AIRCRAFT v SUBMARINE

In the early years of the last war the submarine demonstrated its power: the attrition of supply fleets was enormous. Yet whilst the necessity to keep our sea lanes of supply open remains as vital today as ever, by modern standards the last-war submarines were slow, short-ranged and fought with crude weapons. Ocean going submarines today displace some 1,500 tons, have crossed the Atlantic and Pacific without surfacing and are capable of speeds in excess of 20 knots whilst submerged. They can dive to greater depths in a shorter time, and carry acoustic and submarine trajectory long-range torpedoes and various novel offensive and defensive homing weapons, some of which may be released whilst submerged, rise to the surface, take to the air and home onto an attacking aircraft with the speed of a shell.

But comparably with the advance of submarine development, the effectiveness of anti-submarine aircraft has also greatly improved since the war. Modern centimetric radar can get an echo from the body of a submarine’s snorkel breathing tube, small though it is. Magnetic airborne detection equipment can discern the presence of a submerged submarine from the local change its hull makes to the earth’s magnetic field. The sonobuoy is a float that can be dropped from the air and when it reaches the surface it lowers a microphone and listens. The transmitted recordings from a battery of sonobuoys dropped near the submarine can be used to plot its under-water track. Another detection method of particular use with helicopters is Dipping Asdic. Once the speed and heading are known the submarine can be attacked from the air and sea route. The electronic guidance system in antisubmarine aircraft has also greatly improved since the war. Modern centimetric radar can get an echo from the body of a submarine’s snorkel breathing tube, small though it is. Magnetic airborne detection equipment can discern the presence of a submerged submarine from the local change its hull makes to the earth’s magnetic field. The sonobuoy is a float that can be dropped from the air and when it reaches the surface it lowers a microphone and listens. The transmitted recordings from a battery of sonobuoys dropped near the submarine can be used to plot its under-water track. Another detection method of particular use with helicopters is Dipping Asdic. Once the speed and heading are known the submarine can be attacked from the air and sea route. The electronic guidance system in antisubmarine aircraft has also greatly improved since the war. Modern centimetric radar can get an echo from the body of a submarine’s snorkel breathing tube, small though it is. Magnetic airborne detection equipment can discern the presence of a submerged submarine from the local change its hull makes to the earth’s magnetic field. The sonobuoy is a float that can be dropped from the air and when it reaches the surface it lowers a microphone and listens. The transmitted recordings from a battery of sonobuoys dropped near the submarine can be used to plot its under-water track. Another detection method of particular use with helicopters is Dipping Asdic. Once the speed and heading are known the submarine can be attacked from the air and sea route. The electronic guidance system in

THE BRISTOL AEROP细则 COMPANY LIMITED
Shooting a scene for the Lost Children sequence, in Mulcha sandhills. From left — Warren Mearns, unit electrician, John Heyer, producer-director, and behind the camera, Ross Wood.

You have to be tough in the desert
You would probably get pretty hungry if you could only eat between sunset and sunrise, but this situation had to be met by the Shell Film Unit, on location in Central Australia.

Flies and other insects were the reason for making daytime eating an impossibility.

Sand, blown by gale-force winds, was another factor against eating, and, at one stage, the unit starved for two days because of a raging sandstorm which devastated the camp.

These formidable difficulties, with many others, were encountered by the unit, but the film—subsequently called "The Back of Beyond"—was finished on schedule.

The Spirit of a Country
It has been screened in private theatres, country halls and in Shell mobile projection units all over the country, and in 1954 won the Grand Prix Absolute at the Venice Film Festival.

Through this medium, the Shell Company have contributed towards making known a virtually unknown area. In the words of the unit's director, John Heyer—the film shows "The spirit of a country, and its people's spirit of endeavour."
A PROUD ANNIVERSARY

October 21, the 150th anniversary of the Battle of Trafalgar, is a day of profound significance to the Navy.

On that day the men and women of the Navies of the Crown, wherever they be serving, solemnly rededicate themselves to the service of the peoples of the Crown throughout the Commonwealth. It is a day both of proud remembrance of achievement and of pledge for the future.

Trafalgar Day, Armistice Day, and the great Australia Day, honor Nelson's name, is peculiarly the Navy's day. For England has not always kept faith with her great sailors. They are as succinctly true of the last great war as of the times of Napoleon's conquests. Nelson will always epitomise the Navy to the man in the street.

Admiral all, for England's sake.
Honour be yours, and fame!
And honour, as long as wave shall break.
To Nelson's peerless name!

England has not always kept faith with her great servants. Only too often she has been forgetful of them and ungenerous to their memories. Drake in disfavour within a year of the destruction of the Armada, Hawke burnt in effigy by the very people he was to shield by his audacious victory at Quiberon, Rodney recalled from the scene of his greatest triumph in virtual disgrace. The list is far too long, nor is it confined by any means to the Navy. Even Waterloo, as Phillip Guedalla remarks, is remembered rather as a battle which Napoleon lost than one which Wellington won!

Nelson, however, is immortal. Frail, humane, assured in his ability and that of the men he led, he fell in his greatest hour, and will always represent, in himself, the service which he adorned.

The great sailors who have preceded and have followed him would be the first to accord Nelson his place in history and in our hearts.

The Royal Australian Navy, in its brief but eventful history, has shown itself worthy of the flag it wears. And it has a fateful part to play in Australia's future. The very vastness of Australia's interior tends to cause many to forget the equally vast seaboard and the fact that we are essentially an island people and a maritime nation. We are a people in whose hearts the spirit of Nelson should never be allowed to fade.

THE LAG IN NAVAL RECRUITING

The announcement by the Second Naval Member that the Royal Australian Navy is to seek 1,000 recruits in Britain does not make happy reading.

Commodore Morrow, one of the first and one of the most distinguished graduates of the Australian Naval College, whose responsibility to-day is the manning of the R.A.N., must himself have felt saddened to take this step. Obviously it is a stopgap measure.

But the seriousness of it is that it amounts to an admission that the R.A.N. cannot attract the recruits it needs, apart from retaining its trained personnel when their initial terms of enlistment expire.

The R.A.N. recruiting campaign in the United Kingdom must offer some inviting inducement. Without it what chance would there be of attracting to naval service young Britons who have closed their ears to the blandishments of their own Royal Navy?

The inducement which the R.A.N. will offer, of course, is migration. It will rely on the attraction of Australia rather than on the attraction of Australia's Navy. While we cannot criticise any effort to increase migration to Australia, this form of R.A.N. enlistment appears to be short-sighted to say the least. How does the R.A.N. propose to retain the U.K. recruit in the service when it is finding it increasingly difficult to retain Australians?

If these young men join our Navy only to enjoy the higher standards of Australian living, we may expect them to "take their time" at the first opportunity, so that they may pursue their enjoyment unrestrained by the duties of service life.

October, 1955
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**JOIN THE NAVY LEAGUE**

The object of the Navy League in Australia, like its older counterpart, the Navy League in Britain, is to insist by all means at its disposal upon the vital importance of Sea Power to the British Commonwealth of Nations. The League also sponsors the Australian Sea Cadet Corps to interest the right type of lads in the Royal Australian Navy — either to start them upon a career or to provide a healthy pleasurable means of qualifying them to be of service in the Senior Service in the event of emergency.

The League consists of Fellows (Annual or Life) and Associates. All British subjects who signify approval to the objects of the League are eligible.

**MAY WE ASK YOU TO JOIN**
and swell our members so that the Navy League in Australia may be widely known and exercise an important influence in the life of the Australian Nation?

For Particulars—

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Secretary: 83 Pitt Street, Sydney, N.S.W.
Hon. Secretary: 12 Pirie Street, Adelaide, South Australia.
Hon. Secretary: Box 1441 T, G.P.O., Brisbane, Queensland.
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*August—September, 1955*
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Building the R.A.N. Battle Group


THE JOB IS to prevent an enemy from landing on Australian soil and to stop him from establishing any bridge heads.

These are the reasons why the Royal Australian Navy, in association with the Royal Navy, has decided to build up mobile task forces capable of fighting in any part of South East Asia or the Pacific.

The hard core of any present-day task force is the carrier, the value of which, for all to witness, was proved in the Korean War.

In a war of nuclear weapons, expert advice given to the Royal Navy and the American Navy supported the carrier battle group as a self-protecting largely self-contained mobile airfield. Such a battle group was compact and hard hitting and at the same time pliable.

During the last war the vulnerability of the aircraft carrier was much discussed, but of the 236 carriers used by all sides, only 39 were sunk, and of these only four by shore-based aircraft. Of these four carriers, all of which were American, three were sunk by Japanese suicide aircraft.

As for a future war, the carrier battle group, as a mobile target with its screen of fighters and its early-warning aircraft and radar, might well be relatively immune from some of the most modern and formidable weapons.

With the arrival early next year of the new aircraft carrier H.M.A.S. Melbourne, Australia will have a task force that will be as strong as any in the world. The new carrier has been equipped with:

The Angled Flight Deck, which has revolutionised the technique of deck landing, and so will enable her aircraft to land on with much less risk than on the conventional straight deck. It will ensure maximum safety for pilots and flight deck personnel and provide a far greater operational efficiency. If the hook, which protrudes from the tail of the plane, missed the arrester wires as the aircraft was making a conventional straight deck landing, it crashed into a barrier, with possible damage to the plane and injury to the pilot.

The barrier is erected to prevent planes which miss the wires from crashing into plane which had previously been landed and were parked on the forward part of the flight deck.

With the angled flight deck, planes land on at an angle of six degrees across the flight deck. If the pilot misses the arrester wires, he merely accelerates and takes off to come round for another landing.

A safety barrier can be erected on the angled flight deck, but it would only be necessary if the hook of the aircraft breaks off and there is no other way of stopping it.

The Visual Landing Aid is an essential system incorporating lights, mirrors and gyro mechanism and will ultimately replace the landing signals officer.

This officer was stationed near the stern of the carrier to signal the pilot whether he was on course and at the right height for a landing. He was known as the "Pilotman" because the dugs which he
used to convey his signals to the pilot are shaped like table tennis bats.

Basically, the aid consists of a large curved mirror which the pilot watches when he approaches the carrier from astern. A blob of light is projected into this mirror from a group of lights in the after part of the carrier, and, if the pilot keeps this blob in line with a row of lights on either side of the mirror, he can ensure landing at the appropriate angle to the deck.

The device can be used both in aircraft carriers and on airfields. When used in carriers it is necessary to arrange for the mirror to remain at a constant angle regardless of the motion of the ship.

Since the pilot cannot take his eyes from the mirror sight in the aircraft carrier, he cannot look down to his instruments to check his speed approach. To overcome this difficulty a special panel is arranged on the windscreen of the aircraft. In it reflects a red, yellow or green light, which tells the pilot whether he is flying too fast, too slow or just right. These lights are actuated by the air speed indicator.

In a series of trials the practicability of the new aid has been proved by some hundreds of landings. These have been made both by day and by night. The first night landings to be accomplished with the new aid were accomplished by two pilots who had never before deck-landed at night.

The Steam Catapult, which is powered by steam from the main boilers, is perhaps the greatest power unit of the carrier from astern. A blob of light is projected into this mirror from a group of lights in the after part of the carrier, and, if the pilot keeps this blob in line with a row of lights on either side of the mirror, he can ensure landing at the appropriate angle to the deck by means of a towing bridle.

With the increase in the weight of the aircraft and higher launching speeds, the power required has necessitated larger and heavier power units and correspondingly heavier wires and pulleys. It became evident that those had reached a size and weight which make further improvement of this type impossible, because the entire mechanism would be too bulky and heavy to install in an ordinary ship.

For this reason catapult experts in the Admiralty and industry sought to find an entirely new launching method, and in the course of their research found that a slotted cylinder mechanism had, during the last century, achieved some results as a means of propelling railway trains. As long ago as 1810, George Medhurst, of Shoreham, Kent, proposed the propulsion of trains by means of air pressure in a tube, and in 1844 the great I. K. Brunel persuaded the South Devon Railway to adopt an atmospheric system between Exeter and Totnes.

Although this principle proved impracticable for railways of any length, it worked effectively for short distances, and has now been entirely successfully applied to the launching of aircraft. The system incorporates slotted cylinders in which there are free pistons. Arms projecting through the slots transmit the steam power within the cylinder to the aircraft, an ingenious scaling device having been devised to prevent steam escaping through the slots.

H.M.A.S. Melbourne will carry Sea Venom, two-seater day and night jet fighters and turboprop Gannet aircraft, which can be used either for submarine detection and destruction or for bombing other ships or land targets.

Supporting the carrier are the four destroyers, Tobruk and Anzac, modern Battle class, and Arunta and Warramunga, modernised Tribal class.

The destroyers are the terriers with which the bulldog is surrounded. Their anti-aircraft guns, some of which are radar controlled, can provide a screen which any low flying enemy aircraft would find difficult to penetrate.

Looking ahead, there are at present three ships in Australia and three more in the coming year. These ships, with a full load-displacement of 3500 tons, are, in reality, light cruisers, and for this reason have been removed from the destroyer class.

To combat the submarine menace, all these ships are fitted with the latest anti-submarine devices, and in addition, by late this year, the Navy will have in commission three fast anti-submarine frigates—the converted destroyers Ge-

With H.M.A.S. Sydney, at present being used as a training ship, but which could quickly assume its fighting role, 13 frigates and 28 ocean minesweepers, surveying and coastal defence vessels, and a fleet tanker. Australia is in a position from which it could take both aggressive and defensive Naval action, either separately or in company with an Allied Task Force.

Dockyard employees' strike ended

About 3,900 striking Australian naval dockyard employees went on strike on July 4, went back to work on August 30. The Navy Board employs the strikers at its dockyards at Garden Island (Sydney) and Williams town (Victoria).

They struck as a protest against the alleged refusal of the Navy Board to negotiate with 24 unions on a new log of claims.

Their strike prevented the refitting of the destroyers Tobruk and Anzac, and the aircraft-carrier Sydney.
U.K.-Soviet exchange of naval visits

British and Russian naval forces will exchange visits about the middle of this month. The Royal Navy will send (probably to Leningrad) two light carriers, one 10,000 ton cruiser, and a group of Daring class ships. The Russian squadron probably will visit Portsmouth and will include at least four 13,000 ton Swedlov class cruisers and a number of 40 ton Skoroi class destroyers.

The visits were suggested at the Geneva Big Four conference in July and arrangements are now almost complete.

The Russian cruisers each carry more than 1,000 men, which will mean several thousand Russian sailors will be ashore in Britain for the first time.

Naval authorities are arranging parties, dances and sightseeing trips for the Russians, who probably will stay four days.

**Reported moves to cut down R.N.**

The Admiralty has appointed a special committee to find ways of further reducing the size of the Royal Navy, says the London "Daily Express."

The newspaper says the reduction is for three reasons:

Less money and manpower are to be allotted to the Navy because of further economy cuts by Cabinet.

Defence chiefs are basing their plans on the near certainty of at least ten years without a global war; and

The scope of a navy in war has been greatly reduced by the advent of the hydrogen bomb.

The "Daily Express" says that a full-scale inquiry is being made into the present organisation of the fleet, naval shore stations, Admialty headquarters and the Royal Marines.

It is hoped that most of the economy cuts can be made in shore establishments, including the Admiralty itself.

Shore stations and men now on shore duties will be sent to sea.

The money saved will help to pay for costly atomic submarines and guided-missile ships which the Admiralty plans.

The inquiry, headed by the First Sea Lord,Earl Mountbatten, is expected to produce the first clear picture of what an atomic-age navy will look like, says the newspaper.

**New age group for R.A.N. College**

More than 200 boys sat for the Royal Australian Naval College entrance examination on August 30. The tests were held in 73 country towns as well as the capital cities.

All of the boys were in the 15 to 16 years age group. They will be the first to be chosen under this new age group, which was introduced this year. Previously the entries have been confined to 13- and 15-year-old boys. These entries have now been abandoned.

Boys who pass the examination will be given a medical examination. The final selection will be made by an interviewing committee. They will enter the College in January next year and stay there for three years.

**U.S.N. planes to refuel in flight**

The U.S. Navy Department announces that all its fighter planes now in production will be fitted with gear enabling them to be refueled in flight.

A number of aircraft-carrier squadrons have already been equipped with the gear, which gives the planes greater striking distance with heavier armament loads.

Fueling in flight could more than double a fighter's range, the Navy announcement said, and carriers could launch their planes much farther from the enemy target.

Fighters flying as overhead protectors could be kept aloft much longer.

**Nazis "never planned to invade Britain"**

The German government never planned to invade Britain in World War II as Hitler never made up his mind about it, former German Field-Marshal Albert Kesselring said in an interview published in the "U.S. News and World Report."

He said that the greatest danger lay in the Home Fleet.

But this could have been dealt with by the control of all German naval and air forces.

An invasion was often contemplated, but never planned, as "Hitler did not want to use the German Navy or the British Empire."

Instead he wanted to make peace by offering protection for their Empire. But when Churchill said "no," Hitler knew that by lack of understanding the British mind he had offended them.

The fault of failing to crush the British Expeditionary Force at Dunkirk lay in Hitler's decision to halt the attack of German air power on the invasion.

**R.A.N. may buy Sea-Gnat fighter**

A sea version of the supersonic Folland Gnat jet interceptor-fighter may be bought by the R.A.N. for use on aircraft carriers, says the London "Daily Telegraph."

The Gnat has a powerful new Bristol Orpheus turbojet engine. It has "good showings at Fang 50."

Being small, the Gnat can fit inside an aircraft carrier without folded wings which cut out costly wing-folding mechanism.

It requires less ground crew and space than the normal fighter and can be built five times faster than the normal jet at one-third of the price.

Having exceptional speed and climbing power, experts say that the Gnat would meet the R.A.N.'s need for a protective day fighter.

**New Commander of U.S. Seventh Fleet**

Rear-Admiral Stuart Ingersoll, will be assigned to the command of the U.S. Seventh Fleet, now protecting Formosa, President Eisenhower announced on September 7.

Admiral Ingersoll, now Chief of Staff to the Commander-in-Chief of the U.S. Atlantic Fleet, will become Vice-Admiral and will take over from Vice-Admiral A. M. Predece.

**H.M.S. Vanguard goes to the Reserve**

H.M.S. Vanguard, the only British battleship in commission, is to be placed in reserve.

An Admiralty announcement says that the Vanguard will be maintained in a state of readiness for active service with minimum of delay.

Part of the manpower released will be used for commissioning guided weapons trials ships and part for retaining in commission certain small ships.

**R.A.N. seeks 1000 recruits from U.K.**

The Royal Australian Navy is trying to recruit 1,000 men from Britain.

The second member of the Naval Board (Commodore J. C. Morrow) announced this on August 30.

He added that the R.A.N. would seek the British recruits in conjunction with a migration scheme. This would allow the recruits to bring their wives and families to Australia.

Commodore Morrow said he thought high wages outside the services were affecting recruiting.

**NAVY PILOTS DESTROY RUNAWAY AIRCRAFT**

Two Royal Navy pilots from the Naval Air Station at Nowra, N.S.W., shot down a pilotless Auster aircraft into the sea off Broken Bay in Sydney in August in the need for a protective day fighter.

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October, 1956
It is the most highly coveted of all decorations and medals, and only 1344 Crosses and three bars, amounting in all to 1347 awards, have been bestowed in the 98 years of its existence. Of this total 118 Crosses have been won by the Royal Navy, Royal Marines, R.N.R. and R.N.V.R.; 865 by the Army; 31 by the Royal Flying Corps and Royal Air Force; 67 by the Australian forces; 79 by Canada; 21 by New Zealand; 28 by South Africa; one each by Newfoundland, Fiji and the King's African Rifles of the South African Army; and four by civilians. Of the 1347 awards, 291 were made posthumously, the last two for Korea. Queen Victoria took a keen interest in the Cross, and it is said that the Prince Consort was largely responsible for the design and the inexpensive metal used, originally bronze from a Russian gun cap- there were on parade, and a large crowd had assembled when Her Majesty arrived for the ceremony. She was on horseback, accompanied by the Prince Consort, the Prince of Wales, Officers of the Royal Household and A.D.C.s, and wore a pattern which was described as military dress, consisting of a scarlet tunic, gold-braided with a gold embroidered sash over one shoulder and a band of crepe on the left arm; a dark blue skirt; and a round black beaver hat with a gilt band and red and white plumes. As each name was called the Cross was handed to the Queen, who fastened it to the left breast of the recipient's tunic. The Captain Henry James Raby, who had won his V.C. for gallantry in the Crimea, was one of the first officers actually to be decorated. The story may be apocryphal, but it was said that Her Majesty pinned the Cross right through his coat and skin and that the gallant sailor did not budge!

The first V.C. actually earned was that awarded to Mate C. D. Lucas, R.N., of H.M.S. Hecla for throwing overboard a live powder magazine burning fuse which had fallen on board his ship during the bombardment of Bomarsund, in the Baltic, in June, 1855. Formerly a soldier officer actually to be decorated. The story may be apocryphal, but it was said that Her Majesty pinned the Cross right through his coat and skin and that the gallant sailor did not budge!

