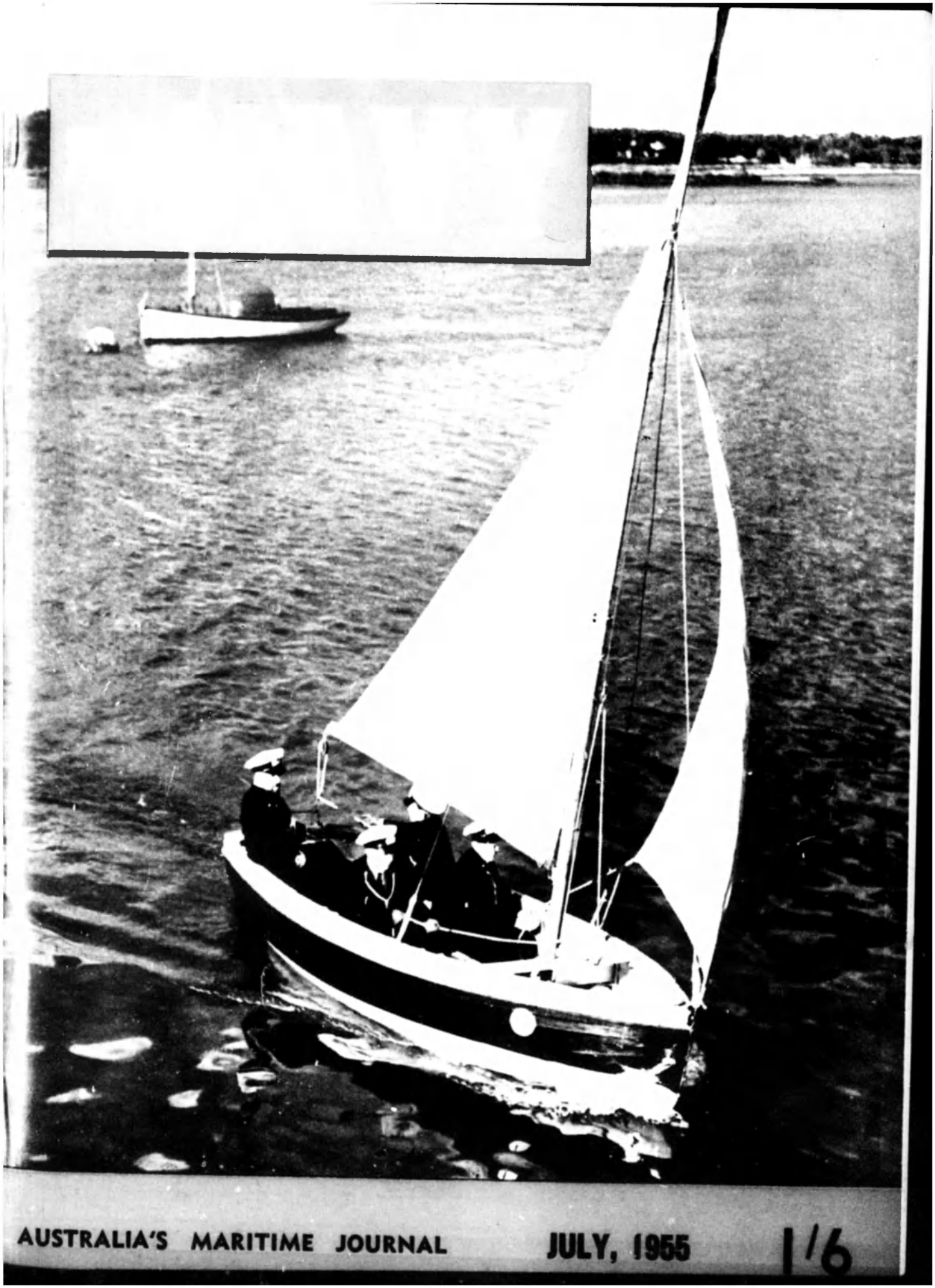

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IT'S OUR PROBLEM, TOO

"The best fighting machine is useless without men to fight it."

Vice-Admiral Sir Charles Hughes Hallett, when using those words in a recent issue of the London "Navy," may well have been epitomising the First Lord of the Admiralty's Explanatory Statement of this fiscal year's Naval Estimates. The First Lord, having reviewed a projected expenditure in the coming year of just on £400 million, sounded this warning: "The need to recruit and retain regular ratings on long engagements is of critical importance to the nation. The manning position is not satisfactory. The Admiralty have full confidence in the quality of the men in the Navy to-day and of the new men coming forward. Unfortunately there are not enough of them: not enough recruits and not enough men staying in for longer engagements."

The Royal Navy's manpower problem is not one which we in Australia can afford to regard with detached interest. The same problem lies on our own doorstep and on that of our great Pacific neighbour and ally, the United States, as revealed in the uncompromising words of the Secretary of the U.S. Navy, Mr. Charles S. Thomas, printed by us last month.

In time of war, patriotism, love of adventure—call it what you like — will undoubtedly meet the demands for expansion. That expansion must, however, rest on the solid base of an efficient, well-manned and well equipped peacetime Navy. It is, therefore, a disturbing fact that the Royal Australian Navy to-day is seriously embarrassed by a shortage of recruits and a steady loss of trained men who "take their time" instead of re-engaging.

This dangerous situation demands the earnest attention not only of our Service Chiefs, but of every Australian citizen. We are inclined to forget that Australia is a maritime nation. We are inclined to overlook the significance of the fact that the bulk of our population is spread along the Australian seaboard, and that a seafaring career should be a normal thought in the minds of most of our boys and young men.

We have a potentially abundant source of good sailor-material. We need only cultivate it properly. This, of course, means much more than stimulating the spirit of adventure in our young men and investing the Navy with an attractive glamour. To rely solely on that would be as anachronistic as the press gang.

The Navy must offer sound material advantages which will stand up to the material advantages offered by the civilian employer. Much has been done in this direction. But the simple fact that the Navy is short of men can mean only that not enough has yet been done.

Of course, the Navy will continue to appeal irresistably to many, but day-to-day problems of modern life may deny the Navy their services. Much as a man may wish to serve, he must consider the future of those dependent on him when making his decision. Let us consider the married man trying to lead a normal family life in Australia when on the move from station to station, possibly each two years or so. No great attraction to the potential recruit in that.

The Navy is trying to meet that disadvantage by building homes for its sailors. It is a praiseworthy policy, which should be pursued vigorously. This does not mean that housing alone is the answer to manpower shortage. The real answer is probably highly complex. In his thoughtful discussion of the Royal Navy's manpower problem, Vice-Admiral Hughes Hallett says:

"In the old days the officer came from the top of the community. The rating, whether he came from the gaol, the press-gang, or the depressed areas of the 1930's, came from the bottom. But they had one thing in common — they were expected to, and surprisingly enough on the whole did, serve the Navy devotedly to the exclusion of home life and personal feelings.

"But times have changed and the modern officer and man looks on his engagement with the Navy more as a business contract, and it should be regarded as such. The Navy is a good service and it wants good men. The type of man it wants is entitled to expect a contract which will give him a fair return for his services and a reasonably happy life. If this is not offered, or if conditions disappoint him, he will either refuse to sign or will break the contract as soon as he is legally entitled to. This is just what is happening now."

It is a materialistic problem. Men are essential to man machines. Those men, when trained, must be retained. Labour is the one commodity the average individual has to sell. To-day, in Australia, as in most countries, it is a sellers market. The Navy must be prepared to compete in that market.

'The Navy'

is Your Guide

to Naval Affairs

BRITAIN'S NEW CARRIER

With her air squadrons embarked, H.M.S. "Ark Royal", Britain's latest aircraft carrier, will be the most formidable unit of the Royal Navy.

THE "Ark Royal" is the eighth aircraft-carrier completed in the U.K. since World War II and is one of the two largest carriers ever commissioned by the Navy. She joins her sister ship H.M.S. "Eagle" in Britain's carrier fleet, which includes the recently completed Hermes-class ships "Centaur," "Albion" and "Bulwark."

The *Ark Royal* reflects a great deal of Britain's recent naval research and development. She has the angled deck, steam catapults, a new type of arrester gear, a deck-edge lift in addition to central lifts, the mirror deck-landing aid, hangars with improved ventilation, and a special aircrew refreshment centre.

The Admiralty says these combinations in carrier technique will enable her to fly off and land on the heaviest and fastest types of aircraft envisaged in naval warfare and to operate them more rapidly and with greater safety than any previously completed carrier.

The ship is 808ft. 5in. in length (720ft. between perpendiculars), and she has an extreme breadth at the waterline of 112ft. 9in. She displaces 36,800 tons (compared with the 23,000 tons of H.M.S. *Illustrious*). Her peacetime complement is 110 officers and 1322 ratings. When her frontline aircraft are embarked there will be an addition of about 90 officers and between 450 and 500 ratings.

During construction, modifications were made to her design. These included a 5½ degree angled deck. The optimum angle is 8½ degrees, but the Admiralty says incorporation of this angle would have necessitated "more extensive modifications."

Steam catapults appear in the *Ark Royal* for the first time. These catapults, according to the Admiralty, will fulfil all the foreseeable requirements for aircraft launching. The new make of arrester gear with which the ship is fitted is a more robust type than formerly and the angled deck has permitted the number of wires on to which aircraft are hooked to be reduced to six—a reduction of more than 50 per cent. Crash barriers will be used only in the rare event of an aircraft losing its hook. Before the angled deck was introduced they had to be in position throughout landing periods to protect aircraft parked forward.

The *Ark Royal* has the first deck-edge lift to be installed in a carrier of the Royal Navy. This lift is situated amidships on the port side and serves the upper hangar. There are two lifts on the centre line. This will contribute in a major way to the flexibility of flight-deck work and will speed up flying operations.

Improved ventilation in the hangars and the lessened danger arising from the use of kerosene for jet aircraft will greatly facilitate aircraft maintenance work. When aviation spirit was in use in the old-style hangars it was necessary to hold up maintenance throughout the hangar when there was any danger of sparks igniting the fumes. In the *Ark Royal's* hangars only a small section near an aircraft being fuelled will be treated as a "fuel danger" section.

Mirror deck-landing aids are on both port and starboard sides of the new carrier. These aids are important with the introduction of aircraft of high approach speeds.

The *Ark Royal's* armament consists of 16 4.5-inch guns and 45 smaller guns. In constructing the hull, electrical welding was used on the widest possible scale to provide the lightest and strongest structure possible.

Messrs. Cammell Laird are responsible for the main machinery, which consists of a four-shaft arrangement of geared turbines of a type which will give the ship a high speed and ensure mobility. Fuel is stored in several groups of tanks dispersed throughout the ship to reduce the risk of fire. Magazines for all types of airborne weapons will be in other protected parts of the ship.

Large dining halls are supplied from galleys containing up-to-date machinery and electric cooking equipment. Mess-decks are furnished with settees and tubular steel tables and chairs. The distilling capacity of the ship is 350 tons a day.

A great deal of attention has been devoted to the photographic needs of the *Ark Royal*. Photography is playing an increasingly important part in naval warfare, both operationally and for training purposes. Its scope extends from the reproduction of charts and documents to the photographing of large areas of territory from the air. It is used for the recording of all deck landings, of radar traces and instruments, and in association with or even as an integral part of modern weapons. The many uses of photography demand a well-equipped photographic section which must nevertheless be compressed into the smallest compass in a ship, where space is at a premium.

The *Ark Royal's* photographic section is considerably smaller than a laboratory ashore, but it is capable of dealing with a large variety of demands. It is fitted with equipment specially designed to save space and weight and to operate under adverse conditions. A universal processing machine, occupying only 12 x 12½ feet of

deck space, can develop and dry all widths of film in use in the Service from 16 m.m. to 9½ inches wide. The process can be carried out as fast as 1200 feet per hour. Vibration-free enlargers will operate with the ship travelling at full speed and in any kind of sea. Large stocks of photographic material are carried in refrigerated compartments. The *Ark Royal*'s photographic department may serve as a central processing laboratory for other ships in a striking force.

As an indication of the size of the electrical installation, it is estimated that it involves about 750 miles of cable, weighs 1100 tons, and involves approximately a million electrical connections.

To meet the large demands for electrical power a generator capacity of 4000 kW. is provided. There are four steam turbine and four diesel-driven sets, each rated at 500 kW. and dispersed throughout the ship to minimise the effects of action damage.

A 220-volt D.C. ring main system, incorporating approximately 350 electrically-operated circuit breakers, is used for the distribution of electrical power. Control of the supply and distribution systems is effected from a large main switchboard, and, in an emergency, from four smaller switchboards each controlling a quarter of the ship.

Continuity of supply for the vital services of the ship is ensured as far as possible by the duplication supplies fed through automatic or hand-operated changeover switches. Rapid restoration after failure of both normal and alternative supplies may be carried out by means of an emergency supply system.

More than 1000 motors are installed. They range in size from 170 h.p. machines driving the forward capstans down to fractional h.p. motors for such varied services as ice-cream making, workshop tools, oil purification and air conditioning. This number includes nearly 600 for driving the ventilation fans, which maintain an adequate supply of fresh air throughout the ship.

The galleys, bakery, and laundry are all-electric and contain many labour-saving devices. In the bakery are machines for pie-making and dough-kneading; in the galleys for dish-washing, potato-peeling and chipping, mincing and slicing; and in the laundry for washing, starching, and both flatwork and collar ironing.

About 10,000 lighting points are installed, 3000 of which are fitted with twin 20-watt fluorescent tubes. Part of this installation consists of red lighting to allow for rapid adaptation of vision at night. In the event of the normal lighting supplies being put out of action following severe damage to the ship, battery-operated emergency lanterns are automatically switched on to facilitate movement about the ship.

A novel feature of the electrical installation is a system which provides supplies for starting and servicing naval aircraft. It comprises a number of fixed motor-generator sets, with their associated control gear, feeding socket outlets on the flight deck and in the hangars. It obviates the need for cumbersome batteries and trolleys.

Since there are about 1300 compartments in the ship, electrical communications are of great importance. Some 1500 telephones are installed, 500 as outstations on an automatic exchange and the remainder, mostly sound-powered, as outstations on direct telephone.

Where necessary amplified speech communications are installed. These take the form of individual intercom. or talk-back systems for navigational and action communication and involve the fitting of over 100 loudspeakers.

In addition, an integrated main broadcast system is fitted. General information, warning signals, etc., are passed over this system to all parts of the ship. In action, the various departments of the ship can take control of appropriate units of the system. For example, the armament broadcast unit by gunnery personnel, the flight deck and hangar broadcast unit by flying personnel, etc., and in these conditions only warning signals from the main system can override transmissions on the unit system. Approximately 600 loudspeakers are installed.

Entertainment of the ship's company when off duty is catered for by the installation of a sound reproduction equipment system incorporating more than 100 loudspeakers and headphones, the latter being used in the sick bay. This system is capable of the simultaneous broadcast of two alternative programmes (e.g., the Home Service and Light Programme of the B.B.C.). There is a choice of programme at each loudspeaker and each set of headphones. As an alternative to B.B.C. or foreign programmes, facilities are available to play gramophone requests by using the two turntables or to broadcast live shows by the ship's company by using the portable outside broadcast unit. This can be installed in a hangar or in a smaller compartment, according to the scale of the production.

The *Ark Royal* is commanded by Captain D. R. F. Cambell, D.S.C., R.N., an officer who was closely associated with the conception and development of the angled deck. A commissioning service he held on board on February 22 was conducted by the Ven. Archdeacon F. N. Chamberlain, C.B., O.B.E., Q.H.C., Chaplain of the Fleet.

A large Press party visited the ship at Liverpool on February 21. In reply to a question on her preparedness for atomic attack, the commanding officer stated: "Questions have been asked regarding the ability of this ship to withstand atomic attack. It is well known that a ship, building, or airfield suffering a direct hit from an atomic or hydrogen bomb will be destroyed. It is also well known that there is a 'near miss' effect for any bomb, whether it be H.E. or nuclear. It is also known that on the perimeter of a nuclear explosion there is the problem of radiation and of particles of vapour or dust which are contaminated.

"The engines of a ship require large quantities of air to keep them running, hence there is the possibility that contaminated particles of air or vapour may be drawn into the machinery. To enable this ship to steam in such circumstances, the machinery is fitted with remote control which would enable her to steam for a limited, but adequate, period, so giving her the ability to get away from the trouble. When the remote control is in operation there will be no hands in the machinery spaces. The machinery will be controlled from one of the many air-conditioned compartments in the ship."

A MESSAGE FROM THE ENGINEER-IN-CHIEF . . .

The Engineer-in-Chief of the British Fleet, Vice-Admiral Sir Frank Trowbridge Mason, K.C.B., who visited Australia recently, has sent this message to the Navy League of Australia:

"It gives me great pleasure to be asked by the Federal President to send a message to the Navy League of Australia. I doubt if there was ever a greater need of education in naval matters than there is to-day when the menace from the air is in the forefront of everyone's mind. The Navy League, therefore, carries a big responsibility in instructing the public on the continued need for sea power.

"The aeroplane not only enables us to see what goes on over the horizon; it adds enormously to the range and striking power of the Fleet.

"It is true that the aircraft-carrier herself needs protection from air and underwater attack, but so does every ship of war and commerce. Without her, the war cannot be carried to the enemy in the vast expanses of the oceans with their own peculiar problems of navigation, so different from those over the land.

"Modern naval operations must, therefore, be a combination of air and sea. The Royal Australian Navy, which is already equipped for this role, is an essential part of the shield which we have to build to protect our way of life."

Navy Promotions Announced

The Minister for the Navy, Mr. J. Francis, on June 30 announced the following promotions, effective from July:

R A N.

Commander to Captain: Clive Martin Hudson (acting captain), of Melbourne.

Lieutenant Commander to Commander: Robert Cecil Savage, of Chatswood (N.S.W.); Neil Ewer McDonald, of Barmera (N.S.W.); Brian Stewart Murray, Mosman (N.S.W.).

Lieut. Commander (E) to Commander (E): John Allen Shearing, Neutral Bay (N.S.W.).

Surgeon Commander (D) to Surgeon Captain(D): Dudley Ormond Southby (acting captain), Oliver's Hill (Vic.).

R.A.N.R.

Lieutenant to Lieut. Commander: Leslie Campbell O'Donnell, North Richmond (N.S.W.); Alexander Bruce McLean, Mont Albert (Vic.); Ronald Clyde Penglase, East Glenelg (S.A.).

Lieutenant (E) to Lieut. Commander (E): Maxwell Henry Shean, Manning Park (W.A.).

Surgeon Lieut. Commander to Surgeon Commander: David Norman Livingstone Seward, Belmont (Vic.).

Lieut. Commander (S) to Commander (S): Angus Horace Calder, Heidelberg (Vic.).

Lieutenant (S) to Lieut. Commander (S): Graeme Braidwood Norman, Tennyson (S.A.).

R.A.N.V.R.

Lieut. Commander to Commander: Frederick Meares Osborne, of Sydney.

Lieutenant to Lieut. Commander: John Arthur Burton, Neutral Bay (N.S.W.).

Surgeon Lieut. Commander to Surgeon Commander: Graeme Lindsay Grove, Melbourne.

Lieutenant (Special Branch) to Lieutenant Commander (Special Branch): George Gosse (acting Lieutenant Commander), North Adelaide (S.A.); Leslie Arthur Marshall (acting Lieut. Commander), Panton Hill (Vic.).

Commander Osborne is Liberal member for Evans (N.S.W.) in the House of Representatives.

He became an officer in the R.A.N.V.R. in February, 1939, and won the D.S.C. and Bar in World War II.

Admiral Gladstone

Vice-Admiral G. V. Gladstone, C.B., succeeded Vice-Admiral Sir Edward M. Evans-Lombe, K.C.B., in the N.A.T.O. appointment of Commander, Allied Naval Forces, Northern Europe, last month. Admiral Evans-Lombe has completed two years as Commaverth. Until recently, Admiral Gladstone was serving as Flag Officer, Second-in-Command, Far East Station.

What's Our Strength In Jets?

By M. J. Hardy

THE Supermarine Type 523 jet fighter, piloted by Supermarine's Chief Test Pilot, Mr. M. J. Lithgow, recently made its first flight at Boscombe Down. Thus, approximately four years after the U.S. Navy's first production swept wing jet fighter — the Grumman F9F Cougar — entered service, Britain's Fleet Air Arm still possesses not a single squadron of fighters in this class.

In the swept wing, "600 m.p.h. plus" category, the U.S. Navy has the Chance Vought F7U-1, F7U-3 and A2U-1 Cutlass, F9F Cougar, McDonnell F3H-1 Demon and North American FJ Fury, all of which are already in squadron service, or about to be delivered to units. The Fury, moreover, being developed from the well-known F-86E Sabre, is capable of competing with Russia's MIG-15 on equal terms, and U.S. Navy units will be receiving still more aerodynamically advanced fighters, such as the delta wing Douglas F4D-1 Skyray and — later on — production versions of Convair's XF2Y-1 Sea Dart water-based, delta wing fighter.

By contrast, regarding provision of such fighters for fleet Air Arm units the rule seems to be jam tomorrow and jam yesterday — but never jam to-day. Yesterday's "jam" the de Havilland Sea Vampire — became, on December 3, 1945, the first jet aircraft to land on and take off from an aircraft carrier's deck. Extensive tests with Sea Vampires were thereafter made, especially by No. 702 Squadron — the Navy's Jet Evaluation Unit — which flew Sea Vampire F.20s, corresponding closely to the R.A.F.'s Vampire F.B.5s. Some Sea Vampires went into service with the 17th Carrier Air Group, but when war in Korea started they were replaced by Sea Furies and Fireflies, which were considered more suitable for operational service in that area.

Meanwhile, development of naval jet fighters had been neglected in immediate post-war years, apart from these Sea Vampire trials, although deck landing trials had been made with a Meteor F.3 fitted with a Sea Mosquito-type arrester hook under a strengthened rear fuselage, and Derwent 5 Gas-turbines of greater thrust; also, prototypes of the Hawker P.1052 and Supermarine Type 510 were both fitted with arrester hooks and made deck landing trials.

Development of the Attacker, Sea Hawk and Sea Venom from prototype to production status proceeded surely, although slowly. But past neglect has been such that in 1954 our strength in jet fighters approximates that of the U.S. Navy in 1946, and it was not until 1951 that the Royal Navy's first operational jet fighter squadron was formed. One squadron of Supermarine Attackers, five of Sea Hawks and Sea Venoms, besides one of Wyvern airscrew-turbine strike fighters; is this not a pitiably small force to have built up during the nine years since the first deck landing by a British jet fighter?

"Already obsolescent"

This country's talent for adapting an excellent invention to a new use and then neglecting it seems to be demonstrated to its full extent in naval jet fighters. Even to-day's "jam"—namely, At-Hawks and two of Sea Venoms, Venoms—are already obsolescent, being straight wing designs with centrifugal flow gas-turbines, and none of them could exceed 600 m.p.h. by a really comfortable margin. Future prospects are, however, brighter. Supermarine's Type 525, which has been described as the fastest and most powerful aircraft ever designed for carrier operations, has, like its predecessor, the Type 508, two Rolls-Royce Avon gas-turbines mounted side by side in the rear fuselage, and its swept back wings and tail surfaces will enable it to attain higher Mach numbers.

The Type 525 is an intermediate step between the Type 508 and a later Supermarine swept wing fighter, ordered in substantial quantity for the Fleet Air Arm, and capable of carrying air-to-air guided missiles or an atom bomb. Such a type will form the spearhead of future British carrier-based air power.

Supplementing Sea Venom all-weather day and night fighters is de Havilland's D.H.110, a two-seater, swept wing development of the well-proven Vampire and Venom formula, capable of supersonic flight and powered by two Avon gas-turbines mounted side by side in the fuselage.

