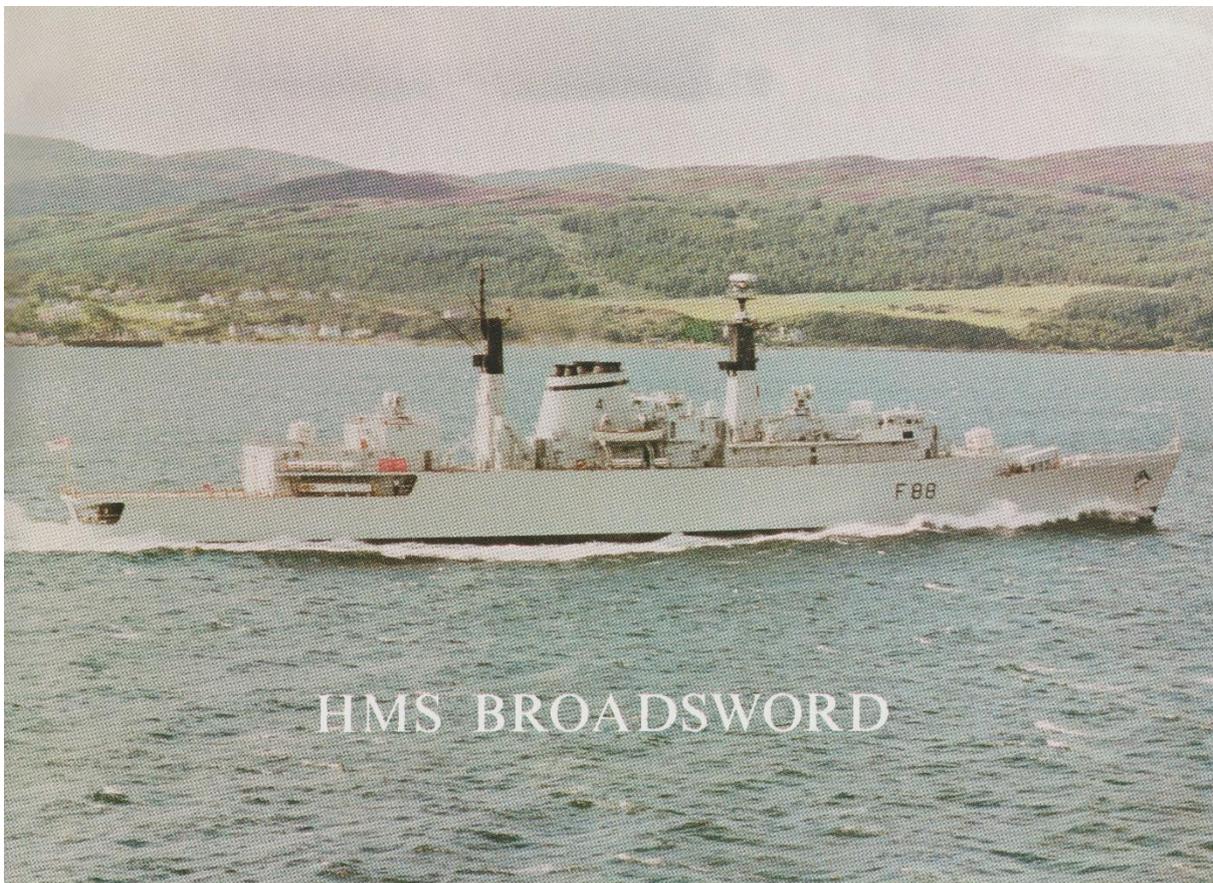


HMS BROADSWORD  
COMMISSIONING BOOK



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*Captain A M NORMAN, Royal Navy*

# Introduction

## A message to the Ship's Company from Captain A M Norman, Royal. Navy

The Commissioning of a ship into the Royal Navy is always a memorable event for all those associated with that ship, in particular the members of the Ship's Company, the designers, the project teams, the overseers, the shipbuilders and the many sub-contractors. The Commissioning of HMS BROADSWORD is no exception. However, our Commissioning is an event of particular significance and excitement for us as it marks the introduction into the Royal Navy of the first of a new class of Frigate — the Type 22. Not only are we the first of a new class, but we are also the first purpose-built all-missile ship in the Royal Navy. heralding a new era in the Fleet. Commissioning Day is the culmination of many years of planning, design, construction and trials. All who participated in the production of HMS BROADSWORD have a right to be immensely proud of their achievements and, on your behalf, I would like to express our sincere thanks to everyone involved, too numerous to mention here. However, I would like to give a special thank you to YARROW (SHIPBUILDERS) LTD for all the kindness and hospitality that they have shown to us during the many months that we have been 'Standing-By'. Now it is up to us. Our task is to show the Royal Navy, and the world, both friend and potential foe alike, that the Type 22, and HMS BROADSWORD in particular, is an efficient and effective warship, fully capable of dealing with the modern requirement. We have much new equipment onboard and it will be a great challenge which I am confident we will all meet with pride and determination. I am delighted with the affiliations that we have. The City of Chester, the Blues and Royals Regiment and the Sea Cadet Units of TS BROADSWORD, TS DEVA and TS NEWFOUNDLAND. I hope that these affiliations will grow in status in the coming months and years.

I am particularly grateful to all those who have made this book possible —Lieutenant Lewis and Lieutenant De Sa, the editors and compilers, our many contributors, our publisher Mr. P. Beall, and last but by no means least, those who made such generous financial contributions towards the cost of production including :-

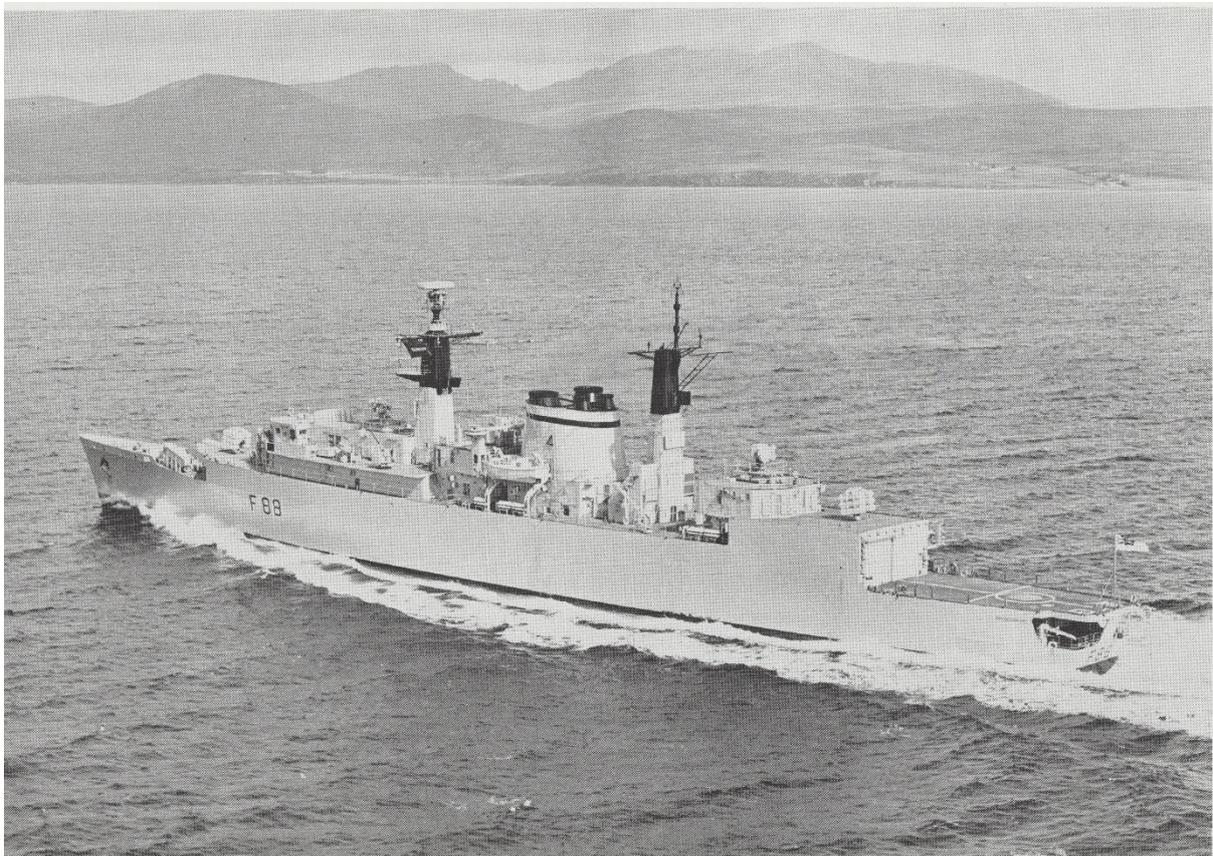
Our Shipbuilder — YARROW (SHIPBUILDERS) LTD  
Rolls Royce (1971) Ltd Vickers Shipbuilding Group Limited  
Stone Manganese Marine Limited  
Marconi Radar Systems Limited  
British Aerospace, Dynamics Group  
Decca Radar Limited  
The Plessey Company Limited  
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Leith, Cardle & Co Limited  
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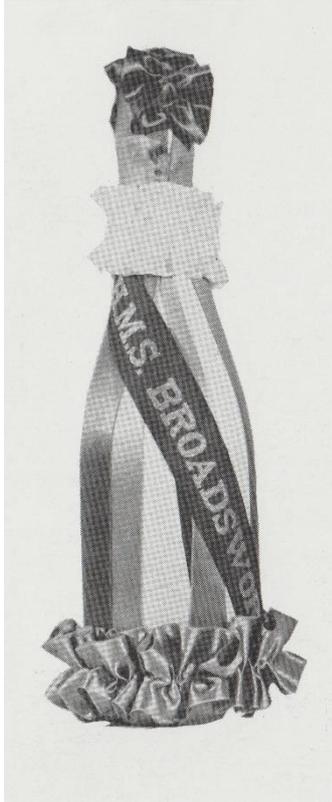
I am sure that in the years to come, browsing through this book will bring back many happy memories to all of us who have the honour of being members of the first commission of HMS BROADSWORD.