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SCIENCE IS PROBING THE MYSTERIES OF THE OCEAN DEPTHS

ANYTHING," once said an experienced marine biologist to me, "absolutely anything can come out of the sea. I don’t think I should be surprised whatever turned up." Not long after that conversation there turned up off the coast of Madagascar a fish which is known to science as the coelacanth, or "hollow spine," a creature thought, until a few years ago, to have been extinct for 30 million years. It will take a long time before experts are able to unravel all the secrets that this strange creature has to tell, secrets which go back to the incredibly dim past when life first began to appear on the earth.

But the finding of this oldest of fishes, however great its interest and importance, is only one highlight in the story of marine research. Living comfortably on dry land, or travelling the sea in comparative comfort near the bottom deposits as much as 70 ft. below the surface of the sea-bed. But life, even at the greatest depths, ultimately depends on the nature and thickness of the rocks that underlie that deposit. Then there is the temperature of the ocean bottom.

Modern equipment is beginning to throw more light on all these things. Small depth-charges, for instance, are slung below a survey ship and exploded. The echoes are recorded. One echo comes back from the top of the sediment layer and another from the rock floor below the sediment. A comparison of the recordings reveals the thickness of the layer of sediment. Other readings are also taken to find the time of travel of sound of the explosion horizontally through the rock floor. Since the rate of travel varies with the density of the material that is being traversed, it is possible from these readings to form some picture of the types of rock of which the foundations of the ocean are composed. Other apparatus can bring to the surface samples of the bottom deposits as much as 70 ft. below the surface of the sea-bed.

At one time, it was believed that there was a limit of depth below which no life could exist. To-day we know differently. The Danish Galatea expedition, in 1931, succeeded in getting a grab down to a depth of six miles in the Pacific, and among the stones and clay it brought back on deck were living things, a white anemone, some clams and some sea cucumbers. That was not the whole of the treasure. For a meticulous examination of the haul revealed that there were bacteria, and despite the tremendous change in pressure which the bacteria had gone through in coming to the surface, it was possible to put them into a pressure chamber and get them to go on reproducing! This discovery may one day have important sequel in the treatment of disease.

But life, even at the greatest depths, ultimately depends on the
MARRIED QUARTERS

SITUATED ABOUT five miles from Nowra, a flourishing little town is “Married Quarters” of the R.A.N. Air Station. 400 feet above sea level, in the midst of glorious countryside and beautiful scenery.

At Jervis Bay and Huskisson are perfect beaches for children, Huskisson being but 12 miles distant.

Married Quarters comprises 180 houses in occupation and 18 more in course of erection. Most of these houses are of the modern three-bedroom type — detached and with their own gardens. By present day standards rents are low. All houses have electricity, mains water and sanitation.

Mrs. W. J. O’Connor holds her daughter, Kerry, who, with Elizabeth Gray, tries to find out how her daddy works the movie projector at the Nowra Naval Air Station play centre.

Drainage. They are maintained by housewife’s needs tradesmen from the town call at Married Quarters, to augment the services of “the Shop,” which combines general merchandise with a Post Office, Commonwealth Savings Bank, and a petrol pump for the not incon siderable number of families who own motor cars.

Two churches on the Air Station hold regular services for families. A school is nearly finished building, and is of the most up-to-date type. The station’s cinema is open to families for excellent nightly programmes, with Saturday and Sunday matinees for children. In the summer a fine swimming pool is open for all to enjoy, as is the tennis court (to cope with the ever increasing number of tennis enthusiasts an additional court is being prepared in Married Quarters).

Playing Fields are available to the boys for football and cricket, and boxing classes have been formed. A “Married Quarters Tron” of Brownies has been organised and no doubt it will not be long before the Cubs are drilling in competition with their sisters.

Perhaps the most important amenity of all, from the point of view of the families is the children’s play centre, at present a modest building but to be expanded in due course into an open playground—sandpit, slide, slippery dip, and those things which gladden the hearts of children. The Play Centre is under the direction of the Married Quarters Welfare Association which, with its General Committee and sub-committee, has organised such activities as:

A Kindergarten, for the “under fives” in the mornings.

The first Austalian Polar diesel engine manufactured in Australia was shown to visitors at the State Dockyard this month.

The machinery consists of twin screw propelling machinery of “Wallsend - Doxford” balanced type opposed piston reversible six-cylinder engines, the essential auxiliary machinery for their operation, and such other auxiliaries as are usual supplied by the engine builders, together with the owner’s electric generating plant of the diesel engine-driven type.

Electric power at 220 volts D.C. is supplied by two six-cylinder and two four-cylinder diesel driven generators and one diesel driven emergency generator.

Accommodation for the officers and crew is of a high standard. It is mostly electrical.

The machinery of the ship Cretic, latest addition to the Shaw Savill fleet, reached Sydney in August, commanded by Captain L. J. Hopkins.

She was launched on January 23 this year.

Cretic was constructed under Lloyd’s special survey for a classification 100 A1. She has a raked stem and the stern is cruiser type with a semi balanced double plate rudder. Electric welding was used extensively in the construction of the hull.

The ship will carry refrigerated general cargo between Australia and the United Kingdom. Considerable space has also been set aside for the carriage of chilled meat. Cargo spaces consist of six holds, four of which are insulated. Mechanical ventilation incorporating air re-circulating is arranged in all cargo spaces.

Winches are electrically driven. Derrick have five, seven and 12 ton lifts. In addition there are derricks for heavy lifts of 25 tons and 70 tons.
Steamed, and made port under her on July 17, and beached at Mt. Corsair Rock in Port Phillip Bay.

No. 4 and 5 holds as firemen, from under the hatch covers of the ship. The fire was first noticed at 2:30 a.m. at the engine room.

The fire was brought under control by eight firemen, with the help of thousands of gallons of foam poured over the flames. The boat was cleared for security.

The ship was commanded by Captain A. M. Watson, and the firemen were assisted by the Royal Australian Navy. The ship was the first Australian ship to be saved after running aground in Port Philip Bay.

The fire broke out in one of the holds of the ship, and the crew worked tirelessly to extinguish the flames. The ship was eventually towed to safety, and the firemen were hailed as heroes for their efforts.

George Watson and his chief officer were later awarded a sum of money for their role in the incident.

The RNZAF and the Royal Australian Navy were called in to assist with the operation.

Clearing of the scene began on the following day, and work continued until the ship was declared safe.

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THE LARGEST WARSHIP AFOFT

By Oscar Parkes, Ass.J.N.A.—in London

Nearly 120 feet above thefitting out wharf at the New-Port News Shipbuilding Yard towers the bridge of the gigantic carrier Forrestal, now only a few weeks from the day when she will steam out down the James River into Chesapeake Bay and the broad waters of the Atlantic — the greatest carrier afloat.

Laid down on July 14, 1952, the ship — named after the late James V. Forrestal, wartime Secretary of Defence — was floated out of dock on December 11 last and should be completed towards the end of this year. With a total length of 1036 feet and 990 feet between perpendiculars, a breadth at the main deck of 129 feet and 232 feet across the flight deck amidships, she has a standard displacement of 59,650 tons which reaches over 70,000 tons when fully loaded.

As experience has shown that centreline elevators interfered with operations and were hazardous, these have been eliminated and the four catapults will be served by deck-edge lifts, three on the starboard side and one on the port. These measure 62 by 32 feet, and will be able to handle 30-ton aircraft. Each lift weighs 166 tons which was beyond the capacity of the yard cranes, so they were built separately on a vacant slip, launched, and installed with the assistance of a 150-ton floating Navy crane.

British practice has been followed both in carrying up the side plating to the flight deck at the bows — which makes for greater strength and sea-worthiness — also as regards the flight deck which has been made the strength deck of the hangar deck instead of the hangar deck as in the "Midway" and "Essex" classes. This deck is of 1\,inch plating and from descriptions of the ship appears to be her only armoured deck, although this is most unlikely.

The deck plan is extraordinary, showing wide overhang amidships, carried out to flush with the side elevators. Aircraft will land on the starboard quarter with a slanting angle of 10.3 degrees along a line drawn to the forward edge of the port overhang, and arresting gear will bring them up short of the two catapults placed on this overhang. These deck side extensions were first proposed for the CVA 58, United States, which was cancelled before the Forrestal was laid down at a time when Congress objected against the immense cost of such a ship, which was considered unnecessary in view of the then estimated performance of land-based aircraft.

Over 900 aircraft will be carried consisting of three jet types, the Douglas Skywarrior, Skyray and Fury with one propeller driven type, the Skyraider. The Skywarrior is the largest and most powerful plane ever built for carrier use, capable of 600-700 m.p.h. and able to fly at 40,000 feet for high level bombing or at low levels for mine-laying. Its large internal bomb-bay can accommodate nuclear or any of a large variety of bombs, rockets or torpedoes now used aboard carriers.

The little Skyray is a fighter which has attained 752.9 m.p.h. and can climb to 40,000 feet from the deck in less than five minutes. The Fury can fly at over 45,000 feet and attain more than 650 m.p.h. The single engine Skyraider, the work-horse of the flying Navy, can be converted rapidly on board for a surprising array of jobs. Primarily an attack bomber, it can be used as a long range, troop transport, little amphibule, cargo carrier, night bomber or anti-submarine attack plane.

In the matter of armament, it will be seen that the Forrestal mounts only eight guns in place of the array of some scores of assort-
ed medium and smaller weapons hitherto carried in the CVs. These eight 5-inch are fully automatic and will provide greater fire power than in any other carrier. They are distributed in single gun houses on sponsons fore and aft, and coupled to an electronic fire-control system to take care of any aircraft which may get through the Forrestal's air screen.

Turbiness of over 200,000 h.p., driving four five-bladed screws, will give a speed of over 30 knots. Steam will be generated in eight boilers, and its course controlled by three rudders, two of which weigh 43 tons each.

The island placed on the starboard deck wing is as high as a ten storey building and weighs 140 tons. Originally it was 22 feet farther seaward and its new siting will cost nearly £400,000. This expedient to secure more room for aircraft will have to be offset by transferring some 3000 tons to the port side — probably oil fuel.

In order to clear the Brooklyn Bridge to get to the Navy Yard it will be necessary for the ship to be hinged to lie across the deck — the forward one reaches up 187 feet which is 60 feet too high to clear the bridge.

The four steam catapults are U.S.N. editions of the Mitchell invention which was demonstrated aboard H.M.S. Perseus in its experimental form when she went over to the States. Operating pressure in the Forrestal is 530 pounds per square inch and its launching power is estimated at between five and six times greater than hydraulic models.

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If I ever catch Doc Ramsay napping (remarked Captain George Mansley), I'll swallow the anchor and go chicken-farming.

And the only ways I like chicken are roasted and casseroled.

We were on our way from Auckland to Sydney in the liner Camberwell when I received a radio message from the New Zealand police. The famous Stanwyck Diamond, worth enough to put me on easy street for life, had been stolen.

The four thieves and the diamond probably were on their ship, they said, giving me descriptions of the men and asking me to have a look-see among passengers and crew.

The first thing I did was to call in Ramsay, the ship's surgeon, and show him the message. The doctor made a note of the ill-luck and sat smoking his pipe jawed together and studied it.

"Well, they won't be on this ship," he said promptly. "But the diamond may be."

"I've a wonder to me you ever catch Doc Ramsay napping," I com-mented. "You must've been a little marvel at diagnosis."

"The salt tang of the sea's better than a consulting room full of ailments. Anyhow, if you didn't have me around, you'd be in strife every voyage."

He was right. He solved my trickiest problems with ease. And, believe me, I collected some in command of a liner like the Camberwell, you'll be surprised to know, squirred in a mere thimble-cup.

I stepped over to my desk and opened one of the drawers. The box of ashes was missing.

"I'll be damned," said Doc. "Can't say at present. I could see that he was as much in the dark as I."

I found out, as soon as we received the wireless message about the two blokes in the launch picking up the ashes-"

"They explained their plans in an airletter."

"I'm still in a fog. We haven't got the diamond," I walked.

"We should," Doc turned to the detective. "Did you see anything besides the ashes?"

"Only a pong-pong ball floating in the water. My mate saw one of the two blokes in the launch pick it up. He took it from him to give to his kid."

"Now you've got the Sydney end of the gang," said Doc. "I took a bit of a risk to get you evidence, but when I saw the ball in the centre of the ashes I guessed it would float."

"The diamond, a padlock, wrapped in cotton to stop rattle. And if those were human ashes, I'm the King of Siam."

Before assuming the appointment of Second Naval Member of the Australian Commonwealth Naval Board, Commodore J. C. Morrow had a self-satisfied smirk on his face, like an ancient tomcat who has successfully stalked a fleet of pigeons.

He was right. He solved my mystery of the Stanswyck Diamond, and dressing-gown. His thinning hair of a late and dressing-gown. His thinning hair of a late

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At one end of the shelf is the first edition of All the World’s Fighting Ships. Of 216 pages illustrated with pen-and-ink sketches by Fred T. Jane, classified by number and with data condensed into two or three lines of special code. Since its original form, Russia is credited with the new large destroyers Moreno and Riddavta, but in Perry, the United States had virtually completed, apart from the funnel-mast ceases to fathom their structural confusion, the new large destroyers Moreno and Riddavta, have been launched in turn, with assorted poles and antenna springing up here and there along her high freeboard hull. The new small destroyers, as the Italians destroy leaders demonstrate to what an extent this type of ship has grown—2,600 tons—this is shown class by class. Here again it is difficult to make out how their weapons are disposed from the photographs.

In the British section an in-with presents the Richelieu full-broadside—a splendid view of a ship which will become handsome if and when the funnel-mast ceases to fathom their structural confusion, the new large destroyers Moreno and Riddavta, have been launched in turn, with assorted poles and antenna springing up here and there along her high freeboard hull. The new small destroyers, as the Italians destroy leaders demonstrate to what an extent this type of ship has grown—2,600 tons—this is shown class by class. Here again it is difficult to make out how their weapons are disposed from the photographs.

The U.S. Navy covers 87 pages, in which long lists of launching and completion dates take up space. Some ships need sectional photos to fathom their structural confusion, the Netherlands De Ruyter is an outstanding example—the fusion of fore funnel and mast with the bridgework is too interesting for relegation to a bare line elevation. A good photo of the Romanov, destroyer Holland, although belonging to an alleged anti-submarine type, is given as carrying four 4.7 in. and six 40 m.m. guns only. In the Italian section, sketch plans of the San Giorgio and San Marco re-armed, and the new large destroyers Imperato and Indomito are interesting, and it is noted that there are to be alterations to the funnels in these and the “Centaurio” class of frigates in which the fore funnel merges into the bridgework. Argentina still retains her battleships Moreno and Rivadavia, and China four large destroyers, which with the two Soviet “Sevastopol” and the Turkish Yavuz, remain the sole examples of the dreadnought era in their more or less original form. Russia is credited with twelve “Sverdlov” launched and six building, ten being ordered in 1954. Fifteen names are given, but of these, several are speculative. Not only are there interesting, with assorted poles and antennae springing up here and there along her high freeboard hull. The new small destroyers, as the Italians destroy leaders demonstrate to what an extent this type of ship has grown—2,600 tons—this is shown class by class. Here again it is difficult to make out how their weapons are disposed from the photographs.

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It was a happy idea, during this year of the centenary of Perry’s entry with a squadron of American warships into Japanese waters, to re-issue in a readable form, the American commodore’s narrative of his mission. It was originally a somewhat ponderous and over-detailed document, hardly conducive to easy reading. In this new edition M. Wallach has shrunk it with much unnecessary detail cut, while retaining all the historically valuable, book. Perry’s narrative, a book which should prove of considerable interest in this country. The description of the mission are vivid and exciting, and the story sheds a new light on an episode that was in danger of being largely forgotten. —P.K.K. in the London “Navy.”

**“To Hidden Depths,” by Capt. Philippe Taillez, Kim- ber, London.**

There is now in the French Navy an undersea research group and its Commander is Captain Philippe Taillez, the indomitable and very human author of this book. Since he became a diver he has made 1,500 ocean descents and from time to time has looked for treasure. In the 50s he has explored the “Darlings” and other oysters. And, for the delight of the readers of this absorbing book, Captain Taillez took a series of photographs of the “Darlings” class destroyers and it has been possible to obtain photos of their new destroyers, and good photos illustrate two of the “Shore” class which visited Stockholm.

The foregoing touches on illustrations only, whereas the great value of “Jane” lies in the tables and data which set a high standard in fullness and accuracy which has been splendidly maintained. —O.P. in the London “Navy.”

**“Commander Perry’s Naval Expedition To The China Seas And Japan.”** Edited by Sydney Wallach; Macdonald and Jane, classified by numbers into four groups with seven classes.

The British section includes the world’s original and converted layout in which long lists of launching and completion dates take up space. Some ships need sectional photos to fathom their structural confusion, the Netherlands De Ruyter is an outstanding example—the fusion of fore funnel and mast with the bridgework is too interesting for relegation to a bare line elevation. A good photo of the Romanov, destroyer Holland, although belonging to an alleged anti-submarine type, is given as carrying four 4.7 in. and six 40 m.m. guns only. In the Italian section, sketch plans of the San Giorgio and San Marco re-armed, and the new large destroyers Imperato and Indomito are interesting, and it is noted that there are to be alterations to the funnels in these and the “Centaurio” class of frigates in which the fore funnel merges into the bridgework. Argentina still retains her battleships Moreno and Rivadavia, and China four large destroyers, which with the two Soviet “Sevastopol” and the Turkish Yavuz, remain...
What is the H-Bomb?

By Major-General F. F. Worthington
Canadian Civil Defence Co-ordinator

BACK IN 1945, when President Truman first announced the atomic bomb to an astonished world, he said the new weapon tapped the source of the sun's power.

This statement was only partly correct in relation to the A-bomb, but is wholly true of the A-bomb's descendent, the hydrogen bomb.

The A-bomb operates by "fusion"—the splitting of large atoms into smaller ones.

The H-bomb depends for its short and tragic life on "fusion"—the building up of small atoms into larger ones.

In both cases a certain amount of matter is annihilated and in its place appears a terrific outburst of energy. The fact that matter could be converted into energy and the nucleus was first expressed by Dr. Albert Einstein in the formula E = mc² (energy equals the mass times the square of the velocity of light). The splitting of a single U-235 atom is said to release 200 million electron volts of energy.

The units are small and the released energy is unimpressive until it is added to that of billions of other split atoms in a nuclear reactor or an atomic bomb.

The picture of the atom usually presented to-day is that of a planetary system in which electrons (the planets) whir about a nucleus (the sun). The electrons carry a negative electrical charge and the nucleus has a positive charge.

The Periodic System of classifying the elements starts with the lightest element, hydrogen (a single electron revolving around a single proton) and ends with uranium, adding up to 92 elements found in nature. The thing that bothered scientists for a long time was that the atomic weights of elements did not tally with their position in the Periodic Table. It was true that they got progressively heavier from hydrogen to uranium, but the atomic weight of hydrogen was a little more than one and that of uranium was more than two and a-half times as great as it should have been if it were composed simply of electrons and protons.

It was this discrepancy which led to the discovery of the neutron, a nuclear particle of about the same weight as the proton, but without an electrical charge. Ordinary hydrogen was found to be a mixture of Hydrogen-1 (one electron and one proton) and Hydrogen-2 (one electron orbiting around a nucleus composed of two protons and one neutron). Hydrogen-2, now generally known as Deuterium, is the kind that combines with oxygen to form "heavy water." U-238 has a nucleus of 92 protons and 146 neutrons.

The third particle in the atom, the neutron, was the one which had confused the issue and it was this same particle which proved to be the key to unlocking nature's secret power. It was discovered that the neutron could be made to escape from the atom and provide the energy from the atom.

Natural uranium was found to consist of U-238 mixed with a small amount of U-235, the latter being the only substance which would sustain a "chain reaction.

When U-235 is struck by a fast neutron it splits, forming two or more atoms of lighter weight and at the same time discharging surplus neutrons which go on to split more U-235 atoms that happen to be in their paths, and so on.

If the U-235 is pure and in sufficient quantity, and the neutrons run wild, the result is an atomic explosion of power. If natural uranium is involved, some of the neutrons are absorbed by the U-238, and after an intermediate change into neptunium, plutonium is formed—a substance unknown in nature. Plutonium, like U-235, is fissionable.

The first atomic bomb, which lunched over Hiroshima, was reported to have been made of U-235, the second, which devastated Nagasaki, of plutonium.

At this point the H-bomb enters. How the sun maintained its output of energy over the last three or four billion years has long puzzled scientists. If it had depended on oxygen for burning, as on earth, it would have died out in a few years; if on contraction, under the force of gravity, in only a slightly longer period.

Five hundred thousand years ago, the alchemists were still searching for a method of converting base metals into gold. They failed, and it was concluded from their failure, that matter was indestructable and eternal. The discovery of radioactivity by Henri Becquerel changed all this and provided the clue to cosmic energy. (Gold has been made artificially, but it's a lot more trouble to get it.)

The sun is mostly hydrogen and it is this, combining to form heavier atoms under intense pressure and heat, which keeps the sun burning. The same process is utilized in the H-bomb. The principle is the one the alchemists were seeking—the change of one kind of matter into another.

A depth charge (as every sailor knows) consists of a detonator, primer and main charge. The detonator explodes the primer, which sends a shock wave through the TNT, amatol or torpex filler, and everything goes.

The A-bomb is the "primer" of the H-bomb. It provides the source of heat (measured in hundreds or millions of degrees which sets off the "hell-bomb" explosion. What the main "explosive" of the H-bomb is has not been disclosed, although it is presumed to be H-2 (deuterium), H-3 (tritium), the lightest metal lithium, or a mixture of these in combination.

