disadvantage of being useless for assessing the relative size of ships, the old system meant that some silhouettes were far too small to permit practical use. A number of block silhouettes (as per 1914 et seq editions), again to varying scales, are included by type in one multinational section for recognition purposes. On the whole, the change is an improvement, particularly the elevations included with each ship class.

Useful additions are a brief listing of ships deleted at the beginning of each national section, and an index by class of ship. The numerical summary of strengths of individual maritime forces, with its tendency to be misleading because of its simplicity, remains.

A major improvement is the grouping, by individual country, of the naval aircraft and missiles section. This will be a great asset when considering the relative maritime strength of individual nations.

This year's Jane's covers a wide and increasingly complex subject exceptionally well, with its usual crop of new photographs, its updated ships' data, and the standard layout introduced by Ray Blackman to such advantage, some years ago. The book makes the study of its complex subject as simple and absorbing as possible.

Australia's own DDL appears in some detail, for the first and only time. It is for the study of trends in escort size and design throughout the world that many Australian readers of Jane's will find the book most interesting. Politically inconvenient though it may be, it is an indisputable fact that serious naval powers, with large (and often also small) coastlines are concentrating on new escort vessels of more than three thousand tons. Air defence and anti-submarine weapons systems, effective against modern aircraft and conventionally powered submarines, are not mounted in smaller ships. Argentina, Brazil, the Netherlands, France, Italy, China and others are examples of medium sized naval powers who have recognised this fact.

Again in the context of Australia's geographical region, sections for some navies are in need of revision. That for Pakistan does not include the six small submarines ordered from Italy, nor the four Type 12 frigates to be acquired from Britain. The Indian section has omitted the two additional "Foxtrot" type submarines now under construction. The Thai section omits a photograph of their new 1500 ton frigate (armed with depth charges!). The section applicable to the Imperial Iranian Navy makes only brief reference to the further substantial expenditure planned for new naval construction. The Australian Section shows the eight new landing craft as building, although the first ship (BALIKPAPAN) was completed eighteen months before the book was published.

The Chinese Section gives details, including a photograph, of the new 3,500 ton ocean going escorts they are constructing or have constructed. The already substantial (31) ocean going submarine force continues to grow. The Section shows clearly that China is developing into a "blue-water" power.

Drawings of the new aircraft carrier KIEV, complete with angled deck and heavy missile armament forward, are a major feature of the excellent Russian Section of the book. Photographs of the new ten thousand ton cruiser NIKOLAYEV are another major "scoop". As with other Russian ships, accommodation standards appear to have been sacrificed in favour of higher weapon payload. The Editor is to be complimented upon the comprehensive nature of this Section, for the preparation of which obtaining details and photographs must be extremely difficult.

As in previous years, the United States Section differs in layout from that used for other nations. This is regrettable, as it makes an otherwise superb section (compiled by Mr Norman Polmar) difficult to read in conjunction with the rest of the book. Surface fighting vessels continue to be broken into three separate sections — surface combatants, ocean escorts, and gunfire support ships. One wonders how our own VAMPIRE and VEN-DETTA would be classified. The new silhouette system, described above, has not been adopted in the United States Section. Useful features of the US Section include an indication of which ships are in operational service, descriptions of the strategic and tactical thinking behind new ship types, and simple (so far as such things can be) descriptions of electronic navigational, operations and weapons control systems.

Turning to the United States ships themselves, a feature of considerable interest to Australians will be the increased speed of the patrol frigate (shown as 28 knots this year, as compared with 25 knots in last year's edition). This is a feature of a type, still in the design stage, that may well make the PF a realistic candidate for the RAN's escort replacement programme. The United States escort force continues to rise in average age, with a manifest need to replace older vessels at a much greater rate. It is envisaged that twelve patrol frigates will be built per annum, to a class total of 50. None of the SPRUANCE Class have yet been launched. The last of the KNOX Class destroyer escorts will be completed shortly, leading to an unavoidable gap of several years during which no new escorts will be completed.

The Sea Control Ships are still only in the design stage, but details listed are of particular interest in view of this type's candidacy as a replacement for HMAS MELBOURNE.

