Sycamores are in quantity production for the British Services, and are already in operation with the Royal Air Force, the Army, the Royal Australian Air Force, the Royal Australian Navy, the Belgian Air Force and British European Airways.
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A HOPEFUL SIGN FROM CANBERRA

In his statement on foreign policy to the House of Representatives, the Prime Minister said that his discussions with the United States Government on defence against Communist aggression had been "eminently satisfactory and comforting." Mr. Menzies conveyed some of that comfort when he spoke of the dangers of insularity of defence strategy and of the "madness" of neglecting conventional weapons, despite the atomic age.

Only those who may wish to sacrifice national safety for the sake of personal political advantage will dispute the wisdom of meeting the threat of war as far as possible from our own shores. And meeting the threat of war includes efforts to contain local conflicts and "cold" wars, of which we have had some experience since the end of World War II.

The "cold" front in the Asian zone is shifting steadily southwards. It is prudent and proper that Australia should make her contribution to help stop its development. This action, represented by Australia's decision to increase her armed forces in the Malayan area, cannot be regarded seriously as "imperialism." On the contrary it is essentially a defensive move which must have the support of the Manilla Treaty countries, in whose area of interest the danger of war is pressing.

It was refreshing to hear Mr. Menzies declare that "an insular view of Australian defence would be the very definition of disaster." As a statement of policy that is reassuring. But it must be implemented quickly, and that means we must have the men, weapons, and supply to make its implementation a realistic fact.

The policy means that a heavy responsibility will fall on the Navy, whose mobility and versatility in battle automatically place it in the foremost line of our defensive operations. The Navy will accept that task cheerfully, although more cheerfully if it were provided with the means of discharging its responsibilities effectively. In this regard, of course, the Prime Minister relayed the United States Government's promise of "effective co-operation" in the Asian zone. For that reason alone we should be looking searchingly at our resources of conventional weapons—particularly of our Fleet Air Arm, which in common with Britain and America we now regard as the heart of our Navy.

The Prime Minister stated—as we pointed out in our March issue—that the democratic world at present was "substantially inferior" to the Communist world in conventional war weapons. It would be madness, he said, for the democratic countries to suspend production of these types of weapons.

Let us hope that the Government will take an equally realistic view when it comes to providing something more material than a statement of policy—that is, when it begins to provide the weapons and men we need.

HIGH COST OF JET PILOTS.

The jet aircraft pilot—whether R.A.N. or R.A.A.F.—is the most expensive man in Australian uniform, says the "Sydney Morning Herald."

It costs £15,000 to put him there.

"Behind each pilot there is a colossal organisation of men and machines," the newspaper adds. "Service auditors estimate that each flying hour costs at least £100. It takes 24 months to train a pilot to squadron standard so that he can join a front-line operational wing. During that time he has flown about 500 hours, on elementary and advanced machines."

About £10,000 has been spent on the pilot by the time he goes to an operational training unit. Up to then he is merely a fledgling.

The rest of the time and money go in perfecting his skill on jet machines or the latest bombers in the Australian Services.

At about 35 a pilot becomes physically unfit for front-line flying and is usually withdrawn from the squadron. This is because as machines go higher and faster so do their demands on the men who fly them increase."
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Keep a Good Lookout
FOR THE NEXT ISSUE OF
The Navy

British Conference Criticises
U.S. Shipping Policy

The British shipping industry has been striving for centuries to restrain "flag discrimination." At the recent annual meeting of the Chamber of Shipping of the United Kingdom the fight was renewed and the chief opponent named—the United States of America. Sir Colin Anderson charged the United States with maintaining its merchant navy "by what amounts to a levy on world trade." This levy was "unacceptable and unneighbourly.

Sir Colin, in proposing a resolution on flag discrimination (it appears in the panel on the next page) said that the British shipping industry now faced a moment when particular frankness should be used.

Between the wars the forms taken by flag discrimination were mild when compared with the sweeping nature of those now developing.

"I do not think the situation has ever been so serious as at the moment," Sir Colin said. This is partly due to the new nationalism which have grown up following the last war. It is a strong tendency for these to express themselves by the formation of new national merchant navies.

Having newly acquired a merchant navy the administration often finds that it is strangely expensive and difficult to manage.

"It adopts the first and, to it, the simplest method of taxing the other countries to share the burden by recouping running expenses by a sort of levy on world trade consisting of a claim to carry 50 per cent, of the cargoes coming in and out of its ports.

It is a very shortsighted thing to do, though it is difficult to convince those doing it that it is so.

There is no doubt about it that these uneconomic fleets are a grave burden on world trade and a factor which unnecessarily increases the cost of goods transported by sea.

"I do not wish it to be thought that we British shipowners feel that there should be no new merchant navies. I can think of several nations which would have every reason for developing their own merchant navy. All we ask is that they should develop them on the proper basis, if they need them and can pay for them.

"On the other hand we do not see why other seafaring nations should be indirectly taxed for their benefit. That applies to a number of nations, but the particular trouble at the moment is that a great nation—probably the greatest nation in the world today—amongst them.

That nation, which exists arises from that fact and it is to that fact which I must address myself.

"It will appear as if I am talking against that particular nation—the United States. But I must, for the time has come to do so.

"It is absolutely illogical to give a 50 per cent, concession, which is that they should develop them and can pay for them. It is a very shortsighted thing to do. Though it is difficult to convince those doing it that it is so.

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"It will appear as if I am talking against that particular nation—the United States. But I must, for the time has come to do so.

"The policy of the United States is to maintain a merchant navy. And we all feel they should indeed do so for strategic reasons. But instead of maintaining it in the acceptable and neighbourly way, by a levy on the people of the country which has decided to have it, it is being kept up in an unacceptable and unneighbourly way. In short, it is having its charges met by what amounts to a levy on world trade.

"It is absolutely illogical to find this particular policy pursued by this particular nation (and pursued not only in its inward and outward seaborne trade but in its cross trades as well) considering that this is a nation which has come out strongly and openly—and rightly, too—as an apostle of the policy of the liberalisation of world trade.

"We all know how this mistake takes 50 per cent, policy of the U.S. began after the war as connected with 'gift' cargoes. We accepted it at that date, but it is only fair to say that at the same time we openly deplored it in principle. Now we can see 'aid' becoming 'trade.' There is no doubt about that. Yet the original 50 per cent, concession, which was ever since so serious as at the moment, is not so.

"May I here stress that the rather loose term '50-50 rule,' which one often hears, should not be used and that a better term is the '50 per cent. rule.' The use of the expression '50-50' seems to me to suggest that the American ships are allowed 50 per cent. of the cargoes and the other parties to the agreement are allowed 50 per cent.

"But that is not so. In fact 50 per cent, is to go to the Americans and the rest of the world can scramble for the remainder.

It is quite certain that the point of view I am expressing now will be painful to many Americans, particularly to our American shipowner friends and even to the Administration, but as we feel this so strongly it would be folly not to speak out plainly. We have
accepted the situation long enough.

"We must ask whether the United States sincerely wishes to impose these illiberal terms of sea-carcass to the detriment of the maritime, freedom-loving nations, which the United States has openly said it wishes to foster.

"To show the extent to which things have gone I should say that, apart altogether from the recent United States Cargo Preference Act, there is earlier legislation of Congress dealing with this matter and that too is now being invoked. Under Public Resolution No. 17 (dated as far back as 1934) it can be claimed that equipment bought in America by some foreign enterprise (the purchase of the equipment having been made possible by loans made by private bankers in America but guaranteed by the Export-Import Bank) must be made available in its entirety for shipment in American ships and not as to 50 per cent.

"The more one studies the terms of the various American enactments on the subject, the more one realises that the transactions can be their use. The harder times become at sea, the more we shall notice this. The larger the American maritime fleet becomes the more we shall suffer. And the more America employs the 50 per cent, and other flag discriminatory rules the more they will be copied by other nations. We have already recorded over twenty international trade agreements in which this has been done recently.

"As I have said, when first this system became prevalent after the war one understood the generous gifts of nature under which American shipping got these advantages. One accepted the terms. The transactions were considered to be available to us through American generosity were kept in this country and were used in this country.

"But the recent coal transaction between the United Kingdom and America, which I may take as a current example, cannot be dismissed along with the original type of trade agreement of the said period. It does not in itself, for instance, constitute gift of finance exports to other countries which are to be nominated, but have not yet been nominated according to the wishes of the American Government.

"All that has happened is that America has sold an embarrassing amount of coal and we have bought it. If the application of the 50 per cent. rule can be used to cover matters of this sort, then my suggestion is that it can be used to cover anything, and the time has come for us to speak out and say that this must really not go on."

"Mr. L. G. Dann, who supported Sir Colin Anderson's resolution, criticised the British Government for "sacrificing a principle to which it paid—and indeed still pays—lip service."

"Referring to the purchase of 210,000 tons of American coal, he said that British tanker owners did not resent the competition of American ships.

"On the contrary, they regarded the seven seas as the proper sphere where the mercantile fleets of the whole world should meet in free and open competition. Nevertheless of the competitive free trading of ships of any nationality whatsoever in any part of the world, including its own.

"Mr. Dann said: 'As to the operation of this 50 per cent, rule, I am glad that Sir Colin has stressed the point that it is not 50 per cent. American and 50 per cent for the rest of the world. But it is not even that. It is 50 per cent. American and 50 per cent among the mercantile fleets of the whole world, including the American.'

"That is a serious situation. If there must be, for reasons of its own, some assistance given to Assemblies of other nationalities, there can be no question that the proper way to do it is the clean and open way, not introducing restrictions of this kind, which can only cause feeling throughout the world and particularly to the nation principally concerned. It is frequently impossible of application. When that happens the complications which arise are complex and far reaching, as we may very soon find out when the Americans are unable to find their 50 per cent, any one particular trade. We shall find that it is tacked on to something else, to a global figure.

"Let us examine the excuse for this. We hear a good deal about gifts and aid. If you make a gift, for example, of a pair of crutches to a cripple, I take it that the cripple has no right to demand that he is sent to him by registered post rather than by Carter Paterson. If, on the other hand, you merely go to him and offer to help him to buy his crutches, then he is entitled to say in how they should be sent to him."

"In the case of Norway, she refused the American terms when it came to a question of supplying coal under the Mutual Security Aid plan, and all honour to her for doing so. Our position was much stronger. This coal was a gift. We are paying the full price for it. It is quite true that we are paying in Sterling and not in dollars, as was the case hitherto, but the plain fact is that the British Treasury—and this is where the danger lies—was so dazzled by dollars that it failed to perceive the pit before its feet. Worse still, having fallen into the pit it was still so dazzled by the golden light that it thought it was standing on the top of Mount Pisgah, gazing into the promised land.

"There was no excuse for the British Government sacrificing a principle to which it paid—and indeed still pays—lip service. The purchase was made at a time when our dollar reserves were exceptionally high and it should have gone through on the normal commercial basis."

"I was astounded when I heard that the bargain had been made without the British Government having the slightest idea whether the Americans were going to buy with the Sterling. It may well be that, as a result of this deal, we have, in fact, sacrificed other foreign exchange which would be almost if not quite as important to us as American dollars."

"This is a very tragic state of affairs. It is quite obvious that we must exercise eternal vigilance because we never know when this is going to be extended or where it is going to break out again. We must protect against flag discrimination in all its forms in season and out of season and we must hope that all the nations of the world would eventually come to see that in the freedom of the seas lie the true prosperity of all the goodwill which goes with it."
The Trend of Maritime Power

By Donald Barry

Since World War II naval power has irresistibly exerted more and more influence on naval strategy and tactics. The aircraft carrier has become the focal point of the major fleets of the world. The phrase “naval power” is rapidly being superseded by the new phrase “maritime power,” the latter acknowledging that control of the sea today also involves control of the air over the sea in a much more complete sense than was possible in World War II.

A vital part of the exercise of maritime control is undoubtedly vested in the aircraft carrier and her squadrons. Although the smoke of the atom bomb still clouds the shape of the Navy of the future one thing is clear: that naval aircraft and ships from which they operate will be the Goliath of future naval planning.

What then is the ship strength of the Air Arm?

The near future strength is 18 carriers: two "Eagle" class vessels, four "Hermes" class ships, five "Colossus" class carriers, five World War II fleet types, two ferry carriers. Some of these ships are not yet in service but near completion, and a few of those near completion are partly manned by the Navy. There are in addition five light fleet carriers in service with or building for, Commonwealth Navies.

The present aircraft carrier strength is, ship for ship, approximately equal to the battleship strength of today. Their Lend-Lease, it would seem, now regard the aircraft carrier in much the same light as their pre-World War II colleagues regarded the battleship.

But the ultimate future of the aircraft carrier is bound to be considered against the backdrop of modern weapons which may be fitted with atomic warheads. What is the official reaction to this? As far as can be ascertained it is on these lines:

The aircraft carrier is not more vulnerable than any other ship afloat. Its damage control system is most effective, making it an exceedingly difficult ship to sink. It is such a dangerous offensive weapon that an enemy might be prepared to launch large and exceedingly expensive weapons against it, but it must never be overlooked that it will always have considerable ability to defend itself, and if operating in waters where it would be liable to heavy attack, it would have a strong escort. Then, of course, it has been shown in war that every weapon has its counter weapons, and also that it is prudent to dispense with old and tested ideas and weapons until new ones have been proved.

But while the Royal Navy is confident that present or future aircraft carriers will be of vital importance in war, it is agreed that the large stack carriers of the U.S. 60,000-ton "Forrestal" class as unnecessarily large for the British task force strategical roles and the country must continue to be content with essentials. Nevertheless, it is a startling fact that there is at present no carrier, or any other major warship, on the stocks.

The cost of building such ships, however valuable they might prove to be, would also, it is thought, strain the British taxpayer to breaking point, and if money were to become available on a scale required for such construction it would be wiser to build more ships of smaller size which will still have strong capabilities.

In any event, nations within N.A.T.O. would not in any future war be called upon to operate their naval forces alone. The collective strength will co-operate and operate as a whole under a planned allied direction.

The present policy of the Royal Navy is, therefore, to maintain in commission a relatively small number of aircraft carriers which, in company with United States carriers, could command whatever area they operated in; and if the Russian "Sverdlov" class cruisers were engaged in hostile action in the North Atlantic some such offensive task forces would immediately become necessary.

More precisely, the aim is to make an equitable contribution to the N.A.T.O. forces, (a) of heavy types of carriers for offensive operations; (b) of lighter types of carriers for trade protection, and (c) of others for ferry and maintenance duties normally associated with a fleet train.

Does our carrier strength meet this requirement? By and large it does. No other nation, apart from the U.S., has a carrier force remotely approaching it. It would not be difficult to make out a case for a stronger force, having regard to Britain's large overseas commitments; but at the moment the Royal Navy must content itself with the ship strength it has.

The crusing Australia on March 27 began her last voyage—traveled by the Dutch tug Roden See from Sydney to shipbreakers in England. Sydney yachtmen and residents of ferries and small craft gave the old ship a warm farewell as she moved down the harbour.

Rear-Admiral H. A. Showers as his train. Thomas J. Ward (Aust.) Pty. Ltd., who bought the Australia from the Commonwealth Government on behalf of the British Iron and Steel Corporation, chartered the Showboat to carry members of the H.M.A.S. Australia Veterans Association and other ex-service men and their families.

The Flag Officer-in-Charge East Australian Area, Rear-Admiral H. J. Buchanan, with Rear-Admiral H. B. Farncombe and Rear-Admiral H. A. Showers as his guests in the Admiral's barge, saluted the Australia on her way to the breakers.

"GOOD-BYE, AUSTRALIA"

"THEY SIGNALLED"

The cruiser Australia was Rear-Admiral Farncombe's flagship at Lingayen when she was fiercely attacked by Japanese suicide-planes.

Continued on page 23.
REVIEW OF U.K. SHIPPING

This is the first of three articles reviewing the strength of the United Kingdom merchant shipping fleet and the composition of shipping organisations. The second article will appear in next month's "Navy."

TWOnty per cent of the world's shipping tonnage of 100 gross tons and over is registered in the United Kingdom, which has the largest merchant navy in active employment. A greater tonnage—26 million—is registered in the United States, but over half of this is in the Reserve Fleet.

Excluding river craft, vessels not ordinarily carrying passengers or cargo such as fishing vessels, tugs and cable ships, Adrniralty vessels (about 575,000 gross tons), and cable ships. Admiralty vessels and other tankers the United Kingdom accounts for 6.6 million gross tons or 21 per cent of the world's total tanker tonnage.

Propulsion: The amount of coal-fired tonnage in the United Kingdom trading fleet has fallen in recent years to less than 11 million tons. This is only 21 per cent of the total while of foreign-going tonnage only 41 per cent is coal-fired. Oil has taken the place of coal in steamships, while the steam engines have given way to the diesel engine.

Two important trends in recent years have been the growth of tanker tonnage, to meet increased demands for oil, and the fall in coal-fired tonnage.

World tanker tonnage (100 gross tons and over) has increased from 11.5 million gross tons in 1939 to 23.7 million gross tons in 1953, an increase of 90 per cent, compared with an increase of only about 28 per cent. in the world's cargo tonnage.

Including Admiralty and other tankers the United Kingdom accounts for 6.6 million gross tons or 21 per cent of the world's total tanker tonnage.

Table I shows the distribution of the world's total tanker tonnage.

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<th>No.</th>
<th>Thousand gross tons</th>
<th>Average age (years)</th>
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<td>2</td>
<td>2,020</td>
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<tr>
<td>3</td>
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<td>15</td>
<td>1,164</td>
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Ships of the world's total tanker tonnage were over 20,000 tons, the seven ships exceeding 20,000 tons were passenger liners or tankers and they included: "Queen Elizabeth" (24,000 tons) owned by Cunard White Star Ltd., all in the North Atlantic route.

Vessels of 10,000 tons and over exceeded 20,000 tons, four were between 15,000 and 20,000 tons, 52 between 10,000 and 15,000 tons, 12 between 8000 and 10,000 tons, and 40 between 4000 and 8000 tons. The seven ships exceeding 20,000 tons were passenger liners or tankers and they included: "Queen Elizabeth" (24,000 tons) owned by Cunard White Star Ltd., all in the North Atlantic route.

Of ships built since the war, the largest amount of tonnage fell in the size group 15,000-20,000 tons, the group covering the bulk of tanker tonnage. Of total launchings in 1953, seven ships exceeded 20,000 tons, four were between 15,000 and 20,000 tons, 52 between 10,000 and 15,000 tons, 12 between 8000 and 10,000 tons, and 40 between 4000 and 8000 tons. The seven ships exceeding 20,000 tons were passenger liners or tankers and they included: "Queen Elizabeth" (24,000 tons) owned by Cunard White Star Ltd., all in the North Atlantic route.

The latest development is the investigation being made into the use of gas turbines in ships. In March, 1953, the first crossing of the Atlantic using this form of propulsion was made by the tanker "Aurora."

Size Distribution: As to the size of foreign-going trading tonnage, about 52 per cent of tonnage of liners—passenger and cargo—are in the 6000-10,000 tons group, and 16 per cent. in the size group 15,000-20,000 tons.

Tanks are predominantly in the 8000-15,000 tons group. Tramps are under 8000 tons and make up 10 per cent. of the total. Tanker tonnage has fallen by one million tons since 1935.

There are four ships of 30,000 tons and over. These are the specialized ships such as whaling ships— including factory ships which process the catch into whale oil, cable ships which undertake the laying, maintenance and repair of 20,000 miles of submarine cable; and four weather ships which serve weather stations in the North Atlantic under the joint support scheme of the International Civil Aviation Organization. Relative newcomers to this category include vessels specially built to carry ore, bulk sugar and other commodities. In 1953, four ore carriers were launched, ranging from 6000 to 11,000 gross tons.

Shipping Organisations

Excluding Government-owned tankers, cable ships, and ships owned by the British Transport Commission, the business of merchant shipping in peace time is in the hands of private enterprise.

The main organisations concerned with the activities, interests and common problems of the industry, are as follows:

The Corporation of Lloyd's: This body, which was founded in the seventeenth century, is a society of underwriters whose main business is marine insurance.