The D.H.110, which, according to a French magazine, is named Sea Vixen, has its pilot's cockpit offset to port and the second crew member housed in the fuselage, to which he gains entrance by means of a hatch on top of the starboard side of the fuselage. Both crew members are provided with Martin-Baker ejector seats.

An all-moving tailplane in place of the normal fixed tailplane and movable elevator was fitted a few months ago. Together with Supermarine's new design previously mentioned, the D.H.110 would, if ordered in quantity, become the Fleet Air Arm's most important jet fighter. The French magazine previously mentioned has also stated that a pre-production batch of five is on order.

Such, then, is the jam that Fleet Air Arm units may expect tomorrow. To-day's equipment is excellent, and although admittedly small in quantity, energetic steps are being taken to increase production; nearly 200 Sea Hawks, for instance, have been paid for out of U.S. Navy funds under off-shore procurement. Further developments of this type are the Sea Hawk F.2 and F.B.3, both of which are in production by Sir W. G. Armstrong Whitworth Aircraft, Ltd., besides Hawker's.

They incorporate numerous detailed improvements about which nothing may yet be said. The Sea Venom F.(A.W.)21 is a development of the Sea Venom N.F.20, and has improved controls and the latest electronic combat aids; dorsal fins and a redesigned cockpit hood are featured. For jet training, two-seater Gloster Meteor T.7s are mainly used at present, together with a few single-seater Meteor F.4s, but deliveries have now begun of the Sea Vampire T.22 — a two-seat, side-by-side trainer version of the Sea Vampire F.20.

Early in 1949, successful trials were made on H.M.S. *Warrior* of specially prepared, rubberised deck surfaces upon which Sea Vampires were landed with their undercarriages retracted. Such a surface was, in fact, intended for an "undercarriage-less" aircraft. These Sea Vampires were flown level a few feet from the deck, caught on a hook by the arrester gear, and dropped on to the special deck, landing with two or more bounces.

Since 1949, almost nothing further has been heard of these trials, and it may well be that the angled deck has made it unnecessary for naval jet fighters of the future to be without a landing gear, and has rendered the rubberised deck concept obsolete. Now that vertical take-off fighters are being actively developed for the U.S. Navy, the angled deck may in turn be rendered obsolete, and it is by no means easy to foretell what new developments carriers of 1964 or 1974 will employ to handle their aircraft.

Last month Australian, New Zealand and British warships carried out the largest naval exercises in the South East Asia area since World War II (story page 15). Pictured above, discussing the exercise, are (left to right): Commander [illegible] Crabbe (H.M.A.S. Anzac), Captain R. Rhoades (Captain "D", 10th Destroyer Squadron), Lieut.-Commander [illegible] Willis (H.M.A.S. Tobruk), Captain J. F. Whitfield, R.N. (H.M.N.Z.S. Black Prince), Captain T. K. Morrison (H.M.A.S. Quadrant), Commander J. K. Purvis (H.M.A.S. Warramunga), Commander W. K. Tapp (H.M.A.S. Arunta), [illegible] Lieut.-Commander E. J. Thorne, R.N.Z.N. (H.M.N.Z.S. Pukaki).

—"Daily Telegraph" photo.

NEWS OF THE WORLD'S NAVIES

First of new class patrol boats

H.M. fast patrol boat *Dark Aggressor*, the first of a new class powered by Napier Deltic diesel engines, was accepted by the Royal Navy on June 3 from Messrs Saunders Roe at their Beaumaris (Anglesey) yard.

Boats of this class are of composite construction, aluminium alloy is used for the framing and for the deck. The hull is planked with two diagonal mahogany skins. The craft are 71 ft. 4 in. in extreme length and they have a beam of 19 ft. The maximum draught is 6 ft. 1 in. and the fully loaded weight is 64 tons. The hull of the boat is of hard chine form which has been developed to give good seagoing qualities combined with high maximum and cruising speeds.

The boats are constructed so that they can be armed either as gunboats or as torpedo boats, for a dual role.

Comprehensive radio and high definition radar installations are fitted. A company of up to 12 officers and men can be accommodated.

Admiralty enters elephant trade

The sun never sets on the minor problems of the Admiralty. Perhaps not the smallest, since wild elephants are its subject, is the problem which beset the Senior British Naval Officer, Ceylon (Captain D. H. F. Hetherington, D.S.C. and two Bars, R.N.). Admiralty recently received the following signal from him:

"Wild elephants having entered Chinanvadi oil fuel depot by breaking down perimeter fence, remain in the depot. Besides causing damage, they are having a serious effect on morale of workpeople. Ceylon Zoological authorities, approached for advice on removal of elephants, have offered to capture them at an average cost of 2,500 rupees (about £A234) per animal, on condition zoo would keep selected females and credit Admiralty with proceeds of any sold. Ceylon Government will not agree to shooting of elephants unless capture proves unsuccessful. It would appear that about 12 elephants are concerned. Approval is requested to accept above offer."

Faced with this signal, the Admiralty had no alternative but to enter the elephant business in partnership with the Ceylon Zoo. The following reply was sent:—

"Approved. White elephant is traditionally attributable to the Headquarters Vote. Pink elephant to the Medical Vote. In this case, for administrative convenience, expenditure should be charged to Fleet Fuelling Services. Proceeds from selected females, if any credit arises, will be considered at appropriate time."

A-powered sub's sea trials

The United States Navy Secretary (Mr. Charles Thomas) said last month that extensive sea trials the atomic submarine *Nautilus* was conducting in the Caribbean Sea were turning out better than expected.

When scientists planned the *Nautilus*, he said, some thought the crew would have to be composed of nuclear physicists and chemical engineers.

"But we are now finding that our bluejackets are just as capable of handling her revolutionary power plant as they are in guided missiles, radar, and jet engines," he said.

Queenborough's part in Atlantic exercises

The Captain of the fast anti-submarine frigate H.M.A.S. *Queenborough*, Commander D. C. Wells, R.A.N., has reported to Navy Office, Melbourne, that his ship recently took part in a series of exercises off the Scottish Coast and westward of Iceland with units of the Royal Navy.

The exercises were held in stormy weather, with gale-force winds at times.

The *Queenborough*, one of the most modern ships in the Royal Australian Navy, sailed from Sydney last February for the United Kingdom to gain experience in hunting fast, long-submersible submarines and in the capabilities of her weapons and detecting equipment.

In the course of the exercises reported by Commander Wells, a series of three attacks on an "enemy" submarine within less than a quarter of an hour were followed by a signal, "Well done Australia," from the Captain of the Sixth Frigate Squadron with which the *Queenborough* was operating.

Royal Navy College celebrates jubilee

The Britannia Royal Naval College, Dartmouth — University of the Royal Navy—will celebrate its 50th anniversary this year. Although Naval Cadets have been trained at Dartmouth since 1863 in the training ship *Britannia*, berthed in the river, it was not until the completion of the college in September, 1905, that Naval Cadets at Dartmouth came ashore for training.

Since that time more than 11,000 cadets have passed through Dartmouth.

600 NST's in new call up

Six hundred national servicemen from all Australian States begin their training with the Royal Australian Navy on July 11.

It is known as the Sturt call-up in honour of the famous Australian explorer. All R.A.N. call-ups are named after prominent Australians.

Eighty-five of the national servicemen come from Queensland, 180 from New South Wales, 135 from Victoria, 60 from South Australia, 30 from Tasmania, and 110 from Western Australia. Depending upon the branches in which they will serve they will do their preliminary training either at Flinders Naval Depot, Crib Point (Vic.), H.M.A.S. *Penguin* at Balmoral (N.S.W.) or H.M.A.S. *Leeuwin*, Fremantle (W.A.).

Those who enter Flinders Naval Depot or H.M.A.S. *Penguin* will spend about seven weeks at sea in the aircraft carrier *Sydney*. Those who enter H.M.A.S. *Leeuwin* will do their sea time in the minesweepers *Fremantle* and *Junee*.

Suitable national servicemen between 18 and 20 will be given opportunities to gain commissions in the permanent naval forces. Those selected as potential officers will do 12 months training in the United Kingdom under the Royal Navy Upper Yardmen's scheme. In the days of sail upper yardmen were the most intelligent and most physically fit ratings, who were allowed to man the upper yard arms or yards of their ships.

Navy's research in Channel swim

When the international swimming race across the English Channel takes place this year between August 10 and 16, the Admiralty and the British Medical Research Council will co-operate in physiological investigation of the swimmers to investigate the effect of prolonged energy expenditure under cold and immersed conditions and to study resultant biochemical changes.

The Admiralty's interest is purely scientific. It is not responsible for the organisation of the race or for the safety of the swimmers.

Eighteen swimmers are expected to compete in the cross Channel race. They will enter the water at Cap Gris Nez. Each will be accompanied by a rowing-boat and a motor-boat. Medical bases will be set up at Dover and Folkestone and an elaborate communication system will be organised between the boats, judges, and the research team.

One of the major factors to be assessed is the importance of fat distribution in the body in relation to prolonged swimming in cold water. To that end, the fat distribution of all swimmers, and other physiological data, will be recorded before and after the swim. Any swimmer forced to give up will be examined immediately by physiologists travelling in Naval launches.

This year's comprehensive investigation has been sponsored by the Survival at Sea Committee of the Royal Naval Personnel Research Committee. It will be supervised by Doctor L. G. G. Pugh, of the Medical Research Council, who took part in the successful expedition which climbed Mount Everest, and Doctor O. G. Edholm, who carried out physiological investigations during last year's Channel swim.

BIRTHDAY HONOURS

Seven members of the Royal Australian Navy figured in the Queen's Birthday Honours List. They are:

Order of the Bath—

Commander: Rear-Admiral Roy Russell Dowling, C.B.E., D.S.O., First Naval Member and Chief of the Naval Staff, R.A.N.

Order of the British Empire—

Commander: Captain (S) Edward Hamilton Leitch, R.A.N.

Officer: Instructor Commander Haydn Guest, R.A.N.

Member: Lieutenant Arthur Alfred Andrews, R.A.N.; Lieutenant (L) Edward Blatchford, R.A.N.

British Empire Medal—

Petty-Officer Raymond Campbell-Foord, R.A.N.; C.P.O. Stoker Mechanic John Whittaker Wall, R.A.N.

"Wish not to live long as to live well."

—Benjamin Franklin

He Overdid the Nelson Touch...

By G. V.

IN THE YEARS following the the first world war, a flotilla of submarine chasers was stationed at Portland with a view to evolving a standardised form of tactics for attacking submarines, based on experience gained during that war and to developing Asdic instruments of detection then in their infancy.

Exercises at sea were normally carried out against a submarine from Monday to Thursday inclusive, Friday mornings being devoted to an analysis of the week's exercises, followed in the afternoon by a joint meeting between the submariners and their hunters at which appreciations by both sides were compared, lessons noted and further exercises planned.

Various classes of submarines acted as targets, many different forms of evasive action were carried out by them, and on occasions the commanding officer of a chaser would go out in the hunted submarine in order to see "the other side of the hill." In this way steady, if unspectacular, progress was made: but from the nature of things there could be no finality to the problem. The greater the progress made by the hunting craft, the cleverer became the evasive tactics adopted by the submarines and vice versa.

However, one fine day everything was thrown into the melting pot when information was received that in the near future an "M" class submarine, mounting a 12-in. gun, would be sent to Portland for exercises with the submarine chasers. Here was a pretty large sized cat to let loose in the dovecot! Apparently it was money for jam: all the submarine had to do was to encourage the attack instead of trying to evade it, and then surface at a range when she could be certain of blowing her attackers out of the water with her 12-in. gun long before there was a hope of the chasers getting within depth charge attacking range.

On the Friday before MI was due to reach Portland, the usual joint conference did not take place. Instead, the commanding officers of the chasers sat in conference by themselves to discuss ways and means.

"What would Nelson do?" Undoubtedly apply his well-known maxim, "You can never lay your ship too close to the enemy;" and the suggestion that our best hope of success lay in the application of this maxim was unanimously endorsed.

In other words, the tactics of the chasers (who carried out their search in units of three) would be to approach the target with the maximum of caution and the minimum of speed until the submarine was well and truly inside the triangle Then—and not till then—was the depth charge attack to be commenced, and if this forced the submarine to the surface, she was to be rammed before she could bring her monstrous weapon into action.

By the time this bold plan had been worked out in detail, one began to wonder what steps Nelson would have taken to ensure that he was in the first chaser to ram the submarine on surfacing: but it was generally agreed that the plan as outlined embodied sufficient of the Nelson touch.

Monday morning broke clear and calm. The submarine left harbour some time in advance of the chasers, being given ample time to submerge in the target area chosen for the day (in this case West Bay) before the chasers could spy out the area in question. The three chasers followed in due course.

For some time the hunt proceeded along normal lines, with perhaps rather more false echoes than usual, until at the end of about a couple of hours one of the chasers reported a "certainty" —shortly to be confirmed by one of her consorts. The hunt was on! In accordance with the prearranged plan of attack, a *silent* approach was the salient factor, and all efforts were bent to get our quarry in the very centre of the triangle before trying to depth charge her.

The plan appeared to be working out well. The submarine was maintaining a steady course for long periods at a time and proceeding at slow speed, both of which factors pointed to the fact that she was still ignorant of being tracked; and barring accidents it looked as if we should succeed in our aim within the next half hour. Excitement rose high on the bridges of the three chasers as we overhauled our target until at about 2.30 p.m., echoes from two of the chasers placed the target well inside the triangle.

The signal was then given for the submarine to surface. Shortly afterwards there was a horrible noise of rending plates, followed by a startled report from the engine room of the senior officer's chaser that a submarine's periscope had come up through the three-eighths bottom plating and that water was entering through the hole. I went down to the engine room to verify this peculiar happening and saw that not only was there about 9 ins. of periscope, but so bent over that any effort to withdraw it must inevitably result in considerably enlarging the hole.

A hurried consultation with the submarine took place.

"Shall I try and withdraw my periscope?"

"Please not until we have got a collision mat in position ready to place over the hole. How do you propose to withdraw it?"

"By steaming into deep water and submerging;" and this was the method eventually adopted of freeing the periscope, though who was towing whom during the passage to deeper water was anyone's guess.

As soon as the submarine was satisfied as regards the depth of water under her, the chaser shifted the collision mat as close as possible to the spot where the periscope had penetrated and as the submarine submerged (considerably enlarging the hole in the process) the mat was quickly positioned so as to cover the entire hole, after which course was shaped to return to Portland Harbour.

In the meantime the dockyard was informed of the facts and requested to make arrangements to deal with the cripples on arrival.

Certainly Nelson himself could not have placed his ship nearer the enemy: but by the time the necessary reports had been rendered, board of inquiry assembled, and all the aftermath of damaging two of H.M. ships cleared up, some of us were left wondering whether it was possible on occasions to show too much zeal for this particular maxim of Nelson!

—From the London "Navy."

BIG NAVY EXERCISE

AUSTRALIAN, British, and New Zealand warships last month completed the biggest post-war naval and air exercises in the South-East Asian areas.

The naval force comprised 15 warships, including cruisers, destroyers, frigates, and submarines.

It steamed more than 2,500 miles, intercepting small craft which simulated landing forces on the Malayan coast.

The Fleet Commander for the exercises, Vice-Admiral R. F. Elkins, said it had been proved that ships using radar could prevent the invasion of Malaya by infiltration down the east coast — the strategy used during the last war by the Japanese.

"Maritime air squadrons provided all I wanted for anti-submarine and anti-radar exercises," he said.

"But I should have liked an aircraft carrier to operate in attack and defence of convoys in addition to land-based aircraft.

"It must be remembered that land-based aircraft are employed on other operations and, therefore, cannot always be spared for the sort of exercises we have been doing. Nor are they necessarily equipped to do so."

The R.A.N. ships were the destroyers *Tobruk*, *Anzac*, *Arunta*, and *Warramunga*, and the anti-submarine frigate *Quadrant*.

Describing part of the exercises, a Naval Correspondent in H.M.A.S. *Tobruk* wrote:

"Nine submarines were sunk by ships and aircraft of British Commonwealth countries escorting a convoy of four Royal Fleet auxiliaries in exercises in the South China Sea. The Royal Australian Navy ships *Quadrant* and *Arunta* sank one of them. The New Zealand cruiser *Black Prince*, acting as an enemy raider, unsuccessfully attacked the convoy five times.

"Co-operation between ships and aircraft to defeat attacks by the raider and submarines have been a feature of the exercise.

"The R.A.F. and R.A.A.F. provided a continuous air patrol.

"During the exercise the ships refuelled two at a time from tankers. The convoy did not stop while the fuelling was going on."

In an earlier dispatch the correspondent gave this eye-witness account of an "engagement" in which the *Tobruk* took part:

"The 'enemy' were coastal craft of the Royal Malayan Navy.

"Heavy rain squalls reduced visibility considerably but ships' companies waited in a state of readiness all night.

"In the *Tobruk*, gun crews took up action stations in the turrets immediately reports came through from the bridge that the opposing craft had been detected. Star shells which they fired illuminated the area and revealed the 'enemy' ships which were quickly seen and 'sunk'."

After the exercises the *Anzac* and *Quadrant* visited Manilla and the *Tobruk*, *Arunta* and *Warramunga* visited Bangkok.

Following these visits, the ships returned to Singapore where the *Arunta* and *Warramunga* will be based until the end of the year as part of the S.E.A.T.O. strategic reserve.

. . . . . .

"Man moves himself, but God leads him."

—Fenelon.

Shipping Recovery by Germany and Japan

By "Bluenose" (in London)

SOME ten years ago a realist looked up from one of many articles discussing the division of the "cake" of German and Japanese pre-war carryings among the shipping of the Allied countries. "I wonder," he said thoughtfully, "I wonder. Somehow I don't see either the Germans or the Japs taking it like that."

How right that realist was! Most of those forecasts assumed that both Germany and Japan would never reappear on the shipping routes—a manifest absurdity to anyone who knew either country. So to-day they are both active again, Japan with some 3,000,000 tons and an avowed target of 4,000,000 tons by 1958; Germany with just over 2,000,000 tons.

The German recovery has taken place largely within the last four years. It was not until 1951 that the Control Commission restrictions on size and speed of ocean-going ships were removed and it became feasible for German owners to re-enter the liner trades. Her principal companies, including the Hamburg-America, North German Lloyd, Hansa Line and German African Lines, are back in the shipping conferences; and by January of this year a German correspondent could write in the *Shipping World*: "German liners are now calling again at all important seaports in the world."

These German services have developed cautiously. The lines are putting some remarkably fine vessels on the berth, but their expansion is slow. In many cases two lines are collaborating in a joint service, such as that run between North Continental ports and the Far East by the Hamburg-America Line and the North German Lloyd.

They have not so far attempted to re-enter the main passenger trades on any ambitious scale, except for the charter arrangements covering the *Gripsholm* and the *Italia*. Passenger facilities are provided in many of their cargo liners, however, the numbers carried varying from something under a dozen to about 80 on the H.A.L./N.D.L. Far East service. At present indeed, German shipping shows a changed pattern since 1939. A much higher proportion of its tonnage is engaged in the tramp trades, whereas before the war liner tonnage predominated to a great extent. Germany's tanker tonnage has also increased somewhat.

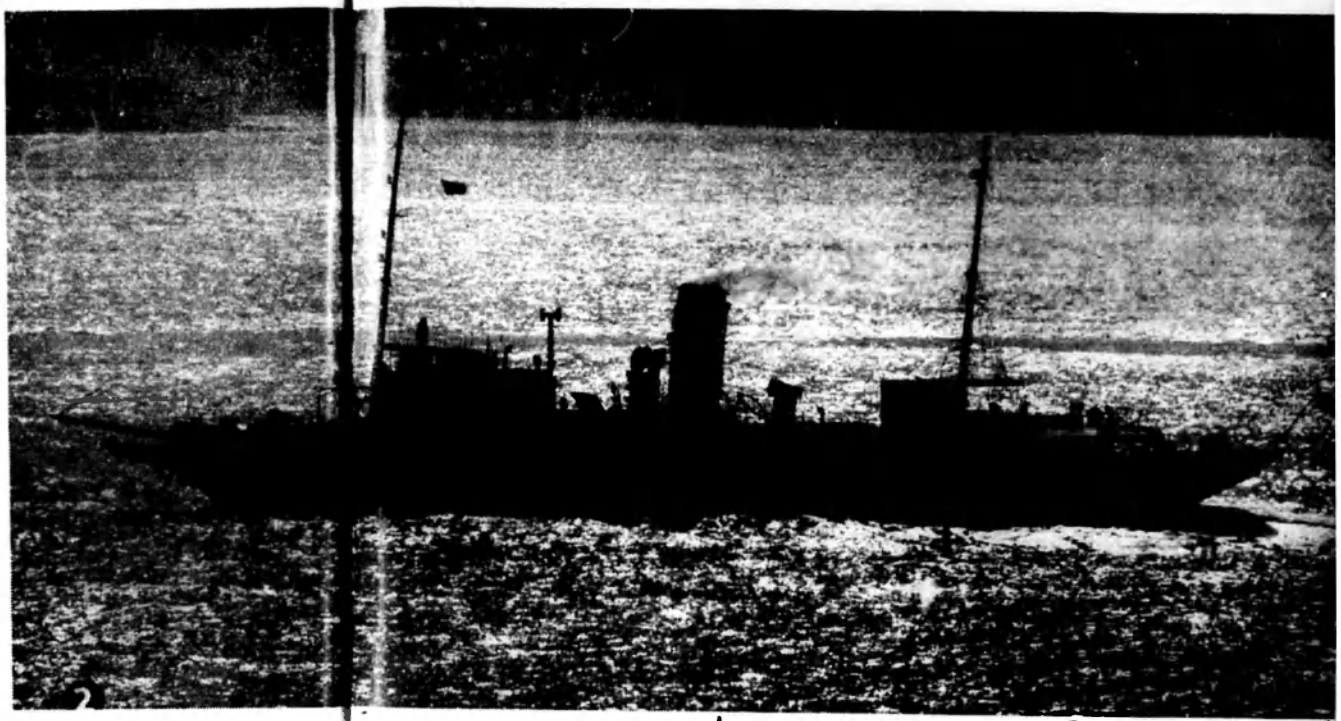
The build-up of Germany's shipping has been financed by various means. About 60 per cent. has come from loans, from recovery programme funds among other sources; and much help has been received through the so-called 7(d) provision of the income tax law, whereby firms making moneys available from profits to shipowners for building programmes could claim exemption from income tax on these amounts.

This provision was withdrawn a few months ago and various proposals have been made to replace it, including one to exempt from income tax income derived from mortgages on ships. The disappearance of 7(d) has been much lamented by German owners, who incidentally are also complaining about flag discrimination in various quarters, particularly in the South American and Turkish trades.

If Germany's expansion has been comparatively slow, Japan has followed a different path. It was the policy of America, as the principal occupying power, to get Japanese industry on its feet again as quickly as possible. Released from restrictions earlier than was Germany, Japan has rushed enthusiastically into the rebuilding of her merchant fleet; and, unlike Germany, she concentrated on the liner trades.

This again is a reversal of the pre-war position, when tramps formed a high proportion of Japanese shipping. To-day fast, new cargo liners under the Japanese flag are operating on routes between Japan and various South American countries; the United States (both East and West Coasts and also American Gulf ports); India and the Persian Gulf; Malaya and Indonesia; Australia; and the United Kingdom and Continent.

Some of the companies concerned belonged before the war to the freight conferences covering the various trades. They have now applied for readmission and have generally been granted it, though normally on a basis of fewer sailings than in 1939.



