

# RISE IN NAVY ESTIMATES

**£149,399,000 TOTAL**

# BIG INCREASE FOR NEW BUILDING

The Navy Estimates for 1939 (Stationery Office, No. 60, price 7s. 6d.) were issued yesterday. They were accompanied by a statement by the First Lord of the Admiralty and the customary Notes on matters of general interest (Cmd. 5952, price 4d.). The First Lord's statement is as follows:—

The provision proposed for the Naval Service in 1939 is £147,779,000. This compares with £125,307,500 provided in the original Estimate for 1938 and the Supplementary Estimate of last May, an increase of £22,471,500.

In addition, the sum of £1,620,000 is required in 1939 for the service of previous issues from the Consolidated Fund under the Defence Loans Act, as compared with £810,000 in 1938. The total provision thus required in 1939 is £149,399,000, compared with £126,117,500 in 1938, an increase of £23,281,500.

Of the total required for 1939, it is proposed to meet £80,000,000 from borrowed money, against £30,000,000 in 1938. It follows that £69,399,000 will require to be met from revenue in 1939, against £96,117,500 in 1938, a decrease of £26,718,500.

The largest element in the increase over last year's Estimates is on account of New Construction. Apart from the bigger provision for work on this year's larger programme, which is being started earlier in the financial year, this increase is due to the fact that the three programmes of 1936, 1937, and 1938 are now at a stage at which the heaviest expenditure is being incurred on them.

## BUILDING PROGRAMME

The New Construction Programme for 1939 is:—

- 2 Capital ships.
- 1 Aircraft Carrier.
- 4 Cruisers.
- 2 Flotillas of Destroyers.
- 4 Submarines.
- 20 Fast Escort Vessels.
- 2 Escort Vessels (normal type).
- 10 Minesweepers.
- 1 Fast Minelayer.
- 1 Depot Ship for Motor Torpedo Boats.
- 1 River Gunboat.
- 1 Hospital Ship.
- 6 Motor Torpedo Boats.
- 2 Boom Defence Vessels.
- 1 Fleet Target Service Tug and a number of miscellaneous small craft.

In the principal categories of ships, this programme is larger than that of 1938 by two destroyer flotillas, 20 fast escort vessels of a new type, and 10 minesweepers. A new hospital ship is included, in replacement of the old vessel *Ajane*, which has passed the limit of her economical life.

Provision is also made for the commencement of work on a new Royal Yacht in place of the *Victoria and Albert*, which was completed in 1901, and is long since overdue for replacement.

The total cost of the 1939 programme, excluding that of the Royal Yacht, the design of which is not yet sufficiently advanced to permit an estimate to be made, is expected to be

by the personnel of all the Reserves, who responded to the call on their services with great readiness and promptitude.

## DISTRIBUTION OF THE FLEET

There have been no major changes in Fleet distribution during the past year, other than the transfer of the Battle Cruiser Squadron from the Mediterranean to the Home Station.

## Battleships and Battle Cruisers

The Repulse is being fitted out to convey Their Majesties on their visit to Canada, Newfoundland, and the United States of America during the coming Summer.

## Aircraft Carriers

The Ark Royal, on completion, joined the Home Fleet as Flagship of Vice-Admiral, Aircraft Carrier.

The Courageous has temporarily taken over training duties from the Furious, while the latter is refitting.

The Argus has been reconditioned as parent ship for Queen Bee aircraft, and should prove a valuable addition to the A.A. training facilities of the Fleet.

The seaplane carrier Albatross has been transferred from the Royal Australian Navy and was commissioned in the Royal Navy in September, 1938.

## Cruisers

The Frobisher has replaced the Erebus as harbour training ship for cadets at Portsmouth.

The Effingham has completed her large repair and re-arming, and has replaced the Hawkins as flagship of the Vice-Admiral Commanding Reserve Fleet.

The Cairo and Calcutta are being converted to A.A. ships, and other cruisers of the same class are to be similarly dealt with in 1939.