Lloyd's Register of Shipping: Lloyd's Register is an organisation, distinct from the Corporation, which surveys and classifies ships with particular regard to their fitness for the purpose of commercial efficiency. It will accept responsibility for surveying and giving technical advice on vessels of all flags from the initial stages of building, at
regular intervals during their service and after casualties. A satisfactory Lloyd's classification is a guarantee to an underwriter that the vessel is of merchant shipping and is responsible for all negotiations of wages and conditions of service in the merchant navy. For example, the Bristol Steamship Owners' Association, the London General Shippers' Society, and the Navigation and Shipping Association of the Mediterranean, and the Mediterranean Fleet.

Shippers' Organizations: The representative bodies speaking for shippers generally (excluding, for the most part, owners of small ships) are the Chamber of Shipping and the Lloyd's classification. The Chamber of Shipping is a voluntary organization representing shippers and is responsible for the operation of the Society and its subsidiary, the National Maritime Union of Seamen, which represents the seafarers. The Chamber of Shipping, through the National Maritime Board, is responsible for the operation of the Society and the National Maritime Union of Seamen.
Britain's Carriers Will Be Bigger and Better

By a Special Correspondent in London

The First Lord of the Admiralty, Mr. J. P. L. Thomas, in the past few weeks has made several significant policy statements at public functions. He has discussed aircraft carriers and cruisers—two types of warship well in the news because the recent controversy about whether atomic warfare and the Royal Air Force have made the Royal Navy obsolete—and the age of the fleet, a subject of acute concern to the Navy League here.

The First Lord's views on carriers (remember Lord Montgomery's experience with that no more large, expensive carriers were built) was that carriers were getting bigger and bigger, and so they should be.

He echoed the official American view -- said after Lord Montgomery's shattering remarks and at the time the U.S. was launching its super-carrier Forrestal—that the carrier is far less vulnerable to atomic attack than land bases. The big carriers, he said, are the striking force of the Fleet, and will remain so for possibly another generation of ships.

"Modern aircraft," he said, "demand larger platforms from which to operate. Small ships cannot be made to go fast so economically as large ones. And the smaller carriers cannot take enough aircraft to perform the three functions of offensive role—reconnaissance, attack, and self-protection.

"We have at the moment in commission the five newest aircraft carriers in the world. The fleet carriers, such as the Eagle and Ark Royal, can bring all the resources of a fully equipped modern airfield to within a few miles of a hostile shore and it can do so anywhere in the world.

"We believe that these ships are far less vulnerable to attack by the new bombs than any land target of comparable importance. As for submarine attacks, we already have means of detection and counter-attack which would make life very hazardous indeed for a hostile submarine—and we have still better things up our sleeve."

"Just what those things were the First Lord did not say. But he put in a good word for H.M.S. Vanguard, which he described as one of the most formidable warships in the world and "which we have present intention of putting into reserve."

"Referring to the cruiser building programme (three Tigers), Mr. Thomas again was both complimentary and critical of this type of warship. The Naval programme of big ships since the war was concentrated on carriers, he said, and for two main reasons: the carrier was the main striking power of the modern Fleet, and it would be imprudent to lay down other big ships which might become obsolescent by the time they were completed."

"The Board of Admiralty was quite convinced, he added, that it would have been rash and extravagant to undertake, say, a major programme of laying down cruisers during the past few years. "In a time of great change in ideas of war and remarkable developments in weapons it is essential to pause and study very carefully," he said.

"But he had a good word for the Tigers and a deprecating word for those who live too much in the future."

"The three Tiger class cruisers will be extremely useful and powerful. Quite possibly they will be the last purely gun cruisers to be built for the Navy but their speed, endurance, versatility, and permanence will be a substantial accession of strength and we shall be very glad of these cruisers for many years to come."

"After all we cannot live entirely in the future. That is a privilege of the armchair strategist."

"The First Lord's remarks about the age of the Fleet are not likely to reassure the critics—in particular the Navy League, which is campaigning strongly for a vigorous and continuous programme of replacement and it is pointing out that Britain does not possess one warship—other than some little ships—of postwar design or construction.

"We have never lost sight of the fact that much of the Fleet is ageing," the First Lord said. "We have no intention of letting that process go too far. A new generation of ships must join the Fleet in time to replace the present ones. The familiar problem is to pursue research into new weapons and their effects in good time to enable the necessary decisions to be taken about this next generation of ships."

"But what is worrying a lot of people in Britain, conscious of the fact that they are an island people whose existence depends on their sea supply routes, is that unless a decision is taken and implemented, they might perhaps be a case of too late in a few years' time."

The Royal Australian Navy has set up a training classroom in Sydney Harbour to train "frogs." It is a 200-ton converted concrete lighter, moored off Clarke Island. It was placed in position last month.

It is the first time that frogman training has been undertaken in Australia.

The Royal Navy's school for frogmen is called the Porpoise. It forms part of the Torpedo Anti-submarine School at H.M.A.S. Rushcutter, Rushcutter Bay.

The Porpoise will be a base for training Navy officers and ratings in underwater aspects of modern warfare, including underwater reconnaissance of enemy-held beaches, clearing and demolishing underwater obstacles, surveying harbour beds, and attacks against shipping and port installations.

It is the first time that frogman training has been undertaken in Australia.

The first instructional course began on March 28. It comprised 16 men instructed by Lieutenant-Commander M. S. Butcher, who formerly commanded the Royal Navy's school for frogmen at Brixham, Devon, and Lieutenant R. M. T. Cosborne. The course will last three months.

The image shows H.M.A.S. Anzac moves alongside H.M.A.S. HMAS, which would be used to train "frogs."
Ships driven ashore in fierce gales

Fierce gales which lashed the coast of Britain on March 23 and 24 drove two ships aground and delayed others.

The Norwegian passenger ship Venus, 6272 tons, was driven on to rocks in Plymouth Sound on March 23, while at anchor. A ship’s lifeboat later landed 103 passengers and crew, including 13 women.

The other ship forced aground was the 397-ton Dutch ship Anna Henny which was battered by a gale on to rocks 300 yards from the beach at the entrance to Port Talbot, South Wales.

In North Devon gales up to 64 miles an hour caused considerable damage to property ashore and to small craft at anchor.

A 50 miles-an-hour gale delayed the 81,000-ton liner Queen Mary which was due to have left Southampton on March 24.

Seamen drowned in rescue attempt

Six Indian and two British members of the crew of the liner Stratheden and 11 Greek seamen from the Greek trawler Jason were drowned in a rescue attempt in the Ionian Sea last month.

The Stratheden had sent one of her lifeboats to save the crew of the trawler, which was foundering. The lifeboat capsized and only four Greeks and three of the Stratheden’s crew were saved.

At a preliminary inquiry in London on March 22 two Australian passengers in the Stratheden stated that it took more than an hour for another boat from the Stratheden to go to the aid of the men in the first lifeboat.

Ex-commander marooned on Pacific atoll

A Royal New Zealand Air Force plane late last month dropped supplies on lonely Palmerston atoll, in the Cook group, to a retired Royal Navy commander who had been marooned there since his yacht was wrecked four months ago.

The yachtsman, Victor Clark, had been living with the island’s inhabitants, who are descendants of an English sailor, William Masters.

On November 14 a hurricane drove his yacht, Solace, on to reef off the island, badly damaging it. The plane dropped nails and other hardware and ship’s stores to help Clark repair his yacht, which the natives had dragged across the reef and then floated with 44-gallon drums across the lagoon to the shore.

Since then Clark and the natives have been working on the yacht to make it seaworthy again. In a radio message Clark said that the way of life on Palmerston Island was “Polynesian with a pronounced Victorian English slant which comes down from old William Masters.”

He said he felt sure that the initiative and determination of the island’s 70 inhabitants would eventually float his yacht.

Maiden voyage of “Southern Cross”

The new 20,000 tons Shaw Savill liner Southern Cross left Southampton on March 29 on her maiden voyage, to Australia via the Panama Canal. She is scheduled to leave Sydney on May 9 for the United Kingdom calling at Melbourne, Fremantle, Durban, Capetown, and Las Palmas.

The company has planned for her to make similar round-the-world voyages — four complete trips a year, two from the U.K. via South Africa and two from the U.K. via Panama.

The Southern Cross has a speed of 20 knots, and carries no cargo. She is of unique design, with funnel and engines situated as far aft as possible. This and the absence of cargo gear gives her 43,000 feet of clear deck space.

She carries 1160 passengers—all tourist class. Public rooms include two dining salons and a large cinema lounge with gallery, smoking room, lounge, writing room, and a room called the “tavern,” which has a dance floor, a long bar, and seating in continental style.

Two swimming-pools are provided—one indoors and the other on deck. Arrangements for children include a recreation room for
police claim

"Sank his ships,"

Brazilian police on March 23 alleged that a marine engineer on the Brazilian coastal ship Santa Maria had confessed to having sunk his ship so that an unidentified "master-mind" could collect about $440,000 in insurance.

The ship sank last November in mysterious circumstances with a cargo said to have been worth about $660,000.

The police claimed that the engineer, Eurico Klinger, now awaits trial on the radio operator that there were no possible rescue vessels in the vicinity.

The police said the captain, Milton de Silva, was asleep at the time. When he awoke he found the ship was sinking fast although there had been no alarm. He gave the order to abandon ship after checking with the radio operator that there were no possible rescue vessels in the vicinity.

The captain, his wife, and the crew were picked up from lifeboats in calm water several hours after the ship sank.

Tugs refloat freighter at Newcastle

Two tugs on March 28 towed the Australian interstate freighter Sainter off rocks in Newcastle (N.S.W.) harbour after she had run aground two hours earlier.

The Sainter runs between Whyalla in South Australia and Newcastle, carrying iron ore.

All shipping movement in the harbour was stopped during the time the freighter was aground.

On the same day the collier St Meroo towed a disabled fishing launch into Newcastle harbour. The launch, with two men on board, had broken down at sea about 15 miles from Newcastle during the night.

Rare fish caught off N.S.W. coast

Two Ulladulla (N.S.W.) fishermen on March 23 caught two sail fish, which are extremely rare on the N.S.W. coast. Each weighed about 20 pounds.

The fishermen, J. Owen and D. Meyers, were trolling for tuna. Sail fish belong to the marlin or swordfish family. They are so named because of their large dorsal fin which cuts the surface of the water and looks like a sail.

Cunard liner is up for sale

The Cunard liner Georgic, 27,469 tons, is for sale. She was one of Britain's troopships during the war.

The Georgic will be sold when she completes a voyage to Australia, carrying immigrants.

U.S. fishing ships captured

An Ecuadorian patrol vessel seized two United States fishing vessels on March 27, according to Press agency reports from Quito.

It fired on one of the ships, the Arctic Maid, wounding one of her crew. Thirteen other fishermen were captured.

The Cunard liner is a combination of steamer and steamer, carrying immigrants. X-mk-r maritime countries. X-mk-r maritime countries af-

TWO MEN KILLED ON "BLACK PRINCE"

Soon after her return to New Zealand waters from her recent visit to Australia, the New Zealand cruiser Black Prince lost two men killed by a premature explosion of a demolition charge.

The cruiser was exercising in Queen Charlotte Sound, at the north-eastern tip of the South Island.

The men—Petty Officer R. T. Lyle and Leading Seaman R. C. Currey—were handling the charge on the upper deck when the explosion occurred.

There were no other casualties.

The Black Prince was in the news during her Australian visit when during some exercises some of her shells landed near the township of Curarrong, on the south coast of New South Wales.

"Simple duty hath no place of fear."—Whitney.
eds the size of the N.A.T.O. fleet which time, it must be remember-

stipulated for 1956 or 1957—by strong in anti-submarine vessels.

Present N.A.T.O. Strength

boats and other small war vessels to have two or three years hence.

The ten "maritime" countries of N.A.T.O. are: France, United States and the United

French, Italy, Greece, Turkey, Canada, and the U.S.A. They have between them no fewer than 3150 ships in the six categories -- battleships, cruisers, destroyers, submarines and minesweepers. In addition, the six other Common-

wealth countries outside the Or-

ganisation (Australia, New Zealand, South Africa, Pakistan, In-

dia and Ceylon) -- like the mem-

ber nation Canada, they would undoubtedly add their fleets to the Allies resources in war.

The combined force of four ca-

niers of the modern equipment includes flight operations, gunnery and communications practice, and

replenishment at sea.

Two British aircraft carriers, H.M.S. Centaur and H.M.S. Al-

bion, joined the U.S. Sixth Fleet in the Mediterranean at the end of January for six days of combined exercises, including flight operations, gunnery and communications practice, and re-

plenishment at sea.

Commander Eugene Wilkinson, U.S.N., Captain of the American atomic-powered submarine Au-

titus said at the conclusion of the submari-

ne's sea trials last month that there had been no dangerous radiation from the atomic unit.

The United States Atomic Energy Commission believes that a person can absorb as much as 300 units of radiation daily without

danger. Commander Wilkinson

said that in the Nautilus the average per week per man had been only about five units, and the highest for any man only 45 units.

During her trials the Nautilus made 69 dives, stayed under water a total of 92 hours, and was under nuclear power for 311/2 hours.

The British Admiralty transferred by helicopter from H.M.S. Cen-

taur, for the occasion, Earlier Ad-

miral Corbet sent a message of welcome to Rear-Admiral Pedder, and the two flagships exchanged gun salutes on joining in the battle line also.

The Sixth Fleet includes the aircraft carriers Randolph, flagship of Rear-Admiral Frank Akers, U.S.N., Commander Car-

rier Division II, and the Lekceh Cheam, and other major units of the U.S. Fleet joined the British carriers. The U.S. ships also included the battleship Iowa, flagship of Rear-Admiral Ruthven.

THE TREND OF MARITIME POWER

Continued from page 10.

ships, the largest carriers ever built for the Royal Navy, will be joined in the active fleet by the fleet's newest "flagship" carriers: the Centaur and the Albion. (While working up) the Bulwark (compligrated for but not yet in service) and the Hermes (under construction).

There will all ultimately have the most modern equipment, pro-

duced as a result of considerable scientific research and experiment. This will include the steam cata-

pult which opens up great possi-


bilities as the means of launching faster and heavier machines of the next generation of naval air-

craft (including "planes which may carry the atom bomb), the angled deck arrangement which will ease flight deck problems, and radar with which opens up great possi-

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iculty of keeping them within pru-

dent size limits.

It is clear that great attention is being paid to the defensive re-

quirements of the Navy. Big pro-

grammes for minesweepers and anti-submarine vessels are well ad-

vanced, but apart from the air-

craft carrier it is not yet apparent that the same meticulous attention is being paid to the offensive.

On the other hand, this ap-

parent omission may be due to far-sighted planning which makes a calculated risk acceptable at the present time. The advent of atomic propulsion and homing and guided weapons (underwater, air to air, surface to surface, and sur-

face to air) will ultimately mean that specialised new ships and aircraft must be designed.

The atomic age and the relentless progress of science is thrusting us forward to the day when present types of ships and aircraft will no longer meet naval needs, but until that time arrives there will continue to be an imperative need for known and proved types of ships and weapons.

The fleet carriers are, however, now between 10 and 14 years old and all rendered hard wartime service. They are no longer capable of handling aircraft at sea, that it is necessary to bring such carriers up to modern standards. The British Admiralty is studying the problem of naval air-

craft and delay not only the progress of the carrier programme but also the building of other types of ships. One of the reasons why there is no new programme for further conventional destroyers or "Daring" class ships is the diffi-

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THE NAVY

Continued from page 15.

So astonishing is the advance in aircraft performance, and conse-

quently the equipment needed to handle aircraft at sea, that it is rapidly becoming more economical to build a new carrier than to modernise an old one.

The whole problem of naval construction is also bedevilled by the problem that modern equip-

ment requires considerable space, while at the same time prudence decrees that ships shall be smaller. Every endeavour is made to im-

prove living spaces, but the effect of new equipment is constantly to reduce the size of living space.

These considerations complicate and delay not only the progress of the carrier programme but also the building of other types of ships. One of the reasons why there is no new programme for further conventional destroyers or "Daring" class ships is the diffi-

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From the London "Naval."
SUB. MENACE TO N.Z.

Russian submarines could easily mine the approaches to New Zealand ports, laying up to 40 mines in one voyage, Lieutenant-Commander R. F. G. Elsworth, D.S.C., R.N., told the annual conference of the Navy League of New Zealand, in Dunedin recently.

There was no adequate force to cope with the problem, he said. It was a frightening thought which New Zealanders and the Dominion should give rise to no panic, but to some very serious thinking in the Dominion.

There was little doubt, Lieutenant-Commander Elsworth said, that the units of the New Zealand Navy were outstanding so far as modern naval warfare was concerned. In the event of hostilities they would be unable to fill adequately their appointed role, although the men who manned them were capable of doing an excellent job for themselves.

If New Zealand wanted an efficient Navy it must provide the requisite matériel. The outcome of the war was very much a matter of materials. Men could not be put up against machines without sufficient and proper equipment. The latter, he said, was the type for the New Zealand Navy.

The Russians were building and operating large numbers of modern submarines. Many of them were based in the Pacific and were quite capable of reaching New Zealand in the course of their normal operational routine. The Russians had bases in the Pacific for access to the southern areas, but it was not completely necessary to have bases.

Mines provided a very real threat to New Zealand, although it was situated on a shelf which fell away sharply outside harbour entrances, so that it was difficult to lay mines to obtain the maximum advantage. The real threat arose because New Zealand was a nation to be reckoned with in the Pacific. New Zealand allocated at least £10 million for ship replacement, there will be no confidence in her ability to play her proper part in Pacific Naval defence, and take her place as a nation to be reckoned with.

At the present time, the Royal New Zealand Navy consists of destroyers on loan from the Royal Navy, frigates bought at a bargain price from the British Government, corvettes built at reasonable cost during the war, and minesweepers, a gift from the Australian Government.

Under these most favourable conditions, the New Zealand taxpayer has been called upon to pay only a fraction of the amounts paid by the British, Canadian, Australian, and United States taxpayers. The time has now arrived for us to take a realistic view of Naval defence, and our duty to the Commonwealth, and our allies.

"The threat to peace in the Pacific is so vital that most urgent action is necessary."
U.S. AWARDS FOR SIX OFFICERS ANNOUNCED

The United States Government has awarded the Legion of Merit (Degree of Officer) to five officers of the Royal Australian Navy for operational services in Korea and has conferred the Bronze Star Medal upon another R.A.N. officer for similar services.

The awards are:
Legion of Merit.
REAR-ADMIRAL D. H. HARRIES, C.B.E., who, as Captain Harries, was captain of the aircraft carrier Sydney in Korean waters from September, 1951, until February, 1952.
CAPTAIN R. R. PEEK, O.B.E., D.S.C., R.A.N., who, as Commander Peek, was captain of the destroyer Tebuk in Korea from October, 1951, until January, 1952.
COMMANDER A. N. DOLLARD, D.S.C. and Bar, R.A.N., who, as Lieutenant Commander Doolard, was captain of the frigate Murchison in Korea from July, 1951, until February, 1952.
LIEUT-COMMANDER P. W. G. BOWLES, D.S.C., R.A.N., who was commander of the 805 (Sea Fury) Squadron aboard H.M.A.S. Sydney in her Korean service.

Bronze Medal Star.
LIEUT-COMMANDER G. V. GLADSTONE, D.S.C. and Bar, R.A.N., who was executive officer of the Warramunga during her Korean service.

Rear-Admiral Harrises at present is Head of the Australian Joint Services Staff in Washington; Captain Becher is in command of the aircraft carrier Vengeance; Captain Peck is Deputy Chief of Naval Personnel at Navy Office, Melbourne; Commander Dollard is Deputy-Director of Manning at Navy Office, and Lieut-Commander Bowles and Lieut-Commander Gladstone are doing the Naval Staff Course in the United Kingdom.