The Patrol Ships and Craft Section, with its full details of not only the ships and craft but also their advantages and limitations, will be of particular interest to Australian readers. The US Navy sees the small (220 ton 40 knot) hydrofoil boats as suitable for sheltered waters only. For ocean or sea going work, the US Navy has plans for vessels of 2000 tons gross, armed with anti-

submarine helicopters and surface to surface missiles, and capable of 80 knots. These vessels are still in the early design stage, with prototype construction envisaged for the second half of this decade. The section demonstrates that patrol craft have their uses, but they do not provide the answer to some politicians' quest for defence without paying for it.

Apart from one or two new names, the United Kingdom Section provides no new information about new types of ship planned. The Through Deck Cruiser INVINCIBLE is listed, of course, but with only one change in technical data provided. Only eight of the small Type 21 frigates are to be built, with the Royal Navy envisaging the 3000 ton Type 22 (first ship to be ordered this year) as its next long term basic escort design.

In summary, Australian readers will find the 1973-74 Jane's a superb publication with which to examine the trends in warship design and tactical capability of the leading and self supporting naval powers. A thorough annual updating of the sections applicable to our maritime neighbours, most of whom are increasing greatly their naval strength, would be very welcome, and make the book much more useful.

Finally, this reviewer cannot close without reference to the price. Although the book is available in Melbourne at just under \$45, this writer arranged by mail, with a United Kingdom retailer, to import a copy by surface mail at \$26.24 post paid. Books enter Australia duty free.

The Battleship Era

By PETER PADFIELD

Published by Rupert Hart-Davis, London, 1972. Extensively illustrated, 321 pages including glossary. Price in Australia, \$8.65.

Our copy supplied by Hicks Smith & Sons Pty Ltd, 301 Kent Street, Sydney.

Reviewed by Lieutenant Commander B. R. Nield, RANR (Retd).

The great technical changes that took place in warships between the Napoleonic Wars and the First World War were both spectacular and bewildering. Then, in the Second World War, naval warfare took a

form that was not expected by people who had come to think of battle fleets as the fundamental factor in war at sea. There has been a great production of naval historical literature for this period, but it consists almost entirely of detailed accounts of particular battles, wars and episodes. Unfortunately, there are very few serviceable short histories or practical handbooks on the development of modern naval warfare.

For these reasons Mr Padfield's book is very useful. It consists of a survey of battleship warfare, beginning with developments in the early nineteenth century and ending with the sinking of the giant Japanese battleships in the Second World War. It is an all round history, which includes discussions of naval architecture, gunnery, fleet actions, the politics and economics of war, and the hopes, fears and ambitions of naval men. Mr Padfield is moderate in his praise or blame of individuals, but very enthusiastic in using all available source material. He digests, in his story, archives in the Public Record Office and memoirs of political leaders like Lloyd George, of Admirals like Tirpitz and of lower-deck historians like L. Vexley and Seaman Stumpf. But he never loses his way. His story has a beginning in technology, continues with theories of warfare associated with Makin, and ends inevitably with the development of submarines and aircraft. He introduces interesting personalities, such as Percy Scott, the pioneer in modern gunnery, and Tirpitz, the tactful and cunning creator of the German Navy. Above all, he stresses the importance of training, morale, seamanship and courage.

The Samarai Affair

By ARTHUR BEHREND

Published by Eyre Methuen, London, 1973. 191 pages.

Our copy supplied by Hicks Smith & Sons Pty Ltd, 301 Kent Street, Sydney.

Reviewed by Golatoo.

Tucked innocuously away on the inside upper rear flyleaf of this book's dust jacket is the confirmation of that which I thought was too obvious to be true: insofar that the author of this excellent tale of maritime conspiracy is an ex-

member of the Mersey Docks and Harbour Board and the Pilotage Committee, and is also the ex-Senior Partner of a family shipping firm. In relating with some veracity a complex situation such as that found here, a good working knowledge of police methods and court procedure is almost mandatory and in this respect the author has used very effectively the help willingly given him by members of the Constabulary.

The story concerns a 7,000 ton ship, the SAMARAI, which ran aground during transit of the long, narrow approach channel to the Port of Liverpool and, after breaking her back, became a total loss. The obvious question is, how did this happen? The weather was good with no fog; no other ship was within a mile of her, and she had a First Class Mersey Pilot on the bridge. Was it negligence on the part of the ship's Master or her crew? Perhaps an ill-judged manoeuvring instruction given by the Pilot caused the quarter-master to put her on the hard. Or was it a straightforward case of barratry?