The Berwick has joined the Eighth Cruiser Squadron, and will shortly become flagship of the America and West Indies Station.

The Kent has completed large repairs and has resumed duty as flagship on the China Station.

The new cruiser Manchester has arrived on the East Indies Station, and will shortly be joined by the Gloucester and the Liverpool.

## Destroyers

The 1st Tribal Destroyer Flotilla in the Mediterranean has been completed. The 2nd Tribal Flotilla, which is relieving the "B" Class in the Home Fleet, will shortly be complete.

## Submarines

The new submarine minelayer Cachalot has joined the Home Fleet.

The new small submarines Undine, Unity, and Ursula, of the "U" Class, have joined the 5th Flotilla at Portsmouth.

A number of submarines of the "T" Class are to be joined to the Fleet during the coming financial year. Consequent on the above, it is intended to effect a redistribution of submarines in the Home and Mediterranean Fleets.

It is contemplated that, on completion of trials, the submarine minelayer Seal will relieve the Odin on the China Station during the summer. The latter will return to the United Kingdom and join the 5th Flotilla at Portsmouth.

## Submarine Depot Ships

The Cyclops has been relieved in the Mediterranean by the new depot ship Maidstone, and is undergoing an extensive refit at Malta before returning to the United Kingdom to relieve the Titania at Portland as depot ship of the 6th Submarine Flotilla.

It is probable that the new depot ship Forth will, on completion, relieve the Lucia in the Home Fleet.

## Escort Vessels

The Auckland and Egret have been completed. The former has joined the Africa Station and the latter the East Indies Station.

## Patrol Vessels

The Widegon has joined the 1st Anti-Submarine Flotilla at Portland and the Guillemot, Pintail, and Shearwater will, on completion, relieve older vessels.

## Minesweepers

It is anticipated that the Bramble, Britomart, Speedy, and Sphinx, of the 1937 programme, will join the 1st Minesweeper Flotilla during

of her local naval defences. The whole question of the defence of India has been reviewed by an expert committee under the chairmanship of Lord Chatfield.

# FLEET ACTIVITIES PATROL DUTIES IN THE MEDITERRANEAN

His Majesty the King visited the Home Fleet at Weymouth on June 21 and 22, 1938, when he led the Fleet to sea in the Flagship of the Commander-in-Chief, the *Ark Royal*. Their Majesties were conveyed across the Channel, on the occasion of their visit to the President of the French Republic in July, by H.M.S. *Enchantress*, escorted by the 5th Destroyer Flotilla.

A number of H.M. ships, which has varied according to the requirements of the situation, continue to be employed on patrol duties in accordance with the Nyon Arrangement, and in pursuance of the policy of His Majesty's Government, afford protection to British ships outside territorial waters during the Spanish Civil War.

During the year under review H.M. ships have continued to take every possible opportunity of rendering humanitarian assistance in connection with the civil war in Spain, and in particular in the evacuation of refugees.

In October H.M. ships *Fowey* and *Deptford* were sent to Debari as a precautionary measure for the protection of British subjects. The escort vessels stationed in the Gulf have continued their work of assisting the political officers in maintaining our treaty obligations to the various Arab rulers, and have also maintained the usual anti-slavery patrols, &c.

H.M.S. *Ajax* proceeded to Jamaica in May in connection with the rioting which had broken out in that island. Fifty marines were landed, but their services were not called upon. *Ajax's* aircraft did useful work in assisting the local authorities.

The cruisers *Exeter* and *Ajax*, of the South American Division, have been actively engaged in relief work in connexion with the recent earthquake in Chile. Large numbers of refugees have been transported and assistance has also been given in the carriage of vaccines by air. An expression of gratitude on behalf of the Government and people of Chile has been received.

H.M. ships have been stationed, as necessary, to give the greatest assistance and protection practicable to British nationals and interests.

A force composed of officers and men from the squadron was sent to Hankow prior to the Japanese occupation, in order to provide increased protection for British life and property.