The Minister for the Navy, Mr. J. Francis, said that the citations accompanying the awards could be summarised as follows:

REAR-ADMIRAL HARRIES: By intelligent leadership, aggressiveness, a thorough knowledge of naval tactics and skilful development of the forces at his disposal, he contributed to the successful re-establishment of the West Korean coast, close air support to the Eighth Army, air cover to the naval units and, in addition, carried out destructive attacks on Communist enemy rail and road net systems and made possible the close naval blockade of West Korea by aerial reconnaissance in marginal and difficult weather conditions.

LIEUT-COMMANDER BOWLES: He led his squadron in many successful attacks on Communist forces, installations, supply nets and made possible the close naval blockade of West Korea by aerial reconnaissance in the marginal and difficult weather conditions.

COMMANDER GLADSTONE: He distinguished himself by repeatedly leading small LCVP craft which were already rigged as mine-sweeps, into known mine fields to sweep and destroy enemy mines. His disregard of the example of resourceful leadership were a boundless source of morale for the men so engaged and for the subsequent escort element by providing air support with planes of his squadron.

LIEUT-COMMANDER BECHER: By his intelligent leadership, aggressiveness and untiring devotion to duty, both in his harrassing attacks on Communist targets and installations, and in his long and arduous escorting patrols, he displayed his outstanding skill as a naval officer.

CAPTAIN PECK: He planned, and carried out effective attacks on Communist coastal installations against enemy counter battery fire. By his independent leadership, aggressiveness and untiring devotion to duty he displayed his outstanding skill as a naval officer. He made marked contribution to the success of the naval campaign.

COMMANDER DOLLARD: With outstanding skill as a seaman he aggressively patrolled the low level coast of Korea, and moved with water approaches to Seoul, capital of the Republic of Korea, and protected against communist amphibious attack the left flank of the Eighth Army on Kimpo Peninsula. Exposed to the constant navigational dangers of strong currents and shifting channels and with a consistent range of active Communist guns and mortar fire he showed great perseverance, courage and determination in maintaining his frigate in this exposed position and in harassing the enemy ground forces with gun fire.

Chief Officer Cole

The new director of the W.R.A.N.S., Chief Officer Elizabeth Cole, has visited New South Wales, Tasmania, South Australia, and Queensland interviewing prospective recruits to the service.

He said in Sydney recently that the standard of recruits was "more than comparable" with the standards of the R.M.A.N.S. Because of his high qualifications and recommendations, Chief Officer Cole is on loan to the Australian Navy from the Royal Navy, where for two and a half years he was in charge of recruiting and entry into the W.R.A.N.S. at the Admiralty. Chief Officer Cole said that more W.R.A.N.S. officers would be selected later this year. Most, if not all, would come from girls at present serving in the ranks.

Promotions

The Admiralty has announced the following promotions to Rear-Admiral in her Majesty's Fleet:

Captain (Acting Rear-Admiral) George Vener Morgan Dolphin, D.S.O. and A.D.C.
Captain John David Luce, D.S.O. and Bar, O.B.E. and A.D.C.
Captain Philip Whitworth Burget, D.S.O., D.S.C. and Bar, A.D.C.

Captain (Commander 1st Class) Wilfred John Wentworth Woods, D.S.O. and Bar, A.D.C.
Captain Keith McNeil Campbell-Walter, A.D.C.

Pall-bearers were Rear Admiral Dowling, the Second Naval Member, Commander J. C. Clark, O.B.E., and Rear Admiral McPherson, O.B.E., D.S.O., and Bar, Captain David Caldwell Ingram, C.B.E., D.S.C.

Funeral of Admiral D. A. Pritchard

The funeral of the late Surgeon Rear-Admiral D. A. Pritchard, C.B.E., took place with full naval honours at the Springvale Crematorium (Victoria) on March 15. It was preceded by a service at St. George's Church, South Yarra.

Other naval officers and senior civilian officers at Navy Office were also present.

By command of the Queen, to whom Admiral Pritchard was an honorary physician, Surgeon Captain L. Lockwood M.V.O., D.S.C., R.A.N., who is an honorary surgeon to Her Majesty, attended as her representative.

The East Australian Area Command was represented by Surgeon Captain J. M. Plattery, O.B.E., R.A.N.
"The Nation and the Navy"—by Christopher Lloyd, published by the Cresset Press.

In his book Mr. Christopher Lloyd paints upon an immense canvas. He shows, by a broad survey of naval activity throughout the centuries, how vital a part the Navy has played, and still plays, in the destiny of the British people. He traces, too, the evolution of naval custom and manners, showing the gradual evolution from the unruly throng of Tudor and Stuart days to the disciplined complement of a ship of our own days.

So wide a study could not even have been attempted without a great deal of background knowledge, and it says a great deal for Mr. Lloyd's erudition that he has produced so balanced a survey within the compass of a single volume. It can, of course, be no more than a survey on the broadest of scales, with much of interest necessarily omitted.

Such a book as Mr. Lloyd now gives us has long been needed, for it links the inner, social life of the Navy with its historical place in the national and imperial story. We begin to see, now, the ill-embracing pattern as a whole, and can understand the unique place in the national and imperial the strategical background of national and imperial development. Inevitably there has been much simplification of the story, for the complexity of naval development through the centuries cannot be told in a book of this size. But in its broad sweep it tells the story well enough, and must be counted a valuable addition to our naval literature.

P.K.K.

—From the London "Navy."

When H.M.A.S. Shoalhaven berth in Sydney on March 29 after a nine months' patrol of Korean waters. Leading Signalman Richard Manser saw his eight-months-old daughter, Jan, for the first time. Mrs. Manser hoisted Jan aboard to greet her proud father.


Sir Hovenden Walker's Journal of the Late Expedition to Canada, published in 1720, is rapidly becoming a rare book, and it was a happy idea on the part of the Champlain Society of Canada and our own Navy Records Society to join forces in reproducing it as a volume in each series. While the book is, of course, mainly Walker's own account published by him in vindication of his actions, it remains a document of intense naval interest.

The expedition to Canada in 1711 was aimed at the capture of Quebec, the key to the French domination of the northern half of the North American continent. It was not the first attempt to reach Quebec, for Phips had commanded an earlier expedition which had come within an ace of success, in 1690. Two abortive attempts were made in 1707, but the prize still glittered so brightly in the eyes of the colonists that the Government at home was persuaded to send out a full-scale expedition that was to approach Quebec by the classic path up the St. Lawrence River. It was to the command of this expedition that Rear-Admiral Sir Hovenden Walker was appointed.

In the capable hands of Professor Gerald Graham, Walker's Journal has now been buttressed by many of the Admiralty and State Papers which deal with the expedition, giving us at last a really comprehensive view of the whole. Professor Graham has done his work with a zest and a thoroughness that must command our admiration, and has produced a notable addition to the series of Navy Records Society volumes that amply maintains the high quality of these invaluable publications. This is, in fact, a fine piece of work, edited with such care and scholarship that its reading becomes a delight throughout. It is certainly not a book to be missed.

—P.K.K. in the London "Navy."
By J. H. Adams

**JULIE AND THE AMBASSADOR**

Julie Stoddart was a red-headed menace and I was sorry I ever permitted her to be embarked on the ship. Everything was right. She had figure and personality. Blue eyes, a slightly turned up nose had figure and personality. Blue eyes, a slightly turned up nose. Bother her. She did not do that. Loss of dignity.

"My cabin—or I pull out of the whole business," he insisted. "I'll always remember that inquiring Doctor arranged the assignation. The Foreign Ambassador was re-splendent in morning dress. Doctor took the role of defense counsel and fired questions at the ambassador. Wasn't it a fact that he was acting out of spite? Wasn't it true that no secret documents existed?

To my amazement the Foreign Ambassador was as fidgety as a cat on hot bricks. He virtually cleared of all suspicion. Doctor tied in knots. I took Dr. Ramsay to my cabin, carefully closed the door and poured out two whiskies.

"Now tell me all," I demanded. "Quite simple," answered Dr. Ramsay. "A case of practical psychology. The Foreign Ambassador is a vain man. He loves to strike a pose. If he cannot see that pose, confidence leaks out of him like air from a punctured tyre. Did you note the seating? I chose my cabin because of the full-length mirror conveniently situated in front of it. Then I stood by the mirror."

"I can't quite follow—"

"Your thickheaded shellback! When could see his reflection he was full of flight."

"I see. And when he could not—"

"Exactly. When he couldn't see himself he was done. Every time he peered himself and struck a pose I edged in front of the mirror and blocked his view."

Talking together by the rail when she was off duty.

"Then his advances became more ardent. Julie dealt with him as calmly as a stonewalling open-mouth."

An agent, an enemy of his country, was trying to steal them. I offered to lock the documents in my safe. Julie swore that the documents had been stolen from his satchel. Julie vowed that he had seen her leave the Foreign Ambassador pressed for action and the affair got between. Doc arranged the seating. The rogue was trying to get the whole business, he insisted. "We can't do that. Loss of dignity." 

The cooler she became the more pleasant. His English was not impeccable, swarthy, with a courtly manner. He was rather pleasant.

With her intelligence and charm she could have got a good job ashore without any trouble. But she wanted to travel.

We embarked the Foreign Ambassador at Vancouver, on his way to take up a diplomatic appointment. I won't name the country he represented. I'll be diplomatic myself and disguise the fact my old ship's surgeon, Dr. Ramsay, says about me.

For several voyages I had experienced trouble over Julie Stoddart. She caused it innocently: Male passengers fell for her. She laughed and joked with them: showed even white teeth when she threw back her head in laughter, and wrinkled up her nose.

She repelled the advances of young bloods, without effort. She drove eligible bachelors across the face and had landed him a few open-handers across the face and had become rather a bit to tantalise him.

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With her intelligence and charm she could have got a good job ashore without any trouble. But she wanted to travel.

We embarked the Foreign Ambassador at Vancouver, on his way to take up a diplomatic appointment. I won't name the country he represented. I'll be diplomatic myself and disguise the fact my old ship's surgeon, Dr. Ramsay, says about me.

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With her intelligence and charm she could have got a good job ashore without any trouble. But she wanted to travel.
All units of the Tasmanian Division have begun their training programme after the summer recess.

In February cadets from T.S. Leven (Ulverstone) paid a visit to S.S. Port Lyttleton in Burnie and were shown over the ship by the ship’s officers.

T.S. Leven now has a basketball team that takes part in the Ulverstone roster.

Cadets from T.S. Tamar (Launceston) visited the S.S. Dal by in Burnie and were given a tour of the vessel and return flight.

German officers who hold appointments in the Blank Office, which is responsible for planning the future Western German Defence contribution, visited the Admiralty and H.M. ships and establishments in the Portmouth area during January. The officers were: Lieutenant-Colonel A. Heusinger, Lieutenant-Colonel M. R. Schwederfer (A.D.C. to General Heusinger), Captain K. A. Zenker, Captain H. Gerlach, Commander W. Rover, Colonel W. Gaul. General Heusinger is the Chief of Military Staff at the Blank Office.

The Admiralty statement pointed out that the visit was in continuation of her Majesty’s Government’s policy of close cooperation with the Continental countries. In April, 1954, agreement was reached between the United Kingdom and the E.D.C. on a common policy for military association between their forces, and at the Nine Power Conference held in London the Foreign Secretary reaffirmed the undertakings that the U.K. had given to the E.D.C. The Secretary recognised, however, that cooperation would take place in a different framework.

“We have come into being under the Paris Agreements and have entered into force, the visit was intended to pave the way for future cooperation between the Royal Navy and the German Navy.”

**The Navy**

**World’s Navies**

**Sailplan achievement by Navy officer**

A climb in a sailplane to 30,500 feet above sea-level was made by Commander H. C. N. Goodhart, R.N., over the Sierra Nevada Mountains, at Bishop, California, on January 9. This is the greatest height yet reached by a British sailplane pilot.

It cannot be recognized as a national gliding record, however, as it does not exceed by five per cent. the height of just over 30,000 feet reached by Mr. Philip A. Wells in New Zealand on December 29.

Commander Goodhart, who is with the British Joint Services Mission in the United States, was flying a Schweizer sailplane belonging to Mr. W. S. Ivans, a United States pilot who holds the present world’s altitude record for a single-seat sailplane at 42,000 feet.

Both that and Commander Goodhart’s flight were made in stationary atmospheric waves set up in the lee of the Sierra Nevada range, which rises to 14,300 ft. at Mount Whitney.

**German officers visit Admiralty**

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“Since the German Navy will not come into being until the Paris Agreements have entered into force, the visit was intended to pave the way for future cooperation between the Royal Navy and the German Navy.”

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ANCHOR BRAND
The object of the Navy League in Australia, like its older counterpart, the Navy League in Britain, is to insist by all means at its disposal upon the vital importance of Sea Power to the British Commonwealth of Nations. The League also sponsors the Australian Sea Cadet Corps to interest the right type of lads in the Royal Australian Navy — either to start them upon a career or to provide a healthy and exercise an important influence in the life of the Australian Nation.

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THE ADMIRALTY’S GOOD INTENTIONS.

If good intentions mean anything—and very often they do not—the declaration of Naval policy which the First Lord of the Admiralty made in his recently issued explanatory statement on the Navy Estimates would be very comforting.

Even so, it is most welcome news to learn that the United Kingdom Government envisages a continuing need for strong naval forces and that (in the First Lord’s words) the Government is now “able to embark on a programme of building and re-equipment.” It would be far better news to learn when this re-generation of the Royal Navy will be accomplished.

There was little new in his statement on the roles of the Royal Navy in peace and war, except that it punched home the intention to maintain and improve the Navy’s air power—despite what the critics of the carrier have said.

The Navy’s role in peace will be to support the national policy overseas and to protect Britain’s world-wide trade. In the event of another world war, the Navy’s role will be:

(a) To search out and destroy the enemy’s ships and to prevent him from using the seas;
(b) To protect Britain’s communications and to safeguard the supply lines of Allied countries;
(c) To provide direct air support for operations afloat and ashore in areas where it cannot readily be given by shore-based aircraft.

Of greater interest was a glimpse of the Fleet of the future:

“As part of our contribution to the allied navies of the future, we see battle-groups of carriers, guided missile ships, and their escorts. These replace, in effect, the concentrated main fleets of past wars: they provide the strength upon which all other naval activities depend; they cover the manifold activities of the escort forces protecting our worldwide sea communications; and they provide a mobile offensive force which can be quickly deployed wherever it is required.

By their ability to disperse and re-concentrate at will, they remain, in the thermo-nuclear era, both an elusive and hard-hitting fighting force. The Royal Navy requires, therefore, carriers operating the latest aircraft: powerful ships armed with guided weapons; escorts capable, in cooperation with carrier and shore-based air forces, of providing protection for our shipping; submarines and amphibious forces; and mine-sweepers to keep the sea lanes clear for vital supplies.

“All of these ships must be well equipped and efficient and maintained in a high state of readiness.

“We have already made long strides towards meeting the need for modern carriers. We have, for some time, been clear about the design of our smaller ships, which are coming forward in large numbers.

“Now, after thorough study by our sailors and scientists of the conditions and developments we shall have to face, we can see sufficiently clearly the lines on which we should build ships to take the place of conventional cruisers.

“Referring to Royal Navy’s present strength, the First Lord admitted that the average age of the Fleet was too high. He spoke of post-war modernisation of destroyers and escorts and of design and construction of submarines, but added that, after the war, naval shipbuilding had to give way to the need for merchant shipbuilding. Five carriers, eight Daring, about 90 minisweepers and 27 destroyers converted to frigates had joined the Fleet.

“Despite the promise of a programme of building and re-equipment, the First Lord’s statement contained no provision for any new building other than two Fleet escort ships, eight general purpose frigates, and ten coastal minisweepers.

“It is an uneasy thought that since the Girdleness—to be converted as a trials ship for guided missiles will not be completed until 1956, it seems highly likely that some considerable time will elapse before it is possible to lay down any guided-missile ships to replace the Navy’s ageing cruisers.

“At first impression, a happier situation exists for the Fleet Air Arm, but, on examination, a similar unsatisfactory feature emerges with regard to aircraft supply. The First Lord’s statement admittedly referred to replacements for the Sea Hawk, the Sea Venom, and the Wyvern (an aircraft condemned in the White Paper on Supply of Military Aircraft as not successful in its designed purpose as a carrier-borne aircraft) but there was no indication of when the Fleet Air Arm may hope to have these new aircraft in squadron service.

“On this point the London “Spectator” commented: “The Navy’s paper-strong force of carriers likewise has no suitable aircraft to fly off them.”

STRONGER ROYAL TIES

Next year the Duke of Edinburgh will visit Australia for the third time. It will be to attend the 1956 Olympic Games in Melbourne. He is likely to visit other parts of the Commonwealth, but he will not be away from his family very long. Within a few weeks he will be greeting Her Majesty the Queen and their family again.

“This is another example of how much closer members of the Royal Family are getting to those who owe allegiance to the Queen. Countless millions have grown to know them in person. This has had the effect of making the Crown a stronger, more personal bond bringing together the various parts of the Commonwealth. The monarch is no longer a distant figure.
PORT LINE'S LATEST SHIP

The latest addition to the fleet of the Port Line, Limited, London, the twin-screw refrigerated cargo and passenger motorship Port Sydney (11,120 tons b.). completed her trials on February 28 and arrived in Sydney last month from London on her maiden voyage.

The ship, which was built by Swan, Hunter and Wigham Richardson, Limited, Wallsend-on-Tyne, has three complete steel hatches above which is the forecastle and enclosed bridge.

She has a length b.p. of 498ft., moulded breadth of 70ft. and a moulded depth to upper deck of 28ft. The loaded draught is 28ft. 8in. The cargo space is divided into six holds, three of which together with their 'tween decks have been insulated to carry frozen cargo.

General cargo is carried in Nos. 1, 5 and 6 holds and lower 'tween decks, and all the upper 'tween deck spaces and forecastle. Chilled meat lockers are arranged in Nos. 1, 3 and 4 upper 'tween decks. The total capacity of the holds is 293,000 cu. ft. for insulated cargo and 295,000 cu. ft. for general cargo. The hatches are served by 14 3-ton Clarke Chapman electric winches.

A 3-ton electric crane serving No. 4 hold and two 2-ton crane serving No. 3 hold were supplied by the Clyde Crane and Engineering Co., Limited. These work in conjunction with davits of 10- and 15-ton lifts, and, in addition, a 70-ton derrick serves No. 2 hold. Nos. 1, 5 and 6 weather deck hatches are fitted with MacGregor steel hatch covers.

The insulation of the cargo spaces was carried out by Gregson and Co., Limited, and the refrigerating machinery was installed by J. and E. Hall, Limited.

A high standard of accommodation is provided for the passengers, officers and crew. There are eight single- and two double-berth cabins for passengers and the public rooms comprise a dining saloon, lounge, bar and writing room. The furnishing and decorating of these spaces was carried out by Robson and Sons. The whole of the accommodation is mechanically heated and ventilated by a Thermostank installation.

Separate laundries have been arranged for the crew and passengers and a hospital and dispensary are provided. The all-electric galley has been equipped by Henry Wilson and Co., Limited. Life-saving appliances include four 24-ft. aluminium alloy lifeboats supplied by Gregson and Co., Limited, and housed under Well-MacLachlan davits.

Machinery installation

The propelling machinery of the Port Sydney, supplied and installed by the Wallsend Slipway and Engineering Co., Limited, consists of twin 6-cylinder Wallsend-Doxford oil engines developing a total of 13,200 h.p. at 112 r.p.m. and giving a service speed of 17 knots. Each engine is fitted with a Bibby-Doxford detuning flywheel on the forward end of the crankshaft. Torque-meters of Siemens Bros. make have been fitted.

The engine-room auxiliary machinery is operated electrically with the exception of the boiler-feed pumps and the emergency compressor. Four electric generators, each driven by a 6-cylinder oil engine, are provided and each
Territorial Waters Dispute

THREAT TO BRITISH WHALING SEEN

In last month's "Navy" we reported the discussions of the United Kingdom Chamber of Shipping on flag discrimination. This article sums up the chamber's views on another highly controversial issue: the delimitation of territorial waters, particularly as it affects the whaling industry.

Condensed from a speech by L. M. HARPER GOW, M.B.E.