Often called "Sydney Harbour's watchdog," the pilot steamer "Captain Cook" shows her graceful lines against the morning light as she glides back to harbour after a pilotage job.
—"Sydney Morning Herald" photo.

Certain companies, however, with no pre-war rights, have been refused admission to the conferences and have been operating as outsiders, accepting cargo at less than conference rates. As a result wars have developed in a number of trades, notably that between Japan and the United States; Japan/Malaya (where freights on raw rubber have been forced to a very low level); Japan/U.K./Continent; and Japan/Persian Gulf. In the last named trade the war has recently been settled by the admission of the outsider to the conference; but in other cases the trouble continues, and Japanese lines which already belong to the conferences are opposing their interloping compatriots.

Japanese rebuilding has been financed to an even greater extent than German by loans, the majority from the Japan Export-Import Bank and the Long-Term Credit Bank. Only about 10 per cent. came from private banks. There has also been Government aid in meeting the interest on these loans. In addition, there have been both open and concealed subsidies designed to keep down the cost of shipbuilding.

Under this scheme a contract to build a ship was linked to a licence enabling the builder to import a quantity of a commodity (usually sugar) which could be sold at a favourable price to offset a potential loss on the shipbuilding contract. This system has also been discontinued, but other schemes are at present under discussion whereby shipbuilders may be helped to reduce prices. Some of these will operate to assist orders from oversea only, but others will, if accepted, benefit Japanese owners as well.

This assistance with the finance of shipping recovery links the whole operation to the Government plan of industrial recovery for Japan. Each year the tonnage to be built is set out as a target by the Government; and the aim is acknowledged to be 4,000,000 tons by 1958. This will give Japan a merchant fleet roughly equivalent to her 1934-35 tonnage, though smaller by 3,000,000 tons than in

1939. By the latter year, however, she had already begun to build up her fleet in preparation for a probable war.

Her present intention is to carry at least half her own trade; and there are indications that she may be anxious to secure certain American "aid" shipments also. Whether or not she succeeds in that ambition, she has produced a distinctly shaky financial structure in much of her shipping industry. It is not operating on an economic basis and is overweighted with loans, even though their amortisation has been postponed practically indefinitely under the provision that subsidies need not be repaid until companies are able to earn 15 per cent. profits.

A recent move towards rationalisation has been to link the main companies into five groups to reduce internal competition.

Japan's activity, and the methods she has used to rebuild her shipping services, are viewed with misgiving by British shipowners. Their feelings were expressed in the annual reports of the Chamber of Shipping, and of the Liverpool Steam Ship Owners' Association. Their attitude was also explained very frankly by the Parliamentary delegation which visited Japan at the end of 1954. It was pointed out that a satisfactory solution to shipping problems would be impossible if Japan continued to operate in the international markets on what we could only consider an uneconomic basis, bolstered up by State aid.

The Japanese reaction to this is not encouraging. She argues that British shipowners received compensation from the Government for war losses — the "colossal" sum of £268,574,000 for 1,719 ships lost. They were thus able to rebuild their depleted fleets at the most favourable time, when there was a "shipping-boom" after the war.

Against this, it is asserted that Japanese owners, however, received no compensation, though their fleets were virtually wiped out, and the subsidies which have been granted are really no more than is justly due to them in view of their losses. Further, owing to restrictions placed on them by the Allies, they were unable to take advantage of those first post-war years to rebuild. Lastly, great play is made with Japan's position as an island country dependent on her merchant navy both to carry her essential trade and also to earn indispensable foreign exchange to balance her national accounts.

The case has been set almost *ad nauseam* in various articles in the Japanese press. It is always dangerous to judge from a translation, but the undertone appears to be one of self-righteous indignation: Japan is seen as the injured party, deprived of half her territories and one-quarter of her capital resources. Through these articles has penetrated to me a faint echo of the voice of a Japanese who visited this country about five years ago. Japan, he said, had made a grievous mistake. She acknowledged it and had learnt her lesson. She should never have attempted to

Continued col. 3, page 19

R.N. Commands Now Divided Into Sea and Shore Lists

The Admiralty has divided the lists of executive captains and commanders into two lists, the "Post List" and the "General List."

ONLY those officers placed on the Post List will be eligible for sea-going command. Those on the General List will be eligible for appointments in command of shore establishments and for staff and administrative duties.

These lists have not been adopted in the Royal Australian Navy because the necessity does not arise.

In a recent statement explaining the sea-going and non-sea-going lists, the Admiralty stated that the change had been made necessary by the "inevitable reduction in the number of sea-going appointments for executive officers of the rank of commander and above, and by the increase in requirements for officers of these ranks in staff and administrative appointments and in international staff."

"It has become no longer possible to provide all executive captains and commanders with sufficient sea-going experience to ensure that those ultimately selected for higher operational appointments have the full measure of up-to-date experience in command at sea essential for the efficiency of the Fleet," the statement added.

"The Board of Admiralty has for some years been much concerned with this problem; but it has so far been able to defer any corrective action owing to the intensive sea experience acquired during the last war by many of the present senior officers. The position is, however, now been reached when it becomes necessary to restrict the number of executive captains and commanders to whom appointments in command or as second in command or as Commander (Air) at sea can be given, to ensure that the officers receive a sufficient measure of sea experience.

"All future promotions of executive officers from commander to captain and from lieutenant-commander to commander will be made to one list or the other. In addition, existing executive captains promoted to that rank on June 30, 1951, and later, and existing executive commanders promoted to that rank on June 30, 1950, and later, will now be divided into the two lists referred to.

"There will be no similar division of the Flag List, but it will automatically become divided in course of time as officers of the seniorities which are being split are promoted to Rear-Admiral and onwards."

The Admiralty's statement emphasised that officers appointed to the General List would be regarded as fully eligible for promotion both to captain and to Flag rank, although Flag appointments having operational responsibilities will necessarily be filled by promotion from the Post List. It added that it was not possible to give officers specific guarantees of percentage prospects of promotion, but both lists would certainly make their contribution to Flag rank.

The captains and commanders affected have been informed of the list to which they have been allocated. The number of officers appointed to the Post List is designed to allow most captains to receive two appointments in command afloat and to allow most commanders promoted in future two appointments in command, as second-in-command, or as Commander (Air) afloat.

SHIPPING RECOVERY

Continued from page 18

secure the leadership of the Far East by war. She knew now that she must employ moral and political means.

Recalling Japan's past, some at least of his hearers were left in no doubt that he still regarded Japan as a chosen country. As Britain has learned in the course of history, the doctrine of divine right can be a dangerous one, hallowing any means to the appointed end. I seem to have suggested before that it is difficult for the leopard to change his spots; I still think it an unlikely feat.

MARITIME NEWS OF THE WORLD

From our Correspondents in LONDON and NEW YORK

By AIR MAIL

Heroic rescue in ship blaze

The night of June 9 saw still a further page added to the annals of marine heroism, by the officers and men of the British ship *Apollo*.

In the darkness the 10,790 ton Swedish tanker *Johannishus* and the 7,256 ton Panamanian freighter *Bucaneer* collided in the English Channel. Both ships caught fire after the collision, but whereas that on the *Bucaneer* was rapidly brought under control, the tanker and the surrounding sea blazed uncontrollably.

British, French and Dutch ships raced to help and two U.S. Air Force amphibians circled overhead to spot survivors who might have cleared the holocaust.

Through it ran the 752 ton British ship *Apollo* alongside the fiercely burning *Johannishus* to take on twelve of her fourty-two man crew while the crew of *Apollo* desperately kept at bay the flames which threatened them, too, by pump and bucket brigade.

Other survivors were picked up by the Ramsgate lifeboat and by the Dutch ship *Arrak*. When rescue efforts were abandoned, nineteen of the *Johannishus'* crew were still missing.

Two Japs die after pearling dive

Two Japanese pearl divers died early last month after they had been brought up from more than 20 fathoms near Darwin.

Official reports to Darwin say "divers' sickness" was the cause of the deaths.

The two men were the first casualities among Japanese divers working off the Australian coast for two years.

The Japanese pearling fleet had been operating in Australian waters little more than a week when the deaths occurred.

The reports say the divers were operating from two different luggers.

Brought up after their spells under water they both became ill almost immediately and died very quickly.

H.M.A.S. *Emu*, a naval tug patrolling the activities of the Japanese pearling fleet, reported the deaths to the Darwin authorities.

U.K. Lifeboats have busy month

Lifeboats of the Royal National Lifeboat Institution were launched 64 times in May and rescued 80 lives.

Never before in the 131 years of the Institution's history have lifeboats been launched on service so often in May.

Many seek jobs in Antarctic

Nearly 200 Australians have applied for 17 positions on two Antarctic expeditions.

The expeditions begin at the end of this year.

The director of the Antarctic Division of External Affairs (Mr. P. G. Law) said the applicants were of a high standard.

The positions include medical officers, a surveyor, radio operators, and cooks.

Smallpox scare on British ship

Commonwealth Quarantine doctors on June 13 quarantined two seamen with chicken pox at Lytton Quarantine Station, Brisbane.

The seamen, a white officer and a coloured crew member, are from the 7,461-ton British motorship *Triadic*.

The *Triadic*, bound for Melbourne from Nauru, was diverted to Brisbane when it was thought the men had smallpox.

Doctors boarded the *Triadic*, examined all the crew and passengers, and fumigated the quarters occupied by the men.

The *Triadic* was allowed to proceed to Melbourne that afternoon.

Atom power passenger liner predicted

A member of the U.S. Federal Maritime Board, Mr. G. Joseph Minetti, has predicted that atomic energy will power an Atlantic passenger liner in five to six years' time.

He said the United States Shipping Line had begun discussions with the U.S. Government for a subsidy for the A-powered ship.

The Merchant Marine Committee of the U.S. House of Representatives last month authorised immediate construction of two atomic-powered ships. The Committee endorsed President Eisenhower's nuclear "peace-ship" proposal and decided on a second atom-power ship to promote the merchant marine.

22 holiday-makers drowned in barge

Twenty-two people drowned last month when a pleasure boat sank about 200 yards off the Normandy coast, near Caen, France.

The vessel was a former American landing barge used for tourist trips.

Police said that all the victims were French.

About thirty holiday-makers were on the old landing barge for a short trip when its motor failed and it became stranded near shore.

Some passengers managed to wade ashore before the swiftly rising tide swamped the barge.

Young members of the party then swam ashore, but older couples drowned within sight of friends on the beach.

Trawler sunk in rescue attempt

A 15-ton fishing trawler was badly holed by a submerged rock in Newcastle Harbour (New South Wales) late last month while trying to assist another fishing boat in distress.

The trawler, *Red Fish*, struggled up the harbour for about a mile, then sank in 15 feet of water.

The trawler had just returned from a fishing trip when the other vessel got in difficulties.

A strong southerly wind was blowing it toward the Stockton breakwater.

The crew of the *Red Fish* worked in close and got a line on board, but as she was pulling away she struck a submerged rock.

The other was later taken to its mooring under its own power.

Mr. J. W. Brophy

The Collector of Customs in New South Wales, Mr. J. W. Brophy, was made an Officer of the Order of the British Empire in the Queen's Birthday Honours List.

An Anniversary to Remember

By JOHN K. LAVETT

President, The Royal Society of St. George

WEDNESDAY, June 15, 1955, marked the 740th anniversary of the sealing of Magna Carta by King John near Runnymede—one of the most important and dramatic scenes in the whole of English history.

Magna Carta, or the Great Charter, was not, in itself, a piece of revolutionary legislation, but it embodied the basic principles of English political progress. It proclaimed the fundamental principle that no man—high or low, king or noble, gentle or simple—may override or break the law of the land with impunity, and that none has power to change the law without general assent. Magna Carta is still part of the law of the land, just as much as any new law passed by Parliament to-day. It will ever remain an outstanding landmark in the liberties of the English people.

It is well that we should ponder over the subject and remind ourselves of what it means to all of us in these times when liberties are being lost or filched away in other countries and when subversive organisations within our own portals are attempting to undermine the freedom our forebears so ardently won.

With tolerance, with goodwill, with the desire to serve, with the aim of co-operation and advancement of moral standards, we can have enduring peace and a world fashioned in harmony. The same spirit that animated men of noble ideals to cleanse our Empire of tyranny and darkness in the past must animate us in the present-day world. There is no other way.

We must respond to the call of service, and not only desire but work to make life on earth better, fairer and richer for all . . . and thus help to perpetuate the good that has come from Magna Carta.

These naval ratings examine with interest a chart of part of the area covered by the combined naval manoeuvres, which ended last month (story page 15).

—"Daily Telegraph" photo.

THE COLD WAR IN ASIA

By Neville Smith — The Call Office

If there is one benefit to be gained from the quickening of the cold war in Asia, it is leading to the arousing of Australian interest in affairs and problems there. Today more attention is being paid to Asia in Australian press, radio and public discussion than even five years ago. New terms like SEATO and ANZUS have become commonplace.

Communism has not halted in its southward march toward our shores, but in some places it has slowed down. Communist candidates, for example, suffered severe defeats in two parts of India where they expected to make progress—Andhra and Travancore. Local issues are clouding the picture of Indo-China. The non-Communist Government of Burma is growing stronger.

But any aggression that will threaten Australia from Asia will come from Communism, particularly if the terrible economic and population problems pressing on Japan drive her into closer relationships with Communist China.

Strong efforts are being made to keep Japan on the side of the Western nations, but these nations are reluctant to trade with her, supply her with raw materials or give her outlets for her surplus population. Here are 88 million people, increasing at the rate of a million a year, living on a group of islands with one-hundredth the arable land that Australia has. It is a problem.

Japan herself is not likely to try conclusions again in a "hot" war, but with her economic and manufacturing aid, Communism would get a fillip in its persistent drive southward into the countries not yet under its control. It is a situation that we in Australia should watch carefully.

* * * * *

"The reward for a good deed is to have done it."—Elbert Hubbard.

With officers and men dressing ship, the aircraft carrier Vengeance is shown drawing away from Garden Island, Sydney, on her voyage back to the United Kingdom. The ship was on loan to the Royal Australian Navy pending the completion of the new carrier, H.M.A.S. Melbourne.

— Sydney Morning Herald photo.

The "Noah's Ark" Look

A NUMBER of small craft with superstructures of curious ark-like appearance have recently been seen in the Solent and at Spithead; a number of them are moored in Haslar Creek, Portsmouth.

The appearance of these modern "Noah's arks" is the outcome of a Reserve Fleet programme for the preservation of newly constructed inshore minesweepers which are put into reserve on completion.

To build up its minesweeping forces, the Navy has constructed a large number of these vessels at a cost of nearly a quarter of a million pounds for each vessel. About one-third of the completed craft are being commissioned for service and the remainder are put in reserve and preserved in readiness for use at short notice in emergency.

It is intended that eventually the craft shall be laid up ashore and under cover, but facilities to do this will not be available for some time and temporary arrangements for their preservation have had to be made.

All new craft go first to H.M.S. *Diligence*, the Navy's small craft base at Hythe. There they undergo naval trials. Those to be placed in reserve are subsequently sent to contractors, who ensure the satisfactory preservation of their hulls and machinery. When returned to the Navy they are towed to Portsmouth and temporarily laid up in Haslar Creek.

The craft will remain afloat in their temporary berths for more than two years, fitted with removable wood awnings made in sections which can be easily dismantled. These wood awnings give them the 'Noah's ark" appearance and provide satisfactory protection against long exposure to sun and rain.

Several methods of preservation were tried by the Navy, but it was found that the "Noah's ark" system gave the best protection against the possibility of shrinkage or dry rot in the wooden parts of the ship and corrosion of deck fittings and instruments.

Although at first sight the structures appear unseamanlike and unwieldy, they have already proved their value, and consideration is now being given to the possibility of fitting similar structures to some of the numerous larger coastal minesweepers which are being also maintained in reserve.

The first "Noah's ark" structure was fitted in H.M.S. *Bedham* late last year and after satisfactory stability tests the craft was towed to Portsmouth from Poole. At present twelve craft with "Noah's ark" superstructures are in Haslar Creek.

Since H.M.S. *Diligence* was commissioned in March, 1953, nearly 100 craft have been received from contractors, equipped, tested, and passed on for active service or to reserve by the base staff. The craft include new and converted minesweepers. About 250 specially designed coastal and inshore minesweepers have been built or are building for the Royal Navy under a post-war construction programme at a cost of nearly £100,000,000.

A considerable amount of valuable work in connection with the problems of preserving and maintaining these craft in reserve has been undertaken at the base.

SUBMARINE'S VALUE IN POLAR WARFARE

Atomic-powered submarines attacking under the frozen surface of the Arctic seas could be the West's answer to any Russian aggression, the Australian Polar explorer, Sir Hubert Wilkins, said recently.

Sir Hubert said the great depth of the Polar seas, combined with unusually clear water, made war operations possible for atomic-powered submarines, which could stay submerged for indefinite periods.

In a war in the far north, aircraft from Alaska and other bases would have to smash through a heavy Russian network of aerial defences, he said. Submarines, however, could move without much protection, could launch their missiles, and disappear as unobtrusively as they came.

Submarine Captain Played Scarlet Pimpernel Role

The Admiralty has announced the promotion to Captain of Commander E. J. D. Turner, D.S.O., D.S.C., R.N., commanding the Fourth Submarine Squadron based in Sydney. He has commanded the squadron since June, 1953.

CAPTAIN TURNER was born in Scotland in 1914 and joined the Navy in 1936. First commissioned in 1938, he volunteered and was accepted for submarines the following year.

In the first year of the war he served as liaison officer in the French submarine *Rubis*, which carried out highly successful mine-laying operations in Norwegian waters. For his services Lieutenant Turner was awarded the D.S.C. and the Croix de Guerre.

His first command was H.M. Submarine *Sibyl* in which he carried out a series of successful war patrols and special operations in the Mediterranean in 1942-4.

Probably the most interesting of the *Sibyl's* special operations was that ordered for the day before the Allied landing in North Africa. General Giraud had already been picked up by a sister craft when the *Sibyl* was ordered to find and embark members of his staff. To quote from "His Majesty's Submarines":

"The last of these missions took place the following day when the submarine *Sibyl*, commanded by Lieutenant E. J. D. Turner, D.S.C., R.N., was despatched to a rendezvous off the South coast of France. The *Sibyl* reached the rendezvous and felt her way inshore until she was 300 yards from the beach. A couple of hours were passed waiting and watching the flashes of trains and the headlamps of cars moving along the nearby road; then out of the darkness a small boat appeared. Lieutenant Turner leaned down from the conning tower to demand the password, when a woman's voice called softly through the darkness:

They seek him here, they seek him there.
Those Frenchies seek him everywhere.
Is he in heaven? — Is he in hell?
That demined elusive Pimpernel?

"Seven officials of General Giraud's staff climbed on board, including the lady who, it is said, adapted herself most quickly to submarine life. Not only did she adjust herself to her strange and cramped quarters, but she earned the admiration of all on board."

While in command of H.M.S. *Sibyl*, as a lieutenant, Captain Turner was awarded the Distinguished Service Order.

Captain Turner's promotion is effective from June 30.

Earl Mountbatten

The First Sea Lord, Admiral the Earl Mountbatten of Burma, K.G., will soon visit Canada and the United States, where he will meet the Chief of the Canadian Naval Staff and the Chief of Naval Operations, United States Navy, to exchange views on Naval matters of mutual interest.

Admiral Burrell

The Flag Officer Commanding the Australian Fleet, Captain (Acting Rear-Admiral) N. M. Burrell, C.B.E., A.D.C., has been promoted to the rank of Rear-Admiral, effective July 7.

Rear-Admiral Burrell became Flag Officer Commanding the Australian Fleet last February. Before that he had held the appointment of Deputy Chief of the Naval Staff, after relinquishing command of the aircraft carrier *Vengeance*.

Rear-Admiral Burrell's earlier sea commands were those of Captain of the destroyer *Bataan* and Captain (D) 10th Destroyer Flotilla and Captain of the cruiser *Australia*.

In 1950 he attended the Imperial Defence College in London and, subsequently, the Senior Officer's Technical Course, at the conclusion of which he was appointed Assistant Defence Representative in London.

Rear-Admiral Burrell, who was born on August 13, 1904, graduated from the Royal Australian Navy College as a cadet-midshipman in 1921. He was promoted Commander in 1940, Captain in 1946 and granted the acting rank of Rear-Admiral in February of this year.

Captain Harrington

Captain W. H. Harrington, D.S.O., R.A.N., has been appointed captain of the aircraft carrier *Sydney* and will take up his appointment on July 6.

Continued on page 28

REVIEWS

"History of U.S. Naval Operations in World War II. Vol. IX. Sicily-Salerno-Anzio." By Samuel Eliot Morison. (Oxford University Press, Geoffrey Cumberlege, London.)

Professor Morison's ninth volume covers operations in the Mediterranean from January, 1943, to June, 1944 — from the invasion of Sicily to the break-out from the Anzio beach-head.
the invasion of Sicily to the break-out from the Anzio beach-head.

So far as the navies were concerned, their operations were either wholly amphibious or in support of amphibious landings; but the author remarks, "Although the constant and recurring theme of this volume is the landing of troops on hostile shores, there is a secondary theme which rises to major importance in the course of the story; naval gunfire support of troops ashore. . . . Frequently, in Italian or German sources, we find that this ferocious and devastating intervention of the Allied Navies was the crucial factor that forced Axis ground forces to retire."

The keynote of Professor Morison's story of the campaign covered in this volume is the magnificent degree of cooperation that was achieved between the British and United States Navies.

He quotes Sir Andrew Cunningham's words about Admiral Kent Hewitt, U.S.N., that "We worked together like brothers and we became the greatest of friends" — words which would be echoed by every British naval officer who was fortunate enough to be thrown into contact with Admiral Hewitt, and the historian's own judgment is that "the United States and British Navies, first under Admiral of the Fleet Sir Andrew Cunningham, R.N., and then under Admiral Sir John Cunningham, R.N., acted in a close and intimate concert that had hitherto been considered impossible."

On the subject of the close cooperation between different arms he writes, "Both Navies realised that they were there mainly to take the United States and British Armies where the Combined Chiefs of Staff wanted them to go, and to support them."

Of the collaboration of the air arm, he is less enthusiastic. "Air operations, too, contributed greatly to victory in the Mediterranean, although the aviators' desire to fight the war in their own way made their contribution less than it might have been under a more resolute control, such as both Admiral Nimitz and General MacArthur exercised in the Pacific. . . . The top air commanders of both countries (*U.S.A.* and *Britain*) were trying to prove that air power, alone and uncoordinated, could win the war. They almost managed to prove the opposite."

The lesson there was learnt, however, and the historian is able to record that, although the airmen lacked understanding of the Navy's requirements in amphibious operations when Sicily was invaded, there was a progressive improvement in that respect, and by the time of the landings in southern France, it left nothing to be desired.

Professor Morison's narrative, both of the planning and of the execution of the complex operations involved in extending the war from North Africa to Europe could hardly be bettered — as readers of his earlier volumes will expect. In this phase of the war, the planning was perhaps even more complex than the operations themselves, depending as it did upon decision taken in advance of events, which were only reached after difficult reconciliation between opposing views on grand strategy, and yet were often modified by events themselves at a later stage.

Mr. Churchill, for instance, saw great hope in an eccentric attack on the Axis stronghold of Europe through its weaker partner, Italy. American opinion, on the other hand, was opposed to any adventure that might delay or detract from the opening of the real "second front" in France. How far these differences could be har-

Continued on page 28

Fiction

FUNNY MAN

By J. H. Adams

THE liner "Mirrool" was bowling across the Mediterranean at a great pace (said Captain George Mansley). The sun was in a blue sky, Gibraltar astern, and everything was as I like it.

Then I met Mr. Prester.