The duties of the gunboats on the Yangtze have been arduous, and at times dangerous, as was exemplified by the narrow escape from bombing of H.M.S. *Sandpiper*, in the course of an air raid by Japanese aircraft at Changsha in October.

With the capture of Canton by the Japanese similar conditions have been experienced by the West River gunboats.

## PROTECTION OF SHIPPING

As in previous years the Admiralty plans for the protection of shipping in time of war have been constantly under review. The mobilization in September, 1938, made it possible to test certain aspects of our organization in a manner not normally possible. These tests were satisfactory, and the lessons learnt therefrom have enabled us to strengthen our arrangements.

Throughout the year close touch has been maintained with the Board of Trade, and with the shipping interests. The formation of the Shipping Defence Advisory Committee, referred to in the First Lord's statement, has presented the most valuable results, and many useful suggestions received from this source have been acted on.

Considerable work has been done whereby the arming of merchant ships on the outbreak of war could be rapidly effected. It is emphasized that the type of armament contemplated is purely of a defensive character. The ready cooperation of shipowners is gratefully acknowledged.

## HYDROGRAPHY

During 1938, H.M. Surveying Ships have been employed in making new surveys, or re-

over ten years' service in the first instance, followed by eight years in the Reserve. A large number of officers have been entered under the Scheme and are now under training. A number of officers have also been transferred from the Royal Air Force to the Air Branch of the Royal Navy. Officers of the Royal Navy are being trained for pilot duties, and armament duties required in the Fleet Air Arm.

## PILOTS FROM R.A.F.

Progress is also being made in the provision of the maintenance of officers who will be required for the maintenance of Fleet Air Arm material. A number of fitters, riggers, mechanics, and R.A.F. apprentices have volunteered for transfer to the Navy, and arrangements are being made for large numbers of pilots to be trained from outside, to be trained in the various grades. Nevertheless, for some time to come the Navy will have to depend on the R.A.F. for the provision of many of these ratings, particularly in view of the time taken to provide the necessary grades.

It will also be necessary, for some considerable time, to supplement the pilots of the Fleet Air Arm by pilots lent from the R.A.F. Arrangements have been agreed upon between the two Departments for the admission during the transitional period of all personnel thus lent.

Attention has been paid to the provision of increased reserves of personnel for the Fleet Air Arm. In particular, a new Air Branch of the R.N.V.R. will be formed.

Substantial orders for aircraft of the various types, for delivery over the next two to three years, have been placed to meet the expansion programme. It is expected that the transfer of Fleet Air Arm aircraft, stores and equipment, to the R.N.V.R. will be completed, and will take place early in the new financial year.

The title of member of the Board of Admiralty responsible for Naval Air matters has been altered to Fifth Sea Lord. An American Division, have been actively engaged in relief work in connexion with the recent earthquake in Chile. Large numbers of refugees have been transported and assistance has also been given in the carriage of vaccines by air. An expression of gratitude on behalf of the Government and people of Chile has been received.

Arrangements are progressing with the Air Ministry for the payment of the liaison between the two Departments in matters of research, development and supply, and additional Naval and Admiralty civil officers are being appointed to serve in the Air Ministry Departments in pursuance of the above.

The expenditure for the Fleet Air Arm has so far been borne in the shape of a Grant in Aid by Votes, will no longer appear in the Estimates. The cost will be absorbed into the normal Navy Votes for the services in question, e.g., Personnel, Vote 1 and Vetting, Vote 2, &c.

## PERSONNEL

Recruiting for the Royal Navy and Royal Marines has continued to be very satisfactory, although difficulties are being encountered in providing a sufficient number of gin-room artificers, fitters, artificers and ordnance artificers for the next two or three years. It is hoped to overcome these difficulties with the sympathetic cooperation of industry.

The training of the increased numbers of officers and men has continued to be satisfactory, which have, with a certain amount of improvisation, been successfully surmounted.