# Foreword

by Admiral Sir Richard Clayton, KCB, Controller of the Navy

I am particularly pleased to be asked to write a foreword to the Commissioning Book of HMS BROADSWORD, not only because the period from her launch to her commissioning so nearly matches my term of office as Controller of the Navy, but chiefly because as the first of a fine new class she heralds a major step forward in the Royal Navy's ability to counter the submarine threat. Being the first of a new class confers a certain distinction and cachet but it also carries with it responsibilities. It is inevitable that HMS BROADSWORD will be subjected to exacting trials and will be the subject of much interest. In consequence she will be much visited and inspected and scrutinised. I know that you, her Ship's Company, as others before you, will cope with such tribulations and visitations with equanimity and traditional hospitality, and that you will ensure that following ships of the class enjoy the full benefits of HMS BROADSWORD's experience. I wish the ship and her succeeding Ship's Companies every happiness and success, especially in this her first commission.





## The Launching Bottle



*HRH Princess Alexandra, with Admiral Sir Richard Clayton, KCB, and Sir Eric Yarrow at The Launch of HMS BROADSWORD on 12 ay 1976*

## Yarrow & Company

Yarrow & Company was founded on the Thames in 1865 and has now been building warships for the Royal and overseas navies for more than 100 years.

Few, if any, other Yards have identified themselves more closely with a class of ship than has Yarrow with the torpedo boat and its successors, the destroyer and frigate.

Yarrow's first became interested in the torpedo boat in 1871 and immediately began the developments which were to earn the Company a world-wide reputation and set it on a course it was to follow for more than a century.

In one form or another, the torpedo had existed for many years; but its modern career started in 1864 when it was used in the American Civil War by a Confederate Officer, Captain Hunter Davidson. His method was simple. He tied an explosive charge on to the end of a pole, mounted the pole in the bows of a rowing boat, and set off after dark to ram enemy ships. He did a great deal of damage, surprisingly little to himself.

In 1875 Davidson was in London and he carried his technique a stage further by ordering fast and manoeuvrable craft upon which the spar torpedoes could be fixed. However, as early as 1872, Yarrow had already mounted one on a 30-foot launch and this was the birth of the power-driven torpedo boat.

A promising idea in 1872 became work for a lifetime in 1877 when Whitehead invented the self-propelled torpedo. Sir Alfred Yarrow, the founder of the Company, recorded that even in the simple spar-torpedo days, three naval attaches had been in his waiting-room at one time, each eager to place an order at Yarrow's own price; but the Whitehead torpedo, which could be launched from a distance, carried the seeds of a total reshaping of naval strategy. Torpedoes no longer meant gallant but highly vulnerable forays by small craft which had to make actual contact with their target. The Whitehead torpedo carried by fast ships could be a decisive weapon and within months of his discovery small navies, as well as big, were determined to own the fastest torpedo-carrying craft which could be devised.

The Company saw its chance and from then onwards specialised in fast naval ships and was responsible for many of the major advances made in destroyer design in the latter part of the nineteenth century. The sequence can best be illustrated by describing six notable ships.

The first was torpedo boat No.14. The Admiralty at that time were giving orders for this type of craft to any firm that was capable of guaranteeing a speed of 18 knots, with a penalty clause if this was not reached. Several firms entered the competition but the Yarrow ship beat them all by achieving a speed of 21.9 knots.

Soon after this successful ship was launched, Russian officials were asking for designs to allow them to build 100 torpedo boats in their own country and this was agreed to by the Admiralty. However, the Russian Government ordered two torpedo boats to be built in the Yarrow Yard at Poplar but by the time the ships were ready for delivery the Admiralty said that no Russian ships could leave the Thames.

The Admiralty agreed to buy the ships on the understanding that Yarrow's would pay a heavy penalty if the speed was below 18 knots, but the Admiralty would pay if the speed was above. In fact, the two ships made speeds of 20.6 and 20.8 knots.

These ships, in 1878, brought the Company to the attention of the British public, when they took part in the Review of the Fleet in the Solent and



*Yarrow (Shipbuilders) Ltd as it stands today*

acted as escort to Queen Victoria's yacht returning to Portsmouth.

The second notable torpedo boat was a 22 knot ship built for the Russians. It was a 100 foot ship designed to weather any sea and could accommodate its crew for long periods. Other Governments immediately ordered similar ships, a number of which crossed the Atlantic.

The third notable ship was the HORNET. In 1892 Admiral Sir John Fisher was told by Yarrow that he had seen some exceptionally fast torpedo boats being built in French shipyards, and these were faster than any British ships. Yarrow's wanted to build something better, 180 feet long by 18 feet beam with 4,000 horsepower, which by reason of its speed, heavier armament and greater ability to withstand rough weather could chase and destroy torpedo boats. This was the world's first destroyey.

The Yarrow design was accepted and two ships were ordered. At the official trials, HAVOCK's speed was 26.1 knots and HORNET achieved 27.3. This was of great importance to Yarrow's because this was the first time Yarrow water-tube boilers had been used by the Royal Navy and the extra speed was due to the new boilers fitted in HORNET.

Soon afterwards, orders were placed for a large number of these ships with various firms throughout the country and the destroyer's long career in naval history had begun.

The fourth notable ship was SOKOL, commissioned in 1896. Yarrow persuaded the Russian Minister of Marine to order an even faster ship. This was SOKOL, 190 feet long and the first ship ever to achieve 30 knots. The main reason for its success was the use of high tensile steel in the hull and, after its success, high tensile steel was used in destroyers throughout the world.

The fifth notable Yarrow design was destroyers of the SAZANAMI class for the Japanese Navy, which had a speed of over 31 knots. The sixth notable ship was LURCHER, which was built for the Royal Navy and attained a speed of 35.35 knots on trials.

The first five ships were built on the Thames but in 1906 Yarrow's decided, because of the cost of steel and the shortage of labour, to move, and they finally settled on the Clyde at Scotstoun. The first destroyer was launched from the new Yard in July 1908.

The name of Yarrow is internationally known not only for its ships but also for its boiler ; and generations of engineering students, when asked to draw a marine boiler, usually drew a Yarrow water-tube boiler because of its simplicity, three circles and six straight lines.

The boiler was first used in torpedo boats in 1887 and was soon adopted by most of the world's navies; and when the boiler was improved by the fitting of a superheater, with a resulting saving of 10% of fuel at high speed, the new design of superheater was widely adopted.

During the first world war the Scotstoun Yard produced 29 destroyers, one of them, the TYRIAN, being the fastest destroyer in the world at that time, attaining a speed within a fraction of 40 knots when fully equipped.