Tritium, the heaviest form of hydrogen and radioactive, will produce a greater bang, but is extremely rare in nature and costly to produce artificially.

In any event, there is theoretically no upper limit to the size of an H-bomb. When the public is told such a bomb will lethally poison with radioactive by-products an area of 7,000 square miles, it is presumed to refer to a specific bomb and the poisoned area could be much greater or much less, depending on the size of the H-bomb. Part of the poisonous nature of the H-bomb is due to the great surplus of neutrons produced, which unite with the atoms of the bomb to produce radioactive substance.

It is to prevent such weapons ever being used and this is a political matter outside the sphere of this technical and over-simplified discussion of nuclear weapons.

"What the law demands, give of your own free will."—Terence.

October, 1958
N.S.W. Cadets Athletic Meeting

By D.J.M.

The first Annual Athletic Carnival of the N.S.W. Division was held on September 10 and 17 at the E.S. Marks Memorial Sports Ground, Moore Park.

Results were:

SENIOR EVENTS

100 yds.: J. R. Whelan (Shropshire) 1, W. Winsor (Shropshire) 2, 11.8 secs.
220 yds.: J. H. Hiley (Sirius) 1, A. Treblecloth (Sydney) 2, 27.2 secs.
440 yds.: J. R. Whelan (Shropshire) 1, J. F. Hiley (Sirius) 2, 64.2 secs.
880 yds.: J. F. Hiley (Sirius) 1, D. R. Crawford (Sirius) 2, 2 min. 31.1 secs.
Mile: J. G. Nihill (Perth) 1, P. E. Edwards (Shropshire) 2.

High Jump: J. A. Crawford (Sydney) 1, J. F. Bennett (T.S. Sydney) 2, 6 ft. 10 ins.
Broad Jump: J. A. Crawford (Sydney) 1, R. Mitchell (Sirius) 2, 18 ft. 6 ins.

Hop, step and jump: J. A. Crawford (Sydney) 1, G. Altman (Perth) 2, 56 ft. 10 ins.
12 lb. shot put: P. E. Edwards (Shropshire) 1, T. W. Fraser (Shropshire) 2, 29 ft. 53 ins.

4 x 110 yds. relay: T.S. Shropshire.

Training Activities:

1383 R. D. Grimley (from juniors), 1384 K. G. Grimley (from juniors), 1385 R. J. Lane, 1386 L. Redman.

N.S.W. Division entries:
T.S. Australia: 1352 A. J. Hill.


Legends:
Mr. J. Morris (C.W.O. R.A.N.R.) from Commanding Officer T.S. Tobruk, Mr. E. McGimpsey (C.P.O. Instructor from T.S. Sydney), Mr. E. Stalder (P.O. Instructor) from T.S. Tobruk. Cadet able seaman N. Klein, T.S. Warrego; Cadet able seaman R. Davis, T.S. Warrego.

For Sea Cadets

PROBING THE OCEAN DEPTHS—Continued from page 16

The Victoria Cross—Continued from page 16

Lieutenant (temporary Lieutenant-Commander) R. B. Bradford earned his V.C. in France in October, 1916, and his brother, Lieutenant-Commander G. N. Bradford, R.H.M.S. Iru, for gallantry at Zeebrugge, on April 21, 1918.

Instituted nearly a century ago for "rewarding individual cases of merit and valor" in the presence of the enemy, the Victoria Cross is still the most democratic, and, in the words of the original Royal Warrant of 1836, "the most highly prized and eagerly sought after decoration in Britain and the Commonwealth, and one of the rarest in the world.

Since its first institution the Cross has been made by the same London firm, Messrs. Hancock, established in 1848. The official diameter of the Cross is 11 ins. with a ribbon of the same width.
News from Sub-Lieutenant P. Gudgeon, R.A.N., who is attached to T.S. Warrego, and now serving in HMAS Queenborough overseas, indicates that he is receiving valuable experience in the United Kingdom and should be of great value to Warrego on his return.

Mr. Grant, who has been appointed as a S/C Sub-Lieutenant and attached to T.S. Warrego, is one of the old members of that unit, when it was known as N.L.T.D. Warrego, a Navy League Sea Cadet Unit. His services and experience in the past should be of value to Warrego.

T.S. Sydney (Snapper Island) is making preparations for the homecoming of the Divisional Senior Officer, who also has an interest in the "Rock." At T.S. Warrego, great building activities are afoot. The cadets have almost completed a storeroom and wash place. The chairman of the Warrego local committee, Lieutenant Dudley Reid, is the live wire behind the go-ahead plans for Warrego. The Warrego Ball is to be held on October 21. It is hoped to interest everyone nearby and afar in the unit. We may yet see Warrego parading 60 to 100 cadets.

T.S. Sirius, too, has a Ball on October 28, at Arncliffe Coronation Hall. There seems to be a sudden social rush in all units. That is what we want, lots of social activities to help boost up the units and get people interested.

The Commanding Officer of T.S. Albatross, Lieutenant Dave Lindsay, has recently been to hospital for an operation. He has now recovered and is back on the job. Assistance from HMAS Albatross enabled the unit to carry on during his absence.

T.S. Tobruk has seen a few changes in the past few weeks. The Commanding Officer, Mr. J. Morris, R.A.N.V.R., resigned. Chief Petty Officer McGuinness and Petty Officers Stallard and Burt went with him. A present Chief Petty Officer Instructor J. Blight, Ex R.A.N., has been entrusted with the charge of the unit until an officer to replace Mr. Morris is appointed.

The division has been fortunate in having the Port Gymnasium allocated to cadets every Monday evening for a three month's trial. We should get some budding P.T. leaders out of this. The Staff Command P.T.I., Petty Officer Sivell, will assist in the training, and we have two very good P.T.I.'s in the making, Petty Officers Wilson (Shropshire) and Ablett (Sirius) to assist him. Acting leading seaman Colyn, of T.S. Australia, is at present undergoing training in physical education at the Teachers' College.

"Scepticism is slow suicide."—Emerson.

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When ships of the Navy "heave to" this rope holds fast!

ANCHOR BRAND

November, 1955

Vol. 18 NOVEMBER, 1955 No. 10

EDITORIAL:
The Case for the Reserves ........................................4

ARTICLES:
The State of the R.A.N. ...........................................6
A Career for Girls in the R.A.N. ..................................7
Older Boys May Now Enter the Naval College ....................10
Tragedy—October 21, 1805 ........................................14
Nelson—The Man..................................................16
Apprentices Training .............................................22
The Navy of To-day and To-morrow ...............................24
Navy League Divisions in A.C.T. ................................28
The Navy Annexe on an Island .................................30

FEATURES:
News of the World's Navies ..........................12
Maritime News of the World .............................20
Personalities ..................................................26
Book Reviews ................................................27

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November, 1965
THE CASE FOR RESERVES

The Minister for the Navy, Mr. J. Francis, has made a survey of naval policy and the strength of Australian Naval Forces which clearly poses certain timely problems relating to the naval reserve.

No one can now dispute the fact that the naval reserve of Australia is in a serious state.

An expert committee has just told Mr. Francis that the present state of the naval reserve constitutes "a serious deficiency in the naval defence of the country."

It says that this position would arise particularly in any speedy or efficient mobilization in war or emergency.

It has proposed far reaching reforms to overcome the position.

One of these is that the period of training for national service trainees should be extended to cover three or four years.

Such a proposal indicates clearly that the Navy's position in regard to its reserve is, to say the least, serious and alarming.

Why has this position arisen?

It has arisen because volunteers cannot obtain promotion, because there is a lack of training facilities, because there are not sufficient qualified instructors, and because officers and ratings feel that they will never have the chance to achieve a command or to exercise authority.

In a speech which appears on page 6, Mr. Francis states that the naval reserve forms an exceedingly important part of the naval defence system of Australia.

Just how important—and just how serious—the position has become since the end of World War II can be learned from the findings of the committee which the Federal Government set up to deal with it.

That committee—Government Members Defence Services Committee—comprising many ex-service men, has dealt at length with the question.

It has reached these findings:

1. That the control of the Naval Reserves be re-organised at Naval Board level.

The recommendation suggests that an additional member of the Naval Board, with the status of Commodore, should be appointed.

2. That the R.A.N.R. (S) branch should be continued, as at present, but that this branch should be widened to bring in through national service young men professionally associated with the sea.

3. The obligation for national service training of those who elect and are selected to serve in the Navy should be extended to cover a period of three or four years.

4. That if the first year of national service training be carried out under the previous recommendation training in subsequent years should be carried out in R.A.N.R. establishments.

The R.A.N.R. should therefore be re-organised at Port Division level.

5. Each R.A.N.R. division should be organised as a separate command.

A senior R.A.N.R. officer should command each division which should be organised as a ship's company.

6. That the R.A.N.V.R. should be retained as at present to provide a way of keeping officers and ratings with war experience available for mobilisation.

7. That a proportion of each national service intake should be reserved for naval cadets who reach a required standard.

In making its report, the committee said this:

"We cannot ignore the repeated warnings by distinguished service personnel that Australia will not have the breathing space in a future war which she had in the last two world wars.

"It is clearly evident that rapid and efficient mobilisation and subsequent expansion in war or emergency is essential for national and naval defence."

Summarising, it is clear that if Australia is to have a navy, ready to operate at peak efficiency at any time, it must have a solid, trained and enthusiastic reserve.

But it is equally clear from the picture, as outlined, that Australia has not such a reserve and cannot have one until the authorities solve the problem.

Most navy men agree that the recommendations of the Government committee would go a long way to solving the problem.

November, 1955
THE STATE OF THE R.A.N.

The Minister for the Navy, Mr. J. Francis, in his speech on the Naval Estimates in the House of Representatives, outlined naval policy and reviewed the state of the Australian naval forces.

The Minister said the Royal Australian Navy's role in war would be:
(a) To secure local sea communications.
(b) To provide forces to assist in securing the sea communications of the ANZAK region.
(c) To prevent an attack on Australian territories by enemy submarine forces.
(d) To escort Australian land forces where required and subsequently to assist in their support.
(e) To contribute to the whole of the Allied Naval forces as offensive action against the enemy and enemy-held territories.

"The plans for the peace-time Royal Australian Navy provide what is regarded as the minimum effort to prepare to meet possible war circumstances and to be able to expand readily to take an active part in the cold war in the Far East as required," the Minister said.

"Apart from this, important considerations, including commitments dictated by Governmental agreements, determine policy as to the number of ships to be kept in commission and their employment in peace.

STRENGTH IN SHIPS

The Navy consists of ships in commission, ships in reserve, and ships under dockyard control.

"The flagship of the Australian Fleet is the aircraft carrier Vengeance, which wears the flag of Rear-Admiral H. M. Burrell, C.B.E."

Mr. Burrell is the Superintendent of Training at Flinders Naval Depot.

"Apart from the ships of the Fleet, there are miscellaneous vessels, including some ships in commission and the ships in reserve and in dockyards, which come under the orders of the Flag Officer in Charge, East Australian Area, the Naval authorities in other areas, or the Commodore of the Port at Sydney and other areas."

Training

During the last 12 months the Navy's activities have covered a wide field. Apart from the two destroyers at present serving in the Malayan area as part of Australia's contribution to the strategic reserve, a frigate has been maintained in Korean waters and an anti-submarine frigate has been based at Darwin to patrol the pearl fisheries and other northern waters. Ships of the hydrographic service have surveyed waters along different parts of the Australian coast.

The aircraft carrier Sydney, now the Fleet training ship, has visited New Zealand on a training cruise, and she and other smaller ships have visited various Australian ports.

The aircraft carrier Vengeance, which was lent to the Royal Australian Navy by the Admiralty pending completion of the new carrier Melbourne, has returned to the Royal Australian Navy by the Admiralty.

"Training, including Fleet Air Arm and weapon training and the training of recruits, reserves and men of the permanent naval forces, has been improved in the R.A.A.F."

The growth of the reserves in Australia since the beginning of the First World War is made apparent by the fact that only 531 officers and 4305 ratings could be mobilised in August 1914, whereas in August 1935, 1462 officers and 8002 ratings, including 4495 national service ratings, would have been ready for mobilisation if required.

"The standard of theoretical instruction in the R.A.N. is the same as that in the R.A.A.F. in the event of war, they ensure that from time to time to bring the yachts to Sydney. The Convict, one of the Racing party of 12 on board, is Sydney Harbour after the tow was completed.

Royal Navy submarines based on Sydney. The submarines have also visited New Zealand from time to time to assist in the Royal New Zealand Navy's training programme.

NAVAL RESERVE

"The naval reserve forms an exceedingly important part of the Royal Navy's defence system because, in the event of war, they ensure that a large number of trained officers and men immediately become available to supplement the officers and men of the permanent naval forces.

"The growth of the reserves in Australia since the beginning of the First World War is made apparent by the fact that only 531 officers and 4305 ratings could be mobilised in August 1914, whereas in August 1935, 1462 officers and 8002 ratings, including 4495 national service ratings, would have been ready for mobilisation if required.

"The decrease has been due to two principal causes."

"The first is that compulsory national service has virtually eliminated the source of supply of recruits for the reserve. The second is that many youths who have fulfilled their statutory defence training obligations apparently feel that no further service is required of them."

"In spite of the decline in the number of ratings serving in the R.A.N. voluntarily, it is encouraging that some reserve training was resumed in 1950, following the interruption brought about by the war and circumstances of the post-war years, the numbers of officers in the R.A.N.R. has grown from 203 to 540."

"In an effort to increase the figures relating to the recruiting of reserves and to improve re-training methods, the Government Members Defence Services Committee, at my request, examined this problem and recently made various recommendations. The time and attention that the committee gave to this task is deeply appreciated, and the measures put forward are being exhaustively studied.

"In the meantime it can be emphasised that the facilities provided for reserve training are immeasurably better than those provided before the last war and are being substantially improved."

"Since the war all reserve training establishments have been completely refitted with modern instructional equipment. This will be added to from time to time."
"All new officers in the reserve under the new scheme, will, as soon as possible after their appointments have been gazetted, be sent to the R.A.N. training schools at Nowra (N.S.W.), when attendance is appropriate. Their examinations are set and the marks are marked to R.A.N. standards.

"It has been arranged that a senior captain of the permanent naval force shall be appointed to command the reserve, and further permanent naval officers will assist him in the re-organisation of the reserve, which is approaching completion.

"A corps of permanent naval force instructors has been formed and will, as soon as possible, be built up to adequate strength to complete with all training requirements in the depots.

"An ocean minesweeper will be provided in Sydney and will be manned almost entirely by reserve personnel.

"Up to the present 5207 youths have been called up for national service training in the Navy. Of these, 483 have remained in the voluntary component of the R.A.N.R. on completion of their statutory training and 52 of them have been appointed officers. Sixty-five (65) others have been appointed officers in the R.A.N.R. (Sea-going) and still one other in the R.A.N.V.R.

MANPOWER

"One of the most serious problems with which the Navy, as well as the other Services, has had to contend is the shortage of man-power. Its establishment of personnel remains unaltered at 14,400, the figure for last year, and it is hoped that eventually not fewer than 400 will be under training ashore.

"The establishment of the Women's Royal Australian Naval Service remains at 275. WRANS continue to do a variety of tasks efficiently in different parts of Australia. Some of them serve at the naval wireless stations near Rockhampton and Darwin and thus help to relieve the manpower deficiency at those places.

"The proposal that WRANS should be allowed to re-engage for two years instead of four, if they wish to, has recently been approved and this should increase the number of re-engagements.

PROGRAMME

"The construction programme which was formulated to keep the Navy in balance is proceeding. It covers the requirements of new ships up to 1961.

"Three new Daring Class ships are in course of construction. One of them, the Voyager, has been launched at Cockatoo Island Dockyard, Sydney, and another, the Vendetta, at the Naval Dockyard at Williamstown (Vic). The third will be launched at Cockatoo Island in the middle of 1956. Most of the main machinery and some of the auxiliary machinery for these ships has been made in Australia.

"Four anti-submarine frigates will be built, two at Cockatoo Island and two at Williamstown. A large proportion of the main machinery, which will be of more advanced design than that fitted in the Daring Class, will be of Australian manufacture.

"The conversion of two "Q" Class destroyers, built for the Second World War, into fast anti-submarine frigates has been completed and the ships are in operational service. As stated earlier, one of them, the Quentemborough, is at present in the United Kingdom. The other is the Quadrant. Two other ships of the same class are also being converted.

"The construction of the R.A.N. fleet tanker Tinte Austra has recently been completed in the United Kingdom and the vessel has been lent to the Admiralty, who will maintain and operate her until she is required on the Australian Station.

"The boom working vessel Kimmila, which is being built by Walkers Ltd. at Maryborough (Q'land.) will be completed by the end of 1955.

"The frigate Swan is being extensively refitted and will be used for the sea-training of cadet midshipmen on their passing out of the Royal Australian Naval College.

"Ships in reserve are being maintained in a state in which they could be ready at short notice in the event of war. Those that are obsolete are being disposed of.

WORKS IN PROGRESS

"Although it has been necessary to reduce the amount for works, important projects will be continued or commenced during the year and existing buildings will be repaired and maintained to the utmost extent possible.

"The construction of quarters for the Royal Australian Naval College is in course. It covers the requirements of new ships up to 1961. Three new Daring Class ships are in course of construction. One of them, the Voyager, has been launched at Cockatoo Island Dockyard, Sydney, and another, the Vendetta, at the Naval Dockyard at Williamstown (Vic). The

"The shortage of skilled men in the skilled trades branches has caused the Royal Naval Board special concern, and it has decided to introduce an apprentice-training scheme of its own and to establish a school for apprentices at Schofields (N.S.W.) early in the second half of the current financial year.

"This particular shortage has been caused by the keen competition for skilled tradesmen among private firms, who can, at present, offer exceptionally attractive conditions of employment. Even so, like the Navy, they cannot get all the skilled men they need.

"Boys aged between 15 and 17 years will be eligible to enter the apprentice school, provided that they are of normal physique and have passed the sub-intermediate or intermediate examinations or their equivalents. They will be chosen by interviewing committees.

"Approval has been given for 100 apprentices to be entered each year and it is hoped that eventually not fewer than 400 will be under training ashore.

"The establishment of the Women's Royal Australian Naval Service remains at 275. WRANS continue to do a variety of tasks efficiently in different parts of Australia. Some of them serve at the naval wireless stations near Rockhampton and Darwin and thus help to relieve the manpower deficiency at those places.

"The construction programme which was formulated to keep the Navy in balance is proceeding. It covers the requirements of new ships up to 1961. Three new Daring Class ships are in course of construction. One of them, the Voyager, has been launched at Cockatoo Island Dockyard, Sydney, and another, the Vendetta, at the Naval Dockyard at Williamstown (Vic). The

A Career for Girls in the Navy

Among the many different occupations in which young women are engaged it would be hard to find one that is more attractive and congenial than that of WRANS who are in the new Royal Australian Naval Service. It also provides good pay, in addition to deferred pay, first-class amenities and plentiful openings for advancement.

The WRANS, or Women's Royal Australian Naval Service, to give it its full name, has appealed widely to the young women of the Commonwealth. Those at present serving are carrying on the good work of the WRANS who served Australia so well during the War. At present there are vacancies for telegraphists, who will be employed at H.M.A.S. Harmon (the Royal Australian Navy wireless station at Canberra) and at Coonawarra (the naval wireless station attached to H.M.A.S. Melbourne at Darwin). The telegraphist branch is one of the most interesting branches of the service.

To be eligible to join the WRANS, candidates must be single women or widows without dependent children and they must be of British nationality, substantially of European descent, and must be living in Australia. The period of enlistment is four years.

So that WRANS shall be "happy in the service," because Continued on page 21
Older Boys May Now Enter the
Royal Australian Naval College
(By a Special Correspondent)

Boys throughout the Commonwealth are presented with a remarkable opportunity twice a year when the Australian Commonwealth Naval Board invites them to apply to enter the Royal Australian Naval College. The college is the initial training ground for most of the officers whose proud privilege it is to serve permanently in the Royal Australian Navy.

Since it was established in 1913, it has produced four admirals and a large number of other senior and less-senior officers who have distinguished themselves in war and won high service decorations. Among its distinguished graduates are the First Naval Member and Chief of the Naval Staff (Rear Admiral R. R. Dowling, C.B.E., D.S.O.) and his immediate predecessor, Vice-Admiral Sir John Collins, K.B.E., C.B., both of whom, as all entrants do, joined the college as cadet-midshipmen.

Many other graduates have held, or still hold, high positions in the Royal Australian Navy, both at sea and ashore.

As a result of a recent decision by the Naval Board boys in older age-groups than formerly may now be selected for entry to the college and thus be enabled to take advantage of the many benefits that selection provides. These older age-groups include boys who are between 15½ and 16½ in January of each particular year, and can pass an examination approximately equivalent to intermediate standard, and boys up to 19 who have passed the matriculation examination for any Australian University.

In the past, entries have been confined to 13-year and 15-year-old boys, but experience has shown that the system based on those age-groups has certain disadvantages and that changes are desirable. Because of this both the 13-year-old and the 15-year-old entries have been abolished and new entries, to be known as the normal and matriculation entries respectively, instituted in their stead.