Entries of cadets into the Royal Naval College, Dartmouth, and by the Special Entry examination have remained at the same level as last year, the numbers being as follows:—

Cadets entering Dartmouth in 1938	131
Executive Special Entry Cadets	100
Engineer Special Entry Cadets	61
Paymaster Cadets	40

In addition a number of cadets were entered by nomination from the Dominions, the special examination of the Mercantile Marine Artificer Apprentices.

The standard of all these young officers has been satisfactory, but the number of candidates for the Engineer Branch is smaller than could be desired.

Difficulties are still being encountered in entering a sufficient number of Medical and Dental Officers to meet requirements.

The *Erebus* is merely employed in affording initial training of the Special and Direct Entry Cadets.

the establishment of the R.N.V.R. will be involved, and additional divisions will be set up at Southampton, Hull, and Cardiff.

A new "Immediate" class of the Royal Fleet Reserve is being formed, composed of men who undertake to serve, if required, at a post in the Royal Fleet Reserve but have not been called into actual service. These men will receive a larger retainer than the ordinary reservists.

The Royal Naval Volunteer (Wireless) Reserve has been constituted under the Naval Wireless Auxiliary Reserve, to provide for the training of amateur wireless operators for service in the Navy in war.

Arrangements are being made to provide training in gunnery for Merchant Navy Seamen, to ensure that the defensive armaments which may need to be installed in merchant ships in war can be efficiently operated by men of the Merchant Navy.

## MATERIAL

### NEW CONSTRUCTION

#### Battleships 1936 PROGRAMME

Work on the King George V and Prince of Wales is proceeding satisfactorily at the works of Messrs. Vickers-Armstrongs, Limited, Walker-on-Tyne, and Messrs. Cammell Laird and Co., Limited, Birkenhead, respectively. The King George was launched by His Majesty the King on February 21, and the Prince of Wales will be launched in May.

#### 1937 PROGRAMME

Work on three battleships of the King George V class, Duke of York, Jellicoe, and Beatty is proceeding satisfactorily at the works of Messrs. John Brown and Co., Limited, Clydebank, Messrs. Swan Hunter and Wigham Richardson, Limited, Wallsend-on-Tyne, and Messrs. Fairfield Shipbuilding and Engineering Company, Limited, Govan, respectively. These ships will be launched in the financial year 1939.

#### 1938 PROGRAMME

Orders for two battleships of new design were placed on February 21, 1939, with Messrs. Vickers-Armstrongs, Limited, Walker-on-Tyne, and Messrs. Cammell Laird and Co., Limited, Birkenhead.

#### Aircraft Carriers

The Ark Royal, constructed by Messrs. Cammell Laird and Co., Limited, was completed in November, 1938.

#### 1936 PROGRAMME

Construction of the Illustrious and Victorious at the works of Messrs. Vickers-Armstrongs, Limited, at Barrow-in-Furness and High Walker, respectively, is proceeding satisfactorily, and they are expected to be launched in April and September next, respectively.

#### 1937 PROGRAMME

The Formidable and Indomitable, of the Illustrious class, under construction by Messrs. Harland and Wolff, Limited, Belfast, and Messrs. Vickers-Armstrongs, Limited, Barrow-in-Furness, respectively, are progressing satisfactorily, and are due to be launched in the financial year 1939.

#### 1938 PROGRAMME

A further aircraft-carrier was ordered from Messrs. The Fairfield Shipbuilding and Engineering Company, Limited, on October 11, 1938.

#### Cruisers

#### 1935 PROGRAMME

The Liverpool and Manchester, constructed by Messrs. The Fairfield Shipbuilding and Engineering Company, Limited, and Messrs. R. and W. Hawthorn Leslie and Co., Limited, respectively, were launched at the Gloucester, built at Devonport Dockyard, have been completed.