The total effort by Yarrow's in the first world war was 50 ships, i.e. 29 destroyers, 16 gunboats, one submarine, three hospital ships and one floating workshop.

Between the two world wars, the Company — now headed by Sir Harold Yarrow — as well as building warships for the Royal Navy and overseas countries, built shallow draught ships for many countries in the world, including China, Argentina, India, Africa, America and Burma, and designed and constructed Yarrow boilers for merchant ships and maintained a regular output of land boilers for use by British and overseas electricity authorities.

In 1931 the Portuguese Government placed an order for four destroyers, two of which were built at Scotstoun. In 1933 the Admiralty placed an order for a flotilla leader, FAULKNOR, and another for GRENVILLE in 1934, followed by two "I" class destroyers in 1935, ISIS and IVANHOE. In 1937 Yarrow built the JUPITER and KIPLING, followed by LAFOREY and LANCE.

During the second world war "C" class and Hunt class destroyers were ordered and built, and the firm delivered a ship every 10 weeks throughout the war. That meant there was hardly a week for about six years when Yarrow's did not lay down a ship, or launch one, or send one on trials, or deliver one.

The war on land affected Yarrow's directly and in March 1941 a force of German planes bombed the shipyard, killing 47 men and demolishing several shops. Nevertheless, work was only slightly interrupted. The raid took place on a Thursday night, the boiler shop was working "on the Friday, the shipyard on the Monday and the engine shop a fortnight later. Delivery dates were affected hardly at all.

In the post-war years Yarrow built HARDY, MALCOLM and KEPPEL ; and whereas the DARING class destroyers, DECOY and DIANA, had a power of 54,000 horsepower to achieve a speed of 33 knots, HARDY achieved 28 knots with only 15,000 horsepower.

ROTHESAY and her sister ship BRIGHTON followed, and two anti-submarine frigates PRESIDENT KRUGER and PRESIDENT PRETORIUS were later built for the South African Government.



*Broadsword at the fitting-out berth at Yarrow (Shipbuilders) Ltd, November 1978*

DIDO, a Leander class frigate for the British Admiralty, was completed in 1963. The Leander class frigate, NAIAD, commissioned in 1965 —the firm's Centenary Year — is the two-hundredth fighting ship built by Yarrow's for the Royal Navy. Other Leander class frigates completed between 1965 and 1977 are JUPITER, ACHILLES, DIOMEDE, APOLLO and ARIADNE.

The Company had not changed its boundaries since the move from London but in 1965 acquired a neighbouring shipyard of Blythswood Shipbuilding Company, which almost doubled the area of ground available and provided the space necessary for further expansion.

As part of this development, a separate wholly-owned subsidiary of Yarrow and Company, known as Yarrow (Shipbuilders) Limited, was formed in 1966.

Yarrow's designed and built the three oceanographical ships HECLA, HECATE and HYDRA, for the Hydrographic Service of the Royal Navy and in 1965 produced a new design of Yarrow frigate, the first of which, RAHMAT, was built and completed for the Malaysian Navy, followed by MAKUT RAJAKUMARN for the Royal Thailand Navy.

A notable order which was completed in November 1971 was HMNZS CANTERBURY, launched by HRH Princess Anne in 1970. This was followed by two Leander class frigates for Chile, PFG LYNCH and PFG CONDELL, the first ships of the class to carry "Exocet" missiles. Later completions were the five Type 21 frigates, AMBUSCADE, ARROW, ALACRITY, ARDENT and AVENGER; and, during the building period of these, the Company had been appointed the Lead Yard to develop, in association with the Ministry of Defence, design of the Type 22 frigates, known as the BROADSWORD class. Orders for the building of four of these followed, the BROADSWORD, BATTLEAXE, BRILLIANT and BRAZEN.

Yarrow's have also been chosen as the follow-on Yard for the construction of mine counter measure vessels made from glass reinforced plastic and the multi-million pound complex will be ready to start building its first ship early in 1979.

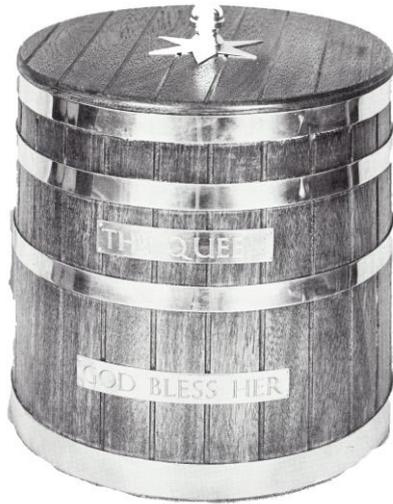
For 112 years Yarrow and Company, headed by Sir Eric Yarrow since 1962, had been a private Company, but in 1977 the Government nationalised the British shipbuilding industry and Yarrow Shipbuilders, together with all major merchant and naval builders, became part of British Shipbuilders. During its 112 years of successful private enterprise, the Company had built 1,283 ships, comprising 220 ships for the Royal Navy, 196 ships for overseas navies and 867 specialist merchant ships. It was very pleasing for all in Yarrow's to know that at the Silver Jubilee Review of the Fleet by Her Majesty Queen Elizabeth II at Spithead on 28th June 1977, there were present more ships completed by Yarrow's than by any other Company.

A vast knowledge and experience of shipbuilding is still retained in Yarrow Shipbuilders and, despite the change of ownership, it is believed that the Company will continue to be respected throughout the world as builders of sophisticated ships of high quality.



*Ship's Officers and Yarrow's staff on Contractors' Sea Trials September 1978*

*Left to right: Lieut Broad (DMEO), Lt Crd Nealon (1<sup>st</sup> Lieutenant), Mr Ian Murray (Yarrow's), Commander Hoskin (MEO), Lt Potez (Operations Officer), Captain Norman, Commander Game (WEO), Mr Willie White (Yarrow's), t Doxsey (METO), Lt De a (NO).*



Over the years it has been the custom for ships to make a small presentation to the Shipbuilders before sailing for the Acceptance port.

It was felt that on BROADSWORD's departure this custom should continue and that the presentation piece should be both useful and traditional. The scale replica of a Naval Rum Tub made for use as an ice bucket shown in the photograph was presented to YARROW (Shipbuilders) Limited on 12 February 1979 in appreciation.

A small plate on which the following inscription appears is attached to the reverse side of the tub :

PRESENTED TO YARROW  
(SHIPBUILDERS) LTD BY THE CAPTAIN,  
OFFICERS AND SHIP'S COMPANY OF HMS  
BROADSWORD THE FIRST OF THE TYPE  
22 FRIGATES 1979.



## The City of Glasgow

For nine decades Glasgow and the Clyde have given the world great ships; and HMS BROADSWORD, whose commissioning this book commemorates exemplifies this great tradition.

Glasgow, with its cosmopolitan society, is Scotland's largest commercial and industrial centre, and is the base for several national institutions. The city can be most things to most men. Whatever one wants to find there can probably be found. Its detractors never find any difficulty in uncovering its deficiencies, but its devotees don't have far to look for its assets either. The skill, inventiveness, clarity of thought and often genius of people who were born or trained in Glasgow have been witnessed world wide. Glaswegians have, over the years, made invaluable contributions to the enhancement of the human condition through their leadership in medicine, the arts, engineering, shipbuilding, chemistry, literature, economics, business acumen and many other areas of human endeavour.

William Thomson, later Lord Kelvin, became Glasgow University Professor of Natural Philosophy at 22 and during 53 years in that job, electrified the world with the number and variety of his inventions. He was responsible for the successful laying of the first Atlantic cable in

1865. Charles Mackintosh gave water-proofed fabrics to the world, George Burns founded the Cunard Steamship Company, James Watt changed the world with his steam engine, James Young produced naphtha, lubricant oils, kerosene and solid paraffin from coal, and later from shale, James Logie Baird helped to change the world's habits with a box called television, Joseph Lister gave antiseptics to medicine and Charles Rennie Mackintosh gave Europe a new architecture.