THE MODERN WHALING expedition consists of a factory ship and between 10 and 15 whale catchers and attendant vessels. The crews of these vessels total from 500 to 700. The modern factory ship is a highly efficient industrial unit capable of working up between 20 and 40 whales per day (according to their species and age) and producing some 3000 barrels of oil and many tons of by-products.

It will, therefore, be appreciated that a very large capital investment, as well as the livelihood and well-being of a large number of persons, is tied up in each expedition. The factory ships leave the United Kingdom and Norway in the autumn each year for the Antarctic and do not return until the following spring. Once on the whaling ground, each expedition must function as a self-contained and self-sufficient unit far away from inhabited land and normal trade routes, the managers having no means of contact with the outside world, apart from radio, being with the tankers sent down during the season to renew supplies of fuel and oil and bring back whale oil.

Whaling is conducted all round the Antarctic continent during the brief Antarctic summer with the exception of the large area lying between 70° west and 160° west longitude, south of 40° south latitude which has been agreed internationally as a whale sanctuary.

Eastwards of this sanctuary lies a large expanse of the Antarctic continent containing off its water-groups of islands including South Georgia, the South Shetlands, the South Orkneys, and the Sandwich group, the area of which is one which yields a fairly good return to the whaling fleets and is therefore well frequented. It is usually referred to as the Western Front.

Whaling is an international business, and apart from the British (including South African) and Norwegian expeditions, expeditions from Holland, Japan, U.S.S.R., and one flying the flag of Panama are now active participants. The duration of the whaling season and the total number of whales which may be taken are limited by the International Convention on Whaling, designed for the protection of whale stocks.

While these restrictions are entirely necessary if the raw material needed by our industry is to be allowed to survive and to be given an opportunity to reproduce itself and multiply, the added restrictions since the late war have caused the managers to become more competitive with the result that only the most efficient expedition can hope to show a reasonable return. As I shall show later, any enforced stoppage even of only short duration may prove disastrous.

Apart from the Antarctic waters, where the catch is mostly in blue and fin whales yielding the edible oil on which our own domestic economy has become so dependent, the most important area in which whales naturally abound is in the waters off the west coast of South America, particularly in the Humboldt Current off the coasts of Peru and Chile. This is probably the most important natural home and breeding ground of the sperm whale which is customary for many years for some factory expeditions to catch and treat sperm whales in these waters either on the way down to or while returning from the Antarctic. Some expeditions have also been dispatched solely to whale in these waters.

In 1947 up to the Onassis in 1954, eight expeditions, including one British, have fished in these waters. Whales are generally found a long distance from the shore, 100 to 150 miles being quite common, and by no stretch of imagination could it be held that these whaling operations offended any conception of territorial waters.

In 1950 Chile, which had agreed the International Whaling Convention in Washington in 1946 but had not subsequently ratified it, appealed to the International Whaling Commission to be allowed to become a member of a smaller minimum size and to licence the operation of her whalers for a longer period each year than the convention permitted.

The commission rejected those requests after an exhaustive review of the circumstances, and recommended that Chile should ratify the convention and thus become a full member of the commission.

In August, 1952, a conference was held at Santiago between delegations of the Governments of Chile, Peru and Ecuador, together with an observer from Colombia. Only a conference for the exploitation and conservation of the marine wealth of the South Pacific; the first item on its agenda was the legalisation of the declarations of the Presidents of Chile and Peru as regards their sovereignty over 200 miles of the continental waters and the sea beds under them.

The more important item from the [U.K. Chamber of Shipping] Whaler Section's point of view was the establishment of a permanent commission to control whaling within these waters by the issue of licences and the setting up of an unofficial whaling convention which would allow to the three countries concerned the relations which the International Whaling Convention had not been prepared to grant under the terms of the International Convention because of the insufficient evidence which Chile had then brought forward in support of her case.

The recommendations of the Santiago conference were reported to the time to be subject to ratification by the three Governments concerned, and so far as is known, public announcement was made to show that Chile had not been ratified. However, in 1954 it was known that a Norwegian-managed expedition under the French flag was intending to whale in these waters, the managers were informed that they could do so if they applied for and obtained a licence.

Inquiry as to the terms on which such a licence would be issued made it quite clear that an extortionate payment would be extracted for the concession of a smaller minimum size and to licence the operation of her whalers for a longer period each year than the convention permitted.

The commission rejected those requests after an exhaustive review of the circumstances, and recommended that Chile should ratify the convention and thus become a full member of the commission.

As we have just heard, a further seven or eight United States fishing vessels have been captured. As this looks like round four to Peru and we may well ask how many rounds this contest will go.

This in itself is a first-class example of how quickly countries with this sort of mentality can consolidate and spread their position if the original action is not carried out. We should now be able to demand something from the United States fishing vessels, and the Peruvian authorities in their demand for something over one million pounds as ransom for releasing her. Thus the second round also went to Peru.

Any feeling that this was an isolated action against a vessel of a flag having no means of retaliation was quickly dispelled by the subsequent seizure of two United States fishing vessels for alleged violation of Peruvian territorial waters and the imposition of heavy fines for their release.

Round three also to Peru.
Her Majesty's Government have said that they will immediately come to the aid of a British ship in such circumstances, but even so one can well envisage the time which might elapse and the financial loss which would accrue before any effective result was obtained. Such loss and delay would be severe enough if the expedition was returning home from the Antarctic at the time, but if it should happen while the ships were on their southward passage the result might well be complete disaster.

We must, I am afraid, face the fact that this important area of high seas is now most effectively closed to British whalers by unilateral action—a complete contradiction of one of the most important first principles of the United Nations Charter that the economic resources of the seas shall be open to all.

There is one particularly important international aspect arising from the unilateral action of these South American States. When the International Whaling Convention first met in 1933 it was immediately recognised that effective measures of conservation must be put into effect if the whale stocks of the southern hemisphere were not to be seriously depleted. From the outset the British whaling industry has been in the forefront in placing its knowledge and experience at the service of the Government and has cheerfully accepted and observed all the subsequent restrictions in its operations in the knowledge that they were for the long-term benefit of the world's industry as a whole.

The breakaway by an important group such as the South Americans, in order to obtain operational advantages for themselves while denying them to all others, could have far reaching consequences if their example was followed by others. The International Whaling Convention has been an effective and successful instrument for the betterment of world economy and it would be little short of a tragedy if it were now to be rendered ineffective by actions such as those taken by the South Americans.

Earlier I referred to that part of the Antarctic generally known to whalers as the "Western Front" and in which the whaling fleets of several nations operate each season. Unfortunately, this area contains most of the mainland and islands which are the subject of conflicting claims of sovereignty, despite the fact that they have for so long been accepted as indisputably British.

Chile has already announced that her territorial limit of 200 miles from her own mainland now extends to the same distance from the shores of any Antarctic territory over which she claims sovereignty.

Peru may well make similar claims and Argentina while being apparently content with something less in distance has already made one attempt to establish similar rights.

The meteorological and other land stations set up in Antarctic territory by Argentina and Chile are relieved each year during the whaling season and at least one naval vessel from each country accompanies the relieving parties. In the 1953-54 Antarctic whaling season a Norwegian factory ship lying in the Bransfield Strait was intercepted and boarded by an Argentine gunboat; the master was ordered to move off. This might seem a comparatively trivial incident until it is realised that such an abrupt termination to her immediate activities might mean the abandonment of many whale carcasses waiting treatment by the factory and a voyage of several hours or even days of steaming to reach another position with favourable operating conditions.

The present highly competitive conditions and in the shortened season during which whaling is permitted, this apparently trivial incident could easily involve a loss of something well over £100,000 worth of produce. The Whaler Section [of the U.K. Chamber of Shipping] in the past has not been backward in drawing H.M. Government's attention to this danger. In 1947 and 1949, and again at the end of 1934, the attention of the appropriate department was drawn to the possible dangers to the British whaling vessels inherent in these various territorial claims.

There can be no doubt that the threat which faces the Whaling Section today is an urgent one. We welcome the manner in which H.M. Government has rejected these extravagant claims, but is this enough? The Governments of other maritime powers have made actually emphatic protests but they have not prevented the armed attacks and enforced seizure to which helpless merchant and fishing vessels have been subject while actively engaged upon their legitimate pursuits.

World opinion must be marshalled and brought to bear to save these extravagant claims abandoned and replaced by the generally accepted international limits of territorial waters. Only then will it be possible to reach any variation by international agreement. The United Kingdom Government should lead the way to ensure that all vessels may again continue to use the high seas in safety and free from molestation.
REVIEW OF U.K. SHIPPING

This is the second of three articles reviewing the strength of the United Kingdom merchant fleet and the composition of shipping organisations.

The final article will appear in the June issue of the "Navy."

In Britain the relations of the State with merchant shipping go back as far as 1381 when the first of a series of Navigation Acts was passed. Later acts were designed to give British ships a monopoly in the carriage of goods to and from Britain and its colonies. The last of them was repealed in 1849 under the influence of free trade ideas.

But the same period found the State taking an increasing interest in the shipping industry, particularly in matters of safety and welfare. To-day, the Government Department chiefly concerned is the Ministry of Transport and Civil Aviation.

In the sphere of safety, it is responsible for such matters as seeing that the load line, which shows the depth to which a ship may be safely loaded, is correctly indicated; that every ship has adequate life-saving and fire-fighting equipment; and that the necessary standard of safety is maintained in passenger ships.

The Ministry is also responsible for the issuing of certificates of competency to masters, navigating and engineering officers, able seamen and lifeboatmen, and for the certification of ships' cooks. It also regulates such matters as crew accommodation on board ship, scales and quality of provisions, and the carriage of medical stores.

It is responsible for running the Mercantile Marine offices at United Kingdom ports at which crews are signed on, and for keeping the central registers of shipping and seamen. The Ministry (with other Government Departments) is represented on the Merchant Navy Welfare Board and the Merchant Navy Training Board (see below). It also administers the Coastguard Service, which has a personnel of about 500, working from some 170 stations, is responsible for rescue from the sea and works closely with the Royal National Lifeboat Institution.

Apart from these administrative functions, the Ministry maintains and friendly liaison with the shipping industry on matters of policy and problems relating to imports and exports and also to special passenger requirements.

Altogether, the Merchant Shipping Acts are administered by H.M. Consuls and by officers of Commonwealth and Colonial Governments.

The Merchant Navy

The number of masters, officers and men (excluding Asiatic seamen serving on articles of agreement opened in Asia) making up the strength of the British Mercantile Marine in December 1953 was about 145,000. In addition about 42,000 Indian, Pakistani and other Asiatic seamen serve regularly in British ships.

Training: The policy of Merchant Navy training is determined by the Merchant Navy Training Board, which comprises representatives of the shipowners, officers' and men's societies, the Government Departments concerned, pre-sea training establishments, the Association of Education Committees and the Association of Navigation Schools.

The function of the Board is to consider and make recommendations concerning the training of the various classes of officers and men who enter the different departments in the Merchant Navy, but it rests with the shipping industry itself to determine with the appropriate Government Departments to decide whether any particular recommendation should be adopted.

Separate panels have been formed within the Board to consider training of the various categories of seamen, namely, deck officers and deck ratings, engine officers and engine room ratings, and catering ratings.

All boys who wish to join the Merchant Navy as deck or junior catering ratings must undergo a course of pre-sea training. The majority receive their training at the National Sea Training Schools but courses are also provided by certain private organisations and by a number of local education authorities.

A seaman may not be rated as A.B. (Able Seaman) in United Kingdom registered ships unless he holds a certificate of competency as A.B. granted by the Ministry of Transport and Civil Aviation. To obtain this certificate a seaman must, among other qualifications, have served three years at sea on deck, have attained a Certificate of Proficiency as Lifeboatman and have passed an oral and practical qualifying examination. This qualifying examination for the certificate may, however, be taken on reaching the age of 18 after 12 months' service at sea as a deck rating and those who pass may be issued with an Efficient Deck Hand Certificate, which enables the holder to serve at sea in a similar capacity to an A.B.

Seamen qualify by seniority for promotion to petty officer, second mate or master, and those who pass may be issued with a Second Mate's Certificate. To obtain the certificate they must have served for a period of not less than two years at sea as a second mate or master and have passed a qualifying examination.

Seagoing engineer officers are first employed as Junior Engineers, they become eligible to take examinations for Second and First Class Certificates of competency after performing periods of qualifying service.

Seagoing officers usually receive their basic training in engineering by serving a suitable apprenticeship of not less than four years in engineering workshops where, although part of this period may be spent at approved courses in mechanical engineering, an alternative scheme of training has, however, recently been introduced under which shipping companies themselves select apprentices for a special course of training consisting of a two-year diploma course in a technical college, followed by eighteen months' training at sea and finally twelve months' training in an engineering workshop ashore.

Seagoing Engineer Officers are further examined for Second Class Certificates after further periods qualifying service.

Seagoing Engineer Officers are first employed as Junior Engineers, they become eligible to take examinations for Second and First Class Certificates of competency after performing periods of qualifying service.

Radio officers are required to hold certificates of Proficiency in Wireless Telegraphy issued by the Postmaster-General on the results of an open examination. They receive their training in wireless colleges.

Conditions of Employment and Welfare: Wages and conditions of employment are negotiated by the National Maritime Board. Minimum wages and holidays with pay are guaranteed for both officers and ratings. Moreover, the Merchant Navy Established Service Scheme, introduced by the Board, has removed a great deal of the uncertainty formerly associated with a seafaring life.

Officers and men can now take long-term contracts, not only with individual shipping companies but with the industry as a whole, and get special benefits, in addition to the normal unemployment insurance when they are ashore between voyages.

The Merchant Navy Welfare Board, on which are represented officers and seamen's unions and associations, shipowners, voluntary societies, the Ministries of Transport and Civil Aviation, Labour and National Service, Pensions and National Insurance, and the Central Council for the Welfare of Seamen and their Families, is responsible for the welfare of seafarers. It maintains a number of seamen's homes and provides a wide range of welfare services, including health and medical care, recreation and education, and social work. The Board also administers the Seamen's Defence Fund, which provides a weekly payment to seamen who are temporarily unemployed.

The combined working staffs of Captain Cook Dockyard and Garden Island last month gave a bus to the Spastics Centre. It was the second bus they had given in the past six months. They are seen here charing as the bus moved off after it was presented to representatives of the Spastics Centre at Garden Island.
THE ROYAL RESEARCH SHIP

TWELVE YEARS AGO last December 14 the Royal Research Ship Discovery II left London on her maiden voyage. She was built by Messrs. Ferguson Brothers, and in her trials there was much steam up, on November 2, 1929. After doing 13 knots over the measured mile, she was accepted by the Crown Agents for the Colonies on behalf of the Government. Her task was the pursuit of investigations bearing largely on the biology of the Antarctic nations and their oceans, especially with a view to the proper regulation of the Antarctic whaling industry.

Since she was launched she has steamed some 300,000 miles, mostly in the stormiest seas of the world. Twice she circumnavigated the Antarctic continent in winter. She went as far south as it was possible for a ship to go, until there were only a few hours of feeble daylight. Her crew had a constant fight to keep deck machinery and scientific gear working, and rapidly thickening ice barriers squeezed her. and though she was careful not to go through the ice, her useful contribution to navigation was considerable.

The ship was moored at the end of the Arctic season to carry out the work of marine biology and marine physics, the pages of the Antarctic Pilot give abundant testimony of her useful contribution to navigation and in the Falkland sector most of the chartered coastline is based on her running surveys. She has carried expeditions, dogs and men, as far south as ships can go in the Bay of Whales, has manoeuvred cautiously through the ice, steamed boldly out into the ice-bound waters of the Arctic Ocean between the East and West Furies, and pushed her way through hundreds of miles of heavy ice.

As a result, the temperatures, salinities, and layers of the water masses of the Antarctic Ocean, their physical and chemical conditions, and plant and animal life, are probably better known than those of any other ocean. Most of the research results appear in the Discovery Reports, 27 volumes up-to-date and there are more to come; also, to an ever-increasing extent, the published measurements serve as the basis for oceanographical researches in all parts of the world.

THE NAVY

R.A.N. steaming party for "Vengeance"

About 1000 officers and men of the Royal Australian Navy will leave Sydney for the United Kingdom in the aircraft carrier Vengeance on June 16 to bring the new R.A.N. steaming party carrier Melbourne to Australia.

The Melbourne, which is being built in Vickers-Armstrong Ltd. yard at Barrow-on-Furness, will arrive in Australian waters in May next year.

Shortly after the Vengeance arrives in England she will revert to the Royal Navy, which lent her to the R.A.N. pending the Melbourne's completion. Her ship's company will then go to London to confer with Her Majesty's officers and men who are already serving in the Melbourne.

The Minister for the Navy, Mr. Francis, said last month that the new R.A.N. steaming party of 1000 officers and 10 ratings of Royal Australian Naval Reserve would be included in the complement of Vengeance on passage to England.

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The opportunity given them to serve in the United Kingdom is regarded as a reward for the hard work and service of the Royal Australian Navy in the wars of the past, Sir Thomas White, K.B.E., the Minister for the Navy, said last month that the new R.A.N. steaming party of 1000 officers and 10 ratings of Royal Australian Naval Reserve would be included in the complement of Vengeance on passage to England.

The Royal Air Force, the Royal Australian Navy, and the Royal Australian Army have been called to the United Kingdom by the Minister for the Navy, Mr. Francis, to carry out the work of the Royal Australian Navy in the wars of the past, Sir Thomas White, K.B.E., the Minister for the Navy, said last month that the new R.A.N. steaming party of 1000 officers and 10 ratings of Royal Australian Naval Reserve would be included in the complement of Vengeance on passage to England.

An Admiralty spokesman said that about a dozen shots were fired before the intruders fled. No one was hurt.

The Japanese Government has decided to develop an atomic power plant to propel surface craft.

The Japanese Navy in the next 12 months will be expanded from its present strength of 374 warships, totalling 86,963 tons, to 496 warships, totalling 92,905 tons.

This is part of a general expansion of Japan's armed forces, plans for which were announced by the Japanese Defence Board last month.

The Board said Japan's present total armed strength of 162,000 men would be increased to 193,000 men. The Army will expand from 139,628 men to 161,638, the Navy from 16,385 to 20,388, and the Air Force from 6,738 to 11,503 men.

Sea Fury pilot ditched plane

An R.A.N. Fleet Air Arm pilot had to "ditch" his Sea Fury in the waters of the Western N.S.W. coast on April 20.

The Minister for the Navy, Mr. Francis, announced the incident on the day. He said the pilot was unharmed.

The aircraft developed engine trouble while flying in formation at 5000 feet.

More atom-powered ships planned by U.S.A.

The United States this year will probably begin developing an atomic-powered ship to propel surface warships.

The U.S. Secretary of the Navy, Mr. Charles Thomas, is reported to have told Congressmen recently that the United States will probably begin developing an atomic-powered ship to propel surface warships.

The report added that Mr. Thomas said that tests with the atomic-powered submarine Nautilus showed that the power...
TRADE WINDS

Air power afloat can now have performance equal to that of land-based air forces

By E. Colston Shepherd

WEST’S NAVY AIR POWER

Both navies can expect to progress to supersonic aircraft as soon as the reach a stage suitable for regular service. The Royal Navy is assigned a less ambitious role in this respect on the Mcdonnell Demon.

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The Royal Navy can confidently acquire a fast, swept-wing fighter like the Supermarine 252, which is comparable to the R.A.F.'s Swift, and the United States Navy can promote itself with the British fighter like the Douglas Skyraider, which has about the same top speed.

Rapid advances in naval aviation have outmoded those once formidable piston-engined aircraft.

Unusual flying-boats

Alongside this is the set the most unusual of the world's flying boats. One which employs high-speed and long-range aircraft. The Douglas S3D, which has two powerful jets and a swept wing, can be flown at speeds of 600 miles per hour, and has a range of more than three times that of the Royal Navy's Gannet. Its maximum range is 2,000 miles, including a subsonic section of about 750 miles, and its offensive load must be unusually big. The S3D is one of the less startling examples of the transformation of the Royal Navy's air arm, which is now equipped with jet fighter-bombers. The Douglas S3D, which has two powerful jets and a swept wing, can be flown at speeds of 600 miles per hour, and has a range of more than three times that of the Royal Navy's Gannet. Its maximum range is 2,000 miles, including a subsonic section of about 750 miles, and its offensive load must be unusually big. The S3D is one of the less startling examples of the transformation of the Royal Navy's air arm, which is now equipped with jet fighter-bombers.