#### 1936 PROGRAMME

The Belfast, building by Messrs. Harland and Wolff, Limited, was launched on March 17, 1938, and the Edinburgh, building by Messrs. Swan Hunter and Wigham Richardson, Limited, on March 31, 1938. Both vessels, of the improved Southampton class, are expected to be completed during the summer of 1939. Construction of the Dido class vessels, Dido (Messrs. Cammell Laird and Co., Limited), *Euryalus* (Chatham Dockyard), *Naiad* (Messrs. R. and W. Hawthorn Leslie and Co., Limited),

Punjab, and Tartar have successfully carried out their completion trials and are due for delivery very shortly.

The flotilla leader Jervis and the Javelin class destroyers Javelin, Jackal, Jaguar, Janus, Jersey, Juno, and Jupiter have all been launched and are expected to be completed by the summer of 1939.

#### 1937 PROGRAMME

The flotilla leader Kelly and the seven destroyers Kashmir, Kandahar, Kelvin, Khar-toum, Kimberley, Kingston, and Kipling are progressing satisfactorily and are expected to be completed during the financial year 1939. Orders for the leader and destroyers of the Laforey class were placed on March 31, 1938, as follows:—

*Laforey* (leader) and *Lance*—Messrs. Yarrow and Co., Limited, Scotsway.  
*Larrie* and *Lively*—Messrs. Cammell Laird and Co., Limited, Birkenhead.  
*Legion* and *Lighting*—Messrs. Parsons Marine Steam Turbine Company, Limited, Wallsend. (Hulls by Messrs. R. and W. Hawthorn Leslie and Co., Limited, Devonport-on-Tyne.)

The vessels are expected to be launched during the coming financial year.

#### Submarines

#### 1935 PROGRAMME

Sterlet, the last of the Swordfish class, was completed at Chatham Dockyard in April, 1938.

The minelayer submarine Cachalot, of the Porpoise class, was completed by Messrs. Scott's Shipbuilding and Engineering Company, Limited, in August, 1938.

Ariton, the first of a new class of patrol submarines, was delivered by Messrs. Vickers-Armstrongs, Limited, in November, 1938.

#### 1936 PROGRAMME

The minelayer submarine Seal, under construction at Chatham Dockyard, was launched in September, 1938, and is expected to be completed in the course of the next few months. Work is proceeding normally on the four submarines, Thetis, Trident, Tribune, and Triumph, of the Triton class; the vessels have all been launched and should complete at varying dates during the financial year 1939.

Only Undine, of the small submarine class, of the Unity class, were completed by Messrs. Vickers-Armstrongs, Limited, in October, August, and December, 1938, respectively.

#### 1937 PROGRAMME

Work is progressing satisfactorily on the seven submarines of the Triton class—namely, Thistle, Triad, and Truant (Messrs. Cammell Laird and Co., Limited), Tarpon and Tuna (Messrs. Scott's Shipbuilding and Engineering Company, Limited), and Tigris (Chatham Dockyard). Thistle has been launched and all the seven vessels should be completed in the financial year 1939.

#### 1938 PROGRAMME

Further vessels of the Triton class have been ordered as follows:—  
*Tetrarch*—Messrs. Vickers-Armstrongs, Limited; keel laid August 24, 1938.  
*Talisman*—Messrs. Cammell Laird and Co., Limited; keel laid September 27, 1938.  
*Torbay*—Chatham Dockyard; keel laid November 21, 1938.

#### Escort Vessels

#### 1936 PROGRAMME

The Egret was completed by Messrs. J. S. White and Co., Limited, and the Auckland by Messrs. W. Denny and Bros., Limited, in November, 1938.

#### 1937 PROGRAMME

The Pelican, under construction by Messrs. J. I. Thornycroft and Co., Limited, is expected to be completed in March, 1939. The construction of the Black Swan and Flamingo, by Messrs. Yarrow and Co., Limited, is proceeding satisfactorily, and they should be completed by next autumn.