Boys of both entries will enter the college in January of each year, but applications for the normal entry will close in the preceding June and those for the matriculation in the preceding October.

Entry into the college affords free education, books, clothing, maintenance and a financial allowance for cadet-midshipmen while they are serving there and also opens the way to a life of unusual interest and to an honourable professional career.

Cadet-midshipmen of the normal entry will remain at the college for three years, and those of the matriculation entry for two terms—a mounting in all to about eight months. All of them join the college in January.

The normal-entry cadets will pass out in December of their third year and those of the matriculation entry in August or September of their first year.

Cadets of both entries will then serve in a Royal Australian Navy frigate for from eight to 12 months to gain sea experience and after that go as midshipmen to the Royal Naval College at Dartmouth (England) for further training. Having been promoted sub-lieutenant those who are to be executive officers will go to Australia to serve in R.A.N. ships.

Those who are to specialise in engineering will go to the Royal Navy Engineering College at Manadon for three years and those who are to serve in the Supply and Secretariat Branch to the Royal Navy Supply School, H.M.S. Ceres, for a period yet to be determined.

On the conclusion of their training in England, engineering and supply officers will also go to sea with the R.A.N. as sub-lieutenants.

Cadet-midshipmen who want to become officers in the electrical branch will, on completion of their training at the Royal Australian Naval College, go to the Melbourne University to study for the degree of Bachelor of Science. All their fees for books, lectures and maintenance will be paid by the Naval Board.

After they have reached the rank of lieutenant, executive officers who are to specialise in gunnery, navigation, communications, torpedo-anti-submarine and other subjects will return to the United Kingdom to do courses which will occupy them for about a year.

Some officers will be given the opportunity, if they wish, to become qualified pilots in the R.A.N. Fleet Air Arm.

From time to time officers of the R.A.N. are selected to do exchange service with the Royal Navy. Normally the period of exchange is two years, during which the officer may be at sea in any part, or various parts, of the world, or at the Admiralty or some historic shore establishment in the United Kingdom.

Boys who enter the Royal Australian Naval College immediately become part of the ship's tradition and rich ceremonial of a service that goes back for centuries, a service whose famous names have been spread gloriously across the noble pages of British history.

It is one of the great prides of the Royal Australian Navy that it has always tried to uphold the high examples it has inherited, as the exploits of its officers and men in the two world wars of this century and in the Korean area have shown.

Life for a cadet-midshipman at the college is, from beginning to end, a fascinating daily round in which he engages in general studies, gains theoretical and practical nautical knowledge and takes part in athletic sports and games and other forms of recreation in delightful and healthy surroundings.

Portion of his recreation includes sailing and racing in the college yachts and dinghies, cutters and other small boats. Three cadets were included in the crew of the college yacht Tam-O-Shanter, which was one of the contestants in the last race from Sydney to Hobart.

Religious instruction has an important place in the college curriculum and all cadet-midshipmen attend church on Sundays and other special days.

After a cadet has left the college, he is promoted automatically step by step until he has reached the rank of lieutenant-commander within about 12 years.

From then on, promotions are made by selection, but, as has already been pointed out, promotion to the most senior rank in the R.A.N. is possible.

It is difficult to imagine a more attractive life for a boy to enter upon than that of a naval officer. The opportunity to apply to do so is now available to every boy in the Australian Commonwealth, provided that he comes within certain age-groups and can satisfy certain requirements set out by the Naval Board.

The college was originally established at Geelong (Victoria) and was later transferred to Jervis Bay (A.C.T.). It has for some years now been situated in the grounds of Flinders Naval Depot at Crib Point (Victoria).
subdivided into five different categories, oil and jet aircraft fuels by the most modern handling gear for 15,000 tons of fuel cargo) and fitted with thereon, fast, capacious (15,000 Royal Fleet auxiliary vessels.

officers and men tor services in 3

is responsible for training R.M. Officers and men tor services in 3 Commando Brigade.

Fast new tanker for Royal Navy
The RFA Tiderach, 26,000 tons, was accepted into the Royal Navy on September 23 after completing its trials in Danish waters. It is the support of the Fleet and the replenishment of its supplies under way at sea. It is, therefore, fast, capacious (15,000 tons of fuel capacity) and fitted with the most modern handling gear for transferring food, stores, ammunition, oil and jet aircraft fuel by jackstay and derrick to ships needing them. The oil cargo can be subdivided into five different categories, all capable of being discharged at extremely high rates to disperse the gear on either starboard or astern and while steaming at high speed. The RFA Tiderach is powered by double reduction geared turbines capable of developing 15,000 shaft horsepower and giving the vessel a maximum speed in excess of 18 knots; she is about 585 feet long, 70 feet in beam, and has a loaded displacement of approximately 32,000 tons.

Bravery in submarine disaster recognised
Admiral of the Fleet Sir George Cressey, C.B., C.B.E., D.S.O., M.V.O., Commander-in-Chief, Portsmouth, early in September issued a special order commending an officer for their conduct when H.M. Submarine Sidon sank at Portland on June 16, with the loss of 13 lives. They were Lieutenant-Commander Hugh Tystall Verry, R.N., Commanding Officer of the Sidon; Lieutenant-Commander Charles Francis Allington, R.N., of H.M.S. Mansfield; Commodore William Ingram, R.N., of the Royal Canadian Navy; and Chief Ordnance Artificer John Walter Ward.

Simplicity the keynote of new jet fighter
The Folland Gnats light jet fighter (mentioned in last month's "Navy" as a likely aircraft for Coastal Command) is the first of its class to be built and flown. It is one-third or less the weight of a conventional four-engined bomber, with three or less the man-hours. It can be flown from reinforced grass runways and can be built in less than half the time required for a similar aircraft. But it is dangerous in maneuverability, rate of climb and service ceiling.

It can be used in three different roles: interceptor, close-support, and as a ship-borne fighter. It lends itself to considerable development and modification, and it is superior in development and weapon power in the future.

Work on the design of this light fighter started in 1951 at a time when the growing size, weight and mechanical complexity of the contemporary fighter were creating grave and harassing problems for both manufacturers and operators. The flight-speed of the aircraft was then reached 18,000 to 20,000 lb, and the range was enhanced to allow three hours in flight to land. The Gnats is a single-seat fighters, with a high wing and low tail plane, and is armed with two 30 mm. cannons. The wing is built in one piece and its slot in the top of the fuselage, being secured by bolts at four main points. Structurally, the wings are novel only by virtue of its extreme simplicity. It houses no fuel tanks, undercarriages or guns. The wing tips, which carry the navigation lights, are detachable.

Royal Navy develops transport stretcher
Following the adoption by the Royal Navy of the scoop net for rescuing personnel at sea, trials have been taking place with a transport stretcher in which a patient can be lifted off the ground, loaded on the deck of a ship by helicopter and transported to base or to another ship. This work for the transport stretcher was being removed from the stretcher.

The stretcher has been developed at the Royal Naval Air Station at Manston, under the supervision of Commander John Sproule, R.N. who also invented the scoop net. The stretcher is equipped with a base similar to that of ordinary stretchers and attached to this is a tubular frame, with canvas sides, ventilated net in front and side and wires fully extended, thus shielding the patient from the wind and ensuring him his own privacy. This invention, which is expected to be adopted for general service use, will be valuable for air-sea rescue work by enabling patients to be transferred from ship to shore or from small ships at sea to larger ships, which it is hoped to station at Sur) geon and hospital facilities on board. It is also considered that it may be adapted for Civil Defence work, as by means of a helicopter patients may be lifted out of inaccessible positions in badly damaged buildings.

The transport stretcher, when deployed and the patient in the stretcher may be attended, while the aircraft is on the ground, by any Medical Officer who may be in the helicopter. On arrival at base the stretcher may be lowered to the ground and transferred to an ambulance.

It is proposed that the transport stretcher may be used to transport patients by jackstay from one ship to another.

Australian frigate to receive wings
The frigate H.M.A.S. Queenborough, after completing advanced training in the United States with the Royal Navy in Northern Ireland, will return to Sydney on December 19. Queenborough, on a ten month cruise, joined ships, submarines, and aircraft of some NATO Powers in joint exercises in the Mediterranean, Canada and the United States.

Three navies and R.A.A.F. in exercise
Australian, British and New Zealand warships and R.A.A.F. bombers recently co-operated in an exercise extending from New Zealand to Malaysia. The exercise was designed to provide training for the wartime control of merchant shipping in the region.

The R.A.N. maintained area headquarters at Sydney, Melbourne, Darwin, and Fremantle; the Royal Navy at Singapore; and the R.N.Z.N. at Wellington, New Zealand.

Navy airmen to receive wings
The first members of the R.A.N. trained at Rockhampton's school at H.M.A.S. Albatross, Nowra, will receive their wings on December 6. The six men, aged between 18 and 23, will join an operational squadron.

Russian Navy's post-war growth
Russia has 350 modern submarines ready for immediate service, the First Sea Lord, Earl Mountbatten said recently. Lord Mountbatten said this was the greatest potential threat to the Royal Navy. He said that the Russian Naval Air Service had 4500 aircraft. Since the war, the Soviet Russian Navy has built 20 large first-class cruisers, more than 100 destroyers, and more than 100 large and small submarines.

New anti-submarine frigate for R.A.N.
H.M.A.S. Albatross has been commissioned for service in the third fast anti-submarine frigate at Williamstown, Victoria. It joins Quadrant and Queenborough, which were transferred to the Federal Government by the British Government next year by a fourth— qbberon.

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The signal read: "On your departure from Kure, Japan, last month, H.M.A.S. Con- dermine received a signal from the Canadian Naval Forces in the Far East, Vice-Admiral W. M. Callaghan, U.S.N. ordering: "On your detachment from the United Nations Command all hands in the naval force are united in wishing you a pleasant cruise home and good luck always. Your presence in this force has added to the warm affection which has long existed between our nations. We shall miss you.'"

Canadian ship fitted with underwater TV
When the Labrador sailed June 1 from Halifax for her 1955 northern operations, she carried the first underwater television equipment to be used by any ship of the Royal Canadian Navy.

The equipment, property of the Defence Research Board, will be used for surveys of underwater beach approaches and for studies of the behaviour of divers in cold water conditions in the far North.

It consists of a control unit, including a monitoring screen, to which the camera is attached by cable.

The camera is enclosed in a cylindrical case, measuring 23 inches in length and just under 11 inches in diameter.

The actual television circuit is composed of a miniature circuit board which is in audio communication with the diver. The latter has only to point the camera as directed by the control unit. The equipment operates on the closed circuit television principle.

The first time that the Royal Canadian Navy divers have operated underwater TV equipment.
The Battle of Trafalgar was, in a way, more than the greatest victory won by British arms; it was as much the culmination of as brilliant a campaign as has ever been fought in British historical annals. For the supreme architect of that great victory, William Pitt set the strategy, and the tactical skill, and Horatio Nelson crowned it by his brilliant tactical handling of the fleet as the moment of decision.

The story of the campaign which ended with Trafalgar is every bit as interesting as the story of the battle itself. We have to go back 16 months before that fateful October 21 when Nelson met Villeneuve off Cape Trafalgar to find the start of the campaign, to the day when the complete sureness of touch and understanding of the campaign was in the hands of junior officers, was superb.

So the stage was set for Trafalgar. In April, 1805, Villeneuve sailed from Toulon with the French Mediterranean Squadron, picking up some Spanish ships on the way and expecting to meet Gauzanne, with the Brant Squad-ron, at Martinique as laid down by Napoleon. But Gauzanne was not there. He had been driven back by the blockading squadron into Brest. Nelson, on Villeneuve's heels, was in the West Indies, bound for Barbados, and behind him there was a sailing force which, if it had concentrated on an enemy's rear squadrons. So ended Trafalgar. But it was more than the defeat of Villeneuve by Nelson. For from that there were the consequences built up through the centuries. A squadron in the Downs to watch the Toulon fleet was held in readiness, and before the fact that Villeneuve was at Cadiz was known at home. It was brought by Captain Blackwood, of the frigate Euryalus, who called at Merton to see Nelson on his way to the Admiralty. Nelson, detaining him for an hour while he outlined his plan of attack, persuaded him to London and offered his services. They were at once accepted, and Nelson, as a result, was appointed as second in command, and in the lead of the French squadron, cut through the line of the British Admiral's flagship, the St. Vincent. Nelson stood on, and joined Collingwood, taking the St. Vincent's flag into the Victory, and the British by the indignity of which it was fought, for its ripples are felt as far away as Russia, Austria and Sweden, bringing new heat to the conflict. The British fleet, fighting against the French, in the stage with consumate skill, and Horatio Nelson who crowned it by his brilliant tactical handling of the fleet as the moment of decisive battle.

The risk of a French invasion force coming in from the Channel Islands (Saumarez), and the main Western Squadron off Brest (Cornwallis) was the traditional defence, and England was safe enough in such sure hands as those. But Pitt depended on one more thing for his plan of attack to be successful. He had to rely on the instinctive knowledge of the men, and the solidarity of the fleet, to act together as one on every occasion, for only with their co-operation could the fleet ever be brought to bear on the enemy's rear strength. And through-out a whole day of baffling French moves, with a large number of admirals and captains in more or less individual commands who had to make their own decisions, to their own, with no method of communication beyond a chance meeting with other ships, with no intelligence background such as they would have to-day, no naval commander ever put a foot wrong. For his plan was to bring his fleet into operation his plan to form his "league" against Napoleon. He sent General Craig and an army to Italy to co-operate with the Russian general Lacy, and he sent Nelson and a fleet to the Mediterranean to cover them. And at the same time he used British sea power to draw so tight a net around Napoleon as to force him to make false moves to break out. The British army in Italy Napoleon was forced, as Pitt meant him to be forced, into an attempt to invade England to break clear of the net. The risk of a French invasion had not been ascertained until the start of the campaign there was put into operation the well-tried and improved system of the French and the British, which had been built up through the centuries. A squadron in the Downs to watch the Toulon fleet was held in readiness, and before the fact that Villeneuve was at Cadiz was known at home. It was brought by Captain Blackwood, of the frigate Euryalus, who...
T he annual commemoration of Nelson's victory is first of all a tribute paid by the Navies and the peoples of the British Commonwealth to their greatest Admiral. It is also, although no doubt unselfishly by many, an acknowledgment of the Commonwealth's dependence on its sea services. The Navy League of Australia is pledged to keep alive in the minds of the people of Australia the knowledge of this vital factor in their safety and the need to maintain it in these modern times.

Every year for a century and a half men have spoken on Trafalgar Day, of Horatio Nelson, of his qualities as a man and as a sailor, of the spirit of his victories, of the tactics which won them, of the "Nelson touch" and of what his victories meant to England. There is very little that is new to say: one can only vary the way in which it is said.

The life of a great man is made up of highlights and shadows: periods of spectacular success and periods of quiet progress; some periods of depression contrasting with periods of spectacular success and of what his victories meant to his character was decisive. At an age which was early even for the period in which he lived, Nelson began to make his own decisions about his life and future. His family was a large one, his father a clergyman and not well-to-do. The Navy League of Australia is pledged to keep alive in the minds of the people of Australia the knowledge of this vital factor in their safety and the need to maintain it in these modern times.

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For its own part the British Merchant Service can take pride in the fact that it gave to the greatest of England's Admirals his earliest deep sea experience and played its part in the formation of his character.

I like to think this was Nelson's own request, for it would have been characteristic. His first voyage was to Florida, Venezuela, and the West Indies, and it lasted for a year. It is recorded that Nelson

Nelson was in no way put off by his bloodythirsty prophecy, and so it came about that at the age of 12 years and 3 months he was raised midshipman of the Raisonnable. He joined her in March 1771, but his uncle's forecast did not come about. Indeed, his first ship never went into action against the Spanish at all but was paid off four months after he joined her. Relations with Spain had improved. As has happened many times before and since in our Naval history, as soon as the danger of war recedes the Treasury prunes knife and economies have to be effected. It was as a result of this that it came about that Horatio Nelson made his first voyage to sea in a merchant ship. His uncle, when the Raisonnable was de-commissioned, was transferred to the command of the Triumph, a Thames guardship.

Captain Suckling evidently did not think guardship duties offered much prospect for a keen young sailor and he took the highly unorthodox action of arranging for his nephew to get some time at sea in a merchant ship.

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The next phase of his sea experience was certainly achieved through his own efforts and determination. He managed to get himself, although it was quite an unusual request for one so young, appointed to a North Pole expedition which the Government organised in 1773 to look into the possibilities of a north-west passage to the Pacific.

It was not a particularly successful expedition and the two ships involved, after several attempts to penetrate the ice-fields, returned to England in the autumn of the same year. To Nelson, however, the voyage was not a failure, for without question he had gained much valuable knowledge of his profession. Just a month after his return from the Arctic he found himself appointed to sea again, this time as midshipman in a frigate bound for the East Indies. It was a long three-year cruise and in the course of it there was a good deal of time spent in fever ridden ports. The result was that towards the end of the cruise Nelson went down with a serious attack of fever, which, from the description, was probably malaria.

He was so badly affected that he had to be shipped home as an invalid and there is no doubt he suffered from the after-effects for the rest of his life, for always when he was in a tropical port for any length of time he suffered a re-
currence of the fever contracted on this his first cruise to the East Indies.

High professional ability

Influence in Nelson's time was the major factor in the success of a Naval officer's career than it is to-day. Nelson found on his return from the East Indies that his uncle, Captain Suckling, had become Comptroller of the Navy and in this capacity as head of the Navy Office his position was a most important one. Young Nelson undoubtedly benefited by getting another sea-going appointment quickly but his own ability and eagerness to learn was the major factor in his early progress.

When he had been to sea for the requisite period of six years Nelson came to the Navy Board for his examination as Lieutenant. His uncle was chairman of the examining committee but it was not until after the young officer had clearly demonstrated to them his knowledge and ability that Captain Suckling introduced him to his colleagues as his nephew.

One quality in Nelson's make-up must be mentioned, for it contributed as much to his success as did his professional ability. He was always most careful for the welfare of his sailors. When as a captain at the age of 23 he paid off the frigate Almeria, the whole ship's company offered if he could get a ship to enter for her immediately. He wrote a few weeks later that "my mind was taken up in attempting to get the wages due to my good fellows for various ships they have served in the war. The disgust of seamen to the Navy is all owing to the infatual plan of turning them over from ship to ship, so that men cannot be attached to their officers or the officers care twixt them.

Time after time in Nelson's career there is evidence of this thoughtfulness for the welfare of his men and his care of their health.

These are brief, perhaps unimportant phases in the early life of Admiral Lord Nelson. They seem to me to give insight into two of his greatest qualities: his unshakeable determination and his great humanity.

APPRENTICES FOR R.A.N.

Young Australians will shortly have the opportunity of training to become qualified artificers in the Royal Australian Navy.

The Minister for the Navy (the Hon. J. Francis) has announced that a Naval apprentice training school will be opened at Schofields (N.S.W.) early next year. One hundred apprentices will be entered each year and eventually not fewer than 400 apprentices will be under training ashore.

Boys selected to enter the school must be between 15 and 17 years and have passed the sub-intermediate or intermediate examinations or their equivalents. They will be chosen by an interviewing committee. As soon as necessary details are finalised applications calling for applications will appear in the daily papers.

The boys will spend the first four years of their training at the school and the fifth year at sea, or in specialist instruction ashore.

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FOR THE NEXT ISSUE OF
The Navy

November, 1988

THE NAVY

U.K. SHIPBUILDING RECOVERY

Britain strengthened her lead in international shipbuilding in the third quarter of this year for the first time since 1952. She is now building 34.2 per cent of the world's new tonnage. Figures issued by Lloyd's show that at the end of September Britain was building 346 ships of 3,181,075 gross tons, an increase of 65,923 tons compared with the previous quarter.

Britain (1,501,089 tons) also headed the list of countries adding to their domestic fleets.

The Royal Navy Day in the little French Alpes Maritimes port of Theoule-sur-Mer, and arriving there for the celebrations was the British warship responsible for inspiring the townfolk into proposing the inception of this annual event—H.M.S. Wakeful, a frigate of the Mediterranean Fleet, commanded at the present time by Captain R. Caenest, O.B.E., R.N.

Such a warm friendship exists as a result of previous long remembered visits by the ship, that Theoule asked the Admiralty to be allowed to adopt the Wakeful. Unfortunately the cessation of the wartime adoption scheme linking ships and towns, proved an obstacle and Theoule's kindly request could not be granted.

Affection for the Wakeful was so high, however, that the people of Theoule led by their Mayor (Brigadier G. Bertrand, D.S.O.) countered with the firm proposal that there should instead be a Wakeful Day every year on August 16. Finally a Royal Navy Day to be held on a date mutually arranged between the Commander-in-Chief and the Mayor was agreed when it was explained that it was impossible to assure that a particular ship of the Royal Navy could visit Theoule on the same day each year.

And so H.M.S. Wakeful, occupying such an esteemed place in local hearts, inaugurated an Anglo-French link believed to be unique. She spent eight days at Theoule.
diesel driven alternators. Shell gas turbo-alternators and three from Venezuela to West Africa, the existing power unit of 1200 h.p. will be replaced by a direct drive transmission system. Confidence in this new form of ship machinery is such that in addition to propelling the ship at sea the gas turbine will be used in port to generate the electrical power necessary to discharge the vessel's petroleum cargoes. The new machinery will incorporate double reduction gearing with hydraulic means for reversing the direction of the propeller shaft. The propulsion system will also provide power for auxiliary purposes, both at sea and in port. A model of the new gas turbine unit was shown at the recent Engineering, Marine and Welding, and Foundry Trades Exhibition in London.