Today, in recreation and the arts, Glasgow is an important city. Its stature as a major musical centre in Britain has been growing steadily in the past three decades. The Scottish National Orchestra has gained world fame and Scottish Opera, based in the Theatre Royal, Scotland's only opera house, has performed in several European countries. Although it has not yet been to America, the company has a Friend's organisation there. Glasgow is also the base for the BBC Scottish Symphony Orchestra, Cantilena, Scottish Ballet, Glasgow Chamber Music Society, the Cecilian Society, the University of Glasgow Music Department, the Royal Scottish Academy of Music and Drama, the Scottish National Orchestra Chorus, the John Currie Singers, schools' orchestras, the newly formed National Youth Orchestra of Scotland, and many other bodies whose work is either involved in bringing world-famous musicians and artistes to Glasgow, or in encouraging and training Glaswegians to make their own contributions to the world of music.



*George Square with the City Chambers, the seat of local government, in the background.*

Glasgow's museums and art galleries are among the best in Britain for the quality, variety and value of their treasures. Their paintings, collections of tapestries and stained glass are the finest collections owned by any city. Britain has well over 1,000 museums and art galleries ; Glasgow has five (with more being planned) which are acknowledged to rank near the top of the list after

the Government-owned National Galleries in London, Cardiff and Edinburgh. The main one is at Kelvingrove, which houses paintings by Rembrandt, Giorgione, Rubens, Bellini, Maitre de Moulins and many more Old Masters. There are also four galleries of British paintings from the 16th century to the present day, and a gallery of 19th century French paintings which includes all the great names.

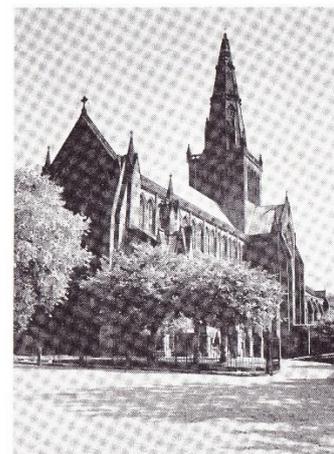
Glasgow is further renowned for its library service, which is among the most comprehensive in Britain. It started 75 years ago on two floors above Gorbals Baths. Now, the libraries department controls 43 libraries, and one mobile library. At Gorbals Library, which moved from above the Baths to a new building in Norfolk Street in 1937, there is the central audio department which contains a large and varied collection of discs and tape cassettes of music and spoken language material. Other libraries contain audio collections, European language fiction, oriental language fiction, braille books for the blind, large print books for the poor-sighted and there are also facilities for children who are mentally, physically or even geographically deprived. Glasgow's famous Mitchell Library, one of the major municipal reference libraries in Britain, celebrated its centenary in November 1977: a new 0,500,000 extension now being built will make it the largest library of its kind in Europe.

Running Glasgow's parks and their associated recreational activities is a multi-million pound concern. Altogether, there are about 7,000 acres of parks and green spaces looked after by the Parks Department, which employs about 2,000 people, including gardeners, florists, horticulturists, botanists, conservationists, aboriculturists, and even an orchid specialist who looks after the second largest collection of orchid species in the world in the Botanic Gardens.

The city, like any other major centre of population anywhere in the world, has its defects, but it also has a large number of people working hard to make it a better place in which people may live, work, and bring up their families. Large areas of the city are being re-developed to provide better houses, better factories, better commercial developments, a cleaner environment and anything else that contributes to the welfare of its citizens.



*Custom House Quay*



*The Cathedral*

*By courtesy of Public Relations Department of the Cuity of Glasgow District Council.*

# The Building Of

## HMS Broadsword

Early in 1972 Yarrow (Shipbuilders) Limited were asked to take the lead in the design and building of the new Type 22 Frigates for the Royal Navy. These frigates were to be the designated successors to the successful Leander class, although much larger in size and completely different in weapon fit and capability.

The design, which had started in its earliest formative state as early as 1968, had, by July 1972, progressed through the various committee and forward design stages to such a state of advancement that Yarrow (Shipbuilders) Limited could be formally and contractually involved as the selected Lead Shipbuilder. The period from here onwards until the build order was placed in February 1974 was used to advance the working drawings, to prepare the detailed plans and programmes, to develop quality procedures and documentation and to procure the long-lead items of equipment, thus ensuring that a meaningful start to production could be made as soon as the build order was placed.

In advance of the actual ship construction, a large steel and timber mock-up of the major compartments was built in order to ensure that the drawings were validated in advance of work being committed and, equally important, to ensure that the user had seen what the layout was likely to be in reality and that it was (to use an "in" phrase) ergonomically acceptable. At the same time, large scale models of the machinery rooms were made showing the disposition of equipment, piping and fittings, thus ensuring that the fouls between adjacent items usually to be found in the congested engine rooms of warships were eliminated.

By early May 1974 the steelwork drawings were sufficiently advanced and these, together with the steel which was already in the stockyard, enabled a start to be made on the building of HMS BROADSWORD or, as she was better known then, "ten-sixteen" (to those less well versed in the Yarrow jargon, Contract No. 1016). Steel fabrication quickly followed and early in 1975 the first major unit of hull structure weighing 100 tons was laid on berth No. 6 within the Covered Building Hall. This facility was commissioned in 1970 for the building of large warships under cover and has proved to be of immense value in ensuring, among other things, the continuity of working in adverse weather conditions and the safe-guarding of quality in respect of preservation and application of special coatings to the hull structure.

Construction of the hull proceeded steadily and, by October 1975, all the hull structure had been assembled on the berth and was being welded together. The erection of the superstructure quickly followed and, in parallel, such varied activities as water-testing, shot-blasting and zinc spraying of the hull compartments, sighting and boring-out for the propeller-shafts, etc. were all proceeding apace. During April 1976, all the main and auxiliary propulsion machinery was shipped into the four engine rooms and, thereafter, the steel structure above the engine rooms was quickly replaced ready for launch. By May, the launchways and cradle or, as it is known in the shipyard, "the make-up", were in place and on a somewhat cold 12th May 1976, HRH Princess Alexandra graciously and with great charm performed the ceremony which set BROADSWORD afloat in her natural element and into her next phase of construction — that of outfitting.

The ship had been placed in the Covered Outfitting Basin (a piece of advanced production technology when it had been constructed in 1906) and all the equipments which had to be placed

inside the ship through apertures in the upper deck were quickly proceeded with. During this period some 275 miles of electric cable and wiring were also installed and by February, 1977, the ship had been taken out of the Covered Basin in order that the masts and funnel could be erected.



*The Launch*

Then in May 1977 a further major milestone was achieved when BROADSWORD entered the Company's No. 2 Dry Dock for her major (locking. During this dry-land interlude lasting some

20 weeks the hydraulic system, which actuates the controllable pitch propellers, was installed and flushed ; a time-consuming process which is only judged satisfactory when a very clinical standard of cleanliness is achieved. In addition, all the underwater fittings and the Sonar Domes and Arrays are also installed at this time. Because of the depth of the larger Sonar Dome below the keel, a specially constructed pit had been created in the dry--dock some time previously in anticipation of this important event.

In September BROADSWORD left dry-dock and a few weeks later the first Weapons Installation Inspection was successfully held. In December 1977 the start of Weapons Setting to Work was achieved some 32 weeks before Contractor's Sea Trials and in accordance with the Cardinal Date Programme. It will be of interest to mention at this juncture that BROADSWORD is the first major surface warship in recent years which has been built to programme throughout all of the construction phases and the Company is justifiably proud of this achievement but, in saying this, are deeply conscious of the assistance and co-operation given by the Project Team at Bath, the Overseers and Ship's Staff, in achieving and maintaining the tight programmes which had been set.

It may seem to the layman to be a rather lengthy period but when one considers the technical innovation both in the hull and weapons, then it represents a very creditable performance by the technical, production and support staffs of the shipbuilder and all the principal equipment suppliers.



*The early stages – A section of HMS BROADSWORD under construction*

However, to continue our story : mid-July 1978 saw the main and auxiliary propulsion machinery in a sufficiently complete state to allow the start of Basin Trials. This means that the propellers turn under power for the first time. To achieve this means months of formal testing, recording and inspection to ensure that all has been completed and is entirely satisfactory and,

indeed, safe. A simple mistake or some carelessness could easily wreck a gearbox or gas turbine and, at present-day values, one is talking of very large sums of money. All went well, we are pleased to record, and in August 1978 BROADSWORD sailed down the River Clyde to the open sea for the first time and under her own power. The Sea Trials, apart from being highly successful in demonstrating the potential of the ship, were a rewarding demonstration, to all who had been involved, of the success of their skills and labours.