He was sitting alone in the dancing space, smoking a cigarette, and I thought I'd be sociable, as becomes the commander of a great liner, and say good-day.

"Beautiful weather, isn't it?" from me.

"Huh? Won't last. Be raining at Naples." His face was pleasant enough, but his voice was flat, monotonous.

It did rain at Naples. Poured cats and dogs. I had intended to take a course around the Isle of Capri to let the passengers have a peep, but visibility was too poor.

Well, we got away from Naples and shot south for Port Said. I bumped into Mr. Prester again on deck.

"We're doing pretty well," I said. "Right on schedule—Port Said in the morning, through the Canal to Suez before daylight the following day, and then we'll leg it down the Red Sea for Aden."

"Yeah? But it won't last. Somebody'll get sick — or something."

"Look here," I remonstrated, "you're a gloomy sort of cuss. What's the matter with you? Indigestion?"

"Nope," he sighed. "Only a feeling in my bones."

I left him. He was too gloomy for me. We had not long sailed from Suez when my ship's surgeon, old Dr. Ramsay, came up to my cabin.

"Bad news for you, Cap. You know that bunch of Italians we embarked in the tourist class? Well, one of the women's got spots. Nasty spots. Think she's developed smallpox."

Doc gaped at my outburst. He couldn't understand my violence, although he knew what the feelings of any shipmaster would be at a smallpox report.

"It's that Mr. Prester!" I exclaimed. "He's a hoodoo man! He's a Jonah! The fellow's only hanging on to life to be a nark to me! Who is he? What is he?"

"Haven't the foggiest. He looks normal enough, though. I'll check on him."

"I wish you would. I don't know what he is, but I do know he's got an ingrowing nature. Or he's psychic or clairvoyant or something."

We steamed to Aden in quarantine. Every time I saw Mr. Prester on deck I ran for cover, not knowing what might happen to us if he made any more dark predictions. The port doctor at Aden gave us a clearance. The Italian woman didn't have smallpox, after all. But we had had a nasty scare.

I saw Mr. Prester several times, but observed him from afar. He looked an ordinary sort of fellow with a somewhat humorous twist around the mouth. This seemed to give the lie to his flat voice, his pessimistic utterings.

Then one day he cornered me. I couldn't very well run away, and as he opened his mouth to talk I squirmed so much it must have been visible to him. I feared for the safety of my ship. I didn't say it was a nice day, that the voyage was pleasant.

But he said: "To-morrow's going to be a black day. I think we'll be in for some dirty weather. Keep an eye on your ship, captain."

I laughed at him. However, when I went up to my cabin, I looked at the glass. It was falling! In the morning the wind began to pipe up and by lunch-time we were in a howling gale. The furniture was heaved across the public rooms. One passenger went with his chair and gashed his head.

There was just one little morsel of satisfaction in it all. I heard that Mr. Prester was confined to his cabin with acute seasickness. If the weather would remain sufficiently rough to keep him there I felt that we might complete the passage to Sydney without being wrecked.

I kept out of his sight when he recovered. Unable to get at me, he began to forecast dire consequences for passengers. A woman fell and twisted her ankle; a man, smoking in his bunk, set fire to his mattress.

The passengers felt like lynching Prester. He "gloomed" all over the ship. I told Doc that I proposed to ask him to disembark at Fremantle and leave us in peace.

"You can't do that, Cap," Doc answered. "The blighter would be certain to fly to Sydney and there'd be an air crash. I still don't know who he is. Doesn't talk about himself, and describes himself on the form for the Australian Customs as a clerk."

At last when the voyage was nearly over, we found enlightenment. Or rather, Dr. Ramsay did.

"I've got the answer," Doc announced. "He's the star comedian of the Larry Lampoon Laughter Show, going to Australia for a season. He's tired of comics and has been trying out some new type of second sight act."

"So that's it!" I paused. "But we still have him at large."

Doc shook his head.

"Not on your life. He couldn't use second sight on the wog that bit him in the tummy. He's in the hospital with acute gastro-enteritis. He'll be there for the rest of the voyage."

PERSONALITIES
Continued from page 25

He returned recently from England where he served with the Royal Navy. Before that he attended the Imperial Defence College in London.

Captain Harrington, who is 49, was born at Maryborough (Q). He is a graduate of the Royal Australian Naval College which he joined as a cadet-midshipman in January, 1920, and at which he spent four years.

In World War II he commanded H.M.A.S. *Yarra* for two and a half years and during that period served in the Mediterranean, the Red Sea, the Persian Gulf and the East Indies.

For his courage, enterprise and devotion to duty in the Persian Gulf he was awarded the D.S.O. in March, 1942. Earlier in the year he had received his first of two mentions in despatches.

Later he became executive officer of H.M.A.S. *Australia* and was present in her at the Battle of the Coral Sea, the landing at Guadalcanal, and at many bombardments in the New Guinea area.

He was mentioned in despatches for the second time while he was serving in the *Australia*.

Lieutenant Spurgeon

Lieutenant C. H. C. Spurgeon, R.A.N., of the Royal Australian Navy Fleet Air Arm, has been awarded the Herbert Lott Trophy in England for the best all-round pilot during the pilots' anti-submarine course at the Royal Naval Air Station, Eglington (Northern Ireland).

He is the son of Captain S. H. K. Spurgeon, D.S.O., O.B.E., R.A.N., Naval Officer in Charge, North West Australian Area.

He is graduate of the Royal Australian Naval College, which he entered in January, 1944. After passing out of the college towards the end of 1947 he went to the United Kingdom for further training. Some time after he returned to Australia he joined the R.A.N. Fleet Air Arm. He is one of the six R.A.N. Fleet Air Arm pilots who had recently completed the anti-submarine course at Eglinton.

Admiral Harries

Rear-Admiral David Harries, Chief of the Australian Joint Services staff in Washington, has been awarded the U.S. Legion of Merit for his Korean war service.

The citation says that Admiral (then Captain) Harries, in command of the aircraft-carrier Sydney, from October, 1951, to January, 1952, provided effective air support and cover for U.N. operations on the west coast of Korea.

Admiral Eccles

A message received at Navy Office, Melbourne, states that Vice-Admiral Sir John Eccles, who was Flag Officer Commanding the Australian Fleet from October, 1949, until October, 1951, has been appointed Commander - in - Chief Home Fleet in the Royal Navy from December, 1955.

At present Admiral Eccles is Flag Officer Air (Home). He is 57.

Included in his service in the Second World War was his command of the aircraft carrier *Indomitable* when she formed part of the British Pacific Fleet.

BOOK REVIEW
Continued from page 26

monised was naturally affected by the collapse of Italian resistance, which in the event did not, however, bring the end of German resistance in Italy. Through the maze of argument that arose out of this tangled thread of events, Professor Morison has found for his readers a clear path, striking a just balance between over-simplification and over-elaboration.

In describing the operations themselves, Professor Morison has spared no labours in ascertaining the full facts — besides being present himself at some of the battles he records, he has traversed the whole scene since — and has described them with characteristic skill in comprehension of essentials combined with economy of irrelevant detail.

The complexity was great; but the skill and experience of the Allies in amphibious warfare was growing all the time — Sir Andrew Cunningham, in reporting to General Eisenhower on the progress of the invasion of Sicily, remarked that the landings at Scoglitti under Rear-Admiral Kirk, U.S.N., "constituted one of the finest exhibitions of seamanship it has been my pleasure to witness in 45 years of sailoring." The reader can follow clearly the steps by which the improvement was effected. In producing this latest volume, the author has had the advantage of full access to the archives of both sides, as well as to the personal narratives of many of the chief actors in great events — Churchill, Eisenhower, Cunningham, and many others. He has taken the skilled historian's full advantage of this wealth of material.

— From the London "Navy."

For Sea Cadets

THE ART OF *LOOKING*

The Navy League of Australia is affiliated with the Royal Society of St. George. One of the objects of the society is to foster a love of British literature, drama, music, and art. This article was written specially for "The Navy" by Mr. Douglas Dundas, a member of the society's cultural panel. He is a Fellow of the Royal Society of Arts (London), president of the Society of artists, and senior lecturer in painting, Department of Art, East Sydney Technical College.

By Douglas Dundas

AN ENGLISH lady visitor, who wished to take back to the homeland an Australian painting, told me, "I have been listening all my life, but I have only recently begun to look, and it's a wonderful, new, exciting experience." She was referring, of course, to listening to music, and looking at paintings.

Nearly all of us are fortunate enough to hear and to see, but listening and looking with understanding and appreciation go far beyond the ordinary exercise of hearing and seeing.

Looking at works of art — at paintings, sculptures and prints — can yield enormous enjoyment. It is a form of enjoyment that nowadays is available to anyone who cares to visit the National Art Galleries with their permanent collections, or the private galleries with their constantly changing exhibitions of the works of present day artists.

In eighteenth-century Europe the enjoyment of works of art was largely confined to the wealthy patron, who often had his architect build a picture gallery into his home so that he and his friends might view his collection to advantage.

To-day in Great Britain the Arts Council collects paintings by living artists, and sends them on tour throughout the country. The people indirectly pay for this service through taxation, and all may enjoy the works of art selected for them.

Watching the visitors to an Art Gallery you may notice that a few are examining the paintings — or the sculptures—with keen interest, taking some time to each one, while a number of visitors are meandering idly past one work after another without really looking at all.

This raises the question "what should one look for in a work of art?" There is no simple answer, except possibly that one should stand before it and let it speak to to you. The familiar phrase, "Every picture tells a story," is not strictly true, but one might substitute for it, "Every work of art has something to communicate." One painting may tell a story, another may evoke a mood. One may portray the character of a person, another may appear simply as an arrangement of shapes and tones and colours, yet have the power to move us.

In British art at present there are two rather opposite tendencies. One is toward realism, depicting life as it exists to-day. The other is toward abstraction or non-figurative art. This latter kind of painting, often puzzling at first, is perhaps the artist's response to the shape of our times, an age of tremendous scientific discoveries, an age of so many things, the workings of which are incomprehensible to the average person, yet which are part of our very existence.

If I am right, these two opposite tendencies are only different facets of what has always been the artist's function—to express the life of his time.

VICTORIAN CADETS

Twelve Geelong cadets spent four days, from June 17, aboard T.S. *Melbourne*, Albert Park.

Once aboard, the cadees were subject to strict naval routine. They were issued with bedding and mess traps and given various duties for the duration of the camp.

At 0630 on Saturday, the hands were called and took part in physical training before breakfast at 0700. Colours and inspection at 0800 were followed by signalling and boat drill with T.S. *Melbourne* whaler (sailing and pulling). After lunch a landing party was sent to the island in the lake and cadets had to crawl through the undergrowth attacking an invisible enemy.

On Sunday afternoon *Melbourne's* field gun was used in a landing operation on the island.

Acting Leading Seamen Curnow and Vivian were sent ashore as a diversion party, while the main party dismantled the field gun, loaded it aboard the whaler, pulled it to the island, landed and reassembled it.

Meanwhile, the diversion party had located the enemy and Acting Leading Seaman Vivian, when diving for cover from enemy fire, landed in the swamp!

After "firing" three rounds into the enemy's midst, the field gun was dismantled and ferried ashore after a very successful raid into "enemy" held territory.

Action stations was piped at the last parade and duty watch (red watch) had to "quell a fire" (for exercise only) on the starboard gangway. Extinguishers, buckets and hose were brought to bear and the "blaze" was extinguished in two and a half minutes from the time of the alarm. These fire drill exercises are frequently sprung upon the cadets at various times of the night to keep the organisation alive to possible dangers.

. . . . . .

"Speaking the truth is like writing fair, and comes only by practice."—Ruskin.

Some of the 300 Sea Cadets from N.S.W. [illegible] through Garden Island, Sydney, for their annual Church parade on June 26 (story on opposite page).

—Sydney Morning Herald photo.

Far Sea Cadets

N.S.W. DIVISION PARADE

By D.J.M.

ON June 26 the N.S.W. Division held its annual Church parade and review at Garden Island, Sydney.

The parade, under the command of S/C Lieutenant-Commander D. J. Mort, assembled in the following order: the band of the Royal Australian Naval Reserve, Guard of Honour and Colour Party (S/C Lieutenant K. M. Adams, T.S. *Australia*, in charge), Numbers 1, 2, 3 Platoons, made up of cadets from T.S.s *Sydney*, *Australia*, *Warrego*, *Perth*, *Sirius*, *Shropshire*, *Tobruk* and *Albatross*, Number 4 platoon consisting of cadets from schools.

This was the first time school Sea Cadets had combined with open units for a parade.

The Flag Officer in Charge East Australian Area, Rear-Admiral H. J. Buchanan, inspected the parade. He stopped several times to speak to the cadets of both open units and the school units.

After the inspection, the parade marched past, the salute being taken by Rear-Admiral Buchanan. After the march past, the parade proceeded to the Dockyard Church for a service by the Port Chaplain, the Reverend Were, R.A.N., who delivered an inspiring message to a large congregation of parents, friends, and visitors, and about 200 Sea Cadets.

* * *

A party of 33 N.S.W. cadets recently went to Westernport, Victoria, to join H.M.A.S. *Sydney*, flagship of the Royal Australian Navy, which was returning from a cruise to New Zealand.

The party visited Flinders Naval Depot, the Navy training establishment, where S/C Lieutenant J. O'Connell, who had undergone training at the depot during the War, showed them over the depot and explained the functions of the various schools.

At 1000 on June 3, the party was taken on board the *Sydney* and settled in for the journey north. Some rough seas were met with to add to the interest of the cadets, all of whom benefited greatly from their sea time.

* * *

T.S. *Albatross* and T.S. *Tobruk* cadets had a week-end of training on board H.M.A. Ships *Wagga* and *Cootamundra*, alongside Garden Island. S/C Sub-Lieutenant R. Switzer of T.S. *Sirius* took charge of this training.

* * *

N.S.W. Division entries:

T.S. *Sydney*: 1344 John Frederick Glyde, 1346 Peter James Sealy, 1354 Gregory Raymond Henry, 1356 Harold Burgess.

T.S. *Australia*: 1349 Keith Alan Edwards, 1353 Maurice Wenzell, 1361 David Hugh Rothwell, 1362 Kenneth Charles Johnson, 1363 Robert William Clunes.

T.S. *Warrego*: 1357 Raymond Robinson, 1358 Michael O'Brien.

T.S. *Perth*: 1334 Kerry John Cree, 1335 Ian McGregor, 1336 P. Williams, 1337 T. M. Williams, 1338 R. Cornell, 1339 R. Gittoes, 1340 John McAllister, 1341 William Harold Wigginton, 1351 Michael Williams, 1355 John Maxwell O'Brien.

T.S. *Albatross*: 1347 Gregory Robert Lynch, 1348 John Richard Harris, 1359 Robert John Scott, 1360 John P. Williams.

T.S. *Tobruk*: 1342 Keith Barrett, 1343 Patrick Wayne Williams, 1345 Warren James Parkinson, 1350 Albert Edward Isenhood, 1352 Errol James Deamer, 1364 Terry Walsh, 1366 Peter Douglas Nielson, 1367 Jeffrey Edward Murley, 1368 Peter McDonald Sylow.

T.S. *Shropshire*: 1369 John Thomas Dumble, 1370 John Campbell Robinson.

National service training

The following cadets have entered H.M.A.S. *Balmoral* for national service training: Cadet Petty Officer Alven Gillett (T.S. Sydney), Acting Cadet Petty Officer Stewart Harvey (T.S. *Warrego*), Acting Cadet Petty Officer Barry Wetherall (T.S. *Australia*), Cadet Leading Seaman James Partridge (T.S. *Australia*), Acting Cadet Leading Seaman Garth J. Eggleston (T.S. *Perth*).

* * *

Advancements (to date July 20):

To Acting Cadet Petty Officer: 932 John Alan Crawford (T.S. Sydney), 910 Kerry Lawrence Johnson (T.S. Sirius).

To Acting Cadet Leading Seaman: 1187 John Kane (T.S. *Sirius*).

For Sea Cadets

The "Battle" of Fort Direction

By G.E.W.W.B.

Sea Cadets of T.S. "Derwent" (Tasmania) recently took part in a mock combined operations assault. It was a day of good fun and good training. Here is the story of the "battle," told by a correspondent in Tasmania

THE object of the exercise was for a mixed force of Army Cadets and Sea Cadets to attack, from seaboard, Fort Direction — held by the Air Training Corps, undergoing their annual camp there.

A party of 50 Army Cadets from various units in the Hobart Command under Major Williams, a Regular Army officer, was embarked in G.P.V. 952 and A.W.B. 423, 25 in each craft. Forty Sea Cadets from the T.S. *Derwent*, commanded by Lieutenant J. Hamilton Smith, A.S.C.C., manned the craft. Additional benches were installed in the workboat so that all could arrive at their destination fresh for an attack.

Each craft towed one whaler, previously prepared with a boat's anchor astern for landing on a beach and kedging off again. The workboat slipped and proceeded at 0850 and the G.P.V. followed at 0900.

The weather was clear, visibility was good, and the wind about force four. Within the next half-hour the wind had increased in force to five with gusts of force six. In these conditions the tow of the G.P.V. parted at 0935 but a good recovery was made and the tow secured by 0945. This unintended manoeuvre was very well executed by the Sea Cadets in very difficult conditions.

The passage to Fort Direction was then continued though it seemed doubtful that a landing could be made in such a sea. However, by the time the vessels had arrived off the beach, the conditions had improved sufficiently for a landing to be attempted.

The whalers were brought alongside and the Army embarked at 10.55. The first landing was made at 1100, but the succeeding ones were delayed because both the G.P.V. and the workboat had to weigh anchor. The holding ground in such conditions was poor and the G.P.V. had to repeat this manoeuvre several times during the exercise. Weighing anchor by hand winch is a very arduous procedure and the Sea Cadets shared this duty with the regular ship's company until all were exhausted.

The landing of the troops, dryshod and fit for combat, was achieved in conditions which would have tested out experienced regulars. The boats' crews were all Sea Cadets and although many of them got a soaking they treated the matter as just part of the job. So keen were they that no one would accept a relief. The drill of kedging off was new to most of them, as the Saturday afternoon before the exercise proved too rough to allow of a rehearsal.

Twenty Sea Cadets, armed with rifles, landed with the Army and participated in the attack. Unlike previous assaults, there was no rough and tumble on the beaches with the defenders—the A.T.C. The attack was planned on strictly military principles and at no time were the opposing sides in physical contact. From seaward the slopes of the fort were at times shrouded in smoke, and the rattle of small arms fire sounded most intimidating.

The military umpires declare that an encircling movement was carried out and the fort captured from the rear. The combatants then settled down to lunch, and tea was provided by the gallant defenders, no doubt as reparations.

By 1400, the time the beaches were to be evacuated, the sea was much calmer and the operation was simpler than was at one time envisaged. The precaution had been taken of advancing the departure by one hour in view of the difficulty of embarking troops in heavy seas. The concern of the Sea Cadets for the comfort of their sister service was most touching. The young sailors with bell bottoms rolled up above the knees carried their khaki brethren pick-a-back to the boats.

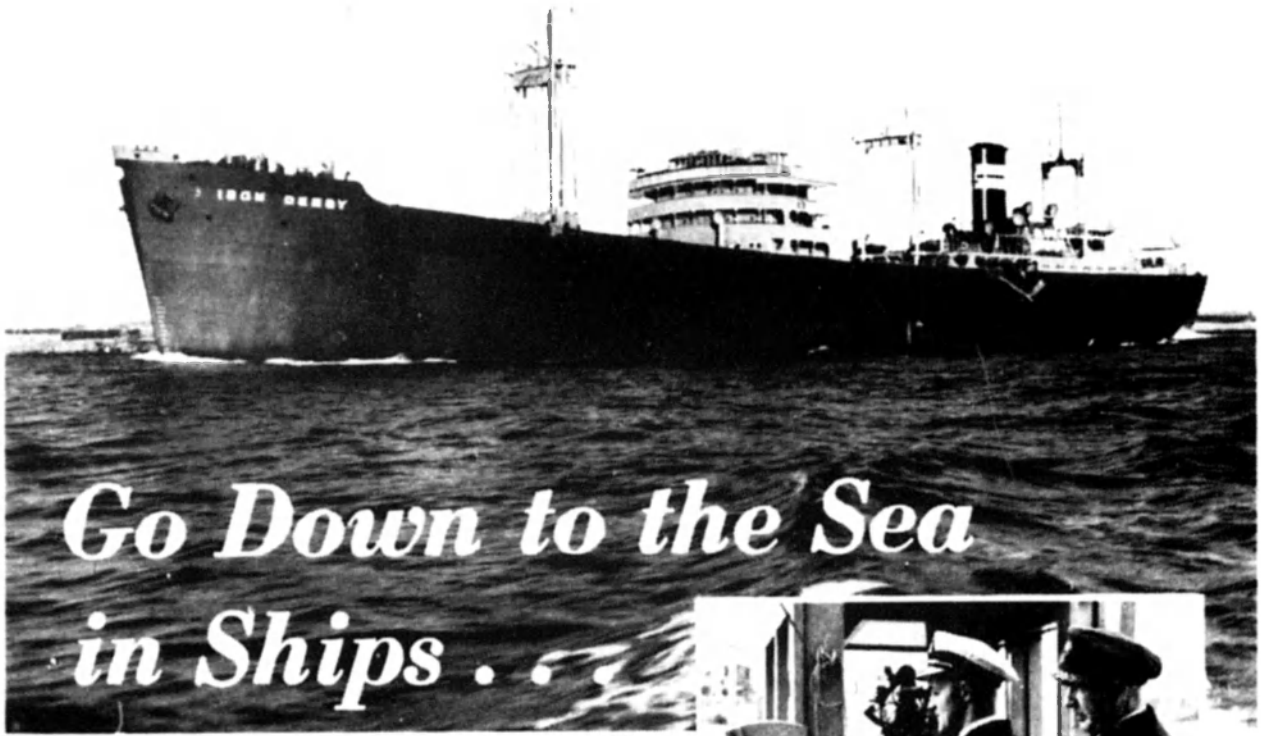
All wet clothes were dried out round the galley fire on the return journey and no one was any the worse for the adventure.

Due appreciation should be given for the excellent spirit of comradeship which the Sea Cadet officers had fostered among their ship's company. This was the first occasion on which they had worked with the Army, and Major Williams expressed himself in terms of high praise in a short speech when he landed at 1700 at the conclusion of the exercise.

* * *

Tasmanian notes: The Director of Naval Reserves, Captain A. S Rosenthal, D.S.O., O.B.E., R.A.N., accompanied by Commander F. R. James, R.A.N., Commander A. H Green, D.S.C., R.A.N., R.N.O. Tasmania, and Commander G. E W. W. Bayley, O.B.E., V.R.D., R.A.N.V.R., Senior Officer Tasmanian Division, carried out his annual inspection recently of all units in Tasmania.

The following promotions are announced in the Tasmanian Division: A. B. Brooks to leading seaman and passed for petty officer: L. S. Brassington and L. S. Moy to petty officer; L. S. Onn and L. S. Absolom passed for petty officer: A. B. Stephens, A. B. Whitford, and A. B. Hall, to leading seaman.