**Model cargo ship radio-controlled**

Electronics have now entered the toy shop. Designers and technicians of a U.K. firm who are the largest makers of toys in the world, have produced a model cargo ship that is controlled entirely by radio signals. No one hitherto has been able to offer a ready-made radio-controlled model, they say, though for some time the demand has been obvious from owners of motor yachts, small and old, who have gone to the trouble and expense of building their own. The ship, beautifully modelled and accurate in every detail, is 20 inches long. At the touch of a button or the turn of a knob on a small portable transmitter, it executes any maritime manoeuvre—alters course to any point between hard-astern and hard-a-starboard, varies speed within the range full ahead to full astern; and can even be made to be ho-yo, which, as anyone with knowledge of radio-control will appreciate, is quite an achievement.

Control is effective up to 150 yards. All the control apparatus of the ship can be used for other models—fishing boats, in which the actuators change the position of the sails according to wind directions, toy cars and other vehicles, and aeroplanes.

For aeroplanes, a special receiver is supplied for working the model with actuators. The limit of effective control is nine-tenths of a mile.

The system can also be used by conjurers to produce certain "magical" effects, and by photographers of wild life, who can use it to operate the camera shutter from a distance.

**Long stay on stoll ends**

Commander Clark, who was shipwrecked in Palomarst ill in the Pardeke islands of the northern Cook group, is ready to sail his repaired yacht Solace to Raratonga.

Commander Clark, a retired British naval officer, was shipwrecked with his crew have lived with the island's 74 Polynesian inhabitants for over a year. They dropped Clark's yacht across the reef, beached her and replaced one side of the vessel with material from an R.N.Z.A.F. flying boat dropped.

**Ships for China**

"need escort" Captain W. J. Munro, 54-year-old skipper of the 2036-ton British freighter Helikon, believes that a naval escort is essential for British vessels calling at southern Chinese ports.

Recently, Helikon steamed into Hong Kong undamaged after a Chinese Nationalist warship fired on her off the Communist port of Foochow. The warship warned Helikon to keep clear of the area, but the freighter made Foochow the next day and entered the 1710-ton British freighter Caron. Captain Munro said he would not have been able to enter Foochow without an escort. The system can also be used by conjurers to produce certain "magical" effects, and by photographers of wild life, who can use it to operate the camera shutter from a distance.

Chief Officer Percy Bernhard said the warship suddenly appeared from behind Matsu Island, a few miles off the coast, and fired ten shots. Some of the shots landed very close on both sides of the ship, he said.

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Skilled and reliable aircraft maintenance is vitally important to the Fleet Air Arm. Here aircraft artificers of the Royal Navy are seen working on a jet fighter aircraft. Similar work will be done by aircraft-artificers trained at the R.A.N. apprentice training school at Schofields (N.S.W.).

APPRENTICE TRAINING

By a Special Correspondent

EARLY next year the Royal Australian Navy will open an establishment at Schofields (N.S.W.) for the training of youths who will become the Navy's Artificers and Shipwrights. The establishment will provide the best engineering training in the Commonwealth and will open the way for young men to enter upon remarkably interesting and well-paid careers in which they will enjoy a variety of privileges.

Boys who are fortunate enough to be selected from among applicants from all parts of Australia will live at the establishment during their training, will be issued with uniforms and clothing and will receive generous pay. They will live at the establishment during their training, will be issued with uniforms and clothing and will draw generous pay. They will receive all these things free of any cost to their parents.

They will be given two end-of-term three-weekly periods of leave during each of the four years they spend at the school and will be provided with free transport to and from their homes and with a subsistence allowance while they are travelling. They will also receive a daily allowance in lieu of board and lodging while they are on leave.

At the end of the fifth year of their training, part of which some of them will spend at sea, they will qualify as Artificers or Naval Shipwrights and will be advanced to a rate equivalent to that of petty officer.

Ratings in other branches of the Navy do not normally become petty officers until the end of at least their ninth or tenth year of service.

Once an Artificer or Naval Shipwright has attained the equivalent rate of petty officer he will have opportunities for further advancement, including advancement to commissioned rank.

Indeed, even before they have completed their training, apprentices of outstanding ability will be specially coached to enable them to compete for cadetship at the Royal Australian Naval College. At which most of the officers of the Royal Australian Navy will receive their initial naval training.

On completion of their training, other selected former apprentices will be considered as candidates for commissions in technical branches.

The advantages which the establishment will offer should prove attractive not only to ambitious boys, but should also appeal to parents.

To enter the establishment boys will need to be aged between 15 and 17 and to have passed the sub-intermediate or intermediate examinations, or examinations of similar standard.

While the boys are attending the establishment they will, in addition to other benefits, receive free medical and dental treatment and will be able to enjoy the sporting facilities and other amenities that are provided.

The first year of their training will consist mainly of lessons in academic subjects, such as English, Mathematics, Theoretical Science and so on, and instruction in elementary woodwork and metal work.

At the end of this period the apprentices will have reached the standard of proficiency required by the apprenticeship commission.

Future engine-room artificers, for instance, will be trained in marine engineering, electrical artificers in the maintenance of ships' high-power electrical systems and equipment, including electronics (radio and radar, etc.), electrical artificers (air) in the maintenance of electrical systems and equipment in aircraft, and naval shipwrights in ship construction and the maintenance of hull equipment.

On completion of four years at the training establishment, apprentices will have reached the standard of proficiency required by the apprenticeship commission.

The fifth year at sea or in a naval establishment will be spent in gaining actual experience with...
The Navy of To-day and To-morrow

By Vice Admiral R. R. Dowling, C.B., C.S.E., D.S.O.

First Naval Member of the Australian Commonwealth

Naval Board and Chief of the Naval Staff

Australia’s geographical position makes her long sea communications particularly vulnerable to attack by modern long range submarines. Within the range of land based aircraft the Air Force is charged with the protection of merchant shipping from enemy air attack. Also within this range the Navy and Air Force have a joint responsibility for protection against submarine and surface attack. These responsibilities necessitate a close cooperation between the two Services.

Since the end of the Second World War the R.A.N. has been engaged in a vitally necessary programme of modernisation of ships and equipment. After 20 years of service, ships approach the end of their useful life and must be replaced by modern types.

Perhaps the most important part of this modernisation was the introduction of the Fleet Air Arm in 1946. The new and modern aircraft carrier Melbourne will arrive in Australia early next year. She has been fitted out with the very latest equipment and will operate jet fighter aircraft (Sea Vampires) and the latest anti-submarine aircraft (turbo-prop Gannets).

Every fighter carrier is an essential part of a modern Fleet and is likely to remain so for years to come. It replaces the heavily-gunned battle ships of the past, which were specifically designed for the protection of shipping from surface and submarine attack in the wide oceans and provides direct and concentrated air support for operations ashore and afloat where this cannot readily be given by shore-based aircraft.

Other important developments in the R.A.N. have been the build-up of a air arm, the commissioning of the aircraft carrier Melbourne and Battle class destroyers, the laying down of three Daring class ships (the size of small cruisers) and the conversion of four “Q” class destroyers into up-to-date fast anti-aircraft ships. The building of four anti-submarine vessels of a new type is under way in Australia.

It may be asked why protection from submarine attack cannot be undertaken entirely by carrier-based or land-based aircraft. The answer is that the modern submarine has a very long range, a high under-water speed and the ability to detect targets and launch torpedoes without surfacing. It is capable of remaining submerged for days, and can be spotted from the air visually or by radar only when surfaced or obliged to “snort” to show a periscope. Moreover the range of detection is greatly reduced when the sea is choppy or rough. By means of underwater detection equipment carried in anti-submarine ships are remarkably efficient and deadly in all weathers.

Russia has a powerful Navy and is concentrating on building submarines in great numbers. It is estimated that she now has about 400 submarines of all types. It is because of this potential threat that the emphasis in our Navy to-day, as in the Navies of all Western powers, is laid upon anti-submarine defence.

The Australian Navy is not large but it is efficient and well balanced. We, in common with every fighting Service in Australia, Great Britain and the United States, are short of manpower at present, and until this is remedied I believe that many of the very best men in the Navy are making the Naval Service their career and will continue to re-engage for further service, whatever civil life may have to offer. There are no finer sailors in the world.

Now, what is the shape of things to come? What will be the structure of the Navy a few years hence? It must be remembered that, alone, Australia is incapable of defending herself against attack by a major power. The R.A.N. is designed not only as a small fleet which is fully mobile and flexible (and therefore of great value in a cold war), but also designed to integrate with the Navies of our Allies. At the “drop of the hat” it could become an integral part either of the Royal Navy or of the United States Navy. At the present time the latter—in active and reserve ships—consists of over 100 aircraft carriers, 15 battleships, 75 cruisers, 730 destroyers and a great number of smaller ships. We cannot afford enormous “attack carriers” or battleships or cruisers and we have no atomic weapons or as yet guided missiles, but we must play our part and be ready to integrate our ships.

Chiefly because of the thermo-nuclear threat, allied Navies will replace the concentrated “Task Forces” of the last war with small “Battle Groups,” each group possibly consisting of one carrier, a guided missile cruiser, a guided missile frigate and a number of escorts. Fleets will remain mobile and able to concentrate at will, but in the near future, they remain in the thermo-nuclear era, both as an offensive and defense force. It is of interest to note that very recently Naval aircraft capable of carrying an atomic weapon have been successfully operated from the deck of a merchant ship. The greatest single factor.

Helicopters fitted with “dunking sonar” (detection-equipment lowered into the sea) and with atomic mines have an un-doubted future in the protection of ships at sea. They could be carried aboard in warships or merchant ships and be used as an outer screen.

After a period of experiment and hesitation, the outline of future Naval construction and equipment has emerged.

In the front of the Naval War Manual is a picture of a helicopter to serve them faithfully in peace and war. We of the Royal Australian Navy are proud of our Service and of the respect that Service has earned at home and abroad.

A.S.U.B REPORT IS DENIED

The Admiralty has denied reports that the First Sea Lord, Admiral Earl Mountbatten, was buying an atomic submarine in the United States for the Royal Navy.

British newspapers had published the reports. The Admiralty and Earl Mountbatten has been in the United States for another purpose.

“The all of things is an infinite conjugation of the verb ‘To do’.”
—Lawrence.
Admiral Harries Appointed to Command the Fleet

Rear-Admiral D. H. Harries, C.B.E., R.A.N., at present Head of the Australian Joint Services Staff in the United States of America, will be appointed Flag Officer Commanding the Australian Fleet in June, 1956.

Rear-Admiral Harries' term in Washington will expire in December next, after which he will return to England to do the Senior Officers Technical Course. This will last from the middle of January until the middle of March.

Rear-Admiral Harries entered the R.A.N. College in 1917 and graduated as a Cadet Midshipman in 1920.

He commanded H.M.S. Seagull from 1939 until 1940, during which period was Second-in-Command of the 1st Minesweeping Flotilla, which operated along the Scottish coast. Later he was Executive Officer of H.M.S. Shropshire and in her took part in the Japanese in the South West Pacific. Other wartime appointments held were Australian Naval Attache, Washington, (he was the first), and Deputy Chief of the Naval Staff at Navy Office, Melbourne. After promotion to Captain in 1945, post-war posts included command of the cruisers Australia and Hobart.

From 1950 until 1952, Rear-Admiral Harries had command of the Aircraft Carrier H.M.A.S. Sydney. He was awarded the C.B.E. for distinguished operational service in that ship during the Korean war and was awarded the Legion of Merit (Degree of Officer) by the United States Government.

Prior to assuming the appointment of Head of the Australian Joint Services Staff in the United States of America in 1953, Rear-Admiral Harries was Second Naval Member of the Australian Naval Board. He is a graduate of the Imperial Defense College, London.

Captain Oldham

Captain G. C. Oldham, D.S.C., R.A.N., has been appointed the Royal Australian Navy Liaison Officer in London. He will be given the rank of Commodore 2nd class while holding this appointment.

He will succeed Captain (S) P. Perry, O.B.E., R.A.N., who will attend the Imperial Defence College of 1956 at Cambridge in England.

Announcing this appointment, the Minister for the Navy, Mr. J. Francis, said that Captain Oldham would bring to the new appointment in November. He was previously the captain of H.M.A.S. Sydney. Captain Perry had been the Naval Liaison Officer in London since February this year.

Mr. Francis said Captain Perry would be the first officer of the R.A.N. Supply and Secretariat branch to attend the Imperial Defence College.

Surgeon-Captain Flattery

Surgeon-Captain J. M. Flattery, O.B.E., R.A.N., Command Medical Officer, East Australian Area, and Medical Officer in charge at the Balmoral Hospital, Sydney, has been appointed an honorary physician to the Queen.

He was an honorary physician to the Duke of Gloucester when his Royal Highness was Governor-General of the Commonwealth.

Before he was transferred to Sydney last January, Surgeon-Captain Flattery was Deputy Director of Medical Services at Navy Office, Melbourne.

He has been in the Royal Australian Navy since 1923 and has a distinguished war-service record. In H.M.A.S. Australia in the Second World War, he took part in the action off Dakar (French West Africa) and served in the Pacific and Mediterranean regions and in the Atlantic, Indian and Pacific Oceans.

He was also in the Australia at Leyte and Lingayen when Japanese suicide aircraft attacked her repeatedly and one of them crashed on her bridge, causing death and serious casualties and extensive damage. It was for his services at that period he was awarded the O.B.E. and mentioned in despatches.

"Service Most Silent," by John Frayn Turner; published by Harrap (London).

This interesting and well-illustrated book, which has the subsidiary title "The Navy's Fight Against Enemy Mines," does not take the form of a sensational task of minesweeping at sea in all its aspects. The author, who joined the Navy in 1939, served during the war in the Mining Department of the Ministry of Transport and Experimental Establishment at Portsmouth. Writing with first-hand knowledge and experience, he has wisely confined himself to the more human and personal stories of a typical few of that small band of incredibly gallant officers and men who took their lives in their hands to dismantle and discover the innermost secrets of the German contact, magnetic, acoustic, "chute mines and other types of mines, most of them dropped by aircraft, used in such confusion during the war off the ports and along the coastline shipping routes.

It was to discourage this investigation and to frustrate our counter-measures, a cunning and resourceful enemy fitted some of his mines with devilish booby-traps which emitted the sound of a voice, a gleam of daylight through a small interior window, or the whisper of the smallest magnetic substance, even a penknife or a bunch of keys. Not a few brave men lost their lives; but even worse was the deterrent effect produced by our defeat was eventually mastered and its antidote produced.

Service Most Silent is a thrilling story of cold-blooded courage and devotion, not in the heat and excitement of battle, but in prolonged and patient research in circumstances of the greatest peril. German mine-sweeping began with the outbreak of the war, and rapidly extended.

The situation worsened as the tale of ships lost and ships damaged mounted steadily. An article in The Navy of February last, "The Minewatchers," gave some indication of the mine danger, and it may be remembered that on the night of November 21-22, 1939, the Luftwaffe made an all-out effort by dropping parachute mines in the Thames Estuary, and off the entrances to the Tyne and Humber. All traffic, including that at and out of the Port of London, had to be stopped.

Our vital sea arteries froze. London, almost entirely dependent upon its seaborne supplies of food, raw materials and fuel, would soon be starving and its factories and power stations idle.

The public knew little of this at the time, which was as well. Was it worth the lives of minesweepers being used? Were they magnetic, acoustic, or a combination of both? The answer was soon forthcoming, and an antidote found. A German plane, flying low, had seen in the moonlight to drop two large objects into the sea off Shoeburyness in a spot which, under law of the sea, the strapping of these objects, which were magnetic mines, is an epic in itself, though it need not be repeated here. Mr. Turner tells the story in full detail. The dangerous work was carried out by our fearless men, Lieutenant-Commanders John Gurney and Roger Lewis, Chief Petty Officer Charles Baldwin and Able Seaman Archibald Varan-combe, whose names deserve to be remembered. They were the pioneers, the forerunners, of an equally gallant band who recovered and immobilised enemy mines, all over the world.

Mr. Turner's exciting book is simply and straightforwardly written. I can only wish its subject interest it deserves. Among other things it shows, better than any official pronouncement in Parlia ment, why our Navy is so largely concentrating on the building of minesweepers of all types, and why the Admiralty have thought fit to establish its Royal Naval Minewatching Service, composed entirely of men and women volunteers. "TFFRAIL." —From the London "Navy."
SEA power is of tremendous importance to Australia, an island people separated by thousands of miles from our export markets and the source of our imports, Commander John Bates told a Canberra meeting recently.

Commander Bates, who is Federal President of the Navy League of Australia, was speaking at the inaugural meeting of the A.C.T. Division of the Navy League.

On that occasion the office bearers elected were: President, Mr. G. E. L. Alderton, High Commissioner for New Zealand; Vice-Presidents, Mr. J. B. Bowe, M.P., Mr. H. F. Ganter and Mr. Ronald D. Hall; Honorary Secretary and Treasurer, Commander A. D. McLachlan, R.A.N. (ret’d).

Commander Bates said that the Navy League would make representations to the Government on naval affairs, and would form a unit of Sea Cadets in Canberra.

He hoped that Canberra would raise at least one unit of Sea Cadets who would be trained on Lake George.

Commander Bates said:

"There are few in this audience, I imagine, who do not have either an innate or an acquired belief in the importance of sea power to Australia. To an island people separated by thousands of miles from those markets in which their products are sold and from the sources of their vital imports, the ability to command the unhindered passage of the ships which carry their goods in peace and war, must be fundamental.

"It is possible I suppose that there may come a time when everything now carried across the surface of the sea can be carried in the air above them. But not, I think, in the foreseeable future."

"After all we are responsible largely for what is likely to happen to ourselves and our children; we cannot plan much farther ahead than that.

"In these times of change there are two things which have not changed, and the first is a geographical fact.

"The sea is both a highway and a barrier. It is a few hundred years since those mariners from the Baltic and Scandinavia, who must incidentally have been good oarsmen, embarked on a sort of ‘Come to Britain Movement,’ crossed the North Sea without — I repeat, without opposition, and landed in Britain to settle there. Some of these ships changed direction on the way — perhaps their navigation was not as good. They found themselves sailing up the Seine into the heart of France where they founded the beautiful province of Normandy. From there a few generations later, somewhat Gallicized, they sailed again, this time across the English Channel — again without opposition, and joined forces with their cousins who had found England the first time. These men left behind them a maritime tradition that has shaped history. For nearly 900 years no enemy has again succumbed in crossing the sea barrier which surrounds the British Isles in order to land and conquer.

"The British people, for their part, have had no difficulty in doing so on many occasions. I need hardly remind you that because of the knowledge and practice of sea power they and their Allies were able in 1944 to use the same sea barrier as a highway for the greatest assault of sea borne forces on a well defended land that has ever taken place.

"So I submit to you that this fact of geography, the sea as both barrier and highway, has not changed although the weapons necessary to secure it undoubtedly have.

"The second thing which has not changed is human nature and in particular, with all respect, the nature of Governments. When the emergency or the danger has passed we heave a sigh of relief and get down to thoughts of decreased taxation, (or not, as the case may be). In any case we leave the security of our first line of defence to look after itself and divert our energies and money to something more obviously pressing."

"This is a thing that has happened time and again in our history. It was the thing which 60 years ago led to the formation of the Navy League. Without the formation of a Navy League 60 years ago, it is highly possible that the Navy might have been neglected during the inter-war period and not been in a fit state to carry out its role of sea power in the Second World War.

"If you as a Commander are elected to the position of Federal President of the Navy League of Australia, then it is my duty to say that I would be pleased to work with you for the prosperity of the Navy League of Australia and the advancement of this great Institution."
THE NAVY ANNEXES AN ISLAND

By a Special Correspondent in London

A brief announcement by the Admiralty on September 21 was the first intimation that Her Majesty's Survey Ship "Vidal" had successfully completed an operation which added to the territorial possessions of the Crown.

The announcement stated tersely: "By authority of Her Majesty, a party was landed from H.M.S. Vidal (Commander R. H. Connell, D.S.C., R.N.) to take possession of the island of Rockall. A flagstaff was erected on the island, the Union Flag was hoisted, and a commemorative plaque was cemented to the rock."

The Admiralty added: "The annexation of this island was necessary since it is within the sector of the sea which is likely to come within the orbit of the projected guided weapons range in the Hebrides."

Rockall, a name made familiar by reason of its use to indicate a geographical area in weather bulletins, is a small rocky islet situated in position 57° 32′ North, 13° 46′ West, 100 miles West of the Faeroes.

H.M.S. Vidal is the most modern surveying ship in the Royal Navy. She was built at Chatham Dockyard and was first commissioned in 1953. Her complement consists of 16 officers (six of whom are hydrographic surveyors) and 168 men (15 of whom are surveying recorders).

For the Rockall operation the small Hilger helicopter was replaced by a Westland Squirrel Dragonfly, which carries, in addition to the pilot, a winch operator and one passenger.

On September 13 the ship arrived at Greenock on completing a two months' geographical house in the Barents and Greenland Seas. Two days later the ship sailed from Lough Foyle and ran a line of soundings to a point 7 miles south-west of Barra Head and thence to Rockall.