Back from trials, the ship entered dry dock for further checks and trials, and work continued both within and outside the ship towards completion. The post sea trials period is a time of final inspection for such items as the electrical installation, the various weapons systems and their compartments, the accommodation spaces and stores and catering compartments. This means that all of these have to be complete in all respects and finally painted out and when one realises that there are some 300 compartments and over 500 people busily employed on board, it can be seen that the ship at this stage is a veritable hive of activity.

Finally, the great day dawns when the last of the compartments have been inspected, when the weather decks have been painted and the bilges in the engine rooms have been cleaned and coated, fit to be dined off. Then the final hurdle has to be faced when the shipbuilder offers the ship for acceptance and the Commodore Naval Ship Acceptance formally inspects the ship from keel to truck, to assure himself that she is indeed fit to be accepted into the Senior Service.



*HRH Princess Alexandra at the Launch Ceremony.*

With some sense of relief tinged with a deal of pride, the shipbuilder is pleased to have the ship declared fit for acceptance and all that remains are the final pre-sailing trials and then the delivery voyage to Devonport, where BROADSWORD will be formally accepted. This is a time of mixed feelings for all at Yarrow's, as it marks the end of a chapter in the ship's very own and

unique character, which we helped to form during her building and, sadly, in future we will no longer be so directly involved with her. Even sadder will be the loss of daily contact with those friends we have made among officers and crew, who have stood by the building of the ship, but there is pleasure and recompense in maintaining contact with the ship and those who are serving in her and of hearing of her adventures and activities when she joins the fleet.

## Statistics of type 22 – HMS Broadword

|                     |              |             |      |
|---------------------|--------------|-------------|------|
| <b>Dimensions :</b> | LOA          | 131m        | 430' |
|                     | Beam         | 14.75m      | 48½' |
|                     | Draught      | 6.2m        | 21'  |
|                     | Displacement | 4000 tonnes |      |

|                     |              |   |
|---------------------|--------------|---|
| <b>Complement :</b> | Maximum      | 25 Officers and 225 ratings             |
|                     | Private ship | 17 Officers 59 senior rates 149 juniors |

### Propulsion

**Machinery :** Two Rolls-Royce OLYMPUS TM 3B gas turbines for full power each developing 25,000 shp. Two Rolls-Royce TYNE RM 1A gas turbines for cruising each developing 4,800 shp.

This COGOG machinery arrangement allows each of the two shafts to be driven either by a TYNE or OLYMPUS engine. Each shaft drives through a non-reversing reduction gearbox to a controllable pitch propeller. In the Ship Control Centre an electronic control system varies pitch and the fuel supply to the engines to produce the required power.

|                     |                |                   |
|---------------------|----------------|-------------------|
| <b>Performance:</b> | Maximum speed  | 30 knots (approx) |
|                     | Cruising speed | 18 knots (approx) |

**Generators :** Four 1000 kw machines, each driven by a Paxman Ventura diesel.

**Sensors :** Two Type 910 seawolf, fire control radars  
Types 968 and 967 warning radar  
Type 1006 high definition navigational radar  
Advanced computer controlled sonar system and  
Electronic Intercept equipment.

For surveillance : two Ferranti FM 1600B computers are used to control and process data from the sensors. A Computer Aided Action Information System (CAAIS) displays selected data to the command in the Operations Room.

In action: two further 1600B computers are used to control missile guidance.

|                  |         |  |
|------------------|---------|--|
| <b>Weapons :</b> | Seawolf | a double headed surface to air point defence missile system. Each head contains six missiles for immediate action. |
|                  | Exocet  | four surface to surface anti-shipping missiles.  |
|                  | Bofors  | two 40mm rapid firing policing guns.   |
|                  | STWS    | two triple launchers deck mounted for anti-submarine torpedoes.  |
|                  | LYNX    | two Lynx helicopters armed with either guns, or anti-submarine torpedoes.  |

## Today's Broadsword

### Memories of the Standing-by Period 1977-79

To Royal Naval personnel, the standing-by situation is one of immense interest and variety, being so different from normal Naval life. The slightly more relaxed civilian atmosphere has its own novelty for members of a ship's company. With the complete absence of barrack accommodation, it was to the City of Glasgow that we had to turn; and nothing better could have happened, for here was the golden opportunity to meet new people, make new friendships and discover the bright lights of Scotland's number one city.

In our three year standing-by period, there have been many happy occasions for each member of the ship's company. Clearly, it is impossible to recall them all, for each of us has his own particular fond memories of Glasgow, its people and the very warm friendship accorded to HMS BROADSWORD and her team. There are, however, some particularly notable "adventures" worthy of being remembered here.

Charity does not come easily, or as a matter of course. However, it was with much verve and enterprise that certain fund raising activities were organised to help those most in need; and, of their own volition, considerable personal effort and time were devoted by members of the ship's company to local charities. The Princess Louise Hospital was the first to benefit from several sponsored events, which included a 7-man team run from Rosyth Naval Base to our shipbuilder in Scotstoun; and — 'wait' for it — a sponsored diet by Chief Petty Officer McAllister, who actually succeeded in cutting down from 235 lbs to 205 lbs. A substantial achievement "all round". As a result, a splendid gift of £500 was made to the Hospital; and, it is understood that the money is being used to provide a wrist communicator for a patient who has lost the power of speech, and two net suspension beds to aid the treatment of bed-ridden patients.

Closer to home, another fund-raising activity which achieved considerable success was a sponsored team shoot, the proceeds of which were donated to the Men under Training Fund at HMS CALEDONIA, the Royal Navy's Apprentice Training School. Chief Petty Officer Hobson, of HMS BROADSWORD, scored an impressive 100 out of 100, which alone earned the Fund £100.

The steady progress of the ship towards the final fitting-out stage hastened the arrival of ever-increasing numbers of the ship's company to Glasgow. With the augmented numbers, opportunities arose for the ship's company to participate in the more traditional and formal Naval ceremonies. A strong contingent of over 50 from BROADSWORD took part in the Remembrance Day parade, in company with the Knightswood British Legion, on 12 November 1978; following the ceremony, our ship's representatives marched through Knightswood to the strains of a pipe band, and were then regally entertained in the Legion's Headquarters. Divisions, that most traditional of Naval ceremonies, were held in August 1978, and inspected by our Commanding Officer, Captain A M Norman, Royal Navy; and it was on this occasion that Long Service and Good Conduct Medals were presented to Chief Petty Officer Anderton and Leading Stores Accountant Turton, in recognition of their lengthy and trusted service in the Royal Navy. Divisions were also held in January 1979, when the Inspecting Officer was our Squadron Captain, Captain J M Tait, Royal Navy; and another opportunity arose to recognise the service of a member of the ship's company when Chief Petty Officer Marshall was presented with the Long Service and Good Conduct Medal. As our time in Glasgow began to draw to a close, all our efforts were channelled into effecting the transition from the standing-by phase to running

and manning our own ship in the most effective and professional manner. This transition culminated in the simple, yet highly significant Acceptance Ceremony in Devonport on 21 February 1979, when HMS BROADSWORD, the First of the Type 22 Class of Frigate, entered the Royal Navy.



*Commander John Game and REA1 McAllister present a cheque for £500 to Colonel David Boyle, Hospital Commandant.*



*The 7-man Team*



*OE MECH (O) 1 Marshall receives his long service and good conduct medal from Captain J M Tait, Royal Navy, Captain Fourth Frigate squadron.*



*Chief Petty Officer Anderton and Leading Stores Accountant Turton.*

## THE OPERATIONS DEPARTMENT

By: Lieutenant Commander D J A Nealon, Royal Navy The First Lieutenant, HMS BROADSWORD.

Just as warships, in their fighting potential, have changed almost beyond recognition since World War II (BROADSWORD is a prime example), so it has been found necessary to adjust the operational organisation of those that man them. Not only the weapons have altered; so have their control, the information on which this is based, communications both within the ship and with the outside world. The urgent demands are for more and more speed and precision. Gone are the days when, as before the battle was expected to start, ship's companies could be sent early to dinner with the prospect of action in the afternoon; no more does one essay a ranging shot or two before the deluge of fire, from which, it is hoped, a few lucky shots will reach their mark. Today, as likely as not, there will be only a single chance to unleash a missile — before the other side does likewise. The decision has got to be right and immediate, and is usually irrevocable.