Many documentary and

instructional films and books are given a fictional or distinctly narrative cast in order that their message may be more readily understood and absorbed. It is less usual for the reverse to occur albeit for the same reasons; however this is almost exactly what Arthur Behrend has done. His tale is a skilfully woven tapestry comprising unequal quantities of third-person narrative, inter-personal dialogue, combined with courtroom-style straight reporting.

The whole effect is one of surprising authenticity and in fact, as the book draws to a close, one

cannot help but hark back to the introduction and speculate, despite an elaborate disclaimer to the contrary, whether or not the entire incident contains more than a modicum of truth.

This book encompasses a subject not often touched upon in fiction and its reviewer was greatly impressed by its overall excellence. Because of undoubted background authenticity, its incidental instructional value cannot be overlooked and it is for reasons such as these that I heartily recommend this easily digested work of fiction(?).

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HMS PROTEA, a dual purpose deep ocean survey ship, is a later version of the "Hecla" class design.

Ships That Survey The Unknown Ocean

By Rupert Butler

A dozen very special ships of the Royal Navy with highly sophisticated equipment designed to save lives and generally smooth the path of mariners everywhere are on patrol throughout the world.

The surveying vessels of the British Navy's Hydrographic Department gather the information which goes into highly detailed charts produced for mariners by the Hydrographic Department at Taunton, Western England.

It all began a century ago when HMS CHALLENGER set off on a round-the-world journey of discovery which laid the foundations of modern oceanography.

This key voyage took more than three years, but it was another 20 before the results were available. An impressive achievement by the standards of the age, but it wouldn't do now.

Today's survey ships — vessels such as HECLA, HECATA and HYDRA — go out to survey the oceans stuffed with data logging computer, satellite navigation systems and oceanographic winches for the deepest seawater analysis.

VAST AREAS

A spokesman for the Hydrographic Department emphasises: "There are still vast areas of water which are completely uncharted, particularly in areas of the Far East like the Solomons and Fiji. The ocean survey ships are in there, either producing charts giving completely new information or updating existing ones."

Even in relatively well known areas like the Atlantic there is still plenty of work to be done.

"Modern mariners, particularly ones in charge of the modern giant tankers, must have absolutely up-to-date situation reports on the state of the waters they will navigate. The most common risk is, of course, running aground. We exist to eliminate the risk."

The Hydrographic Department which analyses and publishes the material gathered by the survey ships, prides itself on a completely global outlook.

The Department's findings are

available to the International Hydrographic Organisation based in Monaco. Its job is to co-ordinate the work of all countries engaged in hydrography and make the results available.

EARTH'S CRUST

The ocean survey ships, in addition to bristling with echo sounders and radio fixing aids, are armed with 35-foot surveying boats and Wasp helicopters. Their tasks? Measuring variations in gravity, the earth's magnetic field and the temperature and salinity of seawater. Seismic observations and core samples reveal the structure of the earth's crust. Cameras show what is happening on the seabed and immediate substrata.

All of which is designed to prevent accidents. But hydrographers accept that they do happen and they have a lot of useful machinery tucked away in a Whitehall building to deal with it.

Radio navigation warning equipment is there to warn of possible disaster for others when a ship runs aground. It can issue shortwave warnings either on nearby coasts or way out in the Atlantic.

"This is the glamorous side of our job and the sort of thing that gets in the headlines," says the man from the Hydrographic Department. "But what is less publicised is the vital routine work. This is constant surveying of tides and weather in certain locations."

"One of the biggest menaces to any mariner is sand waves. Every seaside holidaymaker has seen them — ripples on the sand when the tide goes out — but the ones our ships deal with are far out and magnified a thousand times."

"They can be up to 30 feet high. It's our job to pinpoint on charts where they're likely to happen."

All this work is done most of the year round by ocean vessels, coastal ships and inshore survey boats — a dozen altogether.

HYDRA has her Pacific surveys in the Solomons, while coastal vessels FOX and FAWN will soon be in the Leeward Islands region of the Caribbean.

SHARED KNOW-HOW

Britain has built up over the last century the reputation for being the world's foremost charting authority.