The ship had reached a point off Rockall by dawn on September 17, but conditions were then unsuitable for flying as a strong westerly wind was blowing and spray was passing high over the rock. During the night the wind fell and a heavy swell diminished. The meteorological officer forecast two or three hours of calm or light winds, but as wind speeds of 50 or more knots were expected by the next day, it was clear that time for a landing was limited.

At daylight on the 18th the ship closed down its dock and it helicopter, piloted by Lieutenant R. Leonard, D.F.C., R.N., took off with Sergeant Brian Peel, Royal Marines, at 8.37 a.m. A report from the Vidal states laconically: "It was anticipated that the many birds found to use the rock as a resting place might hamper the pilot while hovering, but in the event there were no such hindrances, other than the disappointment of the bird-scaring party who were ready with rockets and saluting guns."

Sergeant Peel was successfully lowered from the helicopter by means of the night cable and landed on Hall's ledge, which is about 20 feet by 6 feet and situated over South rock about 12 feet below the summit. He was followed by Corporal Alexander, who had been commissioned by the Admiralty to take the necessary scientific aspects of the islet, and by Lieutenant-Commander D. P. D. Scott, R.N., who was in charge of the landing party.

It was on this operation that the Vidal was hove to about 800 yards from the rock with a boat's crew standing by in case of emergency. A flagstaff was erected and the Union Flag was hoisted at 10.16 a.m. B.S.T. Lieutenant-Commander Scott formally took possession of Rockall in the name of the Queen, by making use of the following words: "H.M. S. Vidal in the name of the Queen, in the name of the Commanding Officer, and in the name of His Majesty Queen Elizabeth the Second, hereby take possession of the Island of Rockall."

The Vidal steamed slowly past the Rock and fired a salute of 21 guns.

Meanwhile a plaque to record the annexation was cemented in the rock and ring bollards were secured near the waterfront to facilitate future landings. Spikes were driven into the rock to help climbers.

On completion of the ceremony Mr. Fisher and the two Royal Marines collected rock samples of lichen and other specimens, which will be examined by scientists who require information about this virtually unknown islet.

At 11 a.m. the party ashore signalled their readiness to return and by 11.40 a.m. all had been brought back to the ship by helicopter. The helicopter then had made eight flights in all. By 3 p.m. the ship was homeward bound the wind had reached 30 knots and there was heavy rain and low visibility.

The inscription on the brass plaque which was left on Rockall reads:

"By authority of Her Majesty Queen Elizabeth the Second, by the Grace of God, Defender of the Faith, etc., etc., in accordance with Her Majesty's Directions dated the fourteenth day of September, One thousand Nine hundred and Fifty-five, a landing party was sent to take possession of the Island of Rockall from H.M.S. "Vidal." The Union Flag was hoisted and possession of the island was taken in the name of Her Majesty."

Captain Becher in U.K.

Captain O. H. Becher, D.S.O., D.S.C., and Bar, R.A.N., captain of the aircraft carrier Vengeance which recently arrived in England from Australia for reversion to the Royal Navy, will do a course at the Imperial Defence College, London, next year.

He has been captain of the Vengeance, which was last commanded by Royal Australian Navy by the Admiralty pending the completion of H.M.T. Vendetta, Melbourne, since August, 1954.

Captain Becher, who is a graduate of the Royal Australian Naval Academy, had an outstanding record in the Second World War and also served with distinction in the battles against the Communists in Korea.

NEW N.L DIVISION

Continued from page 20

The original Navy League in England is it is, was then for those of us who know by instinct or by experience the fundamental importance of sea power to Australia to bring our influence to bear on Government and people through the power of public opinion."

"That is the prime purpose of the Navy League and I appeal to all of you to make the voice of the Canberra Division a clamant one which will reach the ear of whatever Government may happen to have the power of decision in Parliament House in the years to come."

Tracing the history of the Navy League, Commander Bates said that both in 1952 and 1953 the Navy League was most anxious to have the Navy Office with the power to Australia to bring our influence to bear on Government and people through the power of public opinion."

Relatives from all over the world of Merchant Navy men who lost their lives during the war will congregate in London for the unveiling of the plaque by the Queen, on November 5, on the site of the Navy League Memorial at Tower Hill. This memorial is the only tombstone for the 24,000 merchant seamen who lost their lives during the war.

In addition to the innumerable invitations to attend are representatives of countries, some 15,000 invitations to attend the unveiling by the Queen, on November 5, on the site of the Navy League Graves Commission to the next-of-kin of the men.
H.M.S. ULYSSES
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The story of one of the most hazardous of all voyages in war—the perilous convoy to Russia through the Northern Seas. "The truth about the grimmest saga of the war. You can put it beside The Cruel Sea and The Caine Mutiny." (Evening Standard, London). Book Society Choice. 15/6 (post 1/2).

HALF SAFE
by Ben Carlin
Half-Safe is no larger than an ordinary jeep, but with the odd bits and pieces she carried, she looked like something between a hen-coop and a gypsy caravan. Nevertheless, she carried the author, an Australian from Perth, safely across the Atlantic, and this is the record of that amazing journey. Illustrated. 21/- (post 1/2).

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THE NAVY

APPRENTICE TRAINING—
Continued from page 23
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CONTENTS


EDITORIAL: Page
The Last Of The Battleships .......... 4
Home For Christmas ................. 5

ARTICLES:
The Navy Can Play Its Part In Strategic Air Operations .......... 6
New Body To Advise On H.M.S. "Victory" .......... 8
Guided Missile—An A.A. Weapon .......... 9
Valuable Trials By H.M.S. "Cumberland" .......... 10
The White Lady Of The North .......... 11
Designing The Perfect Ship .......... 14
A Story Of Life In A "Sea-Cow" .......... 16
The White Ensign Has Been The Navy's Colour Only 91 Years .......... 22
The History Of The D.S.O. .......... 24
Canadians' Arctic Exercise .......... 25

FEATURES:
News Of The World's Navies .......... 12
Maritime News Of The World .......... 20
Personalities .......... 26
Book Reviews .......... 28
For Sea Cadets .......... 30

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THE NAVY
THE LAST OF THE BATTLESHIPS

The passing into reserve of Britain's largest battleship, H.M.S. Vanguard, is a step forward to the new role which the Royal Navy will be called upon to play.

This is the view of British naval writers who recently commented on the Admiralty's announcement that H.M.S. Vanguard is to go into reserve.

The London "Daily Telegraph" says that by taking this decision the Admiralty's main consideration has been the serious shortage of manpower in the Royal Navy.

The newspaper says "By putting Vanguard into reserve they will be able to call upon her complement of some 1,650 officers and men to provide trained crews—and technical ratings in particular—for future experiments in connection with a guided missile trial ship.

"The Reserve Fleet is not the shipbreakers' yards, and no doubt Vanguard will be put into commission again when some further use can be found for her. But her retirement means the passing of a great age in the history of the Royal Navy, that of the traditional capital ships. There will be no more 'battleships of the line'."

The "Yorkshire Post" commented: "We are able to dispense with immediate availability of our five battleships only because the only other Power maintaining effective battleships is the friendly United States."

The "Post" points out that in the Soviet bloc only Russia has any battleships, and those number three ships, all over forty years old.

The newspaper says that Soviet naval policy so far has not provided for capital ships on Western lines. Russia has no effective battleships and, so far as is known, no aircraft-carriers.

The "Glasgow Herald" points out that both the United States and Russia are believed to lead Britain in guided missiles.

The "Herald" says that Britain has a great deal of leeway to make up in the development of atomic devices and rockets.

In line with the new needs of defence in peacetime the men and money needed to maintain a battleship such as Vanguard will be made available for commissioning a guided weapons ship.

The naval correspondent of the "London Times" says that guided missile development in the American Navy is about three years ahead of that in the Royal Navy.

He says: "Since the war the Admiralty has constantly stressed the importance of anti-submarine and anti-mine defence, but these, in American naval thinking, take second place to offensive policy."

"The American Fleet is now built around the carrier striking force, and, when the Forrestal-class carriers come into service, mobile strategic air bases will operate jet bombers heavier than the R.A.F. Canberra. The carriers themselves will be protected by guided missile cruisers, the first two of which will be ready this autumn, and screens of escort destroyers."

The ship-based air striking forces will be supplemented by large submarines, probably nuclear-powered, capable of launching surface-to-surface guided missiles against targets inland.

"Battleships, it is believed, will be before long be armed with atomic shells for their heavy guns."

The correspondent says that if the Royal Navy can, by ruthless pruning of non-essential expenditure, increase its efficiency at the same time as it reduces its bulk and cost, then it will regain the prestige which it for so long commanded in the United States.

HOME FOR CHRISTMAS

Sydney will warmly welcome home the officers and men of the Tribal-class destroyers Arunta and Warramunga and the fast anti-submarine frigate Queenborough. These Royal Australian Navy ships will arrive in Sydney in company on December 19—in time for most of the ships' companies to go on leave and be with their families at Christmas.

For many months past they have carried the flag into some of the most important areas of the world, in terms of Western strategy. The Arunta and Warramunga have served with the strategic reserve in Malayan waters since July, and the Queenborough has been taking part in anti-submarine exercises against the most modern type of long-range submarine in the N.A.T.O. area.

Their tour of duty has demonstrated that Australia is sincere in her willingness to meet her commitments to her allies. It has shown to the Australian people the true, flexible role of the A.N., which is to safeguard Australia's frontiers not merely along her seaboard, but in the sea, distant from Australia's shores.

Of importance also has been the conduct ashore of the ships' companies, which the Australian Minister for the Navy, Sir Eric Harrison, so warmly praised.

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The Navy Can Play its Part in Strategic Air Operations

By E. Colston Shepherd

UNTIL THIS YEAR there were few signs that the Royal Navy would be prepared with strategic air operations. Indeed, if the equipment of the Fleet Air Arm were the only available evidence, there would be grounds for the assumption that the Navy could have no part in weakening an enemy by striking at the sources of his power. Apparently, all the emphasis is laid on tactical duties and particularly on dealing with enemy submarines at sea and in coastal waters. Those tasks are of great value in relation to the defence of a country which depends largely on seaborne traffic and obviously must receive close attention but there are other spheres in which naval aviation should be able to make a valuable contribution and there have been recent assurances concerning plans for the Royal Navy in these matters.

At the end of July, the First Sea Lord spoke of the project to form 'battle groups' of an aircraft carrier, a cruiser and a squadron of destroyers, and of the intention that the carrier's air squadrons should act when required as a 'single strategic weapon.' In the absence of aircraft specifically designed for such purposes, that must be taken to indicate a policy of no doubt the specifications for the aircraft required have been issued to the aircraft industry.

The United States Navy is evidently preparing itself, with two-engine shipborne bombers, for tasks more ambitious than the protection of seaborne traffic and the destruction of submarines at sea; and it is making those plans knowing that a land-based bomber force exists and is engaged in long flights to targets in Lithuania or the Baltic. High speed will help to diminish that risk, yet even if he had access to Asian seaboards, might not make the same error; and the land-based bombers would then find they are much too far to reach the bases of the submarines within easy reach of land-based bombers. Another enemy, moreover, is making those plans knowing that the latest radar apparatus on board the United States is making those plans knowing that the biggest of the new bombers of the United States is assured of fighter aircraft that can be expected to make a first-rate show against most land-based aircraft, and that is not all.

Guided missiles launched from the ground will become available to the R.A.F. in the near future for the defence of certain urban and industrial areas. In those areas they will be the only weapons against enemy aircraft although there may be some doubt as to whether they could be expected to make a first-rate show against most land-based aircraft, and that is not all.

All this means that marauding enemy aircraft would have to stay high in the neighbourhood of a carrier as they will have to do in defence of certain urban and industrial areas. In that event, many duties might fall to it which were formerly supposed to be outside its scope. There is no need to press the improved prospects of the carrier too far. Where targets are within easy range of the land-based bombers and can be reached without having to plot a long course.
NEW BODY TO ADVISE ON H.M.S. VICTORY

Due to World War II, it was some years before this new air attack and the war it was clear that a considerable amount of work needed to be done. The trustees of the National Maritime Museum recommended the Admiralty to set up a new naval of experts. This panel came into being in 1946, its members being nominated by the National Maritime Museum. The panel made a report in 1950, and many of its recommendations were acted upon.

Guided Missile—An A.A. Weapon

The United Kingdom Government has latterly been subjected to much criticism for abolishing the Anti-Aircraft Command and structure without having any defence system available to replace it, and for the delay in replacing our ageing armours. The answer to both these criticisms is to be found in the development of the high-flying supersonic weapon. Since the new vessels will be so designed that their gun armament can be replaced by the ship-to-ship-guided weapon system as soon as it becomes available.

Thus there is no question, as some Members of Parliament and other people seem to think, of actions between surface ships being fought in the near future in anything like a conventional manner. The completion of the three “Tiger” class cruisers, which are to be armed with 10-inch guns, has only been achieved because the United States has retained its lead in the development of guided missiles, which she started four years before this country. They might well be regarded as “pioneers” of this kind of guided missile ships the Royal Navy will have in commission in three or four years’ time.

The British ship that has been designed with guided missile launching platforms. In fact, these two ships merely provide evidence that the United States has retained her lead in the development of guided missiles, which she started four years before this country. They might well be regarded as “pioneers” of this kind of guided missile ships the Royal Navy will have in commission in three or four years’ time.

The carrier too will have its rocket or ramjet projectiles in that period but special tasks in strage and unusual places will still remain for the long range ballistic missile. The committee has held its first meeting and will meet again towards the end of this year.

From the London "Navy."
wholly convincing. For with installations at suitable positions around our coasts (instead of around cities and industrial areas as in the United States) which can launch missiles with a range of 25 miles, bombers would certainly be destroyed well out to sea. Rather would it appear to us that we must consider treated attacks than the Americans, and that our guided missiles must be capable of selecting their targets.

In any event, neither in the United States nor in Britain is there yet a reliable and effective ship-to-ship guided rocket "just fired at the corner." Submarines and other ships can certainly launch guided flying bombs — such as the American "Regulus"— but this missile is subsonic and no more immune from anti-aircraft defence measures than is a piloted aircraft.

Indeed, the question arises whether for the next 15 to 20 years, by which time the bomber may have been driven out of the sky by the guided missile, there is any real reinforcement for ship-to-ship missiles, other than the shell from a gun.

Unless and until the ships of our potential enemies are known to us, it will seem that they are equipped to carry out their tasks. And it is not easy to make out the enemy's ships and their tactical duties. Plastic-coated aprons, sea-men's collars, an automatic draught indicator, and various other devices were also under trial.

The Royal Navy's trials cruiser, H.M.S. Cumberland, returned to the United Kingdom recently after five months spent in a valuable trials programme in the Mediterranean.

Three new companies were under trial. Their accuracy was measured weekly under rigorous conditions. Improved methods of astro-navigation, in particular a method which gives a position from a star sight one minute after observations were made. The ship was armed with a twin-class hull of a twenty-five foot motor boat which had the hard wear experienced during the season. A 3 in 1 whaler proved satisfactory for landing, but this missile is subsonic and three-funnel cruiser and had in fact achieved a more lasting reputation.

Built by Barclay Curle, Ltd., in 1918 as a slop of the Racehorse class and christened H.M.S. Silvio, she had not resembled the more usual naval vessel of that time, for her design incorporated certain "Q Ship" features ("Q Ships" were used as submarine decoy ships). To the Sydney-sider she looked more like an overgrown Manly ferry, for she appeared to be double-ended, with two equal height, straight masts, two rounded bridges, and a funnel midway between them.

In 1925 the R.A.N. required another surveying vessel to assist in charting our coastal waters. The Silvio, renamed the Moreby, was the vessel for the job. She arrived here that year under the command of Captain J. A. Edgell, R.N., with Lieutenants J. Collins, R.A.N., and H. A. Showers, R.A.N. (later Flag Officer commanding her officers).

She immediately set out surveying the Cumberland Province in the Great Barrier Reef waters, and continued until 1929, when shortage of funds caused her to be laid up for a short time she was sold by the R.A.N., which was then sold for demolition.

In 1933, with the deterioration of international affairs, money was found for her to begin the strategic survey of the approaches to Port Darwin, a job which she continued until 1939. In the course of this work, Moreby became known as the "White Lady of the North," as she toed the line resolutely throughout the land and air operations and the survey service. Her lines, although unusual, had a gracefulness of their own.

When Japan entered the war, her saluting guns gave way to an old Mark, four-inch gun and the turret machine on the quarter-deck was replaced with depth charge racks and throwers. Moreby went back to her original role of submarine hunter. She escorted convoys round the east coast of the continent in the dark days when our merchant ships were being sunk only a few miles from Sydney Head.

The end of 1943 the coal waters were somewhat safer and a greater need was felt for her services in charting the north coast of New Guinea. This time the "White Lady" went north with a new make-up of Chicago blue and task force grey, which was more becoming to her role and age. (Task Force 70.3.1. Her force consisted of several A.M.S. (corvettes as they were then known) and several smaller vessels, all engaged in hydrographic duties under the U.S. Seventh Fleet.

In 1944 she returned to her pre-war ground covering the approaches to Darwin. Here she acted as "master" ship, doing the triangulation with five "slave" ships in M.S., all fixed and accurate radar rangings and her, thus covering a large area in a short time.

The surrender of the Japanese forces in Timor was signed on her quarterdeck in Kupang harbour. After this she returned to make preparations for the assault on Japanese garrisons on the Philippines, and for the final assault on the Japanese Home Islands. The two ships were the most famous of all, and the White Lady was known as one of the most efficient of the party.
NEWS OF THE WORLD'S NAVIES

U.S. Navy tender rescues airmen

The United States seaplane tender Floyd Bay rescued four of five crew members of a U.S. Air Force C-119 ("Flying boxcar") aircraft which crashed into the sea 650 miles east of Honolulu on November 9, after an engine failure. The crew parachute-d into the water before the aircraft crashed. Two of the men were rescued on the night of November 9, after being in the water for five hours. Two others were picked up early the following morning. The airmen used torches to attract the attention of a Pan-American Airways plane, which relayed a message to the Navy tender. The Floyds Bay made a 75-mile dash through rain and wind to make the rescue.

New A.S. Aircraft in production

Production versions of the Short Seawise, a light, two-seater, anti-submarine aircraft, are now coming off the assembly line. A Royal Air Force Coastal Command unit will be equipped with the first of them early next year.

Features of the Seawise's design are simplicity, ease and economy of manufacture and maintenance, and short take-off and landing run.

Polish gift to Royal Navy

Captain Ludwik Janeczko, senior officer of the Polish Naval Squadron which recently visited Portsmouth, called on the Board of Admiralty to present a gift from the Polish Navy to the Royal Navy. He was received by the Vice-Chief of Naval Staff, Vice-Admiral W. W. Davis, and handed him a skillfully-fashioned model in amber of a fully-rigged, three-masted sailing ship. The ship is mounted on a mosaic amber base with a silver plate inscribed in Polish: "From the Command of the Navy of the Polish Peoples Republic, 1955." The Polish Squadron visiting Portsmouth consisted of O.R.P. Burza and O.R.P. Bliskawica. The Royal Navy arranged receptions at Portsmouth for representatives of all ranks of the ship's companies of the two Polish destroyers within a few hours of their arrival at that port. For the Commanding Officers of the Bliskawica and Burza there was a dinner-party by the Commander-in-Chief, Portsmouth, Admiral of the Fleet Sir George Creasy, at Admiralty House, for other officers a reception in the Wardroom of the Barracks and for co-loads of ratings parties afterwards. After a wreath-laying ceremony at the Naval War Memorial on Southsea Common, there were organised tours of Naval ships and establishments at Portsmouth area. During a visit to London, wreaths were laid on the Cenotaph in Whitehall. There was also a football match and a civic dinner.

R.A.N. Band records Australian marches

The Band of the Royal Australian Navy recently visited the E.M.I. Record Studios, Sydney, and recorded ten marches in the Bliskawica to return British hospitality.

Admiralty statement on H.M.S. "Vanguard"

The manpower released by placing H.M.S. Vanguard in reserve will be used for the commissioning of a guided weapons special ship and to retain in commission certain small ships of particular value to the Fleet at present.

The Admiralty announced this recently when it confirmed the decision to place the Vanguard in reserve. It added: "The Vanguard will be maintained at a high state of readiness so that she can into active service with a minimum of delay should circumstances so require."

December, 1955.

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U.S. report on plan for space satellite

The U.S. Navy has signed a contract with the Glenn L. Martin Co., of Baltimore, to design, build and operate the launching gear for an earth satellite, according to the Baltimore "Evening Sun." President Eisenhower announced several weeks ago that the Government was sponsoring an attempt to launch such a satellite into outer space during the 1956-57 International Geophysical Year. Experts thought a satellite about the size of a basketball would be sent 300 miles or more in the air.

The "Evening Sun" said formal announcement that the Navy had signed a 20,000,000 dollar (A.F.A. 1128) contract with the company might come after a higher level scientific meeting later this month.
THE NAVY

DESIGNING THE "PERFECT" SHIP

By Peter Duff, Editor, "The Shipping World"

IT IS OFTEN said of warships, and of civil and military aircraft, that as soon as a new design appears in combat, it becomes outdated by technical progress in recent years. Increasing international competition in the design and production of ships makes shipowners anxious to take advantage of every technical improvement which will enable their ships to be just that much more efficient and economical to operate than those of their competitors.