The new organisation for what had previously been the Seaman and Communications Branches of the Navy is known as the Operations Branch. This was the result of the recognition, which had been growing ever since World War II, that not only had the old manpower-intensive action-stations gone forever, but that the new jobs of 'control' — to give it a general label — called for special skills at the same level as those of other Branches. Thus, while the traditional rates of Able Seaman, Leading Seaman, Petty Officer, Chief Petty Officer and (a new one) Fleet Chief Petty Officer were retained, three new grades were established: the Operator (Able Rate), the Controller (Leading Rate) and Director (Petty Officer and above). The Operations Department in BROADSWORD is complemented for 10 Officers, 15 Senior Ratings and 58 Junior Ratings. The main tasks required of the Department in peacetime are:

- a) To train to fight the ship efficiently and carry out any other operational tasks required of her.
- b) To care for the maintenance and preservation of the parts of the ship allocated to the Department.
- c) To maintain a productive advancement programme.

The Department is complemented to man weapon systems and fight the ship in Defence Watches — this means that each system has two teams working watch and watch about. This manning forms the basis for the Divisional Organisation. Each Division, with the exception of the Flight, has a Senior Rating nominated for warfare instruction, and another for Divisional duties and other professional instruction.

The Department has five Divisions, each composed of the seaman specialists drafted to the ship :

- 1 Missile and Electronic Warfare (EW) Division
- 2 Sonar Division
- 3 Radar Division
- 4 Communications Division
- 5 Flight Division

These Divisions man and operate the following weapons and systems:

|   |                  |
|---|------------------|
| EXOCET — Surface to Surface Missile system                | Missile Division |
| SEAWOLF — Surface to Air Missile system                   | “ “              |
| Bofor Guns — Close range surface to surface policing guns | “ “              |

2" Rockets — For close in illumination  
 3" Rocket Launchers  
 Electronic Warfare Equipment  
 All Sonars and Associated Equipment  
 The Radars, Plotting Tables and Displays  
 All Communication Equipment  
 The two LYNX helicopters

“ “  
 “ “  
 EW Division  
 Sonar Division  
 Radar Division  
 Communications Div.  
 Flight Division

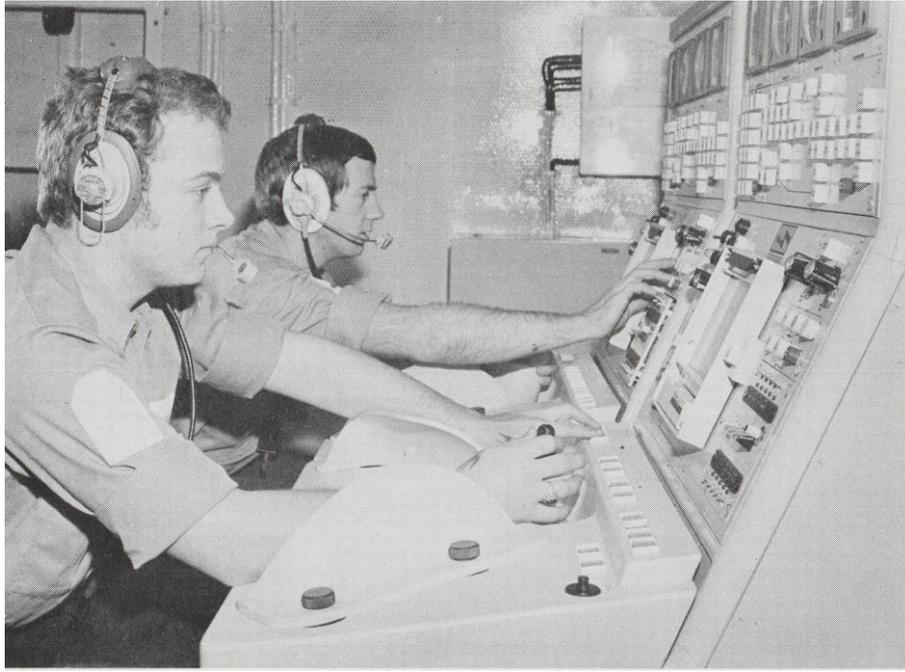
The Fighting Sailor of today's Navy not only has to cope with highly sophisticated equipment (BROADSWORD has seven computers) but he has to retain his old skills of seamanship. The ship still has to be steered; stores, ammunition and fuel are all embarked at sea except on very few occasions. Along with the other Departments, the men of the Operations Department are still required to clean, paint and repair the parts of ship allocated.

The Department is led by the First Lieutenant, who is also the second in command, and is assisted by the Operations Officer who is also the Principal Warfare Officer (Underwater) (PWO(U)), Principal Warfare Officer Above Water (PWO(A)), Navigating Officer (NO), Signal Communications Officer (SCO) and the Confidential Books Officer (CBO). Each officer leads a Division: PWO(U) — Radar, PWO(A) — Missile and EW, NO — Miscellaneous, SCO — Communications, and CBO — Sonar.

I have endeavoured with the photographs and this short article to show how the seaman of today fits into a modern and complex fighting machine. I believe that every man of the Operations Department has a challenging and worthwhile job and that the next eighteen months to two years will prove to be both exciting and rewarding.



*The Operations Room*



*Operating a Weapons System*



*Operating the Sonar*

## THE MARINE ENGINEERING DEPARTMENT

By: Commander P J Hoskin, Royal Navy The Marine Engineer Officer, HMS  
BROADSWORD

### TYPE 22 FRIGATE DESIGN BACKGROUND

The sketch design was produced by Director General Ships and developed as a result of the normal reiterative process between Director Naval Operational Requirements and the Forward Design Group of DG Ships. When the requirements were firm the Lead shipbuilder was selected and a contract raised for him to carry out the detailed design. This involvement by the shipbuilder (Yarrow Shipbuilders Ltd) was unusually early and resulted in a very good liaison between the Ministry of Defence and the shipbuilder.

The staff requirement called for particular emphasis on the following in the hull design points:

- a To be a fully Metric ship.
- b To use the same equipments and machinery as the proven Type 42 and Type 21 classes.
- c To achieve very high standards of quiet running and the latest Naval Shock standards.
- d To be able to fully utilise the Navy's upkeep by exchange policy for all major items of equipments, assemblies and sub-assemblies. This means removal, replacement and commissioning of major items such as a Gas Turbine Marine engine within a very short period without interruption of other services. This was a daunting task aimed at increasing the ship's availability and requiring space, access routes and detailed removal procedures. It has resulted in the Main Machinery and Equipment compartments being far less cramped than is the norm in a warship.
- e Accommodation — to the latest RN standards.

In order to assist the detailed design work extensive use was made of models and compartment mock ups. Models were constructed of the four major machinery spaces and made to 1-6 scale. This enabled various equipment layouts to be tried and optimised and the detailed system drawings were then taken straight off the model. Incidentally the scale chosen allowed use of the well known 'ACTION MAN' to confirm satisfactory access for the operator and maintenance. The Mock-ups were full scale replicas of the major compartments and used as a basis for the Inboard and Outboard inspections conducted while the BROADSWORD was building. An example of the detailed thought was that one of the mock-ups was of the ship's stem showing the anchor housing and cable run to prove that the anchor would 'slip' and 'weigh' without hitch or damage to the hull.

A ship will meet her requirements for stability, speed, endurance and strength only if the weight and location of her equipments, fittings and stores known and controlled during the design and building stages. Weight control for the Type 22 was strictly exercised during the detailed design stage and also during building and storing. Records were taken of all material used in hull, machinery, armament, stores and equipment before it was placed onboard or worked into the ship, and also for material removed from the ship. Inclining experiments were carried out soon after launching and before contractors Sea Trials to check weights and their effect on stability.

There is no radical difference between the machinery of the BROADSWORD and that installed in AMAZON and SHEFFIELD classes. However, the experience already gained has been put to good use in improving machinery access and removal routes. Special attention has been paid to avoiding congestion and reducing noise produced in the main machinery spaces. The compartments are unmanned and Ship Control Centre Watchkeepers rely on the latest surveillance systems and remote operation for the propulsion plant and associated equipment.

The main propulsion installation consists of two Rolls Royce Olympus or two Rolls Royce Tyne Gas Turbines (COGOG design) driving through Synchro Self Shifting clutches to two double reduction David Brown gearboxes and inward turning shafts fitted with five bladed controllable pitch propellers manufactured by Stone Manganese Marine. Control of the power produced by the propulsion installation is achieved electrically by varying the Engine Throttle or the propeller pitch. The power requirement for each shaft can either be demanded by a single lever on the Bridge or a similar lever in the Ship Control Centre, the simple lever movement being converted into ship's speed by the HSDE Control system mentioned later.