Nobody pretends it's a reputation the country wants to lose, but it is more than prepared to share it.

An increasing number of nations — Malaysia, for example — are setting up their own hydrographic departments and to the Royal Naval Hydrographic school at Plymouth go students from countries needing to equip their own people with the latest charting know-how. These countries have so far included the Netherlands, Denmark, Norway, Malaysia, New Zealand, Kenya, Indonesia and South Africa.

Australia is about to open its own school and there are regular exchanges from Plymouth with Australia and New Zealand.

At one time hydrographers were regarded as specialist but faintly obscure offshoots of the navy whose exact function remained mysterious.

The Hydrographic Department these days is rather different — and has \$3 million to prove it. That was the total spent on Navy-produced books and charts throughout the world last year.

The Hydrography Department reports that publications were bought by scientific bodies throughout the world, including amateurs.

Hydrography is going to be with us as long as there are seas and ships to sail on them. Surveys were once confined to remote corners of the world — quite adequate when shipping passed far offshore.

Now with new ports and harbours being developed to exploit natural resources still more detailed surveys and larger scale charts are needed.

THE NAVY LEAGUE OF AUSTRALIA Queensland Division

ANNUAL REPORT

The most significant event, since the last Annual Report, has been the gazettal of the transfer from the joint control of the Australian Sea Cadet Corps to total RAN responsibility for the units, now named the Naval Reserve Cadets.

Executive Council approval of the leasing of buildings erected by the Territorial Branches has now been received but so far the money for payment to Branches has not been made available. This concludes nearly fifty years of joint administration in Australia and twenty years in Queensland.

The current enquiry into the CME and Army Cadet Corps does not involve the Naval Reserve Cadets at present and the future effect can only be surmised. The ASCC emphasis on a "nautical youth movement" will be continued by the RAN, and it could be that the other Cadet Forces will adopt much of what the Navy League have practised for many years.

It should be interesting to inform Branches and members of the way in which ASCC units have been raised and supported during past years. The following account is generally accurate and shows the variety of schemes that operate throughout Australia.

NSW:

A mixture of Service Clubs, Local Authorities and Navy League.

Victoria and Tasmania:

Mainly Navy League of Australia.

SA:

Navy League of Australia but all NRC buildings have been provided by the Australian Government without cost to the South Australian Division.

WA:

All Navy League of Australia.

Some Divisions have "closed" units, supported by Schools, and of these TS Magnus, at CEGS East Brisbane, has been one of the most successful.

Queensland:

1. Cairns Territorial Branch built the HQ for TS Endeavour. Their premises have been valued by the

Dept of Services and Property at \$6,300.

2. Townsville Territorial Branch built the HQ for TS Coral Sea. These premises have been valued at \$11,500.

3. Mackay Territorial Branch built the HQ for TS Pioneer. These premises have been valued at \$27,540.

4. Rockhampton Territorial Branch has obtained a lease from the Rockhampton Harbour Board. This area includes some sheds. So far no construction has taken place.

5. Bundaberg Territorial Branch built the HQ for TS Bundaberg. These premises have been valued at \$16,000. Tenders have been called for the planned second stage of this building.

6. South Coast Territorial Branch built the HQ for TS Tylagum. These premises have been valued at \$21,550.

7. The "Paluma Committee" is not part of the Navy League but has co-operated closely with it. Their premises, the HQ of TS Paluma are valued at \$15,300.

8. TS Gayundah has always been housed and supported by HMAS Moreton but while a unit of the ASCC was helped by the Navy League. In a similar fashion, TS Magnus, though housed in premises provided by the School was helped by the Queensland Division of the Navy League.

As a result of twenty years of effort the Queensland Division has been able to turn over to the RAN seven units, including TS Magnus, in a going condition and, with the Paluma Committee, property in the vicinity of \$100,000.

My previous reports have stressed the need for each Branch to continue its support for the Naval Reserve Cadets in the manner most

suited to the requirements of their particular area.

The Queensland Division is considering some action to assist RAN under-graduate officers at the University of Queensland, and Townsville may be interested in liaison with the James Cook University. University Liaison Officers have been appointed by the Naval Board to some Universities, but as yet there is not a requirement for one at James Cook.