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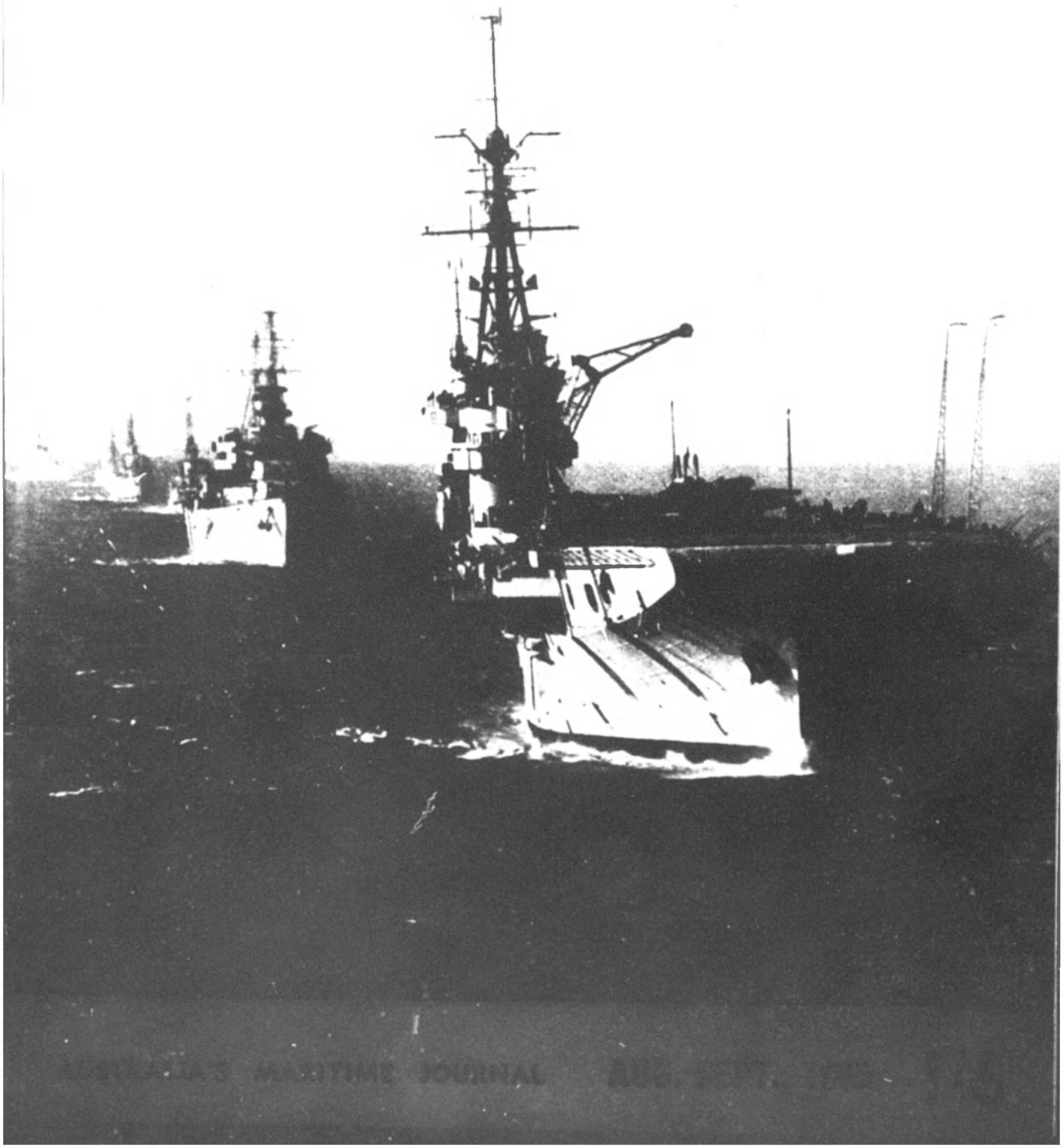
Above: A B.H.P. marine apprentice learns to use the sextant under the eye of the ship's master. Below: Regular study times in well-appointed quarters are a feature of B.H.P. marine apprenticeships.

B.H.P. Marine Apprenticeships

THE NAVY



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ENDING THE COLD WAR

The recent Big Four meeting at Geneva was marked by an air of cordiality and co-operation which few would have predicted; few even dared to hope.

The way has now been paved for a new era of diplomatic relations between West and East. The leaders of Russia, the United States, France, and the United Kingdom in open and frank discussion canvassed bold proposals, intended not only to end the cold war which has shadowed the world in recent years but to secure lasting peace founded on sound and friendly international relations.

A heavy diplomatic task still lies ahead in the detailed examination of these plans. But the first and all-important step—the personal meeting of the leaders of the great powers—has been taken.

Relaxation of international tension has been followed by a general feeling of relief, which Australia shares with the rest of the Commonwealth. In that very feeling, however, lies danger—the danger of the West repeating blunders of the past and with an eye only to hopes of the future blinding itself to the facts of the present.

Just as it takes two to make a quarrel, it takes two to make peace. And the lesson of history is that only the strong can make lasting, worthwhile peace. That lesson, so dearly taught us over the years, must not be forgotten in a present reaction born of the easing international tension.

To achieve peace, the nations of the West must speak with one voice. They must be able to speak with the authority of an equal — in strength, in preparedness, and ability to maintain their rights and independence.

Any suggestion of slackening either our own national efforts or those of our allies would be of immediate and intimate concern to every Australian. In particular, it is of the greatest moment to the Royal Australian Navy, first line of Australia's defence. Russia is strong. She appears often to mistake conciliation for weakness. This is no time for bluffing on a weak hand. Strength must be matched by strength if eventually armament reduction is to be discussed and achieved.

Russia is now reaping the rewards of its vigorous post-war Naval building programme which has narrowed to a dangerous degree the earlier clear naval superiority of the Western Powers. On this point, and with no disparagement of the rapprochements of Geneva, it is prudent to remember this warning given as recently as June of this year by Admiral Carney, the retiring Chief of Naval Operations of the United States Navy:

"Difficult as it may be to believe, the dark clouds of maritime challenge are again discernible on the Pacific horizon. A Soviet fleet is taking shape and venturing ever further and further from its own shores, and with every forward step it is moving nearer to the shores of our Asiatic friends.

"In addition, an embryo navy is forming under the flag of Communist China, this consisting of a nucleus of surface craft, submarines and growing naval air elements.

"Thus, despite the signs on the horizon of lessening world tensions, I cannot tell my fleet commanders to relax on the ramparts.

"Soviet shipyards are busy in the Baltic, the Black Sea and the Pacific. She has fleets in the Murmansk area, the Baltic, the Black Sea and off Manchuria and Siberia.

"It seems that the Soviets have concluded that their circumstances and their political and economic objectives demand a position of solid maritime power, capable of challenging the existing Allied supremacy at sea."

Australia must continue to play her part without stint or reservation to retain that allied sea supremacy of which Admiral Carney speaks.

HOME TRUTHS FROM THE U.S.A.

Britain's present defensive reliance on the United States Navy and Air Force is the subject of a recent article by the London correspondent of the U.S. "News And World Report."

In simple, forthright language, the correspondent analyses the defence position of the United Kingdom to-day, a situation brought home as a rude shock to the British public by Ministerial statements elaborating this year's defence estimates.

The facts are frighteningly plain. In the words of the London "Economist": "Now and for some years to come there will be no effective defence."

The basic causes of this state of affairs lie, of course, in the immediate post-war years.

The fact remains that the Royal Navy to-day is a stripped-down fleet of ageing warships, no longer the traditional main-stay of Allied Naval power. The Royal Air Force is a shadow of its war-time self with too many machines still on the drawing board. The Army is dangerously extended with four-fifths of its strength overseas. Britain to-day is facing realities. But it will be many months, in some cases years, before the effects of post-war inertia can be overcome.

Meanwhile, as the correspondent bluntly points out — and it does not make pleasant reading — Britain's defence must depend upon the United States—particularly on the U.S. Navy and Air Force.

The Jeanne d'Arc

FRANCE'S NEW NAVY

BY EDMOND DELAGE

Vice-President of the Naval Academy of France

THE essential tasks of the French Navy have not varied for centuries, in particular since the time when the great Cardinal de Richelieu defined them. It has always been important for France, in liaison with her allies, to protect her maritime communications and the French presence in the overseas territories. Since the last war, in conformity with the Atlantic Pact, the mission of French naval forces comprises in addition operations on the high seas and along the coasts in collaboration with the other armies and the forces of the Allied Nations.

The strategic field of action of the French Navy still comprises the same principal zones: the western Mediterranean, the west coast of Africa, the Gulf of Gascogne, and the coastal waters of the overseas territories.

For more than fifty years the Navy has been, for the policy of the French Republic, an important insurance. The Republic has always devoted 20 to 25 per cent. of its military expenses, and forces ranging from 60,000 to 80,000 men, to the Navy. It was while bearing in mind these essential factors that in 1952 the Higher Council of the Navy fixed the level to be reached by the French fleet: 540,000 shipping tons with an annual minimum of 30,000 tons for the laying down of ships, and 20 flotillas for naval aeronautics. The first echelon to be realised before 1963 must come to 360,000 tons of new ships and 18 flotillas. It is the minimum amount of naval forces that France must possess at any time for the security of her territories.

The conditions relative to the composition of the Fleet naturally are not unalterable. It is evident that the event of atomic weapons and the thermonuclear weapons have greatly modified a certain number of problems. The naval output in France as well as in the other great maritime countries will no doubt succeed in adapting itself to these new weapons.

Some people believe that only small units should be exposed to the effects of the A-bomb. This is not the opinion of foreign naval critics and authorities, such as those in the United States, who are against "the dispersal of the navy." At the same time advantage has been taken of the progress made in aviation to point out that in the future the security of the seas can only be assured by aviation with ground bases.

This opinion is not shared by the Anglo-Saxon and French admiralties. As it is necessary to protect convoys against possible air peril, warships specialized in pursuit appear to be indispensible, and one can consider aircraft-carriers and escort vessels necessary for at least another ten years as essential elements for the protection of sea communications.

At present, the essential task of the General Staff of the French Navy is to replace worn-out ships by modern ships and to form a homogeneous and well-balanced fleet, complete with naval aeronautic units, constructed in France.

On January 1, 1955, the tonnage of the Fleet in service was very far from having reached the theoretical standard required by the deliberations of the Higher Council of the French Navy. It came to 368,000 tons. This total was composed as follows:

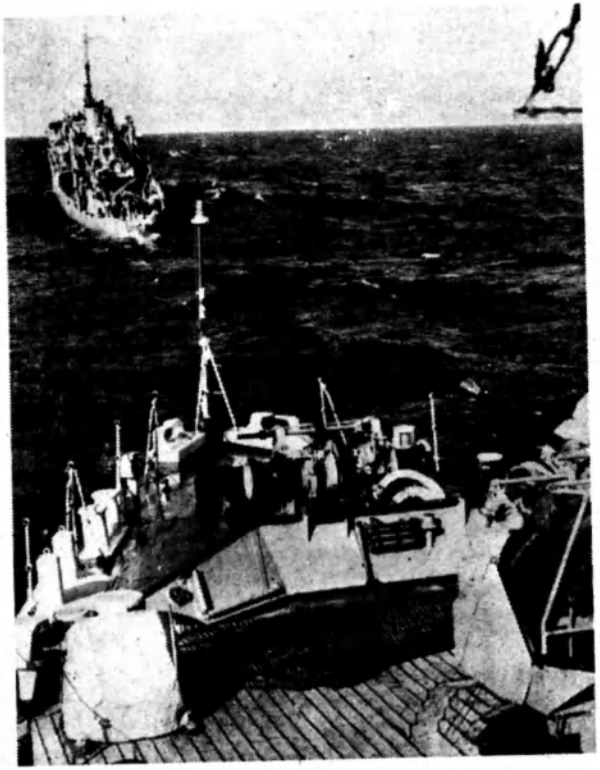
Ships (armed and available	289,575 tons
Ships in reserve	78,865 tons

The tonnage of the Fleet at present in service diminished during the month of December by the putting on the reserve list of several relatively important ships: the cruiser *Emile Bertin*, famous in the pre-war Fleet for its speed

and which played an important part during operations off Norway and near the Antilles, the destroyer *Fantasque* and the torpedo gunboat *Savorgnan de Brazza*.

These reductions in tonnage will continue until the end of a period that can be considered as critical in 1963. Until that time, indeed, the total number of tons of shipping put on the reserve list will exceed the figure of 30,000 tons of new constructions considered as a "vital minimum." Thus in 1963 the tonnage of the Fleet will be reduced to a minimum which will be below 350,000 tons. Only in 1970 will the anticipated figure of 540,000 tons again be realized.

A rapid survey of the principal types of ships allows one to realise the present value of the French Fleet. It possesses two of the fastest ships in the world, the *Richelieu* and the *Jean Bart*, both 35,000 tons, which were put into service in 1941. The Fleet only possesses three aircraft-carriers in service. They have a low tonnage if we compare them with those of the large Anglo-Saxon navy, and are already quite old. They are: the *Arromanches*, 14,000 tons, the *La Fayette* and the *Bois Belleau*, 11,000 tons. These ships are of foreign origin: the *Arromanches* was ceded by the British Navy in 1951 and the *La Fayette* was transferred during the same year by the American Fleet under the mutual assistance pact, while the *Bois Belleau* was transferred in 1953.



H.M.A.S. Cootamundra passes a line to H.M.A.S. Wagga during minesweeping exercises off Sydney recently.

The *Clemenceau* is being built at the naval dockyards of Brest. It will have a displacement of 22,000 tons. It will thus be well placed on the list of 119,000 tons being finished off, built, or in the process of being ceded.

The cruisers are not very numerous for the needs of France and the French Union. They are the *Gloire*, the *Georges Leygues*, and the *Montcalm*, all of which joined the Fleet in 1937. The cruiser training-school, the *Jeanne d'Arc* was put into service in 1931; she exceeds 6500 tons. Two new cruisers which will join the fleet are the *De Grasse*, 9000 tons, an anti-aircraft ship at present being finished off in the Brest naval dockyards, and the *Colbert*, 8500 tons, which is being built in the same dockyards.

An important type for the protection of convoys is the escort ship. Escort ships comprise fast escort vessels and torpedo gunboats. The ship with the heaviest tonnage is the *Chateaurenault*. She has a displacement of a small cruiser: 3360 tons. The series of other squadron escort vessels, in construction or being ceded, already has six units being tried out or being finished off. They are: the *Surcouf*, the *Kersaint*, the *Bouvet*, the *Cassard*, the *D. Thouars* and the *Chevalier Paul*.

Eleven other units of the same type are being built in naval dockyards or in private ship-yards. Four escort vessels of 1250 tons are on trial; four are being built; seven are in the ship-yards for "off-shore" orders in France. The French Navy possesses a certain number of torpedo gunboats in reserve (a relatively large quantity) and minesweepers of 600 and 700 tons. There are 21 coastal minesweepers of 400 tons being built at Cherbourg or in private ship-yards.

The French submarine fleet, so important at the beginning of the war, now comprises a total of only 10,000 tons.

Submariners Are Quite Sane

By Rear Admiral George Fawkes, C.B., C.V.D.,C.B.E., Flag Officer Submarines

From a talk given over the Australian Broadcasting Commission.

THIS IS THE first occasion since the war that Flag Officer Submarines, who is responsible for the Submarine Branch of the Royal Navy, has visited Australia. To my great regret my period in command of the 8th Submarine Squadron during the war ended just before they and the *Maidstone* came to Fremantle in 1944, so you can guess how much I have been looking forward to being here.

The purpose of my visit was to hold discussions with my old friend and skipper of one of the submarines in my squadron during the war, Captain Turner, who commands the Fourth Submarine Squadron, which has been based on Sydney for the past five years, and to meet the R.A.N. and R.A.A.F. authorities for whom these submarines work. I have seen for myself why service in this squadron is so popular, and how well they are looked after. I am also very proud of the nice things that have been said about them and I have enjoyed every minute of my visit.

Submarines are designed for concealment when they are at sea and perhaps because they have absorbed some of these characteristics submariners do not give their work much publicity. Little is heard of submarines except when some accident or loss throws them, for a few brief days, across the headlines of the world. For this reason there is a widely held belief that service in submarines is hazardous in the extreme.

This view is not, of course, held by submariners, the majority of whom are volunteers for the work, and all of whom become infected with an intense interest for their profession. Nor, indeed, is it held, I believe, by those level headed and unemotional actuaries whose advice prompts many of the life assurance offices to charge no higher premium for service in submarines than for any other walks of life.

I would ask you then to think of submarines not as crazy machines manned by those dedicated to suicide, but normal vessels of war, manned by quite reasonable and sane people. I joined submarines 30 years ago and have done most of my service in submarine appointments and I regard myself as fairly reasonable and I hope sane.

I should like now to outline very briefly the part that submarines play in the Navy, to tell you how they have performed that part, and then to give you some indication of the roles they might undertake in the future.

In the Submarine Branch of the Royal Navy there are only about 300 officers and 3500 ratings, that is to say, about three per cent. of the total strength of the Royal Navy. We are a very small portion of the whole but, we believe, a most important one. And we believe that in war we pay a dividend far in excess of three per cent.

These officers and ratings man our 56 submarines, some 40 of which are in full commission, with the remainder refitting or in reserve. Each submarine has a crew varying in numbers from about 35 for the smallest to 75 for the largest. At certain times of the day, it is true, your Sydney trams pack more people into a smaller space, but they do not, I believe, stay there for weeks at a time.

The submarine's crew, living in such close company, often at sea for long periods, rapidly becomes a closely-knit team, bound more tightly by the interest they all have in the intricate and absorbing vessel in which they serve. It is no wonder then that submariners believe that theirs is the finest and most interesting work that the Navy has to offer.

Submarines, as I have said, are designed for concealment, and this invests them with the ability not only to exploit to the full the element of surprise—one of the ancient and enduring principles of warfare — but also to remain for long periods in enemy-controlled waters, entirely unsupported, attacking and destroying his ships.

It is for this purpose that they are built and equipped, and they carry numbers of torpedoes or mines which enable them to sink the heaviest ship afloat once they get within range. This cloak of invisibility that they wear makes them most versatile craft whose services are always in demand for a wide variety of purposes where stealth is a requirement.

During the last war they were on many occasions used for landing and recovering small raiding parties or agents, for taking the midget submarines and human torpedoes to points from which their audacious attacks were made, for taking parties of men to survey beaches before amphibious assaults, and acting as navigational beacons for these landings. They were used to transport essential stores, including even 4000 pound bombs and petrol to Malta during the seige.

But this very versatility tends to divert submarines from their foremost task—that of seeking out and destroying enemy shipping and U-boats wherever they may be found. And lest you should think that the destruction of a U-boat by a submarine is a rare occurrence, it may interest you to know that in the last war our submarines sank 41 enemy U-boats—though only six of our own submarines fell to U-boats.

By this attack on enemy shipping we play our major role as a

branch of the Navy. For the Navy's task remains that of denying to an enemy the use of the seas so that we can use them freely for our own purposes. To the accomplishment of this task the surface ship, the submarine, and the air—both carrier and shore-based—each contribute their quota; and the war is waged on, above, and under the sea.

Keeping the seas free

Two wars have shown clearly how vulnerable to an intensive campaign against her sea-born trade Great Britain is, and with her, the Commonwealth and all those countries of the world who hold freedom to be a great prize. Our study then, in times of peace, must be directed towards keeping free the seas in time of war. For in our combined strength and preparedness lie the best hopes of maintaining peace or if, despite this, war should ensue, of prosecuting that war to a swift and successful end.

In this scheme submarines have two main duties—that of preparing themselves for the role I have already described, and that of helping the anti-submarine forces, both surface and air, to combat enemy submarines. Our submarines at home and in the Mediterranean, here and in Canada, spend much of their time exercising with ships and aircraft, and such is the demand for their services that it can never wholly be satisfied.

Let us now look at the dividend our submarines, midget submarines, and human torpedoes paid during the last war.

They sank nearly 200 warships of all sizes, and damaged over 50 others; they sank two million tons of supply ships and damaged another half-million.

Over a million tons of this shipping was sunk or damaged in the Mediterranean, the great proportion of which were engaged on supplying the Afrika Korps. Those of you who were fighting in the Desert can well understand the effect that this had on the North African campaign.

These results were not achieved without heavy losses, which amounted to 74 submarines, nearly one in three of the submarines that we possessed at the outbreak of war or built during the war. With them we lost over three thousand gallant men. The services rendered by the Officers and ratings of the Submarine Service during the war were recognised by many decorations and medals, and by no less than nine awards of the Victoria Cross.

You may say that submarines, and the navies of which they form part, have rendered valuable service in the past, but have no place in the future, in an age of thermo-nuclear weapons, of air-power and of remotely controlled automatic weapons. But one should remember that weapons will always be more accurate when they are delivered from close range, and that the launching platforms will have a better chance of avoiding destruction if they are mobile, and particularly if they can submerge.

In addition I reckon a submarine is a nice and peaceful place to be in once atomic bombs start being thrown about.

Need not diminishing

To quote a statement made by the First Lord of the Admiralty early this year, "the perfection of modern weapons and techniques is in many respects increasing the ability of the Navy to discharge its historic role."

The need for a navy is not diminishing. The need for submarines within that navy is likely to increase beyond all measure. For we are on the threshold of technical advances greater than any the submariner has yet seen.

The day is not far distant when submarines will move beneath the seas at speeds as high as the fastest passenger liners of to-day, when they can remain hidden in the depth for weeks on end and range to the ends of the earth. Their weapons and equipment are constantly being improved and they may in the future take on a new role in the long range bombardment of enemy targets. Guided missiles now being developed would be able to act as inter-continental weapons if carried to an enemy coast in a large submarine.

These changes will bring with them many new problems for submariners to solve. And they will, I am sure, be tackled with the same boldness and enterprise that was shown by an early submariner, an Englishman named Day who, two centuries ago, laid a number of bets that he would dive to a depth of 300 feet in a wooden submarine of his own construction and remain there for 24 hours. He won his bets, but unfortunately never came up to collect them. We, however, are confident that we will collect our winnings.

HELICOPTER MISHAP

A Royal Australian Navy helicopter returning from the Brisbane Show to its base at Nowra (N.S.W.) smashed a rotor blade at Coffs Harbour on the northern N.S.W. coast on August 18.

The helicopter had landed at Coffs Harbour aerodrome and was taxiing into the hangar when the tip of one of the blades struck the hangar door.

A fragment struck Mr. Harry Thaxton, officer-in-charge of the fire control squad at the aerodrome on the left foot and cut a tendon.

He was admitted to the Coffs Harbour District Hospital.

SAILORS' DAY APPEAL

For the first time for 10 years a Sailors' Day Appeal will be held in Sydney on October 21 — the 150th anniversary of the Battle of Trafalgar.

The appeal will be in the form of a button day.

Proceeds will be divided equally between the welfare fund of the Ex-Navalmen's Association and the Lord Mayor's Appeal for the White Ensign Club, Nowra.

Mrs. H. J. Buchanan, wife of the Flag Officer in Charge East Australian Area, is organising the women's committee for the appeal.

CORAL SEA TRIBUTE

By A Special Correspondent

American Independence Day, July 4, was the occasion for a colourful and significant service of remembrance on the deck of the British liner "Oronsay."

THE SHIP WAS on a tropic cruise from Sydney into the area where the Coral Sea Battle was fought.

Captain C. K. Blake, O.B.E., Commander of the *Oronsay*, arranged the service because of the coincidence which on America's "Glorious Fourth" brought 1200 Australian cruising passengers into the waters where, thanks to American naval might, the Japanese tide of aggression in the South Pacific was turned.

It was a moving ceremony of remembrance of Allied lives lost and a celebration of a victory of high strategic importance.

A laurel wreath, provided by the Australian-American Association at Sydney, was dropped in the *Oronsay*'s wake after the service on deck, in which Captain Blake, his officers, crew and passengers all participated.

The Australian and American flags, flying together from the liner's yardarm, were lowered at the playing of the Last Post and raised at the Reveille.

The Service was filmed for television in America and the United Kingdom.

The Coral Sea Battle from May 4 to 8, 1942, was the first serious check to the amazingly rapid series of Japanese successes which had advanced Japanese power well South of the Equator.