The United States Navy's situation approaches more nearly that of the Royal Naval Air Service in the first World War. Then, the Royal Navy prepared itself for air operations over coastal waters and took a large share in strikes against German land-based air craft, including Zeppelins. The United States Navy, bearing in mind the island warfare in the Pacific and such special duties as Doolittle's attack on Tokyo from a carrier, continues to prepare itself for such a situation. In recent years, it has become necessary to prepare for the possibility of a Carrier Air Arm.

The United States Navy can be said to have prepared to take a hand in every kind of operation, including attacks on land targets as well as on enemy ships. The Royal Navy is assigned a less ambitious task, but it is designed for the employment of aircraft in anti-submarine warfare. That assurance is perhaps more important to the United States than to the Royal Navy.

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NEWS OF THE WORLD'S NAVIES
Continued from page 1B.

Looking Back a Bit

By "Bartimeus"

For nearly a century after Trafalgar men could only with the better, sometimes for the worse, but they must go on changing perpetually. Human beings on the whole, react change, and certain ways of life and thought, certain methods of earning a living, tend to be much more conservative than others. One of these is the Navy.

To begin with, there is in the destroyer's bottom and the submarine's conning tower were damaged.

R.A.N. helicopters in Tasmania

Two helicopters belonging to the Royal Australian Navy, as well as flying and ground crew, were lent recently to the Hydro-Electric Commission of Tasmania for a reconnaissance of large areas of rugged mountain country in the King and Franklin Rivers region, in the western part of the State.

The purpose of the reconnaissance was to investigate potential hydro-electric power resources.

DEATH OF U.S.N. AIR PIONEER

American Admiral John Towers, who commanded the first successful air crossing of the Atlantic, died of cancer on April 30. He was 70.

In 1945 he was Commander-in-Chief of the Pacific Fleet.

Admiral Towers, in 1919, commanded three seaplanes which took off from Newfoundland for the Azores and Portugal.

His own plane and another were forced down in heavy fog near the Azores. The third plane reached the islands and then flew on to Portugal.

The Admiral taxed his seaplane 200 miles to the Azores, refusing offers of assistance.

and so sweep a danger area with precision and in a remarkably short time. The U.S. Navy has encouraged the development of a number of helicopter types. The Air Arm has relied, in the main, on Sikorsky types built by Westland. It is now to receive a fairly large number of Bristol 173 two-engine and Sikorsky helicopters, which are of bigger capacity. How the Navy intends to use them has not been revealed. Presumably they could carry both defensive and offensive loads.

As the helicopter landed on the beach a man from the crowd of holiday-makers walked into the whirring rotor blades and was killed instantly.

CHANCE IS a law of life; sometimes things change for the better, sometimes for the worse, but they must go on changing perpetually. Human beings, on the whole, react change, and certain ways of life and thought, certain methods of earning a living, tend to be much more conservative than others. One of these is the Navy.

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fact, a foretaste of what came to
be known as P.T., an outrage to human dignity (among the portly)
of which only rumours then dis-
turbed the Navy's peace of mind.

There were no organised games
ashore; there were "Evolutions" on Monday mornings, when ship
competed against each other in
arduous drills; there was boat
reached Weymouth pier wearing
morning divisions and church, it
morning, when ships
ards. There was one power boat,
called a picket boat, used for dis-
patch. Boat signalling was visual
boat, that is to say by whistle or fog horn in the morse
code. Nobody talked unnec-
sary. The ship's company were landed,
patch. All signalling was visual;
and dealt with them as they liked. It was all on a
generous scale and from the point of
hygiene, would make a modern dietetic wean.

One member of each mess, in
turn, prepared the meal according to whatever light guided him, fabricat
ed to the best of his ability a "figgy-duff" or, with condensed
milk, a rice pudding, and the re-
sult was delivered over to the cook in
the galley. There was no school
of cookery, no preliminary train
for cooks. They picked it up as
best they could. Some tried;
other's didn't. The ship rolled like
a tub at sea, and, in heavy weather,
as pentrated through ventilating
cowls overhead. A man's dinner
reached him, probably burnt to a
dairy, at eight bells. Cocoa was
a staple beverage.

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THE ALBERT MEDAL

The Albert Medal was instituted by Queen Victoria in 1866, five years after the death of the Prince Consort and in his memory. The medal, awarded for heroic actions in saving life from "shipwreck and other perils of the sea," was pre-eminent among non-military British awards for personal gallantry.

"By Taffrail"

In the official order of precedence the Albert Medal ranked lower than the Victoria Cross, which was born before all other orders and decorations, whereas A.M. was displayed after decorations and before all other medals. But it was even more highly ranked than the V.C. in the period 1836-1938, the Albert Medal was conferred no more than 20 times; in 221 instances for first class and 211 for land service.

The British Government has decided to set up a National Committee to deal with oil pollution. It will be widely based, including representatives of shipping interests, Government departments (including the Admiralty), and the Department of Scientific and Industrial Research. This was announced in the House of Commons recently when an amendment was moved to the Oil in Navigable Waters Bill.

There were warnings that the future Albert Medal would be awarded posthumously, that is, to the next of kin of those who perished in an outstanding act of heroism. Gallantry at sea or on land involves saving lives in time of peace, but in war for acts of bravery not actually in the presence of the enemy, is now recognised by the world, in descending scale, of the Victoria Cross, the George Cross, the Albert medal, the British Empire Medal, and the Queen's Commendation.

The first suggestion for an Albert Medal came in 1864, and the first warrant was issued in 1866. The second warrant was issued in 1877, and the third in 1883, which extended the award of the Albert Medal to the Second Class.

The Albert Medal was conferred no more than 20 times; in 221 instances for first class and 211 for land service.

The Albert Medal was awarded to those who showed conspicuous bravery in saving life at sea or on land, and was worn on the left breast in a blue ribbon, with a five-eighths of an inch wide white stripes, and that of the Second Class five-eighths of an inch wide white stripes.

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Valley, when the pit became inundated with water. The rescue of the last five survivors took four days, and the rescuers had to hew their way through a barrier of coal 38 yards thick where there was always water service bestowed for gallantry in a number of mine and railway disasters, and for rescues involving away live bombs or hand grenades.

Glancing through the records one sees the names of doctors, steeplejacks, railwaymen, postmen, divers, labourers, dockyard workers, seamen, soldiers—men of every profession and walk of life, including Jack Hewitt, a boy of 11, Anthony Farrer, aged 8, and Anthony Farrier, aged 8, left, their homes at Cowichan Lake, Vancouver Island, to catch their ponies. Half a mile away they were attacked by a large cougar or puma. The animal sprang upon the girl, knocked her down, and started to mount the ground, and crouched on her back. Anthony at once attacked the cougar with his fists and riding-bridle and drove it off. Doreen. It then attacked him, and Doreen, getting to her feet, came to Anthony’s rescue, fighting with her fists and bridle, and even putting her arm into the animal’s mouth to try to prevent it from biting her friend.

She was able to get it off the leg, when it stood on its hind legs and fought with her. The cougar was evidently disturbed by some children, grappling with a man with a loaded revolver who was attacking a policeman. At about the same period, at Ashburnham, aged 11, Hannah Rosbrook, mistress aged 23, was completely buried and must otherwise have been suffocated. She remained until every child had been rescued, and the rescuers had to hew their way through a barrier of coal 38 yards thick where there was always water service bestowed for gallantry in a number of mine and railway disasters, and for rescues involving away live bombs or hand grenades.

Thereafter the Albert Medal for land service was bestowed for gallantry in a number of mine and railway disasters, and for rescues involving away live bombs or hand grenades.

During the Baluchistan earthquake in 1935 Florence Alice Allen, at the risk of her own life and at the cost of terrible injuries to her leg, saved the child in her charge by throwing herself across the cot.

In 1916 two children, Doreen and Anthony Farrier, aged 8, left, their homes at Cowichan Lake, Vancouver Island, to catch their ponies. Half a mile away they were attacked by a large cougar or puma. The animal sprang upon the girl, knocked her down, and started to mount the ground, and crouched on her back. Anthony at once attacked the cougar with his fists and riding-bridle and drove it off. Doreen. It then attacked him, and Doreen, getting to her feet, came to Anthony’s rescue, fighting with her fists and bridle, and even putting her arm into the animal’s mouth to try to prevent it from biting her friend.

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Personalities

**Thrice Decorated Officer to Command New Carrier**

Australia's new aircraft carrier, the Melbourne, is to have as its first captain a naval officer who has been decorate times for his war services. He is Captain G. G. O. Gatacre, D.S.O., D.S.C., first captain a naval officer who served in the Melbourne, is to have as it is termed, the Australian Naval Representative and the Australian Naval and Bar, R.A.N., who is at present the Australian Naval Representative and the Australian Naval and Bar, R.A.N., who is at present Chief Staff Officer to the R.A.N. Commodore Captain Gatacre, D.S.O., D.S.C., was awarded the D.S.C. in 1941. Gatacre had been in the Royal Navy. In 1956.

At the outbreak of war in 1939 he was serving in H.M.S. Vendetta, which was the first Australian warship to enter the Mediterranean. In February, 1940. He held this command till May, 1940. He then returned to Australia and was temporarily in command of H.M.A.S. Kyabra at the end of 1940.

From June, 1941, to June, 1943, he was in command of H.M.A.S. Maryborough as Senior Officer of the 21st Minesweeping Flotilla at Singapore and Java, and during this command he received the act of battle from a submarine officer.

The Maryborough was one of the last ships to leave Tylajap, on March 3, 1942, after it was detached from the 21st Minesweeping Flotilla. His next appointment was Commanding Officer, H.M.A.S. Pinterest, as Deputy N.O.I.C. in Cairo, after which, in August, 1944, he was appointed to command H.M.A.S. Bungaree.

In December, 1944, he was appointed Commanding Officer of H.M.A.S. Adelaide, leaving her to take command of H.M.A.S. Melville in March, 1945. He was the senior officer of the surrender of Japanese forces in Timor on 11th September, 1945, at Koepang. During 1946 he was appointed Commander of the 2nd Mine Clearance Flotilla in H.M.A.S. Pozzo, before going to H.M.A.S. Australia in November of that year.

Captain Walton came from Darlington, W.A., and entered the R.A.N. College in 1919. He gained his colours for rugby, and as passing out was awarded "maximum time" and the prizes for French and English.

He became a midshipman on May 15, 1923, sub-lieutenant in 1926, lieutenant in 1927, lieutenant-commander in 1932, and commander in 1939. His first ship was H.M.A.S. Adelaide, and on going to the United Kingdom he served in H.M.S. Repulse before doing courses.

In 1927-28 he qualified as acting-interpreter in French, and in the following year he qualified as interpreter for Russian. He joined the H.M.S. Perth on commissioning and was in her at the outbreak of war. In June, 1940, he was appointed as Chief Staff Officer to the Flag Officer in Charge East Australian area, and was appointed Naval Officer in Charge, Western Australia.

He is the first West Australian to hold that appointment.

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On his return he served in H.M.A.S. Voyager, Australia and Albatross.

At the outbreak of war in 1939 he was serving in H.M.S. Teesdale on the China Station, where he remained till December 1940. In 1941 and 1942 he served in H.M.A.S. Normand. In April, 1943 he went to H.M.A.S. Bungaree and in June of that year to H.M.A.S. Endigo, which he commanded for 12 months until September, 1944. In November of that year he was appointed to H.M.A.S. Hobart, serving in this ship at the conclusion of hostilities in September, 1945. He was then appointed to Navy Office in April, 1946, where he remained until June, 1947. From then until March, 1949, he was in command of H.M.A.S. Condammie, from which ship he went as Executive Officer of the Mediterranean. He was promoted to commander on June 30, 1949 and was the commanding officer of H.M.A.S. Leewin from June 30, 1949, to April, 1951. He was Executive Officer in H.M.A.S. Australia between May, 1951 and December, 1952, then went to the United Kingdom to serve on the Sydney Joint Service Staff in London from January, 1953, until January, 1955. He takes up his present appointment this month.

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pointed to H.M.A.S. Canberra, and from her in July, 1941, to H.M.A.S. Hobart, in which he served until August, 1943.

He was awarded the Palentine General Service Medal in 1941 and was mentioned in dispatches in connection with the Hobart convoy in the Java Sea.

After leaving the Hobart he was for some months in the Moreton, then the Penguin until November, 1944, when he was appointed first to the Lengo and then in command of H.M.A.S. Geraldton as Senior Officer of the 22nd Mine Sweeping Flotilla.

At the end of the war he was Commanding Officer of H.M.A.S. Quicksilver.

"This is a time that demands strong minds, great hearts, true faith and willing hands."—Major-General F. Kingsley Norris.

"Anger makes dull men witty, but it keeps them poor."—Francis Bacon.

This very interesting book has been written by the Director of the Boston Athenaeum, one of the Admiral's war-time staff officers, in close collaboration with the Admiral himself. The English edition summarises King's early service in a prologue, the full story beginning with his command of an aircraft carrier in 1930, when over 50 years old; thereafter his career is told in detail up to his retirement at the end of 1945.

When the United States entered the war, King had been Commander-in-Chief, the Atlantic Fleet, for nearly a year, and was concerned in the period of patrols and convoys before the war—which the book calls undeclared war. On the outbreak of actual war he became Commander-in-Chief, the United States Fleet, and soon afterwards Chief of Naval Operations (roughly our Chief of the Naval Staff); and he held these two most exciting and onerous appointments together until the end of the war. This in itself shows the sort of man he is and must be: the knowledge and energy and reputation, perhaps above all the great strength of character and constitution. The book shows how his previous naval service and immeasurable help to fit him for his great task (for one thing, he qualified as an aircraft pilot at the age of 48 in 1927) and then shows him at work upon it.

There is naturally, in a book so written, a vivid picture of the Admiral's character and ways of thought, the story of the work he did, the miles he travelled, and his relations with statesmen and officers of his own and the allied nations during the war. There are several quotations from his letters and memoranda which help to paint the picture, including his guiding principles: to trust subordinates and "We must all do all that we can with what we have". There is a clear all-round account of the policy, the operations, and the means by which the American fleet was built up and carried to victory. There is no space to develop the achievements, and in all this, not the least interesting feature for British readers is the light thrown on differences in organisation, systems of promotion, and so on, between the American and British navies.

Admiral King looked to Lord St. Vincent as his model. There seems indeed much resemblance in his character, as there was in the problems each faced in his day and so successfully dealt with. He presents his story as a record of how the United States and the British Commonwealth accomplished together what neither of them could have accomplished separately. J.H.O. (in "The Navy"


One more book has been added to the many that tell the story of submarines, this time written by Commander F. W. Lipscomb, who was himself a submarine officer. That the story was worth telling is shown by his previous work, The British Submarine, but this book shows how his previous work helped to fit him for his great task (for one thing, he qualified as an aircraft pilot at the age of 48 in 1927) and then shows him at work upon it.

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The trials of a vessel are the conclusion of months of work which began with the laying of the keel; and even in these days of highly scientific shipbuilding, use of models and the testing-tank, trials are not perfunctory affairs. No one can say for certain "what she will do", but we certainly have an idea of her speed at sea. The trials of the Queen Mary were the subject of much comment when she was built. The vessel was 900 feet long, and 860 feet long between perpendiculars. Her draft when laid down was 26 feet 0 inches, and 25 feet 4 inches when launched. Her machinery was 175,000 h.p., and her best speed was 30 knots. The trial is carried out by a group of observers, who take the speed of the vessel over a considerable distance. They have three observers on the forecastle, who watch the progress of the vessel, and give the speed of the vessel to the stop-watch, taking the average of the three. The stop-watch is set at zero, and the vessel is allowed to reach a steady speed. Then the stop-watch is taken, and this gives her speed over a measured mile, and therefore over the measured mile in various parts of the world.

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NEARLY a quarter of a million visitors go over H.M.S. Victory every year where she lies in dry dock at Portsmouth, to see the most famous warship in the world.

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The spirit of Nelson is bound up in this old "wooden wall of England"—from the time he joined his first ship as a timid boy until he achieved his first command of the frigate Rodney to eventually fall mortally wounded from a sniper's bullet after the victory of Trafalgar. A plate now marks the spot where he fell and reading its inscription one senses all the tradition of Britain which has seeped into the timbers of the Victory down the corridors of time.

From the "Sea Cadet"

"Reputation is what men and women think of us. Character is what God and angels know of us."

—Tom Paine

Requests should be sent to: Lieutenant H. A. Southcott, R.N., The Commanding Officer, H.M.S. Victory (ship), Portsmouth.

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The "Port Sydney"

Continued from page 7.

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

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A CRISIS IN NAVAL MANPOWER

The Royal Australian Navy is short of men. The problem is not just numerical weakness. It is a persistent drift of highly trained and experienced men out of the Service.

The important question is: why are these "career" men not re-engaging? It needs searching investigation. Probably most of them would stay at sea if they considered themselves only.

The answer may well lie in the human and very powerful influence exerted by wives and families to achieve a fuller home life—with an eye on the "career" men not re-engaging? It needs search-

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This is the problem the Navy faces today.
between a man and his family. But this is only part of the story. When united with his family his service life is, in 99 cases out of 100, a thing apart from his family life and the real requirement is to fuse these two into one. We want to hear the wives saying how proud and contented they are to fuse these two into one. We want to hear the

**Building a New Navy**

*By Donald Barry*

Ever since Hiroshima was devastated by an atomic bomb, amateur critics in all walks of life have challenged the uselessness of conventional military ideas and armaments. Each Service, in turn, has been critically analysed. Of the Navy they have said: the battleship can no longer serve a warlike purpose. The aircraft carrier is obsolete and vulnerable. The cruiser has had its day. Some have even questioned the usefulness of the Navy itself, or suggested its fusion with another Service. All the old conceptions of maritime power have been on trial.

For long—too long, in the opinion of many knowledgeable people—the critics had it all their own way. No voice of authority was raised against them. The Royal Navy confidently went about its peacetime tasks, developing new ideas and weapons. The Admiralty was as silent and unselfish as a smooth sea. The United Kingdom Government made no pronouncement about the role and shape of the Navy of the future.

Then the First Lord of the Admiralty broke the silence in typically Naval fashion. He did so in the Explanatory White Paper published with this year's Navy Estimates.

This is the Navy's reply: an official declaration indicating what the Navy and the Government think the Navy of the future will be. It is an arresting document which has interested Parliament and the British public and has challenged the Navy to new co-operation.

The First Lord's declaration was necessary. The basic facts of sea power have to be confirmed against the background of the atomic bomb: that whether weapons be conventional or atomic, Britain cannot long survive to fight a global war alone unless she and her allies can deny the seas to the enemy and ensure that food and raw materials continue to reach the United Kingdom from overseas.

The Government's White Paper is, however, much more than a restatement of the Navy of the future. It is a compelling document: the First Lord of the Admiralty judge the time ripe to give a glimpse of the Navy of the future: a Navy which will, if necessary, be able to launch the atom bomb and guided missiles; fight local wars without the weapons of mass destruction; or merely perform its traditional peacetime role of supporting British policy and ensuring that her world-wide trade continues unlosted.

While fully recognising the consequences of nuclear attack at sea, the Navy is ready to meet the challenge and awaits new weapons and equipment of the atomic age. The one question which now has to be answered is: "When will the new Navy come to maturity?"

The White Paper does not say when. It gives a great deal of information, but in material aspects it is not so forthcoming. Although it speaks of "the Fleet of the future," no further building programme for very large warships is proposed; although it talks of ordering a new type of ship—the guided weapon cruiser—it does not say when it will be completed.

These facts pose two main questions: (a) Is the Navy ready to build the Fleet of the future, has a case for new ships and equipment been presented to Parliament in sufficiently forceful and convincing manner? And (b) is the Admiralty, in fact, revealing all which it could do without presenting secrets to enemy intelligence, or is it taking refuge from public reaction to shortcomings behind the cloak of security?