Shipbuilders, marine engineers and naval architects, as well as the planning and operational departments of the large shipping companies, have all been busily engaged since the end of the war in attempting to design and produce the most efficient merchant ships for their designed purpose.

The technical advances which have been made in ship design during recent years have been so great that this field of technical progress in recent years. Increasing international competition in the design and production of ships makes shipowners anxious to take advantage of every technical improvement which will enable their ships to be just that much more efficient and economical to operate than those of their competitors.

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THE summer of 1914 found me serving as Captain of Marines in H.M.S. Argyll, 3rd Cruiser Squadron,* under command of Rear-Admiral Pakenham. On 26th July, we were lying at Portland awaiting further orders, as our summer programme had been suddenly suspended. On the 27th we left, proceeding up Channel at high speed. As we passed through the Straits that evening, the darkened ships were in marked contrast to the blazing lights of Dover. The citizens and holidaymakers had no idea that the “Warning” signal had been given, which meant, for us, instant readiness for war.

We were all thoroughly keyed up, and looked forward eagerly to early developments. War routine had started, and officers and men were “Watch and Watch,” i.e., one watch closed up at guns, etc., the other standing by, guns loaded with shell, charges close at hand.

Our immediate destination was our war station, Scapa Flow, in the Orkneys. Our Castle was the “Wobbly Eight,” known in the Grand Fleet as the Argyll. Serving as Captain of Marines, I was one of the four “New Country” class cruisers, Argyll, Devonshire, Argyll and Roslough, 10,000-ton ships of decidedly good appearance, with their raking masts and funnels—four of them—and handsome lines. On account of their looks they had been selected on more than one occasion for Royal Escort duty; but having said this, there was little to say in their favour as warships. They lacked speed and gun-power, while for Royal Escort duty; but having said this, there was little to say in their favour as warships. They lacked speed and gun-power, while for Royal Escort duty, they were “Watch and Watch,” i.e., one watch closed up at guns, etc., the other standing by, guns loaded with shell, charges close at hand. As we passed through the Straits that evening, the darkened ships were in marked contrast to the blazing lights of Dover. The citizens and holidaymakers had no idea that the “Warning” signal had been given, which meant, for us, instant readiness for war.

For instance, we had carefully considered our “load,” which consisted of the usual solidly built steel or iron vessel, the dismal old “squeezebox” (harmineum) made a fine splash. The “loader” was looked on more or less as an instrument of terror, though very necessary for war.

The “loader” went over the side; and the “owner” leaning over the starboard, brought off the crew, and sank the German vessel.

The Royal Australian Navy had its annual flagship regatta on Sydney Harbour on November 17. This picture shows the start of the final of the whalers’ race from Port Denison to the flagship, H.M.A.S. Sydney.

Clambering on board from the cutter, I was greeted with mild curiosity by the crew and with some nervousness by the skipper, who informed me they were six days out from Iceland with a cargo of herrings, and were bound for Leith to sell their catch. I explained the situation briefly and said the crew might have ten minutes to collect their gear. The Captain told me “to tell them to stop,” so I shouted a few remarks in German. The effect was immediate. The German skipper’s jaw fell; he put the helm over to port, and brought his boat up into the wind. I thereupon received instructions to go on board, bring off the crew, and sink the German vessel.

The 3rd Cruiser Squadron was formed on more than one occasion for Royal Escort duty; but having said this, there was little to say in their favour as warships. They lacked speed and gun-power, while for Royal Escort duty, they were “Watch and Watch,” i.e., one watch closed up at guns, etc., the other standing by, guns loaded with shell, charges close at hand. As we passed through the Straits that evening, the darkened ships were in marked contrast to the blazing lights of Dover. The citizens and holidaymakers had no idea that the “Warning” signal had been given, which meant, for us, instant readiness for war.

After leaving through Yell, and other silent “Sounds” (channels), to the consternation of the sheep, ponies and possibly a stray shepherd on the lonely islands, we returned to our base, having disposed of one of the many myths flying around.

War had now been declared, and we entered on a period of patrolling, at slow speed, in the North Sea. According to visibility, the ships of our squadron would steam up and down, opened out to an interval of 15 or 20 miles. Should anything be encountered, we were to stop and examine.

As I had a good knowledge of French and German, I had been detailed by the Captain as the “Principal Boarding Officer,” and I studied carefully the Admiralty book on the subject. We were surprisingly hampered in our actions by an outcome of one of those Hague Conferences—forerunners of the League of Nations—known, I think, as the Treaty of London, carefully designed by foreign nations to shackles our war activities at sea, and foolishly swallowed by us. As boarding officer, these miserable regulations, most of which were cancelled before the war had lasted more than six weeks, seemed to ebb every effort to gain intelligence, or maintain secrecy.

For instance, we had carefully considered our “load,” which consisted of the usual solidly built steel or iron vessel, the dismal old “squeezebox” (harmineum) made a fine splash. The “loader” was looked on more or less as an instrument of terror, though very necessary for war.

The “loader” went over the side; and the “owner” leaning over the starboard, brought off the crew, and sank the German vessel.

The Royal Australian Navy had its annual flagship regatta on Sydney Harbour on November 17. This picture shows the start of the final of the whalers’ race from Port Denison to the flagship, H.M.A.S. Sydney.

Clambering on board from the cutter, I was greeted with mild curiosity by the crew and with some nervousness by the skipper, who informed me they were six days out from Iceland with a cargo of herrings, and were bound for Leith to sell their catch. I explained the situation briefly and said the crew might have ten minutes to collect their gear. Meanwhile, I told our boat’s crew to get up from the hold as many casks of herrings as they could and transfer them to the cutter, while I went below with the skipper to examine the ship’s papers, and incidentally see how I could perform the sinking operation.

I could hardly ask the German skipper to help me in this nefarious deed; and I soon found that my familiarity with cocks and valves was not equal to flooding the ship, a solidly built steel or iron vessel of some 80 or 90 tons. I signalled to the ship for the carpenter, and when he arrived, we rummaged about together, but without result. Meanwhile, going forward to see how the crew were getting on, I found they had all shifted into their Sunday clothes and were passing round a bottle of schnapps as fast as they could drink. I pointed my revolver down the fo’c’le hatch, and told them to come on deck. They did as I overheard mutterings of “heat.” I resented being called a
II

and I was with the deck. under two marines, waiting

nified proceeding, the German sight-setting at such short range,

apparently nil; and the Captain Vickers semi-automatics, the

business, I signalled back, suggesting "pirate," and said so—adding that

ing gunfire—such a nice target to

ter no further on with the sinking

getting impatient, and the carpen-

As our Captain was evidently

Having returned on board with our prisoners and fish, the ship

a short distance off. Fire was ordered to be opened by a battery of our three-pounder

Vickers semi-automatics, the noiseist, and probably most in-

effective guns I have ever had the misfortune to be shipmates with.

The effect of a number of hits from their tiny lyddite shells was apparently nil; and the Captain ordered fire from one of the six.

Pribly owing to careless night-setting at such short range, the first two rounds missed over, and the Captain, in justifiable

wrench, sent the gunnery officer down to see what the enemy himself.

Three hits in quick succession with lyddite showed immediate effect, and the small vessel rolled slowly

and sank.

During this somewhat undig-

nished proceeding, the German crew were lined up on the quarter-

derck, under two marines, with following instructions: and I was with the

German skipper on the bridge, where I had conducted him to speak to the Captain. I must say I was very sorry for him, as he was slowly trickled down his cheeks. The whole thing must have been a bit sudden. The skipper and crew, with others, were later, in accordance with the extraordinary

Convention to which I have already referred, duly returned to Germany as valuable naval re-

serves! I sent for the skipper before he left the ship and gave him three sovereigns for the fish. He seemed very surprised, and thanked me warmly.

The delay caused by this inci-

dent must have thrown us out of

our proper sphere of patrol, for

soon afterwards we found ourselves amongst the battleships of the 2nd Battle Squadron, and

witnessed one of the neatest shoots I have ever seen. The Orion, approaching at great speed, opened fire once more at another of these German fishing boats at about 13,500 yards, and found the target with a second

salvo of 13.5-inch. When the

salvo hit, the big ship suddenly stood on end, and the German boat seemed to

sink. The seaman and marine

in an upper deck cabin.

was found to be too great a strain,

and I must say we sometimes en-

vied those fast, powerful battle

cruisers of ours, that could be

trusted to get there, and hit hard when they did.

It may be interesting to recall here the battle of the Black Watch, and build as a result of the theft of

faked British plans. The Ger-

mans, it is said, were trying hard to keep them from us. They knew we were planning two very powerful cruisers of entirely new design—Indomitable and In-

flexible—and first of our battle

cruisers—and they were most anxious to secure a copy of the plans. Our authorities were well aware of this, and also that no copies need be expected on the part of the

German.

Another set of plans was pre-

pared of a ship very much less

powerful, but sufficiently novel to take in the Germans.

The trap was set. The plans

were most unfortunately left

where they could be stolen: and the result was the Blucher, a cruiser twice as large as the

thought to be compared with the Indomitable and In-

flexible, which she was built to
do.

Summer was over now, and with the autumn, our patrolling became

more distant. Muckle Flugga—

the Northernmost point of the Shetlands—was a household word.

and we used to coal at a place
called Busta Voe. Later on this

harbour became known as "Sword-

fording," and its name is still those that brought the war home to us!

Little worth recording seemed to happen during the winter, but our base was transferred to the Firth and we had some oppor-

tunity for a run ashore. Early in

1915 we went to Jarrow for a re-
fitted, and our Admiral asked Ad-

miral Beatty—who, of course, was

in command of our battle cruisers

—to leave her to us. Perhaps it

was. It was all rather humiliating, and I must say we sometimes en-

vied those fast, powerful battle

cruisers of ours, that could be

trusted to get there, and hit hard when they did.

On return to England we went to Devonport, and eventually set

out, North about, to rejoin our squadron in the Firth. We never

got there.

The end of our "Sea-Cow" was

an unhappy one. We emulated

The Rover, and piled up on the "Inchcape," otherwise known as the "Bell" Rock, and thereby hangs another tale. As far as I know, there is still there, with the lovely County plate, which some enter-

prising diver may one day recover. But unfortunately, none of us heard the "gurgling sound," as no lives were lost.

—From the London "Navy."

R.A.N. SHIP WINS
RUGBY FINAL

An all-Australian Rugby final

was played when two teams from one Royal Australian Navy ship

played off in the Far East Fleet

in the Rugby competition last month.

Both teams came from H.M.A.S.

Warramunga, which is serving in

Far East, and H.M.A.S. Arunta.

Arunta also had a team in the semi-final.

The game was played at the Hong Kong Football Stadium.

Spectators and trophies were presented by Lady Scott-Moncrieff,

wife of Vice-Admiral Sir Alan Scott-Moncrieff, the Commander-in-Chief, Far East Station.
Italian shipbuilding hopes revived

Italy is now feeling confident about the future of her shipbuilding industry.

An official Italian statement, referring to the 'Tambroni Law', passed last year to assist the Italian shipbuilding and armament industries, says that Italian shipyards are once again in a position to compete on the world market.

The statement adds:

"It is a known fact that as a result of the boom in freights since the war in Korea, shipyards in every country have enjoyed an exceptional amount of orders, which will keep them busy for some years to come. The shipyards of Italy, however, represent an exception to all these activities. While in 1972 and 1973, thanks to the legislation enacted by the Italian Government, they succeeded in receiving orders from within Italy, foreign orders dropped to practically nil. During these years countries such as Argentina, Holland, Sweden, Norway, Denmark and Portugal, deserted the Italian shipbuilding industry by helping to eliminate the high cost factors.

"In particular, this law contemplates a reduction in taxation (of 30 per cent) on new ship construction, from Custom duties, from sales tax and other export duties, thus establishing for the Italian shipyards a situation of extra-territoriality.

"The results have not been long: since the law has become effective, our shipyards have secured orders from abroad for six ships (totaling 67,210 tons), besides an order for a tug of 2,400 h.p. for Argentina, and some auxiliary units.

"The Ansaldo Shipyard at Genoa-Sestri has received an order for a liner of 24,000 tons from the Svenska American Linien (Sweden) and for a tanker of 20,000 tons gross for the Miraflores-Panama Co. The Aldo Montosi Shipyards at Spezia have received an order from Turkey for three units, totaling 210 tons, while the Admiral Shipyards at Montalcino will build a tanker of 21,000 tons for the Transport Company of New York. Further, the Ansaldo Shipyards at Leghorn are building six destroyers of 6,000 tons each for Venezuela and two corvettes for Indonesia. Finally, the INMA Shipyards at Spezia have been ordered nine auxiliary units of 90 tons each by the Iranian Government. "This beginning is very promising."

Japanese launch big tanker

Reed ship names in italics—catch the "Mayflower".

"The Mayflower" will sail once more

The World

December, 1955

From our Correspondents in LONDON and NEW YORK

By AIR MAIL

The light fleet carriers Alphonse and Centaure will go to the Far East Station in 1956 to carry out tactical exercises with the Far East Fleet and with Australian and New Zealand naval forces. These two carriers will leave the United Kingdom early in the New Year and will be back in the United Kingdom by early May.

On the east coast of Grahamland, the team reported seeing between 4000 and 6000 seals.

They also discovered that a group of islands, the Jaoana, were not islands at all, but had a land connection with the mainland.

On their return the explorers were stopped by open water barring their approach to a station of their base.

They found a stranded Argentine group, who had given up hope of moving on and were on the point of sending for a helicopter.

The British party found a way through and assisted the Argentines back to base.

Owners give colour to Sea Cadets

The Australian Steamship Owners' Federation is to present the Sea Cadet Colour which the Governor of Victoria, Sir Dallas Brooks, presented to the Victoria Division of the Government House recently.

A party of four cadets from Geelong Grammar School received the colour from the Governor. The Mildura unit of the Sea Cadets provided a guard and cadets from Melbourne, Bendigo, Geelong, and Portland were present.

The Mildura unit will keep the colour for the time being.

U.K. CARRIERS FOR FAR EAST EXERCISES

The "Mayflower" will sail once more

Captain Harry Grattidge, who captained two of the world's largest ships, the Queen Elizabeth and the Queen Mary, is now advising on the rebuilding of one of the world's smallest, the 183-ton Mayflower.

A twelfth century replica of the vessel which carried the Pilgrim Fathers to America in 1620 is being built at Brixham, Devon. It will make a commemorative voyage over the same famous route next year.

The ship will be presented to America as a goodwill gift from Britain.

Captain Grattidge first went to sea half a century ago, when he was apprenticed to sailing ships. He served two years with the Merchant Navy.

The Mayflower will carry a crew of 21, as her predecessor did, and 30 passengers.

Preference will be given to descendants of the original Pilgrim Fathers.

They will wear period dress. Twenty specially manufactured oak chests will be carried to represent twentieth century trading links between England and America.

Building began on Independence Day, July 4, this year. The ship will sail on the same day for New Plymouth, Massachusetts, next year.

Aboriginal boy's plucky feat

An aboriginal boy recently swam and waded 40 miles through shark-infested sea in the Gulf of Carpentaria to help a grounded pearl lugger.

The lugger, the Sedenham, with a crew of eight Torres Strait islanders on a reef near Sydney Island on November 17 on its way from Morrison Island to Thursday Island.

The aboriginal boy, whose name is not known, sighted the lugger from Beach Island.

He waited for low tide when the 20 miles of sea between Sydney and Morrison islands is only a few feet deep, and then swam and waded to Morrison Island Presbyterian Mission.

He reported the lugger's fate, and told the mission overseer that he would return to Sydney Island and send smoke signals.

This he did, but tricky winds and haze made his message unreadable.

The mission sent out a rescue party in a truck carrying a launch.

Patent granted for a "Flying-submarine"

A leading U.S. inventor last month obtained a patent for the development of a "flying submarine."

He is Mr. Donald B. Doolittle, vice-president of the All American Engineering Co.

He is already engaged in experimental work for the armed forces.

Mr. Doolittle emphasised today that his air-and-undersea craft was still "in the formative stage."

Because of the "density" of aircraft, it seemed feasible that an aircraft could travel underwater, he said.

The craft would use jet power for flying and be equipped with water skis for landing.

On water, the craft's porpoises would close and it would ship water ballast.

The craft would use propellers underwated and be guided by the same equipment used in flight.

British sledge party's Antarctic survey

A four-man sledge party of the Falkland Islands Dependencies Survey has just completed a successful survey of uncharted parts of Grahamland, in Antarctica, the Colonial Office has announced.

The team, based at Hope Bay, travelled 900 miles across territory where temperatures of minus 100 degrees Fahrenheit are recorded.

They discovered an easy route to the roof of the 8,000-ft. Grahamland Plateau. The new route will help future survey parties to explore the central part of the hinterland.

On the coast of Grahamland, the team reported seeing between 4000 and 6000 seals.

They also discovered that a group of islands, the Jaoana, were not islands at all, but had a land connection with the mainland.

On their return the explorers were stopped by open water barring their approach to a station of their base.

They found a stranded Argentine group, who had given up hope of moving on and were on the point of sending for a helicopter.

The British party found a way through and assisted the Argentines back to base.

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The White Ensign has been the Navy's Colour only 91 years

By Commander Hilary P. Mead, R.N.

The Association of the White Ensign with the Royal Navy is nowadays so very close that the average man could probably not visualise any other arrangement. Nevertheless it was only in 1864 that out of the three ensigns of Her Majesty's Fleet the White was chosen solely to represent Her Majesty's ships. The particular association therefore is only 91 years old, and against that fact it may be said that the Red Ensign, previous to 1864, had been the Navy's principal colours for upwards of 200 years. These points should be borne well in mind when referring to naval matters prior to 1864.

For instance, in the well-known Hornblower books no English naval ensign is ever alluded to except the White, and when a described ship-of-the-line captures a Spanish fort it is the White Ensign that is hoisted above it. Spanish colours to proclaim the result, whereas in actual practice either the Union Flag or the Red Ensign would have been used. Similarly, a boat belonging to a British man-of-war never comes alongside a Hornblower ship unless she is flying the White Ensign, though in real life the boat might quite as likely have been flying the Blue and much more probably the Red.

It is remarkable that this historical truth should be so hard to digest, and that authors are so often met with who are quite unable to understand why British man-of-war frequently resorted to action under the Red Ensign, so much so that these persons are heard to remark "What are those merchant ships doing fighting a battle?"

A walk round the National Maritime Museum will disclose that of all the numerous men-of-war represented down the centuries, either in battle or in peace, by far the greater number are flying the Red Ensign.

The English naval ensigns of the three different colours originated in 1625 when for tactical reasons it was considered necessary to distinguish the centre, van and rear squadrons. To begin with, the sequence had been red, blue and white, but in 1633 the order was altered to red, blue, white, red. As belonging to the centre or commander-in-chief's squadron was always the senior colour, with the white for van, and blue for rear subsequently coming in that order of precedence.

The fields of the ensigns were of the basic colour with a small red cross in the top corner. In 1702 it was found that the white ensign of the three was apt to be confused with the French national colours whose field also was white, and with the flag of Dunkirk which was identical, namely, white with a red cross in the upper inner canton. Different designs were experimented with, and the final result was the inclusion of a large red cross of St. George in the field of the White Ensign. The dimensions of this very broad cross were eventually reduced and its width is nowadays two-fifteenths the depth of the ensign.

Whenever a flag officer of the Red or of the White or of the Blue commanded a squadron or a division the individual ships of that squadron or division wore a coloured ensign of the same colour as the admiral. Thus, in October 1805, when Collingwood was a vice-admiral of the Blue, his division would normally be wearing Blue Ensign. At the Battle of Havana on October 1, 1748, the English commander was Sir Charles Knowles, a rear-admiral of the Red; a fine painting of this action in the National Maritime Museum therefore shows the ships of his fleet all flying Red Ensigns.

When a ship was detached and not acting under the orders of an admiral of any of the colours, then, automatically, she would wear the principal, Red, Ensign.

In the course of time the need to distinguish different squadrons for tactical reasons disappeared, and the complication of the various units of a fleet in battle wearing a multiplicity of ensigns became a hindrance. In action, too, the colours of the opponents sometimes resembled one another and orders had to be given for all British ships to wear ensigns of one colour although that colour might not be appropriate for the squadron or fleet of a particular admiral.

Prior to 1789 the French ensign was a plain white flag and as the British White Ensign was liable to be confused with it in the smoke of battle, it was laid down in the Fighting Instructions that "In action all ships are to wear Red Ensigns." This order had been abolished before 1794, the year of the Glorious First of June, and in that battle there were divisions of the British fleet wearing ensigns of all three colours. Although all French ships had changed their colours to the tricolour by that date, the alteration had not come into full effect, and some of the British ships began to open fire on H.M.S. Marlborough whose White Ensign looked like the French flag in the smoke of battle.

At the victory of the Nile on August 1, 1798, the English fleet was commanded by Sir Horatio Nelson a rear-admiral of the Blue, but instead of wearing Blue Ensign the ships fought under the White. This was in pursuance of an order by the Commander-in-Chief, Lord St. Vincent, because the White was more distinct from the blue-white-red of the French colours than either the Blue or Red Ensign. The Battle of Trafalgar was waged under the White Ensign because Lord Nelson was a vice-admiral of the Red, and the division under Lord Collingwood who was a rear-admiral of the Blue, had to conform so as to avoid confusion during the engagement.