Had the Japanese been successful, our position in New Guinea would have proved untenable and the whole of the North-East Australian coast-line would have been open to invasion.

The Japanese basic war plan included:

To secure air mastery of the Coral Sea. To bring the United States Pacific Fleet to a decisive engagement. To cut lines of communication between the United States and Australasia.

The Japanese invasion group included transports carrying Army troops and a naval landing force, screened by a destroyer squadron; a support group of a seaplane carrier and five other ships; a covering group consisting of a light aircraft carrier, four heavy cruisers and one destroyer; a striking force of two big carriers, two heavy cruisers, and six destroyers; the whole totalling 62 ships.

The Allied task force, which included the Australian cruisers *Australia* and *Hobart*, consisted of two heavy carriers, the *Lexington* and *Yorktown*, eight cruisers, 13 destroyers, and three other ships; a total of 26 ships, under the command of Admiral Frank Fetcheler.

Japanese Admiral Inouye expected to destroy the Allied task force by a pincer movement while the invasion group invested Port Moresby. Then the Japanese carriers would proceed to smash up Allied planes and ships at the four Queensland bases, as they had done successfully at Darwin.

Admiral Nimitz and General MacArthur regarded this Japanese thrust as a major threat. Port Moresby was essential to General MacArthur's strategic plans—as a major air base to block enemy penetration of Australia and as a starting point for his return journey to the Philippines.

It was planned for the Japanese Fleet to split and for its carriers to proceed to attack Townsville, where General MacArthur was assembling his forces.

The early days of May, 1942, marked the low point of the war for American arms. The Coral Sea Battle opened a new and brighter chapter in the Pacific War.

The decisive action was fought out in a carrier battle on the morning of May 8 between 121 Japanese operational planes and 122 American. It was a strange criss-cross battle in which, although superior success can be said to have attended the Japanese, the enemy was forced to retire and his main objective, invasion of Port Moresby, was thwarted.

Allied losses were serious—543 lives, 66 aircraft, and three ships, one being the precious *Lexington*, which had played a memorable part in the battle. The Japanese lost one carrier sunk and two crippled, apart from loss and damage of lesser ships, and a loss of more than 5000 lives.

The Battle of the Coral Sea will remain memorable as the first carrier-against-carrier naval battle in which all losses were inflicted by air action and no ship on either side sighted a surface enemy.

It was a tactical victory for the Japanese and a strategical victory for the United States.

NEWS OF THE WORLD'S NAVIES

Queen's signal to R.A.N. carrier

The aircraft carrier H.M.A.S. *Vengeance* met the Royal Yacht *Brittania* in the Irish Sea on August 10. Her Majesty the Queen was in the Royal Yacht at the time.

In an interchange of signals between the two ships the following messages were made:

From the *Vengeance*: "H.M.A.S. *Vengeance* remembers when she was honoured to escort her Majesty in Australian waters with humble duty. Request permission to proceed."

The Royal Yacht replied, "Approved."

The Flag Officer of the Royal Yacht then sent to the *Vengeance*: "I have been asked to convey the following signal: 'Thank you so much for your kind message which brought back many happy memories. I send my best wishes to you all, and good luck in your new ship—Elizabeth'."

H.M.A.S. *Vengeance* replied: "Please convey the following message to her Majesty: My ship's company, officers, and I are very honoured and delighted to receive your gracious message. We retain very happy memories of your tour of our country. We hope it will be our privilege to escort you on the Australian station in H.M.A.S. *Melbourne* in the not too distant future."

Big building programme for American Navy

The new United States building programme allots over £470 million for the fiscal year beginning on July 1.

Besides a £71,500,000 carrier it includes three more atomic submarines, three guided missile frigates, and the conversion of a light cruiser and destroyer to guided missile ships.

Altogether 24 warships and 10 auxiliaries with conversion of 21 combatant and seven auxiliary vessels are included in the programme.

A second "Forrestal," the *Saratoga*, is to be launched in October.

H.M.A.S. Queenborough visits London

The anti-submarine frigate H.M.A.S. *Queenborough* on August 2 became the first Australian warship to pass up the Thames.

Commanded by Commander D. C. Wells, *Queenborough* was paying a courtesy visit to London, following four months of exercises with ships of the Royal Navy and North Atlantic Pact countries.

"Georgic" will carry Australian troops

The liner *Georgic* will leave Australia on September 30 with the main body of the Australian force for Malaya.

The Minister for the Navy and Army, Mr. J. Francis, announced this in Canberra on July 29, added that an advance party would leave on August 31.

The main force would disembark at Penang.

Revised responsibilities for Navy weapons

The Admiralty has announced changes in the responsibilities for weapons in use in the Naval Service.

The Gunnery Branch of the Royal Navy, which has for some years been dealing with guided weapons as well as with naval gunnery, has now taken over naval airborne gunnery in all its forms, including rockets and bombs. It has also been charged with responsibility for such atomic weapons as may be developed within its sphere.

The Torpedo Anti-Submarine Branch of the Navy has similarly become responsible for all weapons which function under water.

As a result of these re-adjustments in responsibilities, the Air Armament School has been moved from Royal Naval Air Station, St. Merryn, to H.M.S. *Excellent*, the Gunnery School at Whale Island, Portsmouth, and the syllabus for the training of specialist gunnery officers has been modified in the light of the new responsibilities.

A part of the course is now spent at a Royal Naval Air Station and includes flying experience during weapon exercises as part of the training.

Similarly the course for specialist Torpedo Anti-Submarine officers has been modified and includes flying experience during a course in air weapons at a Naval Air Station.

For close integrating of air and weapon experience, a certain number of Fleet Air Arm pilots and observes will specialise in gunnery and torpedoes, and carry out the long specialist courses referred to above.

South Africa plans larger Navy

The South African Navy is to be enlarged by posts for 200 officers and 2,000 other ranks — both Permanent Force and Active Citizen Force — which formerly belonged to the now disbanded South African Marine Corps.

This information was given by the Minister of Defence, Mr. Erasmus, recently.

Present strength of the Navy is 200 officers and 1,250 other ranks. This includes both Permanent Force and A.C.F.

Of the men in the Marine Corps, as distinct from the posts, 231 Permanent Force other ranks will come under Army control and 244 under Navy control.

The more senior Permanent Force officers in the Marines who had been trained as Army officers will be transferred to the Army lists.

Pilots complete jet conversion courses

Twenty-five pilots of the Royal Australian Navy Fleet Air Arm have completed jet aircraft conversion courses at the R.A.N. air station at Nowra (N.S.W.) since the courses were begun last year.

The Minister for the Navy, Mr. J. Francis, has stated that some of them, following further training in the United Kingdom, would fly the Sea Venom jet fighters with which the new aircraft carrier *Melbourne* would be equipped when she arrives from England next year and that others would fly her Gannet turbo-prop anti-submarine aircraft.

Mr. Francis added that five Australian-built Vampire jet trainer-aircraft were used in the conversion courses at Nowra, in which pilots had to fly at high altitudes. Before they entered upon that part of their training they underwent tests in a low-pressure chamber at simulated heights of up to 40,000 feet.

H.M.S. Newcastle to visit Australia

The 12,200-ton cruiser H.M.S. *Newcastle* will arrive in Australian waters in September. It will pay informal visits at Perth, Melbourne, Sydney, and Newcastle (N.S.W.).

During the visit the *Newcastle* will wear the flag of Vice Admiral R. F. Elkins, C.B., C.V.O., O.B.E., Flag Officer Second-in-Command, Far East Station.

The captain of the cruiser is Captain R. B. Honnywill, R.N.

The *Newcastle* will arrive in Perth on September 2 from Singapore. It will stay at Melbourne from September 12 to the 16 and then leave for New Zealand where it will visit Dunedin, Wellington, and Auckland.

The *Newcastle* will arrive at Sydney on October 5 for a seven-day stay. It will visit Newcastle from October 12 to 15. It will then sail for Hong Kong.

H.M.S. *Newcastle* took part with ships of the Royal Australian Navy in the recent ANZAM

Naval developments in life-saving aids

Speakers at the Spring meeting of the Institute of Naval Architects in England gave details of a new naval life jacket, designed so that an unconscious man will float on his back with his head supported clear of the water.

The main volume of buoyancy is over the chest and stomach. The buoyancy provided by the collar portion gives the necessary support to the head.

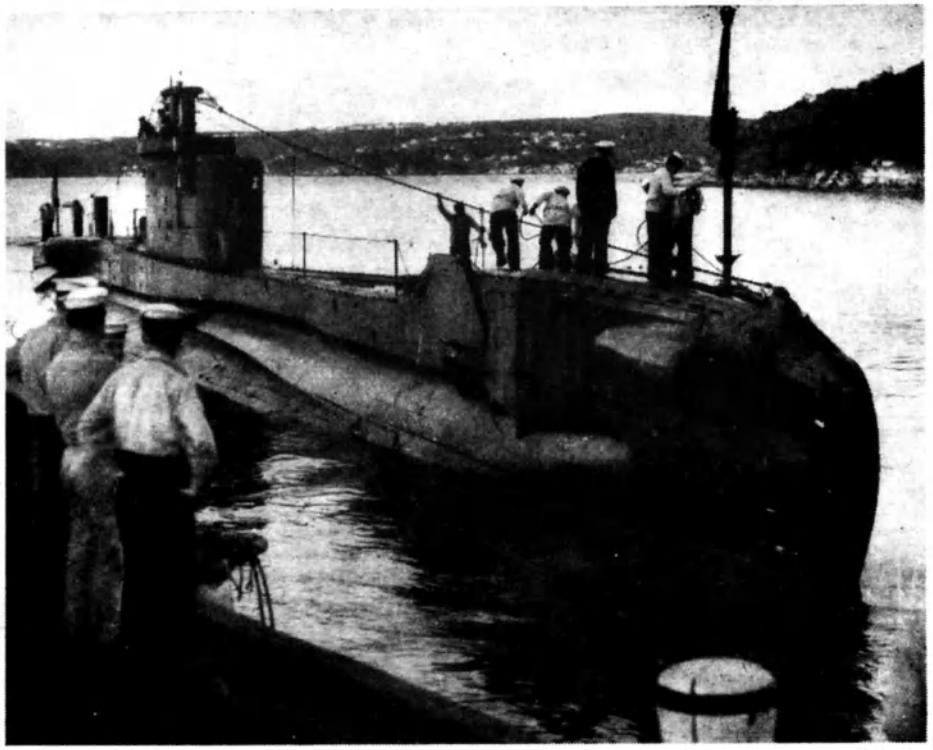
Made of 2-ply rubberised cotton fabric it is inflated by means of a spring-loaded non-return valve. A whistle is provided in a pocket and, over the right shoulder, a marker light is fitted. The weight of the life jacket, including the pouch in which it is stowed, is 2 lb.

Two naval life rafts have been standardised, one for 20 men and the other for eight men. The buoyancy chamber resembles an inflatable car tyre inner tube, except that in plan form, the raft is lozenge shaped, the larger one being 16 feet in length with a 10 feet beam. Inflation is by a mixture of carbon dioxide and nitrogen contained in two bottles rigged on the outside of the raft. When the raft begins to inflate it bursts the lacing of the valise in which it is stowed.

To save life in inhospitable climates, the raft has a tent which is erected by inflating two arches 11 inches in diameter. The tent has two skins, with a 3 inch air gap for insulation purposes, and the top of the tent can be bowsed down to act as a water catchment during a shower.

In addition, a limited quantity of fresh water can be distilled from sea water in a small solar still which has been developed for the purpose.

Speakers said that work was progressing on immersion suits, weighing only 3 lbs., for saving life in very cold water, and on the development of a wireless transmitting set which will reconcile the pick-up arrangements in



H.M. Submarine Tactician returns to Balmoral Naval Depot, Sydney, after six weeks exercises in Malayan waters.

ships and aircraft and be suitable for installation in a proportion of life rafts.

Submarine on survey job

Obseravtions intended to increase scientific knowlege of the earth's crust are to be made when H.M. Submarine *Acheron* (Lieutenant-Commander Peter Hay, R.N.) sails round the Cape of Good Hope to Trincomalee and back through the Mediterranean.

Such gravity surveys depend essentially upon the variations in the swinging period of a pendulum. Differences in the composition of the earth's crust produce differences in the effect of gravitational pull, and therefore can be detected by pendulum readings.

Gravity surveys of that portion of the earth's crust which is below the ocean can only be made from submarines which, when submerged, are not subject to wave motion and therefore provide a level platform on which variations in the motion of the pendulum can be observed.

The *Acheron* sailed from Portmouth on April 20 and is to be overseas for six months.

Embarked in the submarine is Lieutenant J. C. Harrison, R.N.V.R., a 25-year-old National Service Officer who is also a Doctor of Philosophy and who, after taking his degree at Cambridge, went to the University of California. From the coast of California he has recently made some half-dozen cruises in U.S. submarines in the course of which gravity surveys have been made.

The survey will be in the South Atlantic and Indian Oceans, where extensive observations will be made. It is in response to a resolution passed by the General Assembly of the International Union of Geodesy and Geophysics requesting all maritime powers to carry out as far as possible soundings and gravity measurements in those of the oceans which have not yet been explored.

Reports of two Russian carriers

A French report states that Russia has laid down two carriers of about 50,000 tons, but at which yards is not stated.

Material is being obtained from the Donetz area. Length is said to be 721¾ ft. with engines of 150,000 h.p. giving 35 knots. If there is any truth in the report such vessels will have much greater significance than the "Sverdlovs."

However, even the Russians might find some difficulty in pushing a vessel of some 13,000 tons greater displacement than the *Eagle* along at three knots faster with less horse power.

The *Eagle* is 36,800 tons and needs 152,000 h.p. for 32 knots.

A pilot, standing, leaves a ship outside Sydney Heads to return to the pilot steamer Captain Cook.

60 YEARS OF SERVICE

By Admiral Sir Louis Hamilton, K.C.B., D.S.O:

Chairman of the Navy League

THE Navy League was born on 17th January, 1895.

Many things have changed since then, but two have not — the fact of geography and human nature. Consequently it is not surprising that the original objects for which the League was founded and the reasons which, in the minds of its founders, argued the necessity for the creation of an organisation to further those objects, are as valid to-day as they were 60 years ago. The objects were expressed to be "for the purpose of securing as the primary object of the national policy the command of the sea," of spreading information as to the vital importance to the British Empire of the Naval supremacy upon which depend its trade, food supply and national existence, and thereby ensuring to the Government the support of the people for the expenditure necessary for providing such a Navy as the responsible naval advisers of the First Lord shall consider adequate."

Perhaps it might have been supposed that, to a Nation and Empire so manifestly living by the sea, whose history for hundreds of years had demonstrated where resided its strength, prosperity and security, an organisation devoted to these purposes was wholly unnecessary, even an impertinence. Indeed the founders of the League were confronted with ridicule and opprobrium of every kind. They were assured that they were either meddlesome busybodies or, alternatively, pushing self-advertisers. The greater part of the English Press regarded the project with the utmost disfavour and predicted for the League a life of a few months only, *The Times* dismissing it as "a sickly bantling."

But the founders were not dismayed by this kind of criticism. They were convinced that, as was pointed out in a letter to *The Times*, "the only way to secure continuity and sufficiency in our Naval Policy to overcome the native inertness of Governments and their fatal tendency to that misplaced economy which is the worst form of extravagence, is to apply the force (of public opinion) required steadily, persistently and uniformly. This can only be done by organisation adapted to the purpose." They recalled what was then recent history and argued that "experience has proved that if the public relaxes its vigilance, adequate provision for the needs of the Navy will be postponed in deference to 'party' interests until another scare shall arise followed by hasty and uneconomical expenditure and with the risk of being too late."

It is a hard-worked truism that history repeats itself. The experience upon which the originators of the League had based their conclusions covered some 20 or 30 years of successive Russian and French "scares," each characterised in British financial history by a sudden jump in naval expenditure, even by panic buying of ships wherever they could be bought, followed by a relapse when the temperature had subsided. Have we not seen that kind of process followed in our own day? And would salvation have come in time, only just in time, had there been no Navy League to help overcome "the native inertness of Governments" by mobilising public opinion, for example, in the years leading up to 1914 with the "we want eight and we won't wait" slogan? And again in the 'thirties and the belated rearmament programme of 1936? Even in more recent years we have witnessed the reckless disarmament following the second World War; the Navy League's public exposure of the weakness of our effective, operational fleets and the subsequent rebuilding of our defences begun by Mr. Attlee's administration.

I go too fast. Let me return to 1895. By the end of its first year of existence *The Times*' "sickly bantling" had developed a most clamant voice and had even, and most precociously, become a vigorous parent. Not only had a numerous off-spring come to birth in the form of many local branches, but there were promising bantlings giving tongue overseas in Cape Town, Natal, Toronto, Malta and Hong Kong. Moreover, others were known to be on the way in Australia, New Zealand, British Columbia and Shanghai. Leaflets had been broadcast, books published, letters addressed to all candidates for the Parliamentary General Election and to all Mayors Chambers of Commerce, other influential bodies, newspapers and so on at home and throughout the Empire. In addition, a monthly publication, *The Navy League* Journal, had been inaugurated and a lecturing organisation established. All this constituted, I think, a notable record of achievement in the first year of an organisation whose early and despicable demise had been so confidently predicted by the Press.

It would be tedious, and in any case beyond the compass of a short article, to endeavour to recount the various campaigns wages by the Navy League in its early years, however valuable and important they may have been at the time. One, however, must be mentioned; for the results are with us to this day.

Even in the first year of its existence the League became seriously concerned as to the grave situation arising from the fact that the Merchant Navy was so largely, indeed increasingly, dependent on foreign seamen. Obviously such a situation created serious danger should war come, and the position was made even worse by the fact that the Royal Navy of that time relied almost entirely for its reserves upon the officers and men of the Mercantile Marine. The vigour with which the Navy League for the next few years pressed for Government action in this vital matter helped largely to the reorganisation of the Naval Reserves in general and the formation of the R.N.V.R. in 1903, in particular, to the foundation of the Sea Cadet Corps.

The first was essentially the result of Government action; under pressure of public opinion, no doubt, but an act of the Government. The second, the Sea Cadet Corps, directly resulted from Government inaction.

Foreign seamen

As I have said already, at the turn of the century the British Mercantile Marine was to an enormous extent manned by foreign seamen. British boys had neither the encouragement nor the opportunity to go to sea in British ships. The Government was inert, uninterested. A scheme evolved by the Navy League, in which many local authorities had agreed to participate, for establishing sea-training schools for boys with the salt of the sea in their blood was turned down. So the League resolved to act independently. First of all, as early as 1899, the Windsor and Eton Branch purchased and fitted out a training brig and recruited an eager ship's company of young fellows undertaking sea training in their spare time. The Liverpool Branch followed with a "poor boys' training home" for teaching the arts of seamanship and subsequently placing its youngsters in the Navy and Merchant Marine. That venture subsequently became the "Lancashire and National Sea Training Home" and is now amalgamated with the well-known *Indefatigable*. Other branches followed suit. And so the Sea Cadet Corps was born, spreading, like its parent the Navy League, through the Dominions and Colonies, to become an Empire family of sea-loving boys and young men and a prime source of first-rate recruits for the Royal and Merchant Navies.

A profound influence

In the years that followed, up to 1914, the Navy League continued to exert a profound influence on Naval Affairs, even in so technical a matter as gunnery. For it was the Navy League which in 1899 drew public attention to the fact that 16 battleships and seven armoured cruisers shown as effective warships in the Navy List were still armed, wholly or in part, with muzzle-loading guns! The last of these was eventually removed from the list in 1903. Naval Bases also interested the League, which pointed out the need for a naval port in the North Sea. In 1903 it was announced that land had been acquired in the vicinity of St. Margaret's Hope and that "the new arsenal has been named 'Rosyth'."

So the good work went on. By 1909 the Navy League was clamouring for a "two keels to one" standard, and up to the outbreak of the first World War never ceased to agitate for the most powerful Navy that was in any way possible, and openly proclaimed up to 1913 that "in the face of continued warnings . . . the Government have not undertaken those adequate measures of preparation to increase the strength of the Navy which the exigencies of the future imperatively demand."

Naval aviation, too, was not neglected, nor defence against air attack on our cities. In 1913, for example, a poster was published and displayed depicting the horrors of an air raid on London with a demand for immediate expenditure on air defence. In the same year an article in *The Navy* by Lieutenant H. G. H. Ellis, R.N., envisaged the ideal aircraft-carrier of the future as being of high speed, 25 knots at least, and "she would, of course, be funnelless and her decks flush and clear of all hindrance." In another prescient article *The Navy* declared that "there is one phase of utility for aeroplanes which deserves special mention, namely their efficiency as a guard against submarines . . . both on the high seas and for coastal defence, the aeroplane as a detector and destroyer of submarines has a distinct place in the scheme of things." This year, 40 years later, the first naval aircraft to be designed expressly for anti-submarine work are coming into service.

But the outbreak of war dismissed these controversies to the ultimate limbo. The League bent all its energies to the support of the Admiralty in the prosecution of the war at sea. The Sea Cadet Corps, or Boys' Naval Brigades, as they were then known, trained and sent into the Navy a steady stream of fine young recruits. A huge organisation was created for supplying comforts of all kinds to the men of the sea services and, thanks to the inspiration of the Navy League Branches in the Dominions, notably New Zealand and Natal, the "Navy League Overseas Relief Fund" was born. That fund, first for the immediate relief of dependants and later for the education of the orphans of naval officers and men, collected and disbursed well over £500,000. The Navy League, in fact, had justified its existence in war as in peace.

But "to every action there is an equal and opposite reaction," and in the years that followed 1918 the League once again had to pass through the throes of apparently imminent dissolution. This time, however, it was the Committee of the League itself, not so much the Press, which was not interested, which prognosticated its early decease and, in the 'twenties gave it a six months' expectation of life. The war to end wars was at a victorious end. A war-weary, overtaxed people were concerned only with reaction. If peace had to be safeguarded, let it be achieved by a new doctrine known as "collective security," whose first article of faith seemed to be that Great

Britain should disarm as an example, not notably followed by everyone else. So public support fell off, yet to be revived in part by pressure of events, which made nonsense of the lunatic "Peace Ballot," but primarily by the inspiration of a new leader, the first Lord Lloyd of Dolobran. He, great and experience imperial statesman that he was, was in no way deluded by the theory common then to too much of Great Britain, that security could be achieved by weakness. Nor was he in the least disturbed by unpopularity in high places. He was not to be diverted from the courses he felt to be right by any considerations of political preferment. He called upon the Navy League, its few remaining members and its minute staff, for a supreme effort for a cause greater than any possible reward he could offer. He got it.

Those great campaigns which he led from 1931 onwards to press for swift rearmament and for Government action to defend the Merchant Navy in its losing battle against subsidised and protected foreign competition are still remembered by many. Opposed, denigrated and venomously attacked though he and the League were at first, those campaigns had their effect upon public opinion and upon the Government. The fact that the Prime Minister, then Mr. Stanley Baldwin, was able to announce in 1936 that rearmament programme which only just saved us in 1939, was due in no small measure to the efforts of the Navy League. The late Earl of Derby did not exaggerate when he said at this time, "the future generation when it looks back on your work will, I believe, have every reason to bless you for having saved our country."

The Sea Cadets Corps too engaged Lord Lloyd's vigorous attention. Once again the League was in advance of the times. Several years before war broke out proposals were made that the Admiralty should take a share in the control and the training of the Corps and give it additional financial support so that it might be greatly expanded. Consequently there would be ready, in an emergency, an additional pool of enthusiastic, trained young men on which the Admiralty could draw for the large numbers of young signalmen and telegraphists which would, so thought the League, be required. The Admiralty did not agree.