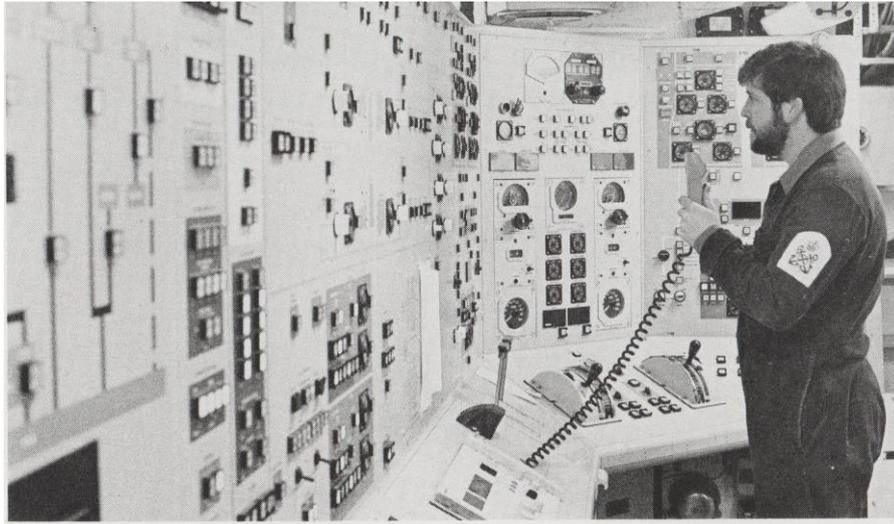
Electrical power is generated by Paxman Ventura diesels driving GEC generators developing 1 megawatt of electricity each. The steam for the Caird and Rayner Flash Distilling Plants is provided by Stone Platt Auxiliary Boilers and is also used for domestic purposes.

The whole ship, when in a nuclear or chemical warfare environment, is closed down to form an air tight pressurised citadel. The air is supplied to the citadel through special air Filtration Units and then recirculated by fans throughout the ship via coolers to take away the waste heat. The coolers are supplied by air conditioning plants manufactured by Halls Therm Tank Ltd — each capable of extracting 300 kilowatts of heat. The same chilled water cools the weapon equipments and also the main machinery spaces.

Brown Brothers steering gear and stabilizers utilising MacTaggart, Scott hydraulics have full electrical control and remote operation. The water borne noise that is generated by propellers, stabilisers and the hull surface has been reduced by use of special techniques. Thus the ship has the speed, manoeuvrability, stability and silent running capabilities necessary to make it a good anti-submarine weapon carrying platform.

All the equipment mentioned above can be controlled and monitored from the Ship Control Centre by the Watchkeepers using an automatic control system developed and produced by Hawker Siddeley Dynamics Engineering which utilises the first of a new generation integrated ship Instrumentation System (DECCA ISIS). This system monitors selected parameters of the propulsion plant and supporting systems (pressures, temperatures etc) by the use of local electrical scanner units. The information passes from these units to a central display unit in the Ship Control Centre. Warnings in the form of visual and audible alarms on the machinery consoles indicate that parameters have exceeded their pre-set limit. A digital readout of the parameter is available by selection at the Machinery Console or Engineer Officer of the Watches Console and type written record can be obtained on demand or at pre-set intervals.

The degree of automation provided in ships of this type allow a great reduction in maintaining levels for normal watchkeeping duties. Thus the engineering Department complement is much smaller than previous ships of this size and the responsibilities and authority placed on any one individual is correspondingly greater; this will lead to even better job satisfaction and team spirit.



*Ship Control Centre*

## **THE WEAPONS ENGINEERING DEPARTMENT**

By: Commander J F Game, Royal Navy Weapons Engineer Officer, HMS BROADSWORD

From 1.5 volts to 20,000 volts ; from d.c. to 15,000,000,000 cycles per second, through 200 miles of cable (electric string' to the uninitiated) through 4000 fuses to equipments and fittings including 650 switch sockets and 7,500 lamps ; such is our scope.

We can generate (Engineers — Marine type — co-operating) 4 megawatts of power. Assuming that the average household has a cooker, refrigerator, television set, vacuum cleaner and every light in the house switched on continually, then, without difficulty, we could supply the equivalent of the needs of 800 houses.

Commonly known as the 'Greenies', the Weapons and Electrical Engineering ratings in today's Navy are probably some of the most versatile ever to put to sea, and they need to be to meet the complexities of their tasks with any chance of success. Their work takes them to all parts of the ship, from masthead to machinery spaces and from stem to stern. Very few compartments and spaces are immune to their visitations and in fact someone once remarked: "You certainly see the 'Greenies' emerge from some odd places". Whether he meant ashore or afloat is debatable.

Ever since the advent of electricity in warships, as in everyday life, the rate at which dependence on this 'new' form of power has grown has been quite phenomenal, particularly in recent years. In the late 1940's recognition of these advances was accorded by the formation of a new sub-branch in the Navy — the Electrical Engineering Sub-branch, which managed to exist in its original configuration for quite a long time, with, to say the least, some rather dubious qualifications accredited to some of the founder members (where did all the vacuum cleaner salesmen go?). However, today's 'Greenies' are all very highly trained and specialised to the extent that when some of them can actually be persuaded to talk, it is difficult to tell from their languages just what they do or do not know and they guard their own sub-specialisations most jealously.

There have been several attempts since its inception to change the responsibilities of the Electrical sub-branch, some of which at this point in time appear to owe not a little to the 'if you

can't beat them, join them' syndrome. The only successful change was that brought about by the advances in engineering technology and complexity of weapons systems to the point that they necessarily had to be treated as systems and the Weapons and Electrical Engineering sub-branch was formed.

Today the spectrum covered is enormous. The Weapons and Electrical Engineering officers and ratings are at present responsible for the maintenance of all electrical generation and distribution and associated electrical and electronic controls, domestic services, sonar, electronic warfare, radio, radar, action data and communications systems, all weapons, navigational aids and internal communications, together with the operation of certain equipment under the maintainer/operator principle. The sub-branch will also progressively take over responsibility for all magazines and the safety, custody and handling of all explosives they contain. But yet again we are forced to adapt to the changing engineering task implicit in technological changes.

As is amply demonstrated in BROADSWORD, in new construction nearly all propulsion and auxiliary equipment is electrically driven or electrically controlled. Weapon and action data systems are based on digital computers (we have 7) and are, to a large extent, automatic; the equipments forming various systems are closely integrated and need to be treated as a whole. New missile systems have involved the sub-branch in explosives to an increasing extent and this process will continue. These factors considered with other developments have made it imperative for the Weapons and Electrical Engineering sub-branch to concentrate on weapons systems without the distractions of such as high power generation and distribution and it is engineering and managerial logic that the Mechanical Engineering sub-branch should take control of all electrical and electronic systems that are now becoming integrated into the propulsion and ship service equipments.

Hence the Weapons and Electrical Engineering sub-branch is to become the Weapons Engineering sub-branch allowing concentration on the maintenance of weapon system effectiveness. The personnel selected for transfer to the Mechanical Engineering sub-branch will adopt their new titles as from September this year, but will continue to work as part of the Weapons Engineering Department even though the practical implementation of the responsibility changes will not be carried out in BROADSWORD until nearer the end of the Part IV Trials period. (It all depends on the Mechanical Engineering Officers being suitably 'cross threaded' and the present incumbent staunchly refuses to have anything to do with electricity — you can't see it leaking !)

When in due course each member of the department leaves the ship, we surely will have done many things which we ought not to have done, and not done a lot of things which we ought to have done, but through it all our aim is to give the maximum satisfaction. All in all, we would like to judge the success of the department by the efficient operation of the ship, for every department depends to a large extent on us. If the ship and her weapons remain fighting fit and serviceable then it follows that we will have done our job properly.