In July, I was invited to an imaginative Symposium on "The RAN and the Environment" organised by the Royal Australian Navy and the University of New South Wales on campus. Speakers from each organisation presented special aspects with impressive virtuosity. Over one hundred RAN and civilians attended and I regret that our finances will not permit a similar meeting in Queensland.

The Navy Day Dinner will be held in Brisbane on October 4 at the United Service Club and our guest speaker will be Mr Manfred Cross, MP, Member for Brisbane and Chairman of the Party Committee on Defence.

From time to time the Queensland Division receives material of interest from private sources. This merits copying and sending to Branches. When finance is available an attempt will be made by this Division to distribute suitable items.

Lieutenant Commander A. A. Andrews, MBE, who served as Federal Secretary for many years has retired, and his successor will probably be Lieut V. Dimmit RANVR of Melbourne. This nomination has not yet been confirmed but it is logical to have the President and the Secretary in the same Division.

I will be overseas from early September till the middle of November, 1973, and the Divisional affairs will be conducted by the Vice-President and the Hon Secretary, Colonel P. V. O. Fleming.

A. H. ROBERTSON,
President.

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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".

DIVISIONS

New South Wales — Box 1719, GPO. Sydney. 2001.

Victoria — Room 6, 2nd Floor, 528 Collins Street, Melbourne. 3000

Queensland — 39 Pinecroft Street, Camp Hill, Queensland. 4152.

Tasmania — 3 Winmarleigh Street, Taroona. 7006.

South Australia — Box 1529M, GPO. Adelaide. 5001.

Western Australia — 182 Coode Street. Como. 6152

Australian Capital Territory — 12 Darroby Street, Weetangera. ACT 2614

Northern Territory — C/- Mrs V. M. Slide, 12 Allen Street, Fannie Bay, 5790

THE NAVY LEAGUE OF AUSTRALIA Application for Membership

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.

(Mr)
Name (Mrs)
(Miss)
(Rank)

Please Print Clearly.

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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

Naval Cadets News

SEA CADET INTERNATIONAL RIFLE COMPETITION 1972

Standings

1st Place: Britain
2nd Place: Sweden
3rd Place: Canada
4th Place: New Zealand
5th Place: Australia

Canadian Results

1 RCSCC Amphion, Nanaimo, BC
2 RCSCC Athabaskan, Fort Saskatchewan, Alta
3 RCSCC Kamloops, Kamloops, BC
4 RCSCC Bicknell, Richmond, BC
5 RCSCC Captain Vancouver, Vancouver, BC

CANADA

ANNUAL MEETING

It was Annual Meeting time again for the National Council of The Navy League of Canada. This year the Meeting was held in Victoria, BC, March 29 and 30.

Among other business, the members reviewed the programmes of the Sea Cadets, Navy League Cadets and Wrenettes over the past year. Policies concerning the Corps were established for the ensuing year.

The strength figures for the past year showed that the Wrenettes' numbers had increased by 15%. This increase offset the slight drop in the Sea Cadet and Navy League Cadet numbers.

The actual figures are—

Sea Cadets: 1,087 Officers, 9,743 Cadets ... 179 Corps

Navy League Cadets: 370 Officers, 3,726 Cadets ... 84 Corps

Navy League Wrenettes: 180 Officers, 1,517 Wrenettes ... 54 Corps (with 3 more in the process of forming).

VICTORIA

Lieutenant B F Gregory, RANVR, the Commanding Officer of TS LATROBE is presented with the

LONSDALE Trophy by Commodore Dacre H. D. Smyth, Naval Officer in Charge, Victoria. TS LATROBE, from Yallourn, Victoria, received the award (see photograph) for being the most improved Cadet unit in Victoria.

Commodore Dacre H. D. Smyth, Naval Officer in Charge, Victoria, inspects the Naval Reserve Cadet Honour Guard at HMAS LONSDALE in Port Melbourne. This gathering of VRC members was one of the largest



ever held in Melbourne. More than 100 lads were on hand to witness a Colour presentation to the Cadets. The colours were presented to the Navy by the Navy Leaguers, the youngest members of the Navy League. Commodore Smyth then presented the colours to Lieutenant (Cadets) Joe Dows of TS VOYAGER from Nelson Place, Williamstown (see photograph). TS VOYAGER was awarded the new colours for being the best Cadet unit in Victoria.