#### Minesweepers

#### 1936 PROGRAMME

The *Leda* and *Seagull* were completed at Devonport Dockyard in May and July, 1938, respectively. The *Gosport*, by Messrs. W. Hamilton and Co., Limited, in March, 1938, and the *Jason* by the Ailsa Shipbuilding Company, Limited, in June, 1938.

#### 1937 PROGRAMME

The construction of the *Bramble* and *Britomart* at Devonport Dockyard, and the *Speedy* and *Sphinx* at the works of Messrs. W. Hamilton and Co., Limited, is progressing

the same firm, is due for completion in May, 1939. The tug *Impetus* (1938 programme) is expected to be ordered shortly.

One further motor torpedo-boat and a motor vessel of the 1936 programme ordered by the British Power Boat Company, Limited, have been completed. Messrs. J. White and Co., Limited, are proceeding with the motor torpedo-boat of special design (1937 programme) ordered from the British Power Boat Company, Limited, five have been completed. Twelve motor torpedo-boats and motor vessels of the 1938 programme have been ordered as follows:—Five from the British Power Boat Company, Limited, five from Messrs. Vosper, Limited, and two from Messrs. J. I. Thornycroft and Co., Limited.

The two motor minesweepers (1936 programme) were completed by Messrs. J. I. Thornycroft and Co., Limited, in May, 1938. The mooring lighter Moorland (1937 programme) has recently been completed by Messrs. W. Simons and Co., Limited.

The steam tug and water tank vessel *Wave* (1937 programme) under construction by Messrs. The Taikoo Dockyard and Engineering Company, Hong-kong, is nearing completion.

The ferry boat *Magician* (1938 programme) is expected to be ordered shortly.

Twenty commercial trawlers and one drift-net are being acquired for various fleet services, as additions to the 1938 programme.

## LARGE REPAIRS

Work on *Renown* and *Queen Elizabeth* at Portsmouth, and *Valiant* at Devonport, is proceeding satisfactorily.

The *Revenge*, under repair at Devonport in December, 1938, for refit and A.A. rearmament, will be completed during the summer of 1939.

The work on *Argus* and *Effingham* has been completed at Devonport.

The escort vessel *Folkestone* and *Scarborough* are to be converted for surveying service. *Scarborough* is in hand at Chatham, and *Folkestone* will be taken in hand later at Hong-kong.

The old destroyer *Whitley* has been converted to an escort vessel, and the proposed programme allows of a number of similar vessels being so converted during the coming financial year.

The repairs to the *Hunter*, damaged by mine in May, 1937, off the Spanish coast, have been completed at Malta.

## NAVAL WORKS

The increase in the effective strength of the Royal Navy and the decision to transfer the Fleet Air Arm to the control of the Admiralty are reflected in the increased provision which it is necessary to make this year for Vote 10.

It is proposed to make provision next year for the commencement of works to provide accommodation for Fleet Air Arm personnel at certain of the shore bases which is anticipated will be transferred from the Royal Air Force.

Provision is also made for the commencement of work on a new cordite factory, which is necessary to meet the cordite requirements of the growing fleet.

At Portsmouth it is intended to commence work on lengthening No. 8 dock, which is urgently necessary to meet increased docking requirements. This proposal will provide accommodation for dry docking destroyed up to 400ft. in length, thereby leaving larger docks for cruisers.

A Devonport provision is made for a berth for cruisers on the north wall of No. 6 basin.

At Singapore work is being pressed forward in connexion with the completion of the new wharf and store basin walls, and in particular the erection of a provision for the erection of a new refitting berth. A second electric generating station is being provided.

## MISCELLANEOUS

Welding investigations have been continuing particularly research concerning the welding of high-tensile steels, which has been carried out in conjunction with the Institute of Welding. The all-welded minesweeper *Seagull*, which completed at Devonport in July, 1938, was sent to sea for rough weather tests. Results were satisfactory.

Experiments have been continued to ascertain the best method of mitigating the damaging effect of various weapons on warships, including submarines.

Progress has been made in the appointment of the staff of the new

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