As he contemplates the Fleet of the future, the layman must ask these questions, for the taxpayer can only feel confident in the manner in which the £40, 500,000,000 Naval vote is spent if the questions can be satisfactorily answered in official quarters.

The information available to the taxpayer shows that a considerable amount of thought and ingenuity and the growing amount of research has gone into the production of a blueprint for the Navy of the thermo-nuclear age. The threat of the nuclear weapon has been continually in the minds of the planners: obviously there can be no escape in the event of a direct hit or near miss, but much has been done to lessen the effects of shock and radiation on the fringes of an atomic attack.

Ships have been streamlined to ensure that their companies are under cover when at action stations. Methods of washing ships to free them of radiation effects have been adopted. Trials of tactical formations giving wide dispersal are a feature of present-day Fleet exercises. Dispersal is probably the best form of defensive, for it is believed that the employment of a nuclear weapon against a widely-spaced and highly-defended target would be conducive and might be proved to be a wasteful means of attack.

In considering the building programme, the requirement is seen to be twofold: first, a Fleet to meet the requirements of the immediate future (consisting of ships largely as we know them today); and, secondly, a Fleet with some entirely new types of ships for the more distant future. As, however, the second requirement will come about by evolutionary development, it is not possible to say into which
categories specific types of ships fall.

Since the war a sizable and very expensive start has been made in the building of a new Fleet. Some of this work has merely been the completion of orders laid down before the war, but all have been finished with an eye on the atomic

FRIGHTEN OF THE ROYAL NAVY

(The following table is based on information contained in the Navy Estimates for 1955/56, and the First Lord of the Admiralty's Estimates Statement.)

\[ \begin{array}{|c|c|c|}
\hline
\text{TYPE} & \text{In Commission} & \text{To be Commissioned before 1955/56} \\
\hline
\text{Fast Battleships} & 1 & 0 \\
\text{Carriers} & 8 & 0 \\
\text{Cruisers} & 20 & 5 \\
\text{Guided weapon ships} & 2 & 0 \\
\text{Destroyers} & 25 & 7 \\
\text{Frigates} & 52 & 13 \\
\text{Submarines} & 41 & 14 \\
\text{Minersweepers} & 55 & 165 \\
\text{Coastal Craft} & 30 & 42 \\
\text{Large landing vessels} & 10 & 24 \\
\text{Tank Landing ships} & 7 & 8 \\
\hline
\end{array} \]

In estimating modern cruiser activities, and in view of the speed of new aircraft, the construction of the Hermes, fourth of her class of aircraft carriers, is well advanced—though the Victorius was found still in a condition to make modernisation work, while when she is completed with all the refinements of modern aircraft screens, from her in every respect be in the Emperor of the Ar\n
The construction of the Hermes, fourth of her class of aircraft carriers, is well advanced—though her completion date has not been announced. It is quite likely that the present carrier programme for the Royal Navy will be virtually completed. The hulls of twelve other carriers, the Victorious, Lutwidge, and the new carriers, the Sovereign and the Hermes, from which the class takes its name, are being completed.

The shipbuilding programme appears small. In view of this statement the cruiser programme, in particular, must continue to cause anxiety. At the present time Britain has nine cruisers in commission, five cruisers in reserve, and two destroyers in reserve. In addition there are fourteen in reserve, and one, the Cumberland, engaged in trials and training; a moderate force by pre-war standards. But it is the time rapidly approaching when news of a new carrier programme would be more reassuring. At the present time Britain has the most modern carrier in the world, but against the huge American carrier-building programme, which includes the mammoth ships of the Forrestal class, the British naval building programme appears small. The Royal Navy has already probably achieved greater technical developments since the war.

When the aircraft carrier "Vengeance" was about to leave Sydney this month for the U.K., Lieutenant-Commander A. J. Could have inspected these old guns, captured by an earlier "Vengeance."—Daily Telegraph photo

launched with high precision guided weapons. And the day may dawn when the elusive and hard-hitting qualities of the carrier group capable of launching the atomic bomb will be a more serious threat than a group of airfields.

The defence of the aircraft carrier, vigorously voiced in recent months by the First Lord, is welcomed in naval circles, but the time is rapidly approaching when news of a new carrier programme would be more reassuring. At the present time Britain has the most modern carrier in the world, but against the huge American carrier-building programme, which includes the mammoth ships of the Forrestal class, the British naval building programme appears small. The Royal Navy has already probably achieved greater technical developments since the war.

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portance by the aircraft carrier, but it still has a vital role in maritime forces.

With carrier battle groups one might expect to find some of the modern “Daring” class ships. There are eight now afloat, and more are to be built. According to the White Paper, it is expected that three “Tiger” class cruisers—Tiger, Blake and Defence—will be launched this year, having conventional armament, and with the modernisation of the wartime-built Royalist. This, the Admiralty says, will “do the gap before guided weapons ships come into service.”

The ultimate successor to the conventional cruiser will therefore be the guided weapons cruiser. When this ship will make its debut is a matter for conjecture. There is only the assurance that the Admiralty is ready to order such ships to replace the earlier-class cruisers. The Navy prefers to describe them as “the finest escort vessels in existence, powerfully armed and capable of attacking heavy ships with torpedoes, destroying light forces, sinking submarines and contributing to defence against air attack.”

Unsatisfactory as the cruiser situation may appear to be, the Admiralty does not intend to take any vital step to improve it until the advent of guided weapons ships. Till then Britain must be content with the completion of the three “Tiger” class cruisers—Tiger, Blake and Defence—without modernisation of the conventional armament, and with the modernisation of the wartime-built Royalist. This, the Admiralty says, will “do the gap before guided weapons ships come into service.”

The primary need is for anti-aircraft guided missile cruisers. This sort of ship might well be of the size and general appearance of a conventional cruiser and would, of necessity, have conventional armament for surface-to-surface action. The true guided weapons cruiser incorporating missile armament for all forms of offensive action must have a completely new and formidable silhouette, but it would probably be a ship of up to 20,000 tons.

Of smaller ships, the number of the Navy’s new and converted anti-submarine escorts is growing steadily. These ships can never be enough, but there is cause for some satisfaction in progress made in the past few years in building an effective force of such vessels. Since the war the Navy has converted 27 destroyers of warship construction into fast frigates, and more are also to be converted.

At present there are a dozen new frigates launched and 14 on the stocks. A further eight are to be ordered this year. The present frigate strength is 167, of which 93 are in full commission. The Admiralty policy is to order 10 new frigates this year. All that is officially admitted is that the Navy is building modern submarines, some with high-class fast anti-submarine, anti-aircraft or aircraft direction duties.

Hand in hand with the building of such a large number of new ships is the need to improve all forms of offensive and defensive equipment for the detection and location of enemy vessels. The Navy believes that in an emergency, mining operations could be carried far greater than in World War I and II and that it might be the most serious threat of all. Considerable attention has been given to the problem of building a new type of vessel and to new techniques for the detection and location of submarines and the methods of keeping them at bay.

In this fleet, the ocean sweepers of the last war are the major units, but new vessels built largely of wood and other non-magnetic materials to counter magnetic, acoustic and other types of influences have been coming into service in large numbers. These new mine sweepers are of two types: coastal vessels, designed to operate with the full range of modern fighting ship armament and with port and approach routes swept by aircraft or submarines. Some of these vessels can carry approximately £50,000 each and is the latter approximately £250,000 each. More than 150 have already been built and swept in this country under construction — a programme costing over £100,000,000.

Many of these vessels can go straight from the builders’ yards to the fleet to the Royal Navy would from the outset of hostilities operate with the full

**SHIPS LAUNCHED IN THE FINANCIAL YEAR ENDING 31 MARCH, 1955**

<table>
<thead>
<tr>
<th>Type and name</th>
<th>Date of Launch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submarine</td>
<td></td>
</tr>
<tr>
<td>Excalibur</td>
<td>2.55</td>
</tr>
<tr>
<td>Frigates</td>
<td></td>
</tr>
<tr>
<td>Lynx (A/A)</td>
<td>12.1.55</td>
</tr>
<tr>
<td>Puma (A/A)</td>
<td>30.6.54</td>
</tr>
<tr>
<td>Whitby (A/S)</td>
<td>2.7.54</td>
</tr>
<tr>
<td>Torquay (A/S)</td>
<td>1.7.54</td>
</tr>
<tr>
<td>Grafton (S)</td>
<td>13.9.54</td>
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<tr>
<td>Kepel (S)</td>
<td>31.8.54</td>
</tr>
<tr>
<td>Murray (S)</td>
<td>22.2.55</td>
</tr>
<tr>
<td>Pellew (S)</td>
<td>29.9.54</td>
</tr>
<tr>
<td>Rusel (S)</td>
<td>10.12.54</td>
</tr>
<tr>
<td>Coastal Minesweepers</td>
<td></td>
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<tr>
<td>One</td>
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</tr>
<tr>
<td>Three</td>
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<td>Four</td>
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<tr>
<td>Inshore Minesweepers</td>
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</tr>
<tr>
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<tr>
<td>Fast Patrol Boats (“Dark” Class)</td>
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</tr>
<tr>
<td>One</td>
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</tr>
<tr>
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</tbody>
</table>

Continued on page 12


TABLE II

Port Arrivals and Departures. 1953

<table>
<thead>
<tr>
<th>Port</th>
<th>Foreign Trade</th>
<th>Coasting Trade</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>45,068</td>
<td>21,705</td>
<td>66,773</td>
</tr>
<tr>
<td>Liverpool</td>
<td>39,406</td>
<td>7,587</td>
<td>36,993</td>
</tr>
<tr>
<td>Southampton</td>
<td>28,854</td>
<td>7,866</td>
<td>36,720</td>
</tr>
<tr>
<td>Tyne Ports</td>
<td>7,327</td>
<td>9,299</td>
<td>16,626</td>
</tr>
<tr>
<td>Glasgow</td>
<td>8,963</td>
<td>4,189</td>
<td>13,152</td>
</tr>
<tr>
<td>Hull</td>
<td>9,812</td>
<td>3,288</td>
<td>13,100</td>
</tr>
<tr>
<td>Belfast</td>
<td>1,847</td>
<td>10,500</td>
<td>12,347</td>
</tr>
<tr>
<td>Swansea</td>
<td>7,878</td>
<td>3,227</td>
<td>10,800</td>
</tr>
<tr>
<td>Bristol</td>
<td>6,357</td>
<td>3,978</td>
<td>10,335</td>
</tr>
<tr>
<td>Middlesbrough</td>
<td>5,926</td>
<td>2,512</td>
<td>8,438</td>
</tr>
<tr>
<td>Total</td>
<td>151,868</td>
<td>74,201</td>
<td>226,069</td>
</tr>
</tbody>
</table>

The Principal Ports:

The Port of London, with 69 miles of waterfront and 4,000 acres of dock estate, handles more tonnage annually than any other in the world. It is the London Docklands. The port supplies primarily Greater London and the Home Counties with over 110 million persons. Liverpool, with Manchester, an inland city made into a port by the construction of the Manchester Ship Canal, serves the industrial Midlands, Lancashire, and Yorkshire. Bristol and Avonmouth serve the southern ports. Manchester's chief import is raw cotton. Southhampton, largest of the Channel ports, is the chief port for ocean passenger traffic. It owes its importance to its double sides and easy approach from the sea. A considerable portion of total import is handled for the refinery at Fawley. Middlesbrough is fifth in order of tonnage annually. It is second largest milling centre in the world. Tobacco is another major import and is stored in what is probably the world's largest warehouse. Hull on the Humber estuary, serves particularly the industrial centres of Yorkshire and the Midlands. Middlesbrough imports iron ore, and exports iron and steel from the local iron and steel industries. Swansea has the largest trade of the group of ports serving South Wales. As well as coal, Swansea exports the steel and tinplate manufactured in its immediate area. Its rapidly increasing importance derives largely from the oil which it imports and exports for local refineries. Bristol and Avonmouth serve the industrial Midlands as well as the colonial market. Hull, on the Estuary. It has long been a large coastal trade and is fourth in order of tonnage annually. Glasgow, the principal Scottish port, serves as an entrepôt centre for the industrial area dependent on the Lanarkshire coalfields. Grangemouth is second in order of tonnage. Manchester handles mainly continental traffic. It serves the local authorities and also imports timber and paper-making materials. Liverpool, the principal port of the North, handles the Imports of the port.THIS is the third and final article analysing the strength of the British merchant fleet and the composition of U.K. shipping organisations. There are over 300 ports in the United Kingdom. The ten largest are shown in Table II, which lists them in order of tonnage of shipping arriving and departing and does not relate to the volume of cargo handled. Most ports, other than those owned by the British Transport Commission, are represented on the Dock and Harbour Authorities. The Port of London Authority, formed in 1917 to represent the common interests of port authorities in their relations with Government, shipping companies and traders. The ten largest are shown in Table II. The Royal Navy has 217,385 ships of the port (such as shippers, importers and shipping companies) and other bodies such as Government Departments and local authorities. Examples are London (controlled by the Port of London Authority), Liverpool (Mersey Docks and Harbour Board), Belfast (Belfast Harbour Commissioners) and Glasgow (Clyde Navigation Trust). The Port of London Authority has 28 members. Ten of the members are nominated as follows: by the Admiralty (1), the Ministry of Transport and Civil Aviation (2), the London County Council (4), the Corporation of the City of London (2), the Corporation of Trinity House (1). Eighteen of the members represent various port users: ship owners (4), merchants (6), owners of river craft (1), and public wharfingers (1). The Authority's duties include the maintenance of adequate river and coastal channels, the regulation of the flow of traffic, the provision and upkeep of moorings, and the licensing of wharves and structures in the area under its jurisdiction.

A few ports - Bristol is the most important example - are owned by the town or city council and controlled entirely by a committee of the council. Finally, there are about 100 ports which are privately owned. Manchester is the only major port owned - by the Manchester Ship Canal Company. There are also other City Councils who exercise considerable control by appointing a director of the Company's 21 directors. The powers and responsibilities of the port authorities are, in the main, set down in private Acts of Parliament which relate specifically to the ports concerned.

Build a Good Lookout

FOR THE NEXT ISSUE OF THE NAVY

June, 1955

Keep a Good Lookout

London and the Home Counties with over 110 million persons. Liverpool, with Manchester, an inland city made into a port by the construction of the Manchester Ship Canal - serves the industrial Midlands, Lancashire and Yorkshire. Grain is prominent among the imports of Liverpool which, including Birkenhead on the opposite bank of the Mersey, is the second largest milling centre in the world. Tobacco is another major import and is stored in what is probably the world's largest warehouse. Hull on the Humber estuary, serves particularly the industrial centres of Yorkshire and the Midlands. Middlesbrough imports iron ore, and exports iron and steel from the local iron and steel industries. Swansea has the largest trade of the group of ports serving South Wales. As well as coal, Swansea exports the steel and tinplate manufactured in its immediate area. Its rapidly increasing importance derives largely from the oil which it imports and exports for local refineries. Bristol and Avonmouth serve the industrial Midlands as well as the colonial market. Hull, on the Estuary. It has long been a large coastal trade and is fourth in order of tonnage annually. Glasgow, the principal Scottish port, serves as an entrepôt centre for the industrial area dependent on the Lanarkshire coalfields. Grangemouth is second in order of tonnage. Manchester handles mainly continental traffic. It serves the local authorities and also imports timber and paper-making materials. Liverpool, the principal port of the North, handles the imports of the port. THIS is the third and final article analysing the strength of the British merchant fleet and the composition of U.K. shipping organisations. There are over 300 ports in the United Kingdom. The ten largest are shown in Table II, which lists them in order of tonnage of shipping arriving and departing and does not relate to the volume of cargo handled. Most ports, other than those owned by the British Transport Commission, are represented on the Dock and Harbour Authorities. The Port of London Authority, formed in 1917 to represent the common interests of port authorities in their relations with Government, shipping companies and traders. The ten largest are shown in Table II. The Royal Navy has 217,385 ships of the port (such as shippers, importers and shipping companies) and other bodies such as Government Departments and local authorities. Examples are London (controlled by the Port of London Authority), Liverpool (Mersey Docks and Harbour Board), Belfast (Belfast Harbour Commissioners) and Glasgow (Clyde Navigation Trust). The Port of London Authority has 28 members. Ten of the members are nominated as follows: by the Admiralty (1), the Ministry of Transport and Civil Aviation (2), the London County Council (4), the Corporation of the City of London (2), the Corporation of Trinity House (1). Eighteen of the members represent various port users: ship owners (4), merchants (6), owners of river craft (1), and public wharfingers (1). The Authority's duties include the maintenance of adequate river and coastal channels, the regulation of the flow of traffic, the provision and upkeep of moorings, and the licensing of wharves and structures in the area under its jurisdiction.

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**New method of distilling water**

Members of the Royal Naval Scientific Service have found a way of saving the Royal Navy £300,000 a year in distilling fresh water from sea water. They have done this by using a new compound introduced into the evaporators when the change from sea to fresh water is made. The compound prevents scaling and the formation of foam.

The Admiralty, in a recent bulletin, quotes Mr. J. Leicester, a chemist in the Admiralty Materials Laboratory, as saying that the new compound has increased the operating life of an evaporator twofold, and increased efficiency by about 30 per cent.

With it, fresh water can be made from salt water at a cost of 12 shillings a ton, against 18 shillings a ton before the present method of treatment. The saving in fuel oil burned in the boilers to distil海水 from the sea is 34 tons of oil for every thousand tons of water made.

Mr. Leicester puts the cost of research over nine years which resulted in the development of the latest compound at £1,250,000. He says that a crisis arose over the liner Gothic shortly before it was due to leave on the Queen's Commonwealth cruise in 1953. It was found that the ship's two evaporators, required to produce 40 tons of fresh water daily, could not produce more than 15.

Modifications were made by the department of the Engineer-in-Chief of the Fleet, which stepped up the output to nineteen tons a day per evaporator.

Because of the success of the anti-foam constituent, it was decided to try this compound when a new evaporator was built. Mr. Leicester sent a fortnight on board the liner immediately before her sailing to make tests. The changeover in its being possible to increase the average output of each evaporator to approximately 32 tons a day.

**Helicopter passes ship's towline**

For the first time, the Royal Navy used a helicopter to pass a line from ship to ship for salvage purposes recently.

The helicopter was piloted by a New Zealander, Lieut. M. H. Simpson, R.N. He took off from the R.N. Air Station at Gosport in a Dragonfly after a request had been made to the Navy to help a towline between the tug Sir Bevis and the Kingfisher, a freighter, which was aground south of the Isle of Wight.

The helicopter carried 1,000 yards of one-inch hemp, in four coils, to act as a messenger line. When the aircraft arrived over the tug, the tug had managed to approach to within about 120 yards of the freighter.

The end of one of the coils on the helicopter was weighted and lowered to the freighter. Then the helicopter flew slowly towards the tug, paying out the line. The other end of the line was then passed successfully to the tug. The tug's crew secured a four-inch towing line to the one-inch line. Then the helicopter flew the tug's crew of the freighter to establish the towing link.

The one-inch line, however, proved too strong for the helicopter. The helicopter then repeated the operation with a second coil and this time the towing link was secured.

The whole operation took only 20 minutes and the Kingfisher was refloated.

**Revolutionary** H-bomb exploded last year

Dr. Ralph Lapp, head of the U.S. Navy's nuclear physics branch, said last month that America exploded a revolutionary hydrogen bomb on the Pacific on March 1, 1954.

According to American Press Agency reports, Dr. Lapp, who was giving evidence before a Senate Armed Services Sub-Committee, said the bomb was at least 750 times more powerful than the atomic bomb dropped on Hiroshima.

He said the bomb was revolutionary in construction, in the large area of its "fall-out," and the persistence of its "fall-out." It generated fantastic amounts of radioactivity — much more than an ordinary H-bomb.

This was the bomb from which Dr. Lapp conducted 23 Japanese fishermen, one of whom died, Dr. Lapp said.