TASMANIA

Ulverstone Sea Cadets Want New HQ

Ulverstone sea cadets want to build a new headquarters, costing at least \$25,000.

And they have applied to the Ulverstone Council for the land on which to do so.

The land they want, however, is controlled by the Devonport Marine Board and their application should have gone to the Board, its meeting was told recently.

The Board learned of the cadets' intentions after receiving a copy of a letter from Mr R. Ashton, secretary of the Navy League of Australia, Ulverstone Branch to the Council.

Mr Ashton said the existing naval reserve cadet headquarters adjacent to the Ulverstone Rowing Club had been declared unsatisfactory for training purposes by the Director of Naval Reserves and Cadets (Capt D. Martin).

However, the three sites Mr Ashton had indicated would be best were administered by the marine board and not the council, the Board's Master Warden (Mr J. A. G. O'Dea) said.

"That area may be required for use by small craft in years to come. The cadets could even become a danger to navigation in the port."

The meeting decided to inform the Ulverstone Council that the Board would agree to a conference between all interested parties on the proposals.

Around the Tasmanian Division

By A. J. LEE

TS DERWENT expect soon to announce details of their appli-

cation to the State Government for a non-repayable loan.

SBLT Doug Gardner has resigned and is moving to Victoria.

The following Chief Petty Officers have been promoted to Sub-Lieut:— T. Jones, TS EMU.

J. Holliday, TS MERSEY.

M. Chaffley, TS DERWENT.

All promotions to date 1/7/73.

Cadets from TS EMU, LEVEN, MERSEY and YORK visited HMAS

OVENS at Burnie whilst they attended a weekend training camp at MERSEY on July 6, 7 and 8. Also cadets of EMU visited the USS KILAUEA at Burnie. This vessel is an 18,000 ton ammunition ship normally operating off Vietnam. The ship was in Port from Friday 20 to Tuesday 24 July.

Northern and coastal units held a Dinner at Burnie on 11/8/73. Officers from all Tasmanian units attended.

LEVEN are now busy preparing preliminary sketches for draughtsmen for a new headquarters to replace the existing ramshackle building which is proving impossible to maintain.

NEW SOUTH WALES

RANR Patrol Boat Visits Coffs Harbour

The Royal Australian Naval Reserve Patrol Boat HMAS ARCHER visited Coffs Harbour on September

1, with a special cargo for Naval Reserve Cadets of TS (Training Ship) VENDETTA based in Coffs Harbour.

The delivery run was included in a training cruise up the NSW North Coast by HMAS ARCHER which is manned by Reserve personnel carrying out weekend training.

ARCHER transported two, 10 foot sailing dinghies for TS VENDETTA which was formed earlier this year.

Sea Training — HMAS VENDETTA

Three officers and 29 Naval Reserve Cadets from TS (Training Ship) VENDETTA, Coffs Harbour, arrived in Sydney during August, to spend 10 days on board the unit's namesake, the Daring Class destroyer HMAS VENDETTA.

TS VENDETTA, commanded by Lieutenant (Cadet) D. G. Drysdale, commissioned on January 1 this year and has 39 cadets, aged 14 to 18.

The Naval Reserve Cadets, administered by the Royal Australian Navy, is a voluntary organisation which gives technical sea training to boys and introduces them to the Navy and merchant services.

Cadets on board HMAS VENDETTA underwent special sea training and worked alongside regular sailors to learn the daily routine of the Navy's most modern specialised gunship.

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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.

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: C/- 39 Pinecroft Street, Camp Hill, Queensland, 4152.
WESTERN AUSTRALIA: C/- 182 Coode Street, Como, 6152.
SOUTH AUSTRALIA: C/- Box 1529M, GPO, Adelaide, 5001.

VICTORIA: C/- Room 6, 2nd Floor, 528 Collins Street, Melbourne, 3000.

TASMANIA: C/- 3 Winmarleigh Street, Taroona, 7006.

AUSTRALIAN CAPITAL TERRITORY: Industry House, National Circuit, Barton, 2600.

NORTHERN TERRITORY: Mrs V. M. Slide, 12 Allen Street, Fannie Bay, 5790.