The Navy League was not discouraged, however. It went to the public, raised additional funds, and between 1937 and 1939 trebled the strength of the Corps.

Once more war came. Once again the Navy League bent all its energies and organisation at home and overseas to the support of the Admiralty and the men of the Fleet. The Sea Cadet Corps manifested beyond question its value to the Navy and the Merchant Navy. Residential Training Schools were opened by the League in which volunteers from the Corps were given a final intensive training in visual and wireless signalling up to the standard of Ordinary Signalman and Telegraphist. Thus the Corps was able to offer the Admiralty regular group recruitment of trained young men, so saving the Navy many weeks of instruction in Naval establishments. This service proved so valuable that, whereas it was first financed purely as a voluntary effort by the League, the Admiralty soon came to its aid. Similarly, by the beginning of 1942 the Admiralty, pressed by manning problems, came into partnership with the Navy League in the general control of the Corps much upon the lines abortively proposed by the League some years before, and which persist to this day.

As in 1914, so in 1939, the League created a vast organisation for the supply of comforts of all kinds to men of the sea services, and enlisted the enthusiastic support of great numbers of helpers as well as the affiliated Navy Leagues in the Dominions. These, of their great generosity, besides caring for their own navies, supplied quanities of garments, games and money for our own men and the men of the Allied Navies.

But when victory was won came the cry for bread, circuses, and the welfare state which seemed to be the agreeable alternatives to battleships and bombers. Wholesale disarmament, the reckless squandering of our defensive strength characterised, as so often before in history, the first years of peace. So once again the Navy League took up its former role to "Keep Watch" over our security at sea. Its information, lecturing and propaganda services were recreated; the weakness of our post-war fleets exposed and public opinion aroused. Once more our forebears have been proved right in their contention that the only way to overcome the fatal tendency of Governments "to that misplaced economy which is the worst form of extravagance" is the force of public opinion applied through organisation adapted to the purpose.

One of the happiest developments of the post-war years has been the growing contact between the Navy Leagues of the Dominions and the parent League leading to an ever-increasing mutual understanding and appreciation. This is particularly so of the younger generation and has been achieved, as well as by the sacrifices and triumphs of war, by the regular interchange of visits of detachments of Sea Cadets who have joined in training courses together, in recreation and in each other's homes.

To-day the Navy League may claim a strength, an authority and a prestige which its founders could hardly have envisaged. The "sickly bantling" of 1895 has become a great Commonwealth organisation; an Imperial family of independent yet related members, together with that younger generation of Sea Cadets founded and sponsored by it, the future guardians of our heritage, the sea. It has served this country and the Empire well in the past. The opportunities and duties of the future will not be shirked.

Of the handful of far-sighted men, now gone from us, who conceived that Empire family, it can only be said, *si monumentum requiris, circumspice.*

AIRCRAFT CARRIER'S MISSION

A seaman who was seriously injured by an explosion of a detonation rocket in the Polish merchant ship *Braterstwo* was treated in the aircraft carrier H.M.A.S. *Vengeance.*

The merchant ship signalled the *Vengeance* for medical aid on August 30. The carrier raced to the *Braterstwo* and the transfer of the injured man was made early the following morning about 100 miles north east of Cape Finesterre.

The *Vengeance* took the seaman to Portsmouth. He received treatment during the voyage from naval medical officers in the ship's hospital.

H.M.A.S. *Vengeance* was on its way to the United Kingdom with a major portion of the ship's company which will man the *Melbourne*, the R.A.N.'s new aircraft carrier.

MARITIME NEWS OF THE WORLD

From our Correspondents in LONDON and NEW YORK

By

AIR MAIL

Freight rates up on Far East run

Shipping freights between Australia and Japan, the Philippines and Hong Kong will be increased by 10 per cent. from October 1.

Mr. A. G. Rose, the chairman of the Far Eastern Conference of Shipowners, which carries most of the trade on these routes, announced in Sydney on August 18 that the conference had decided on a general increase because of high operating costs.

Th current rate of freights was uneconomic, he said.

Mr. Rose said that wool was the most important cargo of the conference lines.

The conference comprises four British companies (Eastern and Australian, Australia - Oriental, China Navigation and Australia-China), three Japanese companies (O.S.K., N.Y.K. and J.A.L.), and a Swedish company (Australia-West Pacific).

Mr. Rose said that about 26 conference ships were on the Far Eastern trade.

Seaman's mother a security risk

The U.S. Coast Guard has withheld a commission from a graduate of its officer candidate school because of security matters involving his mother, Press agency reports from Washington stated on August 18.

The case, the second of its type within a month, involves Apprentice-Seaman Norton Pierre Gaston, 23.

Gaston's lawyer said that his mother, Mrs. Jean Grisez, is accused of having been a member of several organisations listed as subversive.

The Navy recently denied a reserve commission to Eugene Landy, 21-year-old graduate of the U.S. Merchant Marine Academy at King's Point, New York, on the ground that his mother was once a Communist.

Two fish stories from abroad

Here are two fishy stories from our London correspondent:—

● Customs officers who boarded the 5,000 ton British ship *Daressa* when she reached Karachi from the Persian Gulf on July 28 found gold bars worth £2,500—stuffed inside fish carried in an unclaimed basket.

● Since 1948 on the Great Ouse River in East Anglia, U.K., the fisheries officer Mr. N. McKenzie has been fishing with electricity, using an improved technique developed by himself.

The equipment consists of a portable generator driven by a petrol engine, and two poles with electrodes like tennis racquets attached and connected to electrical output by waterproof cable.

Each electrode has a shocking area of about seven feet radius within which the fish are stunned, and a further area out to a 14 ft. radius in which they are tickled and can be driven towards a stop net.

"Electrical fishing" is used in Britain for surveys, restocking and improving fish in inland waters. On the River Ouse and in tributaries alone, from April, 1954, to March, 1955, about a million fish were handled.

Merchant Navy learns A-bomb protection

Merchant Navy defence courses in the U.K. have been revised in the light of increased knowledge of the effects of nuclear weapons and other warlike techniques.

Originally instituted in 1938, the courses, after a brief cessation, were revived in 1951 at centres in London, Newcastle, Liverpool, Glasgow, Cardiff, Southampton, and Hull. The object of the courses, which are of two weeks' duration, is to inform masters, officers and men of the Merchant Navy of the measures that would be taken in time of war for their protection by the Royal Navy and of the steps which they can take themselves.

A wide range of subjects covered in the officers' course includes trade protection, convoy work, communications and radar, defence against submarines and mines, atomic, biological, and chemical protection, damage control, fire-fighting, and the principles of gun control. The men's course includes A.B.C. protection, damage control, and fire-fighting.

The subject-matter of the courses is constantly under review to keep it in step with current policy in merchant ship protection. The atomic, biological, and chemical defence and fire-fighting sessions have been recently extended.

Instruction is given on the hazards to be faced on the fringe of an atomic explosion at sea and the measures that can be adopted before the event to reduce damage and casualities to a minimum. This is followed by detailed damage control, incorporating first-aid repairs to ships and techniques to keep them afloat and moving after they have been damaged in action. A new lecture incorporating the latest medical research has been introduced to deal with survival at sea.

Since the courses were re-instituted in 1951, 6,000 masters and officers and 6,400 men of the Merchant Navy have attended at the seven centres. One-week courses, incorporating the theoretical part of the two-week course, are held in Australia and New Zealand.

Russians rescue Jap fishermen

Japanese officials on August 15 announced that all nine crew members of the Japanese fishing-boat *Kamone Maru* had been rescued by the Russians, and were safe on an island in the central Kuriles.

They were missing since late in July when their boat was caught in a typhoon.

French ship fights gale off W.A.

The French motorship *Irouaddy* off the Western Australian coast in August fought a two-day battle against a gale, with 1,150 drums of oil loose in a hold.

The ship, bound from Marseilles to Adelaide, was about 200 miles off Cape Leeuwin when the gale struck her.

For two days the crew worked desparately to restow the oil, but the drums continued to roll around the hold.

The captain decided to return to Fremantle to restow the cargo.

U.S. liners to arrive for Olympic Games

Two 14,000-ton freighters which the Matson Line is converting to luxury liners for the U.S.-Australia run will be ready in time to bring Americans to Australia for the Olympic Games next year.

Cost of converting the ships is estimated at £21 million each. The U.S. Government will subsidise the cost.

Each ship will have accommodation for 365 passengers.

The two ships are scheduled to make a total of 15 round trips a year. They will call at Honolulu, Samoa, Fiji, Tahiti, and New Zealand.

The last Matson liner, the *Marine Phoenix*, left Sydney in July, 1948.

British tanker fleet soon world's largest

Britain's tanker fleet will soon be larger than that of the United States, which at present has the biggest fleet in the world, it is stated in the thirteenth annual survey of world tanker fleets made by the Sun Oil Company.

The United States with 525 tankers—25 less than the year before—had only 23 per cent. of the world's carrying capacity at the end of 1954, against 26 per cent. at the end of 1953.

The United Kingdom had almost 18 per cent. of the world's carrying capacity at the end of 1954, and it would rise even higher in the future, the survey said.

150th ANNIVERSARY OF TRAFALGAR BATTLE

October 21 will be the 150th anniversary of the Battle of Trafalgar.

In Sydney the anniversary will be celebrated by an all-day display at the Naval Dockyard, Garden Island, on a Saturday, October 22, by a Navy helicopter display in the Domain at lunchtime on October 20, and by a performance by massed bands at lunchtime in Hyde Park on October 21.

The dockyard will be open to the public at 10.30 a.m. on that day.

In Melbourne, Trafalgar Day will be celebrated by a display at Como Park on Sunday afternoon, October 16.

The aircraft carrier Vengeance, which left Australia recently to rejoin the Royal Navy, is shown here on arrival in England. The carrier was on loan to the Royal Australian Navy pending the completion of the R.A.N.'s new carrier, H.M.A.S. Melbourne. Australian sailors who took the Vengeance back to England will man the Melbourne when she sails for Australia next year.

Admiral's Praise for Cadets

THE First Naval Member, Vice-Admiral R. R. Dowling, has congratulated Victorian Sea Cadets on their turnout at the Annual Navy League Ball at the Royal Exhibition Building, Melbourne, on July 8.

In a letter to Commander R. A. Nettelfold, D.S.C., R.A.N.R., president of the Victorian Division, the day after the ball, Admiral Dowling wrote:

"This is to thank the Navy League on behalf of my wife and myself for a very happy evening last night. It was a great success and it certainly was much enjoyed by us.

"Would you please pass on my congratulations to the Sea Cadets who formed the ceremonial lines and in particular those who gave us the excellent gymnastic display.

"I thought the boys in uniform were well turned out and they looked well. It is so important on these State occasions of ceremony that boots are clean, hair cut, hands and nails clean, and so on, not forgetting standing with shoulders squared and heads up looking on the world with justifiable pride in their Corps. I think the lads had all these attributes.

"The vaulting display and drill, which is an essential part of the gymnastics, was very good indeed. The instructor did a grand job in the training and the Cadets were a credit to him and the Corps."

NEW U.S. WARSHIP

A new type of warship has been launched which is known as a "Carronader."

She is to be armed with weapons akin to the carronade of the Napoleonic wars, which was a short gun of large calibre used for short-range smashing effect and not included in the armament warrant.

"Carronaders" are intended for the support of landing operations.

Royal Australian Navy ratings drop a Dan buoy over the side of a minesweeper during recent minesweeping exercises off the New South Wales coast, near Sydney.

South Africa Gets A Naval Base

BY ADMIRAL SIR HERBERT PACKER, K.C.B., C.B.E.

Federal President of the Navy League of South Africa and former Commander-in-Chief, South Atlantic Station.

THE recent British-South African naval agreement, which includes the transfer to the Union Government of the naval base of Simonstown, is the logical sequel of many years of discussion. In itself there is nothing startling. It has followed precedent in that as the navies of the Dominions have developed, so the Royal Navy Dockyards have been handed over to the countries concerned, first of all Esquimault and then Halifax to Canada; Garden Island, Sydney, to Australia; Devonport Dockyard, Wellington, to New Zealand, and now Simonstown to the Union of South Africa.

But what to my mind is remarkable and a matter for universal congratulation is the wide acclaim the agreement has received. Both countries, the United Kingdom and the Union of South Africa, appear fully satisfied, and in both countries the opposing political parties seem equally satisfied. This is a remarkable achievement.

Not only are the provisions of the agreement wise, but the timing has been excellent. There is no more point in having a first class base and no fleet than there is in having a formidable fleet and no suitable base. The two are interdependent.

For instance, when I was serving on the South African Station in 1922 there was considerable political agitation to turn over Simonstown Dockyard to the Union Government. At that time the South African Navy consisted of three ex-trawler minesweepers, the *Protea, Immortel* and *Sonnebloem*. What a nonsense it would have been to have had a full-size naval dockyard to support three minesweepers!

But just as I have seen the Australian, Canadian, and New Zealand Navies grow from nothing to a formidable force, so I have seen the South African Navy grow to its present day strength of two destroyers, three frigates, three modern minesweepers, a seaward defence vessel, a surveying ship, and various small craft. And now there is an eight year plan on which £18 million will be spent and which will involve the addition of six anti-submarine frigates, ten coastal minesweepers, and four seaward defence boats. A formidable force.

The maintenance of this Fleet will certainly keep Simonstown busy, but will still be large enough to cover its other commitments.

Incidentally, as an ex-Fourth Sea-Lord (responsible for supplies) I am delighted from the logistic and also the refit and repair point of view to see that these vessels are to come from the United Kingdom. This will ensure standardisation and thus reduce considerably the stocks of spares and stores which the base will have to carry.

Now that the agreement has been concluded, it remains to put it into effect. So far as the Dockyard with its highly specialised work is concerned, it will take many years to train fully from local resources the principal and other dockyard officers essential to the efficiency of the yard. The necessity for this training is recognised in the agreement. Meanwhile, to maintain the efficiency and war potential of the dockyard, the replacement of these important officers from the United Kingdom by South Africans will be "a gradual and controlled process."

So much for the dockyard. But now we come to the point which is exercising the minds of all who have the future of the South African Navy and the defence of the Union at heart — the manning of the ships in active commission and the provision of adequate reserves on mobilisation.

The official steps to be taken are not my business, but I have noticed the fine start which has been made with the Naval gymnasium at Saldanah Bay. But it is in the field of recruitment that I feel we of the Navy League can continue to be of real help by assisting the authorities through our various branches, both at the coast and inland.

For the past 30 years the Navy League of South Africa has made its influence felt throughout the country in its efforts to make the youth of South Africa more sea-minded. Assistance to Sea Cadet units, bursaries to the South African Nautical College *General Botha*, the annual Navy Essay Competition which reaches schools all over the Union, the production of our magazine *The Sailor/Die Matroos*, all these activities help to make the youth of South Africa realise that a life at sea offers travel, adventure, and good fellowship second to none.

In the sea service particularly, tradition plays a great part and the naval tradition of our South African "little ships" in the Mediterranean in the last war is something we can be proud of.

But it goes much farther back than that. It goes back to Van Riebeeck, 300 years ago, and even earlier. South Africa is justly proud of her Voortrekkers facing untold dangers in their hooded waggons, but they can be even prouder of their ancestors the "Naval Voortrekkers" who, in their small ships ventured out into the unknown to fight their way across the oceans against shipwreck and disease, against the dangers of the sea and the violence of the enemy,

Personalities

Submarine Chief's Colourful 30-Years Navy Career

Rear-Admiral George Fawkes, C.B., C.V.O., C.B.E., Flag Officer Submarines and Commander Submarine Force, Eastern Atlantic, arrived in Sydney by air on August 18 to visit the 4th Submarine Squadron and for discussions with the Australian Naval Board.

Since joining the Submarine Branch 30 years ago, he has had a highly colourful and distinguished career, which is outlined below.

REAR-ADMIRAL Fawkes, who was born in 1903, joined the Royal Naval College, Osborne, in 1917. After two cruises as a cadet in H.M.S. *Temeraire* and H.M.S. *Thunderer*, he served as a midshipman in H.M.S. *Queen Elizabeth* (Admiral Sir Charles Madden, Commander-in-Chief, Home Fleet) from 1921-23. After sub-lieutenants courses, he specialised in submarines, being appointed to H.M. Submarine M.3 (carrying a 12-inch gun) in 1925. With the exception of a year in H.M.S. *Torrid* in 1928, he served continuously in submarines until 1933, having been appointed in command of H.M. Submarine H.50 in 1932.

In 1933, Lieutenant Fawkes graduated at the Royal Naval Staff College, Greenwich, and in 1934, as Lieutenant-Commander, served on the staff of the Commander-in-Chief, Home Fleet, in H.M.S. *Nelson* (Admiral the Earl of Cork and Orrery). In 1935 Lieutenant-Commander Fawkes was appointed in command of H.M. Submarine *Otus* on the China Station and in 1938, on promotion to Commander, as Staff Officer Operations, to Admiral (Submarines).

Early in 1941 he founded the 8th Submarine Flotilla at Gibraltar. In July, 1941, as a member of the British Military Mission to the U.S.S.R., Acting Captain Fawkes served with the Russian Black Sea Fleet based at Sebastopol in the Crimea. When the Crimea fell, Captain Fawkes returned to England and, after three months' temporary duty as Chief Staff Officer to Flag Officer (Submarines), joined H.M.S. *Maidstone* in July, 1942, as Captain 8th Submarine Flotilla.

The 8th Submarine Flotilla, which was responsible for the secret landing of U.S. General Mark Clark in North Africa and the evacuation of the French General Giraud from the South of France, operated in the Mediterranean and later from Ceylon.

In May, 1944, he was appointed as Chief of Staff to Admiral (Submarines), where he served until June, 1946.

Captain Fawkes was appointed in command of H.M.S. *Sheffield* and as Chief of Staff to the Commander-in-Chief, America and West Indies Station, in December, 1946, and served in this appointment until November, 1948.

His next appointment was as Director of Operations Division, Admiralty, from January, 1949, to July, 1951.

He was appointed Chief of Staff to Commander-in-Chief, Home Fleet, and Commander-in-Chief, Eastern Atlantic, in the rank of Commodore 1st Class in December, 1951, first in H.M.S. *Indomitable*, and then in H.M.S. *Vanguard*, serving in this appointment until December, 1953, and being promoted to Rear-Admiral in July, 1952.

Rear-Admiral Fawkes assumed duties of Flag Officer, Submarines, and Commander, Submarine Force, Eastern Atlantic, on 9th February, 1954.

In addition to his British decorations he holds the French Legion of Honour and Croix de Guerre, and the American Legion of Merit.

Captain Blacklock

Captain (S) C. H. Blacklock, R.A.N. of Brighton Beach (Victoria), retired from the Royal Australian Navy on August 3, after more than 40 years' service. He was the only serving captain in the R.A.N. who has risen to that rank from the lower deck.

Captain Blacklock was employed at Navy Office, Melbourne, since 1952.

He was the senior supply officer in the Royal Australian Navy's first aircraft carrier, H.M.A.S. *Sydney*, when it commissioned in 1948. He also held the same appointment in the cruiser H.M.A.S. *Shropshire* when it commissioned in 1943.

He was the R.A.N. accountant officer for the 7th Destroyer Flotilla in the Second World War.

He entered the Royal Australian Navy in 1915 and in 1916 became a writer. He was made an officer in 1923.

In the first war he served in H.M.A.S. *Fantome* — a small survey vessel — which was fitted with guns and sent to the Pacific to search for the German raider *Wolf*.

Captain Blacklock, who is 55, will continue to work at Navy Office as a civilian.

Surgeon-Captain Flattery

Surgeon-Captain James Flattery, O.B.E., recently appointed Command Medical Officer for the East Australian Area, has a service career which extends over many ships, but his name is most closely associated with the renowned H.M.A.S. *Australia*.

He first served in that ship in the Mediterranean during the Abyssinian crisis in 1936, remaining in it until 1938.

September, 1939, found him

again in the ship on the outbreak of war, and he remained there until 1942.

During this period he had action experience in the engagement off Dakar, and saw service over a wide range of areas, as far North as 75° in the Arctic regions, and 50° South in the Antarctic, besides the Atlantic, Indian and Pacific Oceans.

The ship had some very narrow escapes, especially during the severe blitzings of the dockyard at Liverpool during 1940.

In 1942, he had a shore appointment, and was the first Medical Officer in Charge at Balmoral Naval Depot.

He was present at both Leyte and Lingayen, when the ship became almost a special target for the Japanese suicide dive-bombers, the Kamikaze. In the two engagements, planes dived into the ship on six different occasions, the casuality list of killed and wounded was great, and the damage was extensive.

Following these actions, he was awarded the O.B.E. and was mentioned in dispatches.

He was appointed Honorary Phyisician to the Duke of Glouces-ter during his term as Governor-General of Australia.

During his sea service he made a special study of the effects of salt deficiency, and had an article published on this subject. He began the practice of issuing salt tablets as a preventive against the ill-effects of such deficiency.

Captain Hudson

Acting Captain Clive Hudson, whose appointment was announced on June 30, is Director of Personnel, Navy Office.

He entered the R.A.N. College in 1928, and gained his colours for cricket, rugby, hockey, and athletics. On passing out he was awarded the prize for English-French-History.

He became a midshipman 1st May, 1932, sub-lieutenant in 1935, lieutenant in 1937, and lieut-commander in 1945.

His first ship was H.M.A.S. *Canberra*, and on going to the Mediterranean Fleet he served in H.M. Ships *Sussex*, *Durban* and *Resolution* before doing courses.

At the end of 1935 he joined H.M.A.S. *Australia*, then serving in the Mediterranean. In 1939 he specialised in navigation and at the outbreak of war was appointed to the 1st Minesweeping Flotilla, serving in H.M.S. *Sharpshooter* and H.M.S. *Seagull*.

In March, 1941, he was Navigating Officer of H.M.S. *Dragon*, serving in the Atlantic and later in the Java Sea. He returned to Australia in the latter part of 1942 and for a short time served in H.M.A.S. *Warrego*, carrying out special survey duties. In November of that year he was appointed Navigating Officer of H.M.A.S. *Hobart*, in which ship he was serving at the cessation of hostilities.

He received a Mention in Despatches in November, 1945, for his share in the Borneo operations from Tarakan to Balikpapan. In December, 1949, he was promoted to Commander at which time he was serving in H.M.A.S. *Australia*.

New R.A.N. Posts

New posts for three senior officers of the Royal Australian Navy have been announced by the Minister for the Navy, Mr. J. Francis.

Commander I. H. McDonald, R.A.N., until recently executive officer of the Royal Australian Navy air station at Nowra (N.S.W.), has been appointed Inspector of Naval Training at Navy Office, Melbourne, President of the Permanent Interviewing Committee and Inspector of Naval Recruiting. He has been given the acting rank of Captain.

He will be succeeded at Nowra by Commander B. S. Murray, R.A.N., at present captain of the frigate *Condamine*, now serving in the Korean area.

Commander E. J. Peel, D.S.C., R.A.N., at present Naval Member of the Joint Planning Staff in Melbourne, has been appointed captain of the Battle class destroyer *Anzac*, which, with her sister-ship *Tobruk*, will leave Australia for the Malayan area in November to relieve the Tribal class destroyers *Warramunga* and *Arunta* as the naval component of the Australian strategic reserve.

Acting-Captain McDonald served in the Second World War and also did two tours of duty in the Korean area. He was in H.M.S. *Barham* when she was torpedoed and sunk in November, 1941. On the first occasion on which he served in Korean waters he was captain of the frigate *Shoalhaven* and on the second occasion was captain of the *Tobruk*.

Commander Murray served in H.M.A.S. *Australia* and H.M.S. *Nepal* in the Second World War and also served in the Korean area in the aircraft carrier *Sydney*.