**Victorious** afloat after five years

The aircraft carrier Victorious was put afloat for the first time for five years at Portsmouth Dockyard on May 19. The carrier had been all that time in dry dock. She has been practically re-designed, fitted with an angled deck, and many other modern devices.
State of R.N. Fleet Air Arm Is Causing Anxiety

By Oliver Stewart (in London)

A SURVEY of the state of the Fleet Air Arm as revealed in the discussions which were begun by the Estimates, cannot be wholly reassuring. It is true that Mr. J. P. L. Thomas had good news to give about the plans for replacing existing machines but the thing that makes the critics anxious is the long interval of time that now appears to be necessary for the process of replacement to be completed. We have therefore the curious situation that, in deck flying technique, the Royal Navy has achieved superiority to all other navies and has introduced many important inventions and developments; while in the aircraft itself it remains backward.

In view of the setbacks that are known to happen when new aircraft are brought into service, small comfort can be taken from the announcement that the N113 single-seat day fighter has been ordered. Much more would have to be known about its behaviour and possibilities before it can be accepted as a machine that will bring the Royal Navy up to date in ultimate air performance. News of the de Havilland, however, is satisfactory. It appears that this aircraft has now passed through its most difficult period and is shaping well both as an aircraft and as a gun platform. Indeed it is good to know that the gunnery problems which have troubled some of the R.A.F. fighters do not arise to trouble the DH 110.

This is an aircraft which early showed its high speed powers and was one of the first British operational aircraft to be despatched through the speed of sound. Paradoxically enough, the tragic accident at Farnborough may now perhaps be looked on as having contributed in no small measure to the satisfactory development of the design. The Westland Wyvern strike aircraft has been a disappointingly slow starter and for many months its qualities have been a matter of debate; especially as the delay in bringing it up to the stage of carrier operation was inordinately long. But the most recent mark of Wyvern has the approval of critical Service pilots.

The Fairey Gannet anti-submarine aircraft, with its interesting and novel "double-engine" configuration, is in service and squadrons have been formed. Other aircraft, including the Sea Venon all-weather fighter, are being fitted to higher standards of efficiency than were at first possible.

But none of these things can affect the overall view, already mentioned, that the Royal Navy is less well equipped in its aircraft than in its deck operating apparatus. The work of Cambell, Goodhart and Leon with angled decks and mirror landing devices and the development to full operational standards of the steam catapult are matters showing a greater advance than can be found in naval aircraft themselves.

The habit of looking at what the Americans are doing, and then making comparisons with what we are doing, is too common. Nevertheless it is apparent that the United States Navy is going ahead with a remarkable speed with new types of naval aircraft. It is not only that it is developing an interesting series of turbo-engined flying boats, but also that it is in the forefront with aircraft of extreme performance yet capable of working from carrier decks.

The Douglas Skyray for speed and the McDonnell Demon for rate of climb can hardly be equalled by any other Service aircraft, whether they are intended for deck operation or for airfield operation. Even more important the United States Navy is hard at work on a variety of devices which may enable ultra-fast aircraft to work from carriers with greater safety and certainty. Thus the Grumman with the Attinello flap is worthy of special notice. It is reported that, with this flap in operation, the take-off speed is brought down 20 knots and the load is increased by nearly 1400 kilogrammes.

The Attinello flap is a device on which information is as yet scanty: but it appears to be a "blown" flap, in that air is bled from the engine compressor and then ducted to the wing and emitted in a stream over the flap. This form of boundary layer control is the subject of a great deal of experimental work: but the Grumman Panther seems to be the first aircraft which has given it a trial for deck operation.

There can be no doubt that every navy seeking to improve its carrier operations should be studying all possible means for obtaining boundary layer control. For this is the way of improving the speed range; and speed range is the quality required before all others in deck operating aircraft.

The arrangement is that there shall be a central ministry, the Ministry of Supply, which is responsible for the supply of aircraft to all three Services. One of the objectives is the co-ordination of research and experiment. Obviously if the three Services are left to make their own arrangements, there is always a risk that researches may be duplicated. On the other hand there are disadvantages in the arrangement. The Ministry of Supply is hard at work on a great deal of operational aircraft. It is not only that it is developing an interesting series of turbo-engined flying boats, but also that it is in the forefront with aircraft of extreme performance yet capable of working from carrier decks.

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There can be no doubt that every navy seeking to improve its carrier operations should be studying all possible means for obtaining boundary layer control. For this is the way of improving the speed range; and speed range is the quality required before all others in deck operating aircraft. But there are other researches in progress worthy of study by the Royal Navy. For instance the jet deflector which was designed by the National Gas Turbine Establishment and fitted by Westland to a Meteor is able, according to the pilots' reports, to give a much lower landing speed. Jet deflection is obviously a field on which all navies should be concentrating their attentions.

If we find that in the Royal Navy there is little interest in flying-boats, and we fail to observe any specifically naval work on boundary layer control, blown flaps and jet deflection, it is because of the departmental framework in this country. The Ministry of Supply is charged with research into things like jet deflection and boundary layer control. There is no direct means whereby the Navy can stimulate research into these things for its own ends. As for flying-boats, they are the province of the Air Force and not of the Navy.

On the face of it, it has to be admitted that there seem to be obstacles in the present arrangements to the fullest and fastest development of specifically naval types of aircraft. These obstacles are inherent in the existing departmental mechanism and have nothing to do with the ability of the aircraft industry to supply any particular type of machine.

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THAT monumental truth of warfare to-day is that the most powerful weapons are those dependent upon the release of energy from the breakdown of matter. These weapons are known by vulgar names such as "atomic bombs" and "hydrogen bombs."

It follows that the most significant Naval developments announced during the past year are those associated with defence against such weapons and the power to deliver them.

It is well known that a ship or airfield suffering a direct hit from an atomic or hydrogen bomb will be destroyed," said Captain D. R. F. Cambell, D.S.C., R.N., Captain of the H.M.S. Cumberland, in answering questions on the ability of his ship to withstand atomic attack. "It is also well known, he continued, "that there is no effective counter-effect for any bomb, whether it be high explosive or nuclear.

"It is also known that on the perimeter of a nuclear explosion there is the effect 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 solid particles 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, without involving the ability to get away from the trouble. When the remote control is in operation there will be no hands in the machinery space. The machinery will be controlled from one of the many air-conditioned compartments in the ship."

It has also been announced that H.M.S. Cumberland carries out trials with a system of pre-wetting the outer surfaces of ships. If particles of radioactive matter are deposited upon dry surfaces they render these surfaces radio-active. It then becomes a matter of months, if not longer, to render them safe for human contact. On the other hand, if such particles are deposited on a constantly moving film of water, they do not have time to settle and can be swilled into the ocean.

Remote control and pre-wetting have been devised as counter-measures to the "fall-out" of particles on the fringe of atomic explosions and so forth. Pre-wetting leads to a lessening of damage from the break-up of radioactive mists which follow an underwater explosion. Both also are simple from the engineering viewpoint. Since the elevation of the riller to rowing boats, ships have virtually been steered by remote control. More elaborate remote control equipment is familiar to gunnery machinery and magazine safety installations. One can assume, therefore, that remote control for ships' main machinery did not confront the Navy masters and their subordinates. The distances from the centre of atomic explosions, about which survival can be expected and the kind of peril to be expected at different distances are now being explained to the officers under instruction with confidence. They are taught how to use radiac instruments, which denote the amount of radiation in parts of a ship which have been contaminated with radioactive substances. Similarly these instruments can measure the officers that the effects of pre-wetting and sluicing down have been completely successful. It may be seen from the hazards to be faced on the fringe of atomic explosion are being met with scienee and major problems. Similarly the pre-wetting installations for decks and superstructure in principle resemble the means by which a gardener waters the lawn. Fire-fighting lines already installed in warships throughout the world provide an obvious basis to work on.

The side by side with these training measures a working party under the leadership of a Sir Victor Sheppard, the Director of Naval Construction, is advising ship owners on the measures which can be taken to make their ships less vulnerable to this form of warfare.

At sea there is no question of adopting the attitude of some of the citizens of Hiroshima, who had thrown up their hands in horror at the prospects of atomic warfare and conclude that nothing can be done. The modern maritime equivalent of Cromwell's famous words, "Trust in God and keep your top decks wet."

On the offensive side, the past year has seen the completion of a revolution in the aircraft carrier techniques. The steam catapult enables large and heavy aircraft with heavy loads to take off from the flight deck of those carriers fitted. The inference is that an atomic weapon can now be flown from such a floating airfield as is the Ark Royal.

The latest advance in flight deck technique is an audible air speed indicator known as Audio. When the missile, fitted on the flight deck to give warning of incorrect speed, arrives at the carrier and is engaged on assessing the new instrument known as Audio. When this conclusion is borne out by the Admiralty specifically stated that the Admiralty is advising ship owners to make her available to the Australian Government for migrant transport until the end of this year.

"Georgic" withdrawn from sale

The British Ministry of Transport has announced that the liner "Georgic" has been withdrawn from sale and that the Ministry will make her available to the Australian Government for migrant transport until the end of this year.

The "Georgic" left Liverpool last month with migrants for Australia.

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**CYCLOME**

**CYCLOME** over the Indian Ocean early this month caused damage estimated at £10,000 to British freighter Betwix.

The ship's master, Captain S. F. B. Stone, said when the ship arrived in Sydney that the wind whipped waves "as high as the funnel," stripped off steel railings, ripped steel off their hinges, and broke windows. Water flooded the engine room.

The ship fought the cyclone for five days in the Philippines.

**Cyclone**

Florentino Das, a 37-years-old Filipino, set sail alone from Honolulu on May 15 in a converted Australian surfboat for the Philippines — a voyage of 5,300 miles. Das's surfboat was rigged for sail and also carried two 25-h.p. outboard motors for emergencies. He left with 90 days' supplies, and said he expected to reach his destination in 45 days.

**Australian plan to boost exports**

The Australian Minister for Shipping and Transport, Senator McLeay, has announced that Australian Government next session will substantially increase its expenditure on overseas trade promotion.

Plan to boost exports in Australia's export trade. This was not high enough for a country with such an expanding industrial potential.

Enough manufactured goods were being shipped overseas, however, to demonstrate that Australia could compete on world markets, particularly those near home.

He said that Australian manufacturers should make every effort to increase exports and promised Government assistance to those who wished to enter the export trade or increase their exports.

**Crew of arrested ship sent home**

The master, 11 officers, and 20 seamen of the freighter Ken Wahi were repatriated from Sydney to New Zealand last month after their ship was arrested in Sydney Harbour.

The arrest was made on behalf of the Chartered Bank of India, Australia, and China. The ship was formerly the Australian coaster Momba.

**British ships warned of new minefield**

The Chinese Nationalist Government early this month announced that it had mined territorial waters around Formosa and Quemoy and the Matsu group of islands.

In response to British enquiries for a clarification of the announcement, the Chinese Nationalist Government sent a copy of the announcement to the British Consulate in Taich (Formosa) with a warning to British shipping.

The announcement said the mines were laid because of the threat of Communist Chinese invasion.

Quemoy is off Amoy, opposite Formosa, and the Matsu group is off Foochow. British ships call regularly at Foochow and Amoy, which are Communist Chinese ports.

Press agency reports from Formosa quote a spokesman for the Chinese Nationalist Government as having said that the Nationalists hoped the mines also would prevent British ships from taking supplies to Communist China.

**Gales batter shipping off Kentish coast**

Gales off the English coast last month drove the Dutch motorship, Urmajo, aground on the Goodwin Sands, off the Kentish coast, where the crew abandoned ship.

The Ramsgate lifeboat brought them ashore.

The gales delayed the liner Queen Mary 12 hours on her homeward journey to Southampton from New York.

Two tugs were damaged when they collided after towlines from the British troopship Empire Trooper parted during the storm. The tugs were towing the troopship to Scotland.

The Southend lifeboat rescued the crew of three of the yacht Stormalong, which got into diffi-
cultures soon after leaving on a voyage to New Zealand. The yacht was three miles offshore with a broken rudder and her engines dead.

Two tankers collide in dense fog

The Norwegian tanker Bergen chief and the Liberian tanker Burgan collided in dense fog in the English Channel on May 24. Lloyds shipping intelligence reported both ships were damaged, but Burgan continued her voyage to New York.

Union S.S. Co.

Chairman dies in 1936 after the death of the company.

Two dead sailors found on raft off Haugcsund (Norway) on May 12 came from the Polish trawler Crossbite, which sank with the loss of all 14 of her crew after hitting a mine in the North Sea.

Earlier it was believed that the dead men were from another Polish trawler, whose crew were reported to have mutinied and set out in life-boats for Scotland. Norwegian naval officers found the raft. The two men appeared to have frozen to death.

Later, Warsaw Radio cleared up the mystery of the raft's origin.

Ratings: Titles

Changes in the titles formerly applied to stoker-mechanics and other similar ratings employed in the engine-room and electrical branches bring the Royal Australian Navy into conformity with those made in the Royal Navy.

The titles hitherto in use could easily give persons unfamiliar with naval and recent developments on board a wrong impression of the duties that the branches concerned were expected to perform. The changes are as follows (new titles, followed by their authorised abbreviation, appear in parentheses):—

Junior Stoker (Junior Engineering Mechanic, J.M.E.); Stoker Mechanic, E.M.I.); Stoker Mechanic (Engineering Mechanic First Class, M.E.I.); Leading Stoker Mechanic (Leading Engineering Mechanic, L.E.M.E.); Petty Officer Stoker Mechanic ( Petty Officer Engineering Mechanic, P.O.M.E.); Leading Stoker Mechanic (Leading Engineering Mechanic, L.E.M.); Junior Electrician's Mate (Junior Electrical Mechanic, J.E.M.); Leading Electrician's Mate (Leading Electrical Mechanic, L.E.M.E.); Junior Radio Electrician's Mate (Junior Radio Electrical Mechanic, J.R.E.M); Electrician's Mate Second Class (Radio Electrical Mechanic Second Class, E.M.I.); Radio Electrician's Mate Second Class (Radio Electrical Mechanic Second Class, E.M.I.); Radio Electrician's Mate (Radio Electrical Mechanic, E.M.); Leading Electrician's Mate (Leading Electrical Mechanic, L.E.M.); Leading Radio Electrician's Mate (Leading Electrical Mechanic, L.E.M.E.); Leading Electrician's Mate First Class (Leading Electrical Mechanic First Class, L.E.M.I.); Leading Electrician's Mate First Class (Leading Electrical Mechanic First Class, L.E.M.I.); Leading Radio Electrician's Mate (Leading Electrical Mechanic, L.E.M.E.); Leading Radio Electrician's Mate (Leading Electrical Mechanic, L.E.M.E.); Electrician (Petty Officer Electrician, P.O. E.); Leading Electrician's Mate (Leading Electrical Mechanic, L.E.M.E.); Electrician (Petty Officer Electrician, P.O. E.); Leading Electrician's Mate (Leading Electrical Mechanic, L.E.M.E.); Electrician (Petty Officer Electrician, P.O. E.).

Changes in the ratings employed in other branches of the Navy are:—

Junior Stoker (Junior Engineering Mechanic, J.M.E.); Stoker Mechanic, E.M.I.); Stoker Mechanic (Engineering Mechanic First Class, M.E.I.); Leading Stoker Mechanic (Leading Engineering Mechanic, L.E.M.E.); Petty Officer Stoker Mechanic ( Petty Officer Engineering Mechanic, P.O.M.E.); Leading Stoker Mechanic (Leading Engineering Mechanic, L.E.M.); Junior Electrician's Mate (Junior Electrical Mechanic, J.E.M.); Leading Electrician's Mate (Leading Electrical Mechanic, L.E.M.E.); Junior Radio Electrician's Mate (Junior Radio Electrical Mechanic, J.R.E.M); Electrician's Mate Second Class (Radio Electrical Mechanic Second Class, E.M.I.); Radio Electrician's Mate Second Class (Radio Electrical Mechanic Second Class, E.M.I.); Radio Electrician's Mate (Radio Electrical Mechanic, E.M.); Leading Electrician's Mate (Leading Electrical Mechanic, L.E.M.); Leading Radio Electrician's Mate (Leading Electrical Mechanic, L.E.M.E.); Leading Electrician's Mate First Class (Leading Electrical Mechanic First Class, L.E.M.I.); Leading Electrician's Mate First Class (Leading Electrical Mechanic First Class, L.E.M.I.); Leading Radio Electrician's Mate (Leading Electrical Mechanic, L.E.M.E.); Leading Electrician's Mate (Leading Electrical Mechanic, L.E.M.E.); Electrician (Petty Officer Electrician, P.O. E.); Leading Electrician's Mate (Leading Electrical Mechanic, L.E.M.E.); Electrician (Petty Officer Electrician, P.O. E.); Leading Electrician's Mate (Leading Electrical Mechanic, L.E.M.E.); Electrician (Petty Officer Electrician, P.O. E.).

Similar changes apply to Electrician Branch ratings in the Fleet Air Arm.

Chief Electrician, Chief Electrician, Chief Radio Electrician and corresponding Air ratings would remain unchanged.

The Suez Canal

O

On the 18th November, 1869, a small glass steamship, the Dido, owned by Messrs. Hare and Henderson, made the first commercial transit of the Suez Canal. The canal had been opened on the previous day, with due ceremony, by the Empress Eugenie in the Imperial yacht, attended by an international squadron and various steamers and guests. But the Dido came to port Said in the way of business. She had run off the voyage and the port, she had not been able to reach before. The canal to her was the tool she needed to finish her work.

Contrast the Dido, 138 ft. in length and 209 tons gross, with the giant tanker Tina Onassis, 775 ft. overall and 25,100 tons gross, carrying over 45,000 tons deadweight, one of the biggest ships using the canal today. Here lies the story of the intervening 85 years.

It is the story first of the expansion of the East-West trade. The canal opened at a time when the world's shipping was in the doldrums and the story of the intervening 85 years goes forward steadily to improve. The canal was busy 100 years ago; it would have been closed in 10 years had not the opening cost £30,000,000; while the net tonnage passing through reached a record of 90,900,000 tons. Cargo traffic, at 90,900,000 tons, was a record, and these figures put Port Said ahead of all European and American ports in traffic handled.

The Port of London, for example, handled in the year ended March, 1953, 48,000,000 tons of cargo. The outstanding development, however, has been in the oil trade. It was in 1892 that the first cargoes of "petrol in bulk" were allowed to transit the canal—bound, incidentally, eastern France for Russian and American fields. Later the opening of the Borneo and Middle East oilfields introduced the trade in crude oil for refining in Europe; and crude now forms the bulk of the trade. Not until after the First World War, however, did tanker traffic form an appreciable part of the total passing through the canal. Two years ago, the company issued figures showing this increase, from 4 per cent. of total traffic in 1920 to 63.7 per cent. in 1950. After a fall in 1951, there has been rising again and in 1953 seems to have been about 62 per cent. Parallel with this expansion in traffic has been the increase in the size and speed of ships. This forms the second part of the story, involving the Canal Company in reequipping itself for this task of maintaining, but also of increasing its facilities to keep pace with the traffic. There are two major difficulties, siting new docks and the banks. Both are aggravated by the increased tonnage of the vessels using the canal, since even at the restricted speeds allowed the ships would, for instance, passage causes considerable erosion. Siting involves constant dredging, 5,750,000 cubic metres or more in 1953. Maintenance of the banks requires perpetual vigilance and skilled engineering. Further work goes forward steadily to improve the efficiency and increase the depth of water.

This question of maintenance and improvement causes much heart-searching among shipowners, since in 14 years' time the Canal Company's concession expires, and the Egyptians should revert to Egyptian management. It seems, however, that the various economic views already suggested expirations before 1968. The company, in fact, in 1949, made a new agreement with the Egyptian government for a further 10 years, after which the French administration, if not the Egyptian, will return to the operation of the Canal. The maintenance of the canal under the convention of 1888. Here again the Egyptian record in recent years is an unbroken one.