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

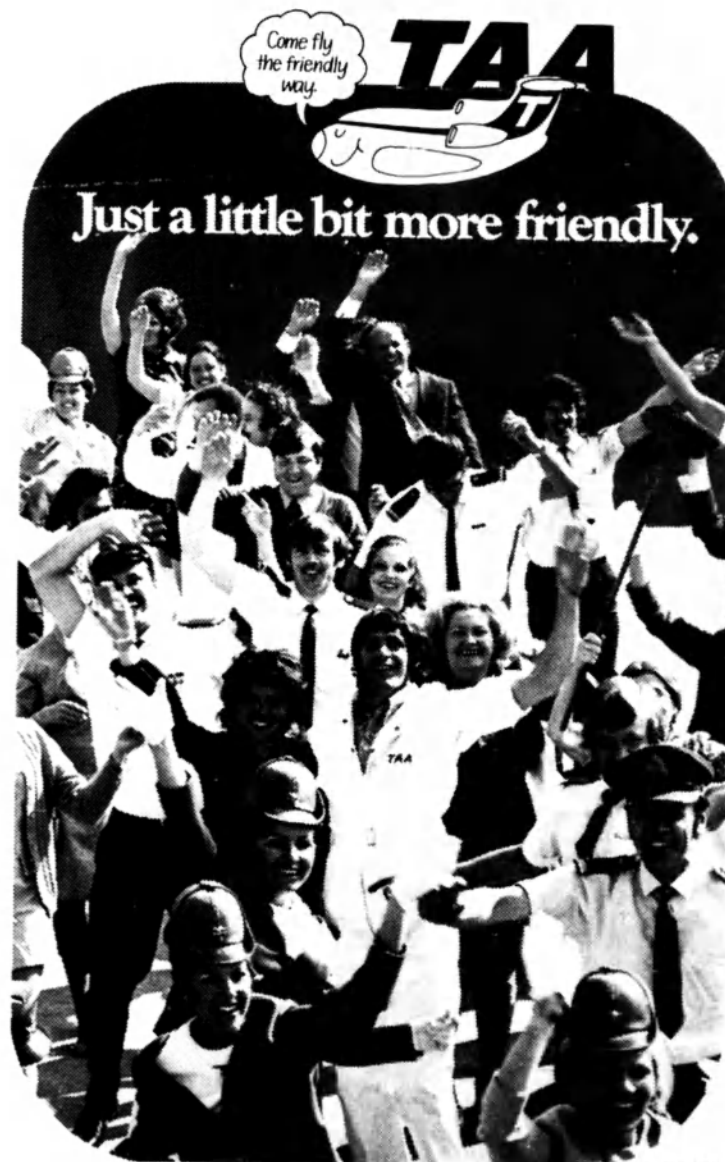
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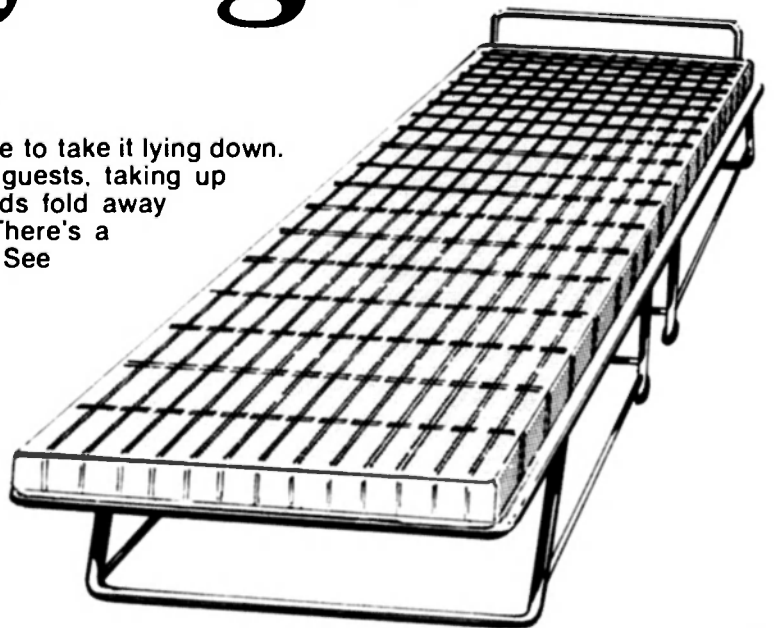
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