*Working on a Gyro*



*An Electrival Compartment*



## **THE SUPPLY AND SECRETARIAT DEPARTMENT**

By: Lieutenant T A W Lewis, Royal Navy

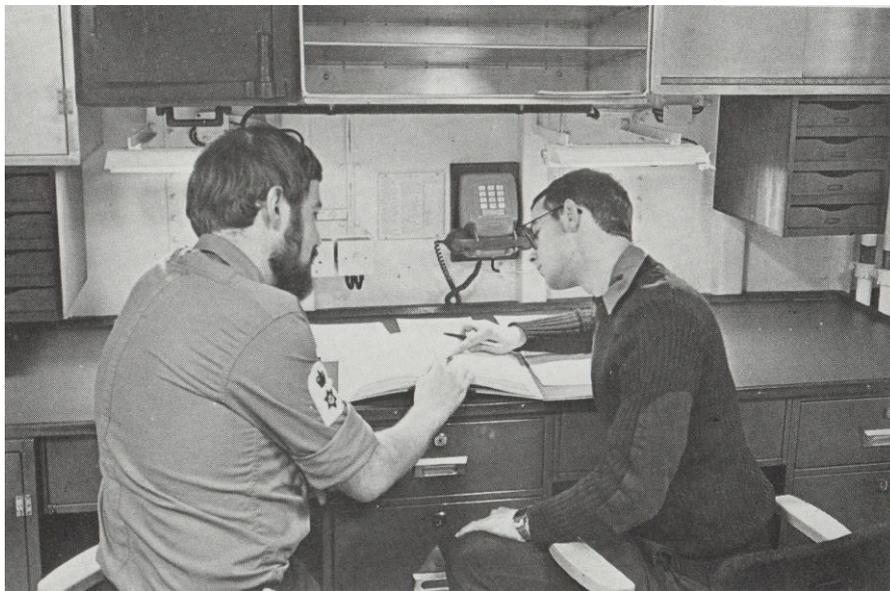
Supply Officer, HMS BROADSWORD

The Supply and Secretariat Department is, numerically, the smallest in HMS BROADSWORD, consisting of 1 Chief Petty Officer and 6 Petty Officers, 8 Leading Rates and 18 Junior Rates. Between them, these 33 individuals provide a complete compendium of services to the ship's company — pay, cash, food, catering services, clothing, a vast panoply of Naval, Engineering and Electrical stores and a full secretarial system.

Each Supply and Secretariat rating has to achieve a high degree of professionalism and sense of service, for the demands on him are complex and constant — and nobody wants to wait for his food, pay or stores!

The Naval Stores Department is headed by a Chief Petty Officer Stores Accountant, and is complemented by 2 Leading Stores Accountants and 5 Stores Accountants. It has been their unenviable task over the past year to store the ship with, and account for, every item in daily use in the ship, and stock the large number of storerooms that are strategically positioned round the ship. In October 1978, the first outfit of stores started arriving at Yarrow (Shipbuilders) Ltd, from all over the UK — General Naval Stores from Rosyth, Electronic Stores from Copenacre, Weapons Stores from Llangennech, Engineering Stores from Eaglescliffe, Compass Equipment from Slough, Books of Reference from the Royal Naval Distribution Authority at Plymouth,

stationery from Deptford, messgear and accommodation stores from the Royal Air Force, and Rationalised Tool Kits from Derby — all to be correctly stowed throughout the ship. This mammoth task was successfully accomplished by February 1979, with the nine naval storerooms and associated departmental store-rooms satisfyingly full of all the essentials needed to keep the ship going. The job was made even more difficult, as every item being embarked had to be weighed, the weight recorded, and the location noted; for a First of Class needs precise records of this nature to be kept, in order to assess stability, displacement etc. It will be a long time before Weight Control Cards are erased from our memory! By the time BROADSWORD was accepted into the Royal Navy, our stores account had gone 'live' — with over 32,000 line items onboard, ie, not the quantity of the items themselves but the total of different pattern numbers — the final number of actual items is legion! Our 8 Naval Stores personnel, our Senior Inspecting Officer Mr Knight and Inspecting Officer Mr Kessel, plus a lot of help from our friends (the other departments), have made a running entity out of what was, a very short time ago, a rather empty shell.



*Work in the Ships Office*

While not actually marching on his stomach, today's sailor has a wholly justified respect for his constitution and a veneration for the calories — and this is an area where two other of the Supply and Secretariat Sub-Departments, the Cooks and the Caterers, assume maximum importance.

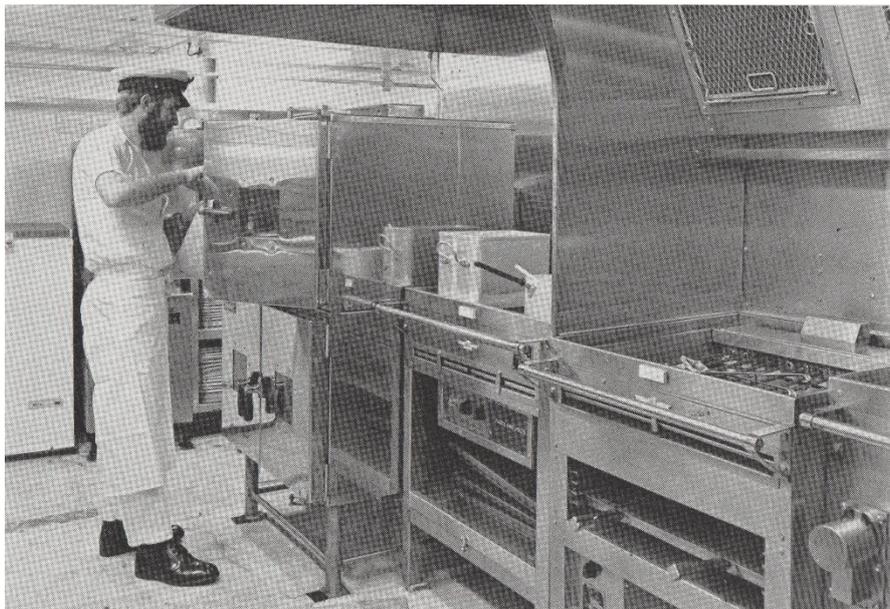
The Catering Sub-Department, a Petty Officer Caterer and Leading Caterer/ Caterer, is charged with the job of storing the ship with the complete range of foodstuffs, not only to meet the ship's required endurance at sea, but also to provide a varied, nutritious and attractive diet for the whole ship's company — while, at the same time, accounting for all items within quite stringent financial limits. The foodstuffs can be ordered from a variety of Naval sources — Plymouth, Portsmouth, Chatham, Rosyth, Gibraltar, Singapore — and of course, from the trusty NAAFI; and, in addition, Royal Fleet Auxiliaries can replenish us at sea with the complete range required. Once embarked, food is stored in the appropriate storerooms, which more closely resemble a supermarket than a ship's compartment when full; and for long endurance items, three fridges the size of average domestic rooms are provided — Meats in Deep Freeze (-10°C), Vegetables in a Cool Room (4°C) and Dairy items in a Cool Room (5°C) — 1 150 cu ft in all. Then comes the menu planning, with the Petty Officer Caterer, Petty Officer Cooks and Petty Officer Stewards constantly searching for new ideas — for the aim is to provide four meals a day, with the main meals featuring at least 3 meat dishes, 2 choices of potatoes, 3 different vegetables,

2 sweets, salads, cheese and biscuits, and so on — and no two choices to be the same in a two week cycle! As soon as the menu has been carefully costed, all the ingredients necessary for "tomorrow's" menu — from salt to sides of beef — are passed to the galleys for preparation.

Every housewife knows the catering task — which is magnified many times over with 750 meals a day to provide. When the additional task of preserving full hygienic standards in the dining halls and associated areas are added, it is easy to understand how continuous and demanding are the Catering Sub-Departments' responsibilities.

At the front line, in more senses than one, stand the cooks in HMS BROADSWORD. Their task centres on the two galleys in the ship, the larger of which is the Main Galley, manned by a Petty Officer Cook, 2 Leading Cooks and 5 Cooks, who are divided into three watches. The Main Galley cooks have to produce up to 750 meals daily for the ship's company — and bake bread, provide confectionery etc, whenever required. The Main Galley is well equipped to meet this daunting task, for the best of domestic and culinary equipment is provided onboard: there are two large convector-heated ovens, ice-cream and milk-making machines, meat slicer, steak tenderiser, two steaming ovens, four boiling coppers —and a Garbage Disposal Unit to make the disposal of the few left-overs less onerous. There are also two electric deep fryers, an electric grill, a bread slicing machine, a fitted cool cupboard encased in a space no larger than three average domestic kitchens. It is from the Main Galley that the three dining halls — for Junior Rates, Petty Officers, Fleet Chief and Chief Petty Officers — are served