Commander Peel was serving in H.M.A.S. *Vampire* in the Second World War when she was sunk. He was captain of H.M.A.S. *Gascoyne* in the action off Luzon in January, 1945. He was later awarded the D.S.C. and the United States Legion of Merit.

R.N. Promotions, etc.

The Admiralty has announced the following promotions, appointments, and retirement:—

Admiral Sir George Creasy, G.C.B., C.B.E., D.S.O., M.V.O., promoted to Admiral of the Fleet.

Vice-Admiral Sir Ralph Edwards, K.C.B., C.B.E., promoted to Admiral.

Rear-Admiral L. N. Brownfield, C.B., C.B.E., promoted Vice-Admiral.

Vice-Admiral S. H. Carlill, C.B., D.S.O., lent to the Indian Navy as Chief of Naval Staff, Indian Navy, in succession to Admiral Sir C. T. Mark Pizey, K.B.E., C.B., D.S.O. and Bar.

Vice-Admiral F. R. Parham, C.B., C.B.E., D.S.O., to be Commander-in-Chief, The Nore, in succession to Admiral Sir Geoffrey N. Oliver, G.B.E., K.C.B., D.S.O. and two Bars.

Rear-Admiral R. D. Watson, C.B.E., to be a Lord Commissioner of the Admiralty, Fourth Sea Lord and Chief of Supplies and Transport, in succession to Vice-Admiral F. R. Parham, C.B., C.B.E., D.S.O.

Rear-Admiral R. S. Warne, C.B., C.B.E., has been placed on the Retired List.

Colonel R. W. Madoc, O.B.E., Royal Marines, Chief Instructor at the Amphibious Warfare Centre, appointed to command 3 Commando Brigade, R.M., in the rank of Brigadier, succeeding Brigadier I. H. Riches, D.S.O.

Commodore (2nd Class) Sir Charles Madden, Bt., R.N., to be a Naval Aide-de-Camp to the Queen in succession to Captain E. W. J. Bankes, R.N.

Instructor-Captain F. C. Sobey, B.A., R.N., to be Naval Aide-de-Camp to the Queen in succession to Instructor-Captain R. E. Shaw, C.B.E., B.Sc., R.N.

Captain H. P. Sears, R.N., has been appointed Assistant Chief of Naval Staff (Air) and a member of the Canadian Naval Board, and has been granted rank of Commodore (Second Class) while holding these appointments.

CATHODIC PROTECTION

The R.A.N. is considering cathodic protection of its Reserve Fleet.

An explanation of the principle involved was given recently in the U.K. in a paper on the cathodic protection of ships against sea water corrosion presented Mr. L. T. Carter, B.Sc., R.C.N.C., and Mr. J. T. Crennell, M.A.

Corrosion of steel in sea water, said the authors, is an electrochemical process. Owing to differences in electrical potential, currents flow between the more reactive areas (anodes) of the steel surface and less reactive areas (cathodes). These currents cause the metal to pass into solution.

The wastage rate of hull steel, if left unpainted and exposed to sea water, would normally be about 3 to 6 thousandths of an inch in depth per year, depending upon exposure conditions.

R.A.N. HAS BUSY YEAR

A busy programme lies ahead of the ships of the Australian Fleet from now until Christmas.

THEIR TASKS WILL include service as part of the strategic reserve in the Malayan area, service in Korea, and patrol duties in northern waters. In addition Fleet exercises in the Sydney area, as well as weapon and anti-submarine training, have been arranged.

Announcing the programme recently the Minister for the Navy, Mr. Francis, said that, as previously stated, the first ships to form the naval component of the strategic reserve in Malayan waters would be the destroyers *Arunta* and *Warramunga*, which recently took part in the Anzam exercises between Darwin and Singapore and in the South China Sea.

The *Arunta* and *Warramunga* will remain in the Malayan area until December when they will be relieved by the destroyers *Tobruk* and *Anzac*. The *Arunta* and *Warramunga* will return to Sydney in time for Christmas.

The frigate *Condamine*, which is at present on a tour of duty in Korean waters is expected to return to Sydney in November.

The Fleet will be strengthened this year by the fast anti-submarine frigate *Quickmatch* which, like the fast anti-submarine frigates *Queenborough* and *Quadrant*, is a converted "Q" class destroyer. The *Quickmatch* last month was undergoing trials following her conversion.

The *Queenborough*, which went to England last February to gain experience in hunting fast, modern, long-submersible submarines and to obtain an evaluation of her new weapons and detecting equipment, returns to Australia in December.

On her way back to Australia from Singapore in July, the *Quadrant* exercised with the frigate *Shoalhaven* in the Darwin area in anti-submarine and anti-aircraft operations, assisted by Firefly aircraft, flown from the R.A.N. air station at Nowra (N.S.W.). The *Shoalhaven* will remain on patrol duty in the Darwin area until November when she would be relieved by the ocean minesweeper *Cootamundra*.

Th aircraft carrier *Sydney*, now the training ship of the Fleet, will be employed in national service and other training, will visit Adelaide on September 16 and September 18 to embark reserve trainees. She will be available for the deck-landing training of aircraft pilots between November 21 and November 30.

When the new aircraft carrier *Melbourne* arrived in Australian waters from England next year the Royal Australian Navy would possess the most modern light fleet aircraft carrier afloat.

Fiction

"BRICKIE" McDONALD

By J. H. Adams

I LIKED the cut of the fellow's jib (said Captain George Mansley). He was young, athletic and of good approach — McDonald by name, an Australian Scot.

And because my regular ship's surgeon, Dr. Ramsay, was ashore on leave, I palled up with McDonald.

Doc and I had been together for years in the Camberwell. We were firm friends, even if he did consider me a bit of a dill and we sometimes had our little disagreements.

I'm rather slow to make friends. I strike up a sort of superficial friendship with my passengers from the first day out and it seldom goes beyond that.

The night we left Sydney, bound for Vancouver, I met McDonald. I set the course, went down to dinner in the saloon, and when I emerged on the promenade deck, I found McDonald at my elbow. He was smart in dinner suit, and affable. He opened a conversation on nautical affairs and showed right from the jump that he knew something about the sea.

"You talk like a sailor," I remarked.

"I am — or was — in a way. Navy in the war, you know," he replied. "Given it up now."

Perhaps that's the reason why I cottoned on to him. We strolled and yarned for fully an hour. Then he excused himself, saying that he had a date on the dancing space.

I didn't always breakfast in the saloon, but next day I felt more gregarious than usual and lingered over my second cup of coffee until the saloon was nearly empty. McDonald didn't appear.

As a former naval man, he was unlikely to be seasick in such calm weather.

In the evening I met him again. We adjourned to the smoking-room and had a couple of beers together. He was an amusing blighter. Told some rather good stories in the best wardroom manner. Suave, polished raconteur, was McDonald.

The days wore on and we were constantly together, except in the mornings, when I never saw him. I asked him where he got to and he said he slept in and rarely ate breakfast.

I had to confer with the chief steward in the afternoon and, in the course of our pow-wow, I mentioned McDonald.

"Nice chap," I said, "Talks quite freely, but when you leave him you find that he hasn't said a darned word about himself. Who is he? What is he?"

'McDonald? McDonald? Don't know him. We haven't got a McDonald on the passenger list," the chief answered.

The chief steward went away looking puzzled and promising to make some inquiries. Perhaps a mistake had been made and a name had been dropped off the list. I accepted this explanation.

My friendship with McDonald continued. He mentioned that he was a rather good bridge player and hinted at a game. I didn't take the hint, for at that particular time I'd gone off the game a little. I'd been playing night after night, voyage after voyage, and had gone stale.

The chief steward came back to me.

"This McDonald, sir. He's not on our passenger list; we haven't a ticket for him. He isn't a passenger. Because he's a friend of yours I haven't had him questioned. But —"

"You think he's a stowaway?"

"I did until I had the ship searched quietly at night by my staff. Can't for the life of me find where he sleeps. I've had a steward shadowing him. He always loses McDonald. The fellow's most elusive."

One morning, half-way up the Pacific, as I looked down from the bridge into the forrard well deck I saw something that aroused my suspicions.

It was a fleeting rear view. Nearby was Martin, an old hand in the ship. I leaned over the bridge rail and called him. I took him into my room and closed the door.

"Martin, who was that disappearing into the fo'c'sle?"

He was uneasy and obviously withholding something.

"Er — he was McDonald, sir."

'And who's McDonald?" I asked icily.

"'Brickie' McDonald. The new AB. Called 'Brickie' 'cause he's so hard headed you can't dent 'im with a brick."

"What's been going on in this ship? Now come clean!"

Out it came. This fellow McDonald had made bets with some of his shipmates about palling up with the Old Man.

He had dressed up, strolled to the saloon, taken a vacant seat at one of the tables and generally behaved like a first class passenger.

No wonder I hadn't seen him in the mornings. He was on watch.

"He hasn't won his bet, though, sir," Martin added, with an amused gleam in his eyes. "The exact terms were that he had to play bridge with you in a dinner suit."

"Well, I'll be keel-hauled!"

I had an excuse for falling for this practical joker. A captain can't be expected to know every man in the ship, especially new hands making their first voyage.

Maybe old Doc Ramsay, who gets me out of a lot of strife, was right. I shouldn't be allowed at large without a keeper.

For Sea Cadets

RADAR IN SHIPS AND HARBOURS

From "The Vickers Magazine"

SINCE man first started to make use of the sea as a highway he has always come up against a basic problem. It is, firstly, to find out exactly where he is and, secondly, to decide what to do to reach his destination. After centuries of marine navigation based on established astronomical and magnetic methods, the art of navigation has now developed into a precise function; so much so that the skilled navigator, using only these methods could say with some degree of certainty "I know where I am."

In thick weather, however, the problem of other ships' movements is introduced and here basic methods cannot provide the full solution. It was not until the introduction of marine radar, after the Second World War, that the navigator entered into a new era in which he could say with some confidence "I know where I am, I can see what the other fellow is doing — therefore, I can proceed in safety."

Rear-Admiral H. J. Buchanan inspects a parade of N.S.W. Sea Cadets at Garden Island, Sydney, recently.

Two forms of radar are of special interest to the mariner. Land-based installations at the mouths of many large harbours enable the harbour authorities to effect close control of the movements of shipping in the vicinity. Equipment for this purpose is known as "harbour radar." The other is that installed on the vessel itself, but the principle involved is almost identical.

The fundamental idea behind radar is not new, since it is based on the "echo" principle. For years ships have used this when approaching a coast in fog in order to estimate a distance from a cliff or headland. The ship's siren is sounded sharply, and at the same time a stop watch is started. After an interval the echo of the siren will be heard rebounding from the cliff, whereupon the watch is stopped. The speed of sound in air is known to be about 1,100 feet per second, and thus a reasonably accurate approximation of the distance off can be obtained. The echo principle is also used at sea in depth sounding. Here, bursts of high frequency sound waves are transmitted from the vessel and an echo received from the sea bottom. The speed of sound waves in water is known, and as the time interval is automatically measured it is possible to ascertain the depth of water below the keel. The "Asdic" device used during the war for locating submarines used the same echo principle, but in common with radar it had the added advantage of determining direction as well as range.

In brief the equipment is complex but the principle simple. The shipborne radar transmitter generates extremely short pulses of radio energy. These are concentrated by the aerial into a very sharp, and thus highly directive, beam before being radiated. The receiver is located in the same instrument and a common aerial is used. When the transmitted impulse encounters other objects, part of the electro-magnetic energy is re-radiated in all directions causing a reflected pulse to return to the transmitting aerial. This

energy is passed to the receiver, and by means of a cathode ray tube the time which has elapsed is measured between the impulse leaving the aerial and its echo returning.

Because the speed of a radio wave is constant, the time taken for a pulse to travel from one point to another represents an accurate measure of distance. This constant speed of transmitted pulse and reflected echo is known to be 186,000 miles a second, or a seamile of 2,000 yards in six millionths of a second. Therefore, an object one mile from the radar aerial will give an echo only twelve millionths of a second later than the departure of the transmitted pulse. The cathode ray tube is an electronic device which in conjunction with a time base, can register and measure split second intervals precisely, so determining the transit time of the pulses. By using transmitted pulses with sufficient interval between each pulse to allow any echo within the required range to return, the cathode ray tube furnishes a means of measuring the range of objects.

To measure bearing

In order to measure bearing, the radar equipment is provided with a directional aerial or "scanner" which, by its physical design, sends out the pulses in a narrow beam.

This scanner is rotated continuously as the pulses are transmitted, and an echo is received when the aerial is pointing at a target. In the marine navigational radar set the echoes are displayed on a plan position indicator. The radar-equipped ship, located in the circular screen, and all the targets surrounding it are indicated by spots of light on the tube face, range and bearing being read off from the centre of the tube — the ship's own relative position. The echoes do not resemble ships or buoys, but are interpretable by the navigator after very little operational experience.

Radar navigation is often referred to as though it was something new, but this is hardly true; the basic principles of navigation, such as chart work, plotting and ship-manoeuvring still apply. The only thing which is new is the presentation of the information. But in order to obtain a correct appreciation of the equipment, some idea of how it functions is necessary. The electronic principles and techniques used are fairly complex and a somewhat detailed scientific knowledge is required.

Since pulse technique is the heart of the system, these short electrical pulses are generated in the transmitter unit. The number of pulses generated per second is the pulse repetition frequency, usually about 1,000 to 2,000. As already mentioned the pulses are very short, generally 0.1 to one microsecond. The pulses are passed to the transmitting valve — the magnetron. The magnetron generates powerful, high frequency radio oscillations each time it is triggered off by one of the pulses, and these powerful radio bursts are passed through the waveguide to the scanner unit from which they are radiated. At the ultra high frequencies at which radar is operated, the final pulse of energy radiated by the transmitter is of such high frequency that it cannot be fed to the scanner by a cable; at such frequencies the energy will not pass along conventional transmission lines and so the rectangular metal pipe, or wave-guide, is used. The physical dimensions of this are governed by the frequency of the energy it has to pass.

The receiver is connected to the same aerial as the transmitter, and to prevent damage to the receiver from the transmitted pulse, an electronic switch is used — the "T.R. cell"; this blocks off the receiver while the transmitter is working, and connects it to the aerial immediately the transmission ends. In several cases the transmitter is in operation for .2 miscroseconds, and the receiver is in operation of 999.8 microseconds awaiting reflected energy. When echoes, in the form of radio energy, are received from an object, they are passed down the waveguide to be converted into electrical pulses by the receiver and from there to the display unit, to become visible on the screen. Most of these circuits are situated in the transmitter unit, with others in the display unit.

The motor generator is required to convert the ship's mains into alternating current suitable for operating the equipment. The starter unit enables the whole equipment to be handled from the control panel on the display unit.

Many problems

The display unit contains amongst other units the cathode ray tube, and the mechanism which synchronises the movements of the trace with those of the scanner. The monitor signal unit automatically monitors the performance of the equipment by displaying a signal on the plans position indicator tube, the length of which is a measure of the overall efficiency of the installation.

The fittings of radar equipment into ships presents many problems, and an almost standard procedure has been adopted. In general, this means that the scanner unit is mounted on a mast or pedestal erected on top of the wheelhouse with the cables and waveguide passing through glands in the deckhead to the transmitter unit situated in the wheelhouse below. The display unit is usually placed in the forward part of the wheelhouse, although some officers prefer it to be placed on the chart room. The motor generator can be stowed in some convenient place away from the rest of the equipment, where its magnetic effect will not disturb the ship's compasses or its noise the officers' sleep. All the controls for the operation of the equipment are in the display unit and it can, therefore, be started, used, and stopped from this position.

Britain still leads the way in radar development, having been first to develop it commercially after the war. Radar has proved its worth, not only in ships of all types and sizes, but also in busy ports and difficult harbour entrances.

Shore-based radar

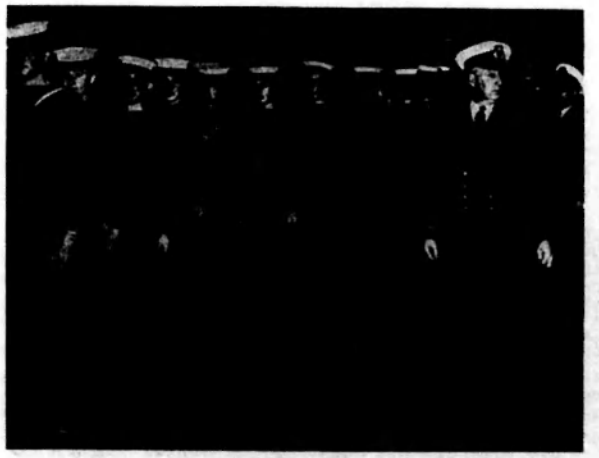
The main function of shore-based radar is to help maintain normal shipping movement in conditions of fog or bad visibility. To a lesser extent shipborne radar is capable of doing this. There are cases on record of radar-fitted ships finding their way to their berths in conditions of dense fog, entirely by their own radar. Generally, however, masters of vessels will not commit themselves to a navigation channel in such conditions because they are unaware of what hazards they may meet once they are under way. To maintain the flow of shipping it is necessary to provide all ships — whether radar-fitted or not — with such navigational information that vessels which would hesitate to proceed will be encouraged to do so; those which would continue in any case, will do so with more confidence and in greater safety.

The most northerly land-based radar station operates at the entrance to Isfjorben Harbour, Spitzbergen. This station provides a fine example of how standard marine radar can be adapted for use in a shore station. Information is collected and co-ordinated on the state of the entrance and approaches for a fjord or harbour in a way hitherto impossible to achieve with much rapidity and accuracy.

The function of this radar station is to give ships on request a correct position "fix" within the area covered, at the same time giving the movement of other vessels. At the towns of Barentzburg and Longyearborn, situated on the fjord, coal is mined throughout the year. Owing to the arctic conditions, however, the fjord is only open for three to four months throughout the short summer, and during this time the accumulated stocks of coal have to be shipped.

The large shipbuilding port of Sunderland has a radar station situated in the Pilot House. The function of this installation is to provide navigational aid for the pilotage of vessels entering and leaving Sunderland harbour. Communication is established by radio-telephone between a fixed radio installation — located with the radar equipment in the Pilot Office — and either the radio set fitted in the pilot launch, or the portable walkie-talkie apparatus carried by the pilot. This system is unique in that it is operated completely by the pilots themselves.

A shore-based radar installation is not intended to be used in any form for "control" of shipping in the navigational sense. The master remains in sole control of his vessel and merely receives information from the pilot at the radar via the pilot on board his ship. On board the pilot vessel, a continuous listening watch is maintained for instructions from the radar station. In operation at Sunderland, the pilot vessel is directed to the inbound vessel by radar and radio. Once contact has been made and a pilot has come aboard with a walkie-talkie, he is given a compass course to steer, with any corrections which may subsequently



See Cadets from the N.S.W. Division manned the foyer of the Prince Edward Theatre in Sydney recently when His Excellency the Governor, Lt.-General Sir John Northcott, attended a gala film premiere to aid the United Nations Appeal for Children. Outside the theatre Navy signal flags were hoisted: "Request immediate assistance for world's children."

be found to bring the vessel into harbour. After some years of use with this radar system, the port maintains a steady flow of inward and outward traffic despite a high incidence of fog.

Other uses for radar are being developed and two which interest shipbuilders are those dealing with measurement of ship's speed on trials, and "turning circles."

When new vessels are undergoing trials an estimate of their speed capabilities is obtained by runs up and down the "measured mile." This distance is measured from marks set up on shore which are observed visually from the ship. A stop watch is started when the ship is abeam of one set of marks, and stopped when the ship is observed to be abeam of the second set of marks — indicating that a measured mile has been covered. However visibility is often such that the shore marks are obscured, and much time is wasted in doing the speed trials. In some cases persistent haze or fog means that satisfactory speed trials are impossible.

On the Newbiggin Mile off the North-East coast, where ships built on the Tyne and Wear do their trials, a simpler radar system has been devised so that speed measurements can be taken irrespective of visibility. An anchored buoy is fitted with a radar reflector, which causes it to create a bright well-defined echo on the ship's radar display. As the ship starts her run and the stop watch is started, a radar range and bearing of the buoy is taken and laid off on the chart. Another radar range and bearing is taken at the conclusion of the run. From these plotted positions, together with the time consideration, satisfactory assessments of the ship's speed can be calculated even though the shore marks are obscured.

The problem of measuring the turning circle of a vessel has confronted naval architects and their colleagues for as long as they have been designing and building ships. The dimensions of this circle are often called for when the question of a ship's manoeuvreability arises, in cases involving accident for instance. In merchant shipping the method to date has been rather haphazard. It consisted of working up the ship's engine revolutions to a normal full speed figure and then putting the helm hard over. The naval architects and senior marine personnel would then assess the extent of the turning circle by visual observation of the wake, and agree on a figure. Usually the phrase to "call that four ship's lengths" or some such figure was unanimously agreed on, and concluded that portion of a ship's trials.

In H.M. ships, of course, where this information is required to be more accurately measured for the purpose of service manoeuvres and evolutions, a much more lengthy procedure has to be adopted. This consists of making the turns in a specific area in the proximity of convenient buoys, or to lay special buoys for the purpose. Whilst the ship is turning under helm continuous bearings are taken by observers in the bow and stern of the vessel, and from the figures obtained, together with other physical factors, a more accurate appreciation of the turning circle is obtained. The whole operation is a lengthy one, however, and the accuracy of the results is dependent on the circumstances prevailing, particularly the weather.

The radar method was first demonstrated to representatives of the Ministry of Transport during the trials of the Irish Cross-Channel vessel, m.v. *Leinster*, using her standard radar installation. By experienced adjustment of the controls, it is possible to obtain a clear picture of the complete circle described by the ship's wake; by means of the accurately calibrated range marker fitted to the instrument it can be measured to an accuracy of plus or minus 25 yards. It is found in a vessel of this class that the actual turning circle is considerably smaller than could be estimated by the older method, which was only very approximate.

The accurate assessment of distance at sea has long been known to be most deceiving when working only from visual aid without bearings, but the advent of radar with its accurate ranging has been a revelation to seamen. Most of them admit to having been astounded at how erroneous their estimates of ranges have been, when compared with the actual range as displayed on their radar set.

ATHLETIC TROPHY

The N.S.W. Division of the Australian Sea Cadets Corps has been fortunate in receiving from the Stamina Clothing Company a splendid silver cup as The Stamina Trophy, to be competed for by the eight N.S.W. units who will participate in the Sea Cadet annual atheltic carnival in September.

The trophy is pictured above.

The name of the winning unit each year will be inscribed at the base of the cup.

Units will run off their own heats. The winners will compete at the E. S. Marks Memorial Ground, Moore Park, Sydney, on September 10 and 17 as unit teams.

Cadets from Newcastle and Wollongong will be having weekend training in one of H.M.A. Ships during one of these weekends.

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SYCAMORE

THE Bristol Sycamore Mark 4 helicopter is here shown equipped for search and rescue duties, for which it has been adopted by the Royal Air Force. The hydraulic winch, which is served by a hydraulic pump attached to the drive on the main gearbox, is installed on the side of the fuselage above and immediately aft of the starboard entry, so that the cable hangs directly in front of the opening. The intercommunication cable which links the crewman with his pilot during a rescue operation is secured immediately beside the opening, below which is a guard-rail which provides a convenient handgrip when a casualty is brought aboard. The canvas screen which covers the aperture during flights to and from the scene of rescue is rolled up above the opening, leaving a completely unobstructed entry. The door sill is flush with the floor, which is level throughout and wholly covered by a rubber drip-tray. The three canvas folding seats at the rear of the cabin are shown ready for use, and first-aid equipment is secured to the bulkhead immediately above the seats.

The Sycamore is powered by the Alvis Leonides

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