During the war of 1914-18 the British and German naval ensigns were dangerously similar which is not to be wondered at since Kaiser Wilhelm II had modelled many things in the Imperial Navy on the plans of the Royal Navy. To counteract this danger different remedies were used from time to time; the White Ensign was not changed but in action an extra flag was to be flown as a conspicuous position; the Blue Ensign for a period of only a few days; then the Union Flag; followed by the Red Ensign for about 14 months, and then finally back to the Union Flag.

The Battle of the Dogger Bank

Continued on page 29
When the Distinguished Service Order was instituted by a Royal Warrant of September 6, 1896, it was intended as an award for commissioned officers of the Armed Forces of the Crown "for meritorious or distinguished service in the field, or to the enemy." It was a sine qua non that they must have been mentioned in despatches, though it by no means followed that the men received due gallantry in action. There were many cases of campaigns, including the Boer War of 1899-1902, and the earlier part of the First World War, where the D.S.O. was conferred for meritorious service in the field but not in battle. The rules of award were tightened up, and greatly for the better, by a Royal Warrant of February 5, 1931, which laid down that the rank of major, and "Order of Merit" for award to Victoria herself, who had very decided distinguished services under fire, or marked by the especial mention of the Army in despatches. The title of "Major" and the Order for bestowal for great literary and artistic merit, or for devotion services to the Sovereign. (In this last object, perhaps, lay the germ of the Royal Victorian Order, founded in 1896.)

Mr. Campbell-Bannerman thereupon submitted that the Order of the Bath was already open to all ranks of the Civil Service, and that the new Order he proposed should be confined to service in the field. The Commander-in-Chief, H.R.H. the Duke of Cambridge, the Admiralty, and the Secretary of State for War all agreed whose services had not been marked by the special mention of his name, but who had given distinguished services under fire, or under conditions equivalent to service in the actual contact with the enemy.

The establishment of the D.S.O. was not brought about without a great deal of correspondence and discussion, and the Queen herself, who had very decided opinions on such matters, played a leading part. The facts are not generally known.

On April 5, 1886, Mr. Campbell-Bannerman, the Secretary of State for War, wrote to Sir Henry Ponsonby, the Queen's Private Secretary, asking how Her Majesty was quick to answer with "some further correspondence as to whether the new decoration should be an Order, not a sort of secondary V.C.; that it should not be known as a Cross or called one; that it should be worn round the neck, without a star; that the ribbon should be the same as in both Services, red edged with blue, or red; that it should be quite unlike the V.C., as it was not intended to supplement that, but to take the place of the Bath. "The Queen is quite decided on these points," he wrote, "and feels sure that the Duke of Connaught would agree." Sir Henry Ponsonby thereupon suggested that the new decoration should take the form of a lower grade of the Bath. The Duke of Connaught agreed, and so did the Italian Order of the Bath, and the Queen agreed, and again pointed out that Mr. Campbell-Bannerman's proposal would interfere with the V.C. and would be better to add a fourth class to the Distinguished Conduct Medal, already available to N.C.O.s and men for gallantry in action.

The first awards of the D.S.O. were made in July 1886, the Prince of Wales presenting the first bar at H.M.S. London. The star might be of silver instead of gold. . ."

The greatest number, under naval authority and subject to Queen Victoria's expressed wish, it finally became the Distinguished Service Order.

Thus the D.S.O., which in official terms is a gold cross patée conversed, enamelled white, edged silver, point, would entitle him to it, may be called a Cross or an Order, but was strongly of opinion that it should be the Order of the Bath, Military division only.

There was considerable further correspondence. The idea of a lower grade of the Order of the Bath was dropped, and the Prince of Wales suggested a name for the new Order Mr. Campbell-Bannerman suggested that the word "Service" would be greatly preferable to "Conduct" in the title, to avoid confusion with what was ordinarily known as "Conduct Medals." There were 10 or more drawings of the new decoration had been submitted for consideration and sent to the Prince of Wales by Colonel Arthur Ellis. Writing to Sir Henry Ponsonby from the Royal Yacht last year, he observed that in 1886, the Prince forwarded the designs after choosing one of them; but was strongly of opinion that the word "Service" would be preferable a fourth class of the Distinguished Service Order. (In this last object, perhaps, lay the germ of the Royal Victorian Order of the Bath, Military division only.)

The first awards of the D.S.O. were made in July 1886, the Prince of Wales forwarding 26 officers of the Army to November 25, 1886, mostly for good service in the Sudan. The first naval awards, however, were to the assistant designer Alfred Carpenter, Charles James Harlow, and Major and Hon. Lieu.-Colonel Walter M. Lamberton, Royal Marine Artillery, for operations in Burma, were gazetted on January 13, 1887.

Since August 23, 1916, any recipient of the D.S.O. in the course of the war has been entitled to add a bar to be attached to his ribbon. The first bar was made and presented to Sir Arthur Wilson of the Royal Navy, by Sir Henry Wilson, on July 25, 1916.

The first award of the D.S.O. to a Canadian was to Captain D.W. Stirling, R.C.A., for gallantry in action on the River Garonne, France, on September 13, 1918.

The first award of the D.S.O. to a Canadian woman was to Lt. Col. Constance Spry, for gallantry in action in the field on December 26, 1919.

The first award of the D.S.O. to a member of the Royal Canadian Mounted Police was to Constable W. M. Gray, for gallantry in action in the field on March 10, 1920.

The first award of the D.S.O. to a member of the Royal Canadian Mounted Police was to Constable W. M. Gray, for gallantry in action in the field on March 10, 1920.
After a few weeks' preliminary vice in the Permanent Naval Navy on November 15, he was commissioned Mechanician in 1919, and had completed 41½ years' service in the Permanent Naval Forces of the Commonwealth.

Lieutenant-Commander Edwards joined the Royal Australian Navy from South Australia at the Williamstown Naval Depot on May 8, 1914, as a stoker second class. After a few weeks' preliminary training, he joined the battle cruiser Australia, Flagship of the British Fleet, where he remained until 1918. He took part in all operations resulting in the capture of German New Guinea, German Samoa, and other enemy possessions in the Pacific, and served in the capture of German New Guinea, German Samoa, and other enemy possessions in the Pacific.

In 1918, Chief Petty Officer (Mechanic) in 1919, and Chief Mechanician in 1923. Later that year he was promoted to Commissariat Mechanician (then designated Warrant Mechanician).

He was on exchange duty in H.M.A.S. Australia from 1934 to 1936, during which time he convoyed H.R.H. the Duke of Gloucester back from Australia to England, took part in the King George V Jubilee Review, and afterwards formed part of the British Fleet at Alexandria, Egypt, during the Abyssinian crisis. He transferred to H.M.A.S. Sydney in 1936, visited the Anzac battlefields and Cyprus, and returned to Australia in that ship in 1937. He joined H.M.A.S. Canberra in April, 1938, and served as one of the Engineer Officers of that ship until December, 1939, when he was appointed to the staff of the Commodore Commanding the Australian Squadron as the Assistant to the Squadron Engineer Officer in H.M.A.S. Perth.

In December, 1939, he proceeded to the Mediterranean Station to take up an appointment as Senior Engineer Officer in H.M.A.S. Stuart, of the 'Scrapiron Flotilla.' He served in that ship, during the operations which resulted in the capture of Bardia, Tobruk, and Benghazi in 1940-41, took part in the Battle of Matapan and conveyed our troops from Egypt to Greece.

He was appointed as the Engineer Officer of H.M.A.S. Voyager, another ship of the 'Scrapiron Flotilla' in April, 1941, and served as the Chief Engineer of that vessel throughout her interesting but hazardous pilgrimages on the Tobruk Spud Run, the evacuation of our troops from Greece and Crete, and subsequently steamed the old ship back to Australia for refit towards the end of 1941.

In March, 1942, ill-health necessitated his transfer to less arduous duties, and he was appointed once more to the staff of the Rear-Admiral Commanding the Australian Squadron, as Assistant to the Fleet Engineer Officer.

He was awarded the B.E. for Meritorious Service in the New Year's Honours List in January, 1944.

Lieutenant-Commander Edwards was promoted to his present rank in April, 1950. His service has covered almost the whole of the period since the inception of the Royal Australian Navy, as a coherent and substantial fighting force.

Captain Rhodes

Captain Rodney Rhodes, D.S.C., A.D.C., R.A.N., Captain (D), 10th Destroyer Squadron, left Sydney in H.M.A.S. Tobruk, with H.M.A.S. Anzac in company, for Malaya on November 16 to relieve the other two ships of his squadron, H.M.A.S. destroyer (formerly Commissioner (D)) and H.M.A.S. Jervis Bay.

Captain Rhodes is the son of a sailor—the late Mr. W. J. Rhodes, who served in Devon, in the Middle East and the Mediterranean during the First World War, and was appointed Midshipman in 1921 and was appointed to H.M.S. Anzac in company, for Malaya on November 16 to relieve the other two ships of his squadron, H.M.A.S. destroyer (formerly Commissioner (D)) and H.M.A.S. Jervis Bay.

In 1944 he was promoted to Commander and returned to Australia to serve as Training Commander and as Assistant to the Fleet Engineer Officer in H.M.A.S. Perth.

In 1946 he was promoted to Commander and returned to Australia to serve as Training Commander and as Assistant to the Fleet Engineer Officer in H.M.A.S. Perth.

In 1948 after a short period as Naval Officer-in-Charge, Brisbane, he was appointed to the Executive Officer of the new R.A.N. Air Station at Nowra, N.S.W., to be Rear-Admiral Reserve (September).

Captain H. C. Coleridge, D.S.O., D.S.C., to H.M.S. Pembroke, and as Commodore R.N. Barracks, Chatham and the rank of Commodore (2nd Class) while holding these appointments.

Navy-Air exercises in Japanese area

The U.S. Far East Air Force, working with the Navy and marines, early last month began its biggest post-war exercises over Japan, Korea and Okinawa.

Air Force headquarters said the targets were drop zones representing major military objectives, would be defended.

R.N. Appointments, Etc.

The Admiralty has announced the following appointments and promotions:


Captain J. P. W. Furse, O.B.E., R.N., to be Rear-Admiral (September) and to be Director of Naval Air Training and Repair, vice Rear-Admiral J. D. N. Ham, C.B.

Captain G. A. Thing, D.S.O. and Bar, R.N., to be Rear-Admiral (August) and appointed for engineering duties on the staff of C. in Portsmouth vice Rear-Admiral N. E. Dalton, C.B., O.B.E. (October).

Captain H. C. Coleridge, D.S.O., D.S.C. to H.M.S. Pembroke, and as Commodore R.N. Barracks, Chatham and granted the rank of Commodore (2nd Class) while holding these appointments.
"The Wind is Free," by Frank Wightman. It deserves a permanent place in his nautical library.

A man who writes "food is a bore" is not to the reviewer's mind a friendly soul, and in fact there is a lot in Frank Wightman's "The Wind is Free" that the average reader will not agree with. Nevertheless, this book is worth reading and for the yachtsman it deserves a permanent place in his nautical library.

The author is in many respects a remarkable man. He lived in South Africa, working in an office, when he realized that the 8.30 train habit was civilised slavery. He gave it up and built a yacht unaided, though when he started he knew nothing whatsoever about boat building. In the course of the time the vessel was completed and Wightman decided to sail her to America. This he did with a companion, Graham Young, who is much more human and will have the reader's sympathy.

The book chiefly concerns the voyage to Trinidad by way of St. Helena and Ascension. It makes most interesting reading, as the author has the happy knack of making the humdrum seem exciting, and the course taken is most interesting reading, as the author has the happy knack of making the humdrum seem exciting, and the course taken seems to be done in salt water, which, of bones and fat, also the water received Lloyd's Silver Medal and exchange these real ones for the fake ones that the French had taken ashore with them. It is difficult to learn that this engineer, Pierre Smordon, and his captain, Lindtner, who had to make a most difficult decision, were not only the first to complete the voyage from east to west; his voyage in 1921 and in April 1923, after a voyage of great endurance, lasting 101 days, he took her from Cannes to New York. He had unbounded faith in his gallant boat; he should have had less faith in the ship cannon. If he had not, it would have been his only loss. It was brought about. The fantastic idea, which came to the captain, was to complete the ocean crossing first, and exchange these real ones for the fake ones that the French had taken ashore with them. It is difficult to learn that this engineer, Pierre Smordon, and his captain, Lindtner, who had to make a most difficult decision, were not only the first to complete the voyage from east to west; his voyage in 1921 and in April 1923, after a voyage of great endurance, lasting 101 days, he took her from Cannes to New York. He had unbounded faith in his gallant boat; he should have had less faith in the ship cannon. If he had not, it would have been his only loss.

Many of Lord Stanley's cruises were made in果园 ports, but Lord Stanley has discovered Paajas which he describes as "one of those harbours marked for the future". He also provides a most useful little chart giving, as from whom the visiting yachtsman can expect calls and the course taken is most interesting reading, as the author has the happy knack of making the humdrum seem exciting, and the course taken seems to be done in salt water, which, of bones and fat, also the water


Alain Gerbatch; published by Rupert Hart-Davis, London.

Alain Gerbatch was one of the first men to achieve the crossing of the North Atlantic unaided, though when he started he knew nothing whatsoever about boat building. In the course of the time the vessel was completed and Wightman decided to sail her to America. This he did with a companion, Graham Young, who is much more human and will have the reader's sympathy.

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U.S. Navy bombers visit Australia

Ten United States Navy bombers visited Australia on a goodwill mission last month.

Those of us who during the war had opportunities for meeting any Scandinavian seaman were left in doubt concerning their retention of the spirit of their Viking ancestors. Here is a thrilling account of how, after the overcoming of apparently insuperable obstacles, a Norwegian merchant vessel succeeded in escaping from Dakar, where the Vichy-Frenchmen were in command. Despite a semi-circle of Scandinavian ships placed round her, a British submarine dived under them and inflicted such damage on the Richelieu that she could only steam at nine knots. This had enabled a young Danish sailor, whom I met at Newcastle, to slip away with two or three companions in a small boat in which they pretended to be fishing, until the Richelieu, on a trial trip, was far enough away, whenupon they hoisted a white flag and finally reached Bathurst. More difficult was the emerging from Dakar of the 9000 ton Lusitania; and here we are given in admirable account of how it was brought about. The fantastic idea, which came to the captain, was to complete the ocean crossing first, and exchange these real ones for the fake ones that the French had taken ashore with them. It is difficult to learn that this engineer, Pierre Smordon, and his captain, Lindtner, who had to make a most difficult decision, were not only the first to complete the voyage from east to west; his voyage in 1921 and in April 1923, after a voyage of great endurance, lasting 101 days, he took her from Cannes to New York. He had unbounded faith in his gallant boat; he should have had less faith in the ship cannon. If he had not, it would have been his only loss.

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Lord Stanley says that as he signed the cheque completing the purchase of his first yacht he felt he had been on the fence of the native cause in the South Sea islands has ensured the permanence of his name in the annals of sociology.

D.G.F.R., in the London "Navy."
**NEW SOUTH WALES**

By D.J.M.

Once again it was the privilege of the Sea Cadets to provide the guard of honour and colour party for the Trafalgar Day ceremony in Martin Place, Sydney. The guard was trained in H.M.A.S. Melbourne under the supervision of Lieutenant J. Lovell, R.N. Approximately 25 per cent of the guard were cadets who were in the guard last year. This meant practically the training had to begin from the beginning as though all the cadets were new to the drill. Hard work and patience again produced a well-trained guard of honour, and the Minister for the Navy, Mr. J. Francis, commented on their smart appearance and drill.

The Fleet Band led the march of Sea Cadets, Sea Scouts, Sea Rangers and Junior Red Cross.

Training Activities: All units took part in training courses in H.M.A. Ships Sydney and Cootamundra. Three Officers, two Chief Petty Officer Instructors and eight cadets spent a considerable time in Cootamundra. Sea Cadet Lieutenant K. M. Adams (T.S. Australia) was appointed as group leading seaman to cadet leading seaman J. B. Whelan (T.S. Shropshire), W. Altmann (T.S. Shropshire), M. J. Kean (T.S. Australia); cadet able seaman to acting cadet leading seaman S. Nash, T. Lloyd (T.S. Sydney), J. Weckes (T.S. Warrego). A. O’Mara (T.S. Warrego), E. Kingsley, K. Lewis, K. Pascoe (T.S. Shropshire).


**TASMANIA**

By G.E.W.W.B.

The Sea Cadets of T.S. Devonport marched through the streets of Hobart on Trafalgar Day. The column, which was under the command of S.C. Lieutenant J. Hamilton Smith, consisted of one armed platoon and a field gun’s crew with gunners and limber. The salute was taken by the Lord Mayor of Hobart, Alderman A. R. Park, C.M.G., from the Town Hall steps.

Saturday, October 22, was open day for parents and friends who visited H.M.A.S. Huon and saw the cadets at instruction.

On Sunday the cadets marched with the Sea Cadets of H.M.A.S. Glanstone and ex-Naval Men to the War Memorial. Later, the cadets attended the Mariners’ Service in St. George’s Church, Battery Point.

At Launceston, the cadets from T.S. Tamar marched with the Ex-Naval Men’s Association to the Genatopol, where after a short service a wreath was laid and a feu de joie fired. The unit then marched past the ex-Naval Men’s Association who took the salute. The parade was under the command of S.C. Lieutenant G. Cutts.

T.S. Devonport now has a cadet on H.M.A.S. Huon, in a space provided by The R.N.O. Hobart. This has been well patronised and is a great success.

Several cadets from the Hobart unit have joined the R.A.N.R. cadet force. They parade with the R.A.N.R. on Fridays and with the Sea Cadets on Saturdays.

Approval has been given to hold a training camp at Fort Direction in January, 1956, for 100 cadets from all the units in Tasmania. The opportunity will be taken to get in as much sea and boat work as possible.

December, 1955.

W.A. DIVISION

From the Albany (W.A.) branch of the Navy League:

In the last three weeks in October we were heavily occupied getting the Sea Cadets mustered and arrangements made for Trafalgar Day.

H.M.A.S. Fremantle arrived here two days earlier than expected and caught us by surprise. We paid an official visit to the Captain and arranged plans for a busy week of which the highlight, for us, was the trip to sea arranged for the Sea Cadets on the Thursday morning. Conditions were choppy with equally winds. The Captain carried out a series of exercises which the Cadets found most impressive.

On the Friday night we ran a Navy Carnival Dance with the ship’s company as guests of honour. The local populace, especially the fairersex here, raved the dance the best of the year. The Captain and officers of Fremantle selected “Miss Navy League.”

On the Saturday there was a civic reception for officers of the ship. That evening the Police Boys’ Boxing Carnival, of which part of the takings went to the Sea Cadets, was held and was a
THEATRE IN AUSTRALIA

By Harald A. Bowden, M.B.E.

Honorary adviser on drama to the Sydney branch of the Royal Society of St. George

In the early days of this country, Australians had to rely on Hobart Town sending us their players, but it was not long before artists from England and America heard of the profitable theatrical field in Australia and wended their way to the land of golden opportunity.

It was a fairly long step to any real organised theatre in Australia, but in 1853 Barnet Levy built the first Theatre Royal in Sydney—on the site where Dymock's book-shop now stands—opening it with a performance of "The Miller and His Men." Other theatres were built from then on and by 1855 the Victoria Theatre and the Prince of Wales (built on the site of the present Theatre Royal) were all having their successes—or their failures—as will be seen. For Sou Cordt will make available to us and news of Sir Lewis Casson and Dame and Her Majesty's in Sydney and the Prince in Melbourne, but in 1853 Barnet Levy built the Criterion in Sydney and by 1857 the Victoria Theatre wended their way to the land of empire, the Princess in Melbourne, and the Prince of Wales—on the site where Dymock's book-shop now stands—opening it with a performance of "The Miller and His Men." Other theatres were built from then on and by 1855 the Victoria Theatre and the Prince of Wales (built on the site of the present Theatre Royal) were all having their successes—or their failures—as will be seen.

In 1868 and 1867 were wonderful years for theatre building—the Criterion in Sydney, the Princess in Melbourne, and Her Majesty's in Sydney opening in a blaze of glory, the year of 100 per cent., that is for 1/- a performance instead of sixpence!

Then came grand ballet in 1913, with Genee, Alexander Volinin, and others, this being the first opportunity offered to the Australian public to see real ballet.

And so I could go on, telling you of the really wonderful history of the theatre in this country, but I shall retain further references on this score to later articles.

THE THEATRE IN AUSTRALIA

Continued from page 25

THE HISTORY OF THE D.S.O.

Continued from page 25

Service Cross for gallantry in action during the First World War, and its grant to the Merchant Navy was legalised by an Order in Council of May 1913. Ever since its institution the D.S.O. has been made by Messrs. Garrard and Co., Crown Jewellers of London. According to the early correspondence it was originally manufactured in gold at a cost of £1345. Later, probably at the time of the Boer War, it was made in silver gilt, and has been so ever since. The cost nowadays is approximately the same as that quoted.

According to figures published in December 1933, the D.S.O. has been bestowed upon 16,476 officers since the time of the Boer War, it was made in silver gilt, and has been so ever since. The cost nowadays is approximately the same as that quoted.

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32
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