When the Mediterranean was closed during the recent war, it was estimated that it took ships on the Cape route to do the work of five routes via Port Said. This is a measure of what it would mean to world trade were the canal to be closed, either through technical failure or for political reasons.
Territorial Waters Dispute

The International Law Commission met in Geneva on June 9 to seek to clarify territorial sea limits. Some countries claim sovereignty over only three-mile zones off their coasts, but others claim a much greater area.

By R. Dawson Miller

(Condensed from a speech to a recent meeting of the Chamber of Shipping of the United Kingdom)

"The term "territorial waters" is used to indicate that part of the sea inside a line running parallel to the coast, and extending two or three miles within which the flag of the shore State must be saluted. It has been a growing practice for states, or at least the littoral states, to make claims which extend far beyond three miles, and it is common knowledge that only a few months ago the State of Peru claimed a distance of two hundred miles beyond those limits and it is common for the salute to be rendered at the range of guns determined within which the salute ought to be rendered.

Naturally in modern times this conception cannot be adopted and the distance must be measured in nautical miles. In this connection in Great Britain such distance has always been taken as three miles, in fact in 1923 the then Under-Secretary of State for Foreign Affairs was in the House of Commons—"His Majesty's Government have always maintained that by international law and practice the general limit of territorial jurisdiction is three miles, but from time to time claims to extend the three miles limit have been advanced by different states. Such claims, which amount to annexation of the high seas, could only be made effective by international agreement." This view was again endorsed as recently as last December by Sir Anthony Eden, who stated in the House of Commons—"The limitation of territorial waters has not been the subject of formal agreement by states, but Her Majesty's Government regard the three-mile limit as sanctioned in international law by long usage and custom. Her Majesty's Government have accordingly always refused to accept in principal claims to territorial waters of more than three miles, and have reserved the right to uphold any British interests prejudiced by such claims."

In consequence the treaties dealing with territorial waters to which Great Britain has been a party and in the various Acts passed on the subject the distance of three miles has been adopted as far as concerns our own shores although in certain Scandinavian States four miles have been conceded.

As was observed at that time the countries accepting this limit possessed nearly 80 per cent. of the world's effective tonnage. The four Scandinavian countries opted for four miles and only certain South American States with the addition of Spain, Portugal, and Italy requested six miles.

Attempts made from time to time to come to an end have failed to conclude conventions dealing with territorial waters. In 1930 such an attempt was made at the Hague Codeification Conference under the auspices of the League of Nations.

Unfortunately the conference failed entirely, chiefly on the two points I have dealt with, namely the distance to be applied from the shore and the nature of the limit. In recent years, however, there has been a growing practice for states to make claims which extend far beyond those limits and it is common knowledge that only a few months ago the State of Peru claimed a distance of two hundred miles and enforced this claim by seizing a whaling fleet found within that limit, releasing it only upon the payment of a very substantial fine. If claims of this nature are to be permitted by other states, the consequences upon shipping generally will be such as to seriously affect international trade.

On the second point as to the limit of the State's legal rights over its territorial waters, there is quite a variance of opinion among international lawyers, some maintaining that it confers a right of sovereignty, while others consider it affords only a right of jurisdiction. The latter would appear to be the proper view and is endorsed by Dr. Colombos in his well-known textbook on International Law and Practice, which Her Majesty's Government has taken in rejecting such claims and to urge the Government, in consultation with other maritime powers, to uphold the generally accepted international concept of the limit of territorial waters unless and until varied by international agreement."

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Personalities

TWO MORE U.S. AWARDS

Two officers of the Royal Australian Navy have been awarded the American decoration of the Legion of Merit, Degree of Officer, for their outstanding services to the Government of the United States in action against the Communist forces in North Korea in 1952.

The officers are Commander W. S. Bracegirdle, D.S.C. and two bars, R.A.N., and Commander J. M. Ramsay, D.S.C., R.A.N.

For the Minister, for Mr. J. Francis, announcing these two decorations, said that the citations for the awards to these two officers revealed that they showed great professional skill and courageous fighting ability and they performed their duties in such a manner to reflect great credit upon themselves.

The Minister added that the two officers had already received a British award for their Korean service.

Commander Bracegirdle had been in command of H.M.A.S. Batam and Commander Ramsay had been in command of H.M.A.S. Warramunga.

Captain Smith

A naval officer who played a big part in the initial planning for the introduction of the Fleet Air Arm into the Royal Australian Navy has been appointed commanding officer of H.M.A.S. Quadrant and Captain of the First Frigate Squadron.

He is Captain V. A. T. Smith, D.S.C. R.A.N., at present the Director of Air Warfare Organisation and Training at Navy Office, Melbourne.

Captain Smith will take over from Captain T. K. Morrison, O.B.E. D.S.C. R.A.N., who has been appointed Naval Representative and Naval Attaché at the Australian Embassy in Washington (U.S.A.).

Lieutenant Commander R.N.

The Minister for the Navy, Mr. J. Francis, announced the appointment. He said that Captain Smith, who joined the R.N.E. in 1946, has been concerned with the R.A.N.'s Fleet Air Arm both afloat and on shore.

Captain Smith was born at Chatswood, N.S.W.

Commander Orr R.N.

Commander S. G. Orr, D.S.C. and two bars, A.B.G., R.N., is commander of the Royal Navy's Test Squadron at the Aeroplane and Armament Experimental Establishment at Boscombe Down, which has been awarded the Boyd Trophy for 1954.

The trophy, commemorating the work of Admiral Sir Denis W. Boyd, is the highest annual award of the R.N. Fleet Air Arm.

As a sub-lieutenant Commander Orr served in H.M.S. Illustrious under Admiral Boyd—and then a captain. He has commanded the test unit since August, 1953.

He took the Empire Test Pilots' Course in 1946 and was a test pilot at Boscombe Down from 1947 to 1949.

Rear-Admiral Lockwood

Surgeon Rear-Admiral Lionel Lockwood, M.V.O. D.S.C. Q.H.S., whose promotion was announced recently, is an Honorary Surgeon to the Queen.

Surgeon Rear-Admiral Lockwood recently assumed the appointment of Director of the R.A.N.'s Medical Services. It is the highest appointment in the Navy's Medical Branch.

Previously he was Command Medical Officer at Sydney. He was honorary surgeon to the late King and to the Duke of Gloucester when he was Governor-General of Australia.

Lieutenant Overbury R.N.

The De Havilland Trophy for the fastest flight of 1954 has been awarded to Lieutenant J. R. S. Overbury, a member of the R.N. Test Squadron at Boscombe Down.

On July 29 last he flew a Navy Sea Hawk aircraft from London to Amsterdam in 23 minutes 19 seconds at an average speed of 571.5 miles an hour.

Lieutenant Overbury, 29, joined the Royal Navy in 1943 and was trained as a pilot and armament officer. Following service in the aircraft carrier Ocean and Hermes he qualified as a flying instructor at the Central Flying School in 1953.

In 1953 he graduated as a test pilot at the Empire Test Pilots' School, Farnborough, and joined the R.N. Test Squadron in 1954. He has flown 45 different types of aircraft.

R.N. Appointments, etc.

The Admiralty has announced the following appointments:


Vice-Admiral K. McN. Campbell-Walter, to be Flag Officer Germany and Chief British Naval Representative in the Allied Control Commission in succession to Rear-Admiral R. S. Warne, C.B., C.B.E. and to succeed Rear-Admiral W. M. Parke as Commander Allied Naval Forces, Northern Area, Central Europe.

Rear-Admiral G. K. Collett, D.S.C. to be Vice Naval Deputy to SACEUR.

Captain Sir St. John R. J. Tyrwhitt, Bart., D.S.O., D.S.C. and Bar, has been lent to the Indian Navy as Flag Officer (Flotillas) Indian Navy in succession to Rear-Admiral P. A. Ballance, C.B., D.S.O., serving in the rank of Acting Rear-Admiral.

Captain ( Commodore 2nd Class) J. E. H. McBeath, D.S.O., on loan to the Royal New Zealand Navy as Chief of Naval Staff, New Zealand Navy Board, succession to Commodore Sir Charles E. Mudden, Bart., serving in the rank of Acting Rear-Admiral.

The Admiralty has also announced the promotion of Rear-Admiral G. V. Gladstone, C.B., Rear-Admiral in her Majesty's Fleet, and that of Rear-Admiral Sir Charles Hughes-Hallett, K.C.B., C.B.E., and Rear-Admiral G. F. Harwood, C.B., D.S.O., have been placed on the Retired List.

Captain Cowell

Captain R. E. Cowell has been appointed Maritime Superintendent of the Peninsular and Oriental S.N. Company.

He succeeds Captain A. Roger, who died in April this year.

What is done for another is done for oneself."—Paulus.

STATE OF R.N. FLEET AIR ARM

Continued from page 17

It is still an intermediary which may impede progress. There is much to be said for the arrangement prevailing in the United States which permits the Navy to develop flying boats if it so wishes.

Rear-Admiral A.N.C. Bingley, the Fifth Sea Lord, in a recent address made some amusing allusions to the earlier approach of the Navy to air matters. He described how the Admiralty had asked for tenders from the aircraft industry for the building of a flying chariot with a good look-out! Some of the early aircraft produced to naval requirements which were conveyed direct to the industry were alarmingly ill-proportioned and exceedingly bad flying machines. But there is reason to suppose that that sort of thing would not happen again to-day.

Perhaps a footnote should be added about the new cult of lightweight aircraft. Douglas in the United States has entered this field a field pioneered by Short Bros. with the Scamew and with Folland with the Midge and Grumman. At the moment the views of the Royal Navy upon the advantages and disadvantages of lightweight aircraft are not clear. But the merits of the Scamew as a hard, practical aircraft capable of operating from a wide variety of bases have been established and the Grumman has gained increased popularity as the work on the Midge has proceeded. The fourteen pilots who have flown the Midge speak highly of its qualities and it must be remembered that its wing span is so small that it could be accommodated on an ordinary carrier lift without wing folding.

—(From the London "Navy")

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NEWS OF THE WORLD'S NAVIES

Continued from page 15.

 tion for Navy personnel attending the radar training and navy aviation direction schools consisted of huts, which were entirely unsuitable for the purpose.

In addition to living quarters the new barrack would include a guard-house and administrative quarters. They would be built of brick and would be two stories high.

Work on construction would begin later this year. The estimated cost was £650,000 and £11,000 would be spent on furniture.

New submarine launched

H.M. Submarine Excalibur, launched on February 25 at Vickers Armstrong's Barrow-in-Furness yard, is a sister ship to H.M. Submarine Excalibur.

Four mirror-sights for Australian Navy

The Royal Australian Navy has decided to buy four of the recently-invented deck-landing mirror-sights for its Fleet Air Arm.

Engine & Telegraph Equipment

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Bridge Transmitter and Engine Room Receiver as shown were fitted to Ship Building Board D. & E. Class Vessels.

DETECTIVE DILKINS

By J. H. Adams

In one of the Australian capitals there's a detective whose reputation is a little tarnished (said Captain George Bulfinch). He seldom speaks, these days, of his recent holiday, poor fellow!

Detective Dilkins wasn't a bad chap. He might have been rather nice at catching crooks. His trouble was bringing about justice.

As soon as we cleared Sydney Heads in the liner Mirrol Dilkins began to talk about himself. For days we had Dilkins stalking the arch-cons, and Dilkins winning detectives, cornering the goons at pistol-point; and Dilkins rounding them up. If you believed all he said, Sherlock Holmes was a mere typo, a flat-footed mug.

He made an impression among some of the passengers. I found him rather amusing because I had in small doses on the odd occasions I came down from the bridge and mixed with the passengers. But he got right under the skin of my ship's surgeon, old "Doc" Ramsay. Every time Dilkins started to play hard Doc nearly fainted at the mouth.

"His ego's as big as the Queen Mary!" exclaimed the Doc.

"What's matter? All the women hang on his words. They think he's marvellous. The purser's never had an easier time. Doesn't have to organise so many games. They all listen to Dilkins." I replied.

"Bah!" spat Doc. "It'll take him down a peg or two if it's the last thing I do!"

Well, one night we had a scavenger hunt. It was a regular item. The purser's department distributed lists of articles to be collected, ranging from a long blonde hair, a brooch, and a pair of water wings, to a baby's rattle.

Some of the passengers were able to pick up them with hissed questions. Still, there was no sign of the brooch.

After three days of "exploring all avenues," Detective Dilkins was without clue or reputation. His fund of grandiose detection stories dried up like a trickle of water in the desert.

Someone among the few hundred passengers was a crook. If Dilkins couldn't run the thief to earth here, what chance would he have in a city's thousands?

Doc. Ramsay bided his time. The lounge was crowded. It was evening. Mrs. Ballinger-Bullfinch was playing bridge. Detective Dilkins was as silent as a motor car with a flat battery, pretending to read a heavy tome on the early history of the Roman Empire, but really trying to reconstruct the crime.

I thought it was rather cruel of Doc. to get up then and announce that he had recovered the diamond brooch in difficult circumstances from a mysterious crook whose identity he had missed in the dark.

There was a hubbub as he handled the jewel back to its owner. Detective Dilkins bumped his nose in getting hastily out of the lounge. He hadn't seen the glass in the door.

In my cabin I poured Doc. a stiff brandy, and was about to return the glass when he suddenly exclaimed: "Mrs. Ballinger-Bullfinch would put the jewel back and the great detective would unmask the villain.

Her partner, a monosyllable, was a/mobile. She was, grilled by Dilkins right from the start with a verve that was breath-taking. The monosyllable said, "I didn't steal it, submitted to search and was grudgingly declared innocent.

Dilkins looked in turn wise, shrewd, assumed an attitude of deep thought, swung sharply on unsuspecting passengers, pointed an accusing finger, sent them and startled them with histrionics. Still, there was no sign of the brooch.

"Pinched the darned thing myself!" His eyes twinkled. "Mrs. Ballinger-Bullfinch swept the brooch out of the table. I saw her hit the evening frock, slip across and under a settee. A vengeful idea dawned. For she noticed it gone I had quietly pocketed it. Here's luck!"

This new book by Alan Villiers, The Way of a Ship, is a rich and absorbing work. It opens excitingly with a description of the famous five-masted Potsdam storming up Channel, and continues through 287 pages with an astonishing wealth of square-rigger lore. The book might, in some sense, be regarded as a development and extension of the late Basil Lubbock's X-Bone Clippers, for it is about ships and shipmen, those of the great German line of Lautze; the "P" ships which we used to call them in my time. But Villiers's book is a fuller work than Lubbock's, well documented, but much, very much, richer in human personalities. On the men that manned the clippers, for instance:

"Some of them had not been home since they first went to sea, and several men were over 70. They had no holidays. The ships were never wide enough for them, with 160 illustrations.

Trotsbcirkc in Hamburg, one photograph having been up on the wall. It is a story of Ferdinand or Carl Lautze, nor any other ancestor, illustrious as they were. It is a narrative of the man with high cheek bones and a hawk nose, a grim-looking, determined man, with a firm hard mouth, wide apart, all-seeing eyes, and in his hair were the hardest of cold blue, a strong but not pugnacious jaw. It could, with a dark-skinned skin and a head-piece of eagle's feathers, be some great Red Indian chief of long ago. It could be a great sasman, a man in a suit of mail.

In Erich Lautze's office by the sentence from the log of the famous line of Laeisz; the "P" ships we than Lubbock's; as well docu-

Mr. Villiers's book is a fuller work that over the length and breadth of the world."

In the afternoon, the whalers were manned, S/C Sub-Lieutenant Kiely, of T.S. Perth, taking charge. The Officer in Charge East Australian Area, Rear Admiral Buchanan, R.A.N., Flag Officer in Charge East Australian Area, attended the service.

T.S. Perths was severely "hopping in" to building additions to their depot. When finished it would assist with the building, the depot. When finished it would assist with the building, the depot.

A C.O. of T.S. Sinus, Lieutenant O'Connell, it on a friendly race from the Balmain Church of England Dockyard Church. Rear Admiral Buchanan, R.A.N., Flag Officer in Charge East Australian Area, attended the service.

The two boats set off on a friendly race from the Balmain Church of England Dockyard Church. Rear Admiral Buchanan, R.A.N., Flag Officer in Charge East Australian Area, attended the service.

For Sea Cadets

New N.S.W. Training Unit is Commissioned by D.J.M.

The ceremonial commissioning of the new C.A.R.T. (A.S.C.C.), U.S.C. Unit, T.S. Shropshire, on April 23, was performed by Captain Dowson, R.A.N., representing the Chief of Naval Staff, and Captain, R.A.N., of the Royal Australian Navy, Rear Admiral Buchanan, R.A.N., as Commanding Officer of the unit. Captain Dowson, R.A.N., took the salute from the saluting base in front of the Canterbury Town Hall.

At the depot, the parade formed up in a square. The Guard of Honour and Colour Party was inspected. The command of commissioning was then carried out by Captain Dowson, R.A.N., who addressed the assembly. All speakers praised the manner in which the unit's progress was making headway and complemented the hard work of the cadets.

On completion of the commissioning ceremony, Captain Dowson and other members of the official party distributed the presents. All speakers praised the manner in which the ceremony was performed. Captain Dowson congratulated the unit on its progress and promised to do all he could to help it.

On April 23, the T.S. Sydney held a local church parade at the Balmain Church of England Dockyard Church. Rear Admiral Buchanan, R.A.N., Flag Officer in Charge East Australian Area, attended the service.

T.S. Warrego is feverishly "hopping in" to building additional premises to their depot. After the speeches, the official party distributed the presents.

They marched from the Mitchell Library with contingents from the Navy, Army, and Air Force. However, owing to the weather, having ended that day, only a small number of cadets were able to attend.

The lack of whalers in the Corps is largely overcome by the generosity of H.M.A.S. Penguin and T.S. Perth, who allow Sea Cadets to have rowing and sailing practice whenever their boats are not in use. Such an occasion occurred on April 23 when T.S. Perth (Manly) took advantage of a loan of two whales from H.M.A.S. Penguin.

The ceremony was taken up with teaching the cadets the correct method of lowering and hoisting a whale, and the theory of sailing. In the afternoon, the whalers were manned, S/C Sub-Lieutenant Kiely, of T.S. Perth, taking charge.

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THE SUBMARINERS' "GOOD MORNING"

For nearly three years during the war, Mr. Harry Guy Bartholomew, a director of the London "Daily Mirror," produced, with six others, a secret newspaper, "Good Morning," for submarine crews. In addition to its own material, the paper reproduced the most popular strip cartoons. With the grateful connivance of their lordships at the Admiralty, sealed bundles of "Good morning" were delivered at operational bases at home and abroad to be opened daily by the coxswain as the morning watch ended and passed around to each mess. Papers were numbered but not dated.

By these ingenious means, however long the cruise might last, the submarine men were kept in touch with affairs at home, and, depth-charges or no depth-charges, did not miss their daily dose of "Jane."

The rule that the coxswain should distribute only one issue a day as the submarine's journey progressed is on record as having been broken only once. A submarine, hit by a depth-charge, sank to the sea-bed. The engines were out. A tense quiet settled on men about to die.

The coxswain came around with a large parcel. He peeled off the copies — tomorrow and tomorrow — the tomorrows they did not hope to see. It was a jest and a gesture. Every man knew the truth.

Then the engines throbbed. The engineers had won. When the short cheer ended, an embarrassed coxswain had to explain that they had had their "Good Morning" for the rest of the trip.

First Lord of the Admiralty A V. Alexander described the submarine paper as "one of the happiest inspirations in journalistic enterprise." In Dunoon "Good Morning" started a "Good Evening Club" for submariners off duty.

This enterprise of the production of "Good Morning" as a morale-booster for the men of the submarine service is briefly described in "Publish and be Damned" by Hugh Cudlipp, described as "the astonishing story of the 'Daily Mirror'."

—from "The Sailor," Johannesburg

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Phone: 1A 5461.
One of the main weapons now being developed for anti-submarine work is the helicopter equipped to search for and locate the submerged enemy and then to destroy it. Dipping Asdic apparatus will enable the helicopter's crew to fix precisely the position of the submarine, to shadow it through its every movement, and to strike and kill at the chosen moment. Helicopters so armed can operate from naval vessels or from merchant ships. For this work the British services have chosen Bristol twin-engined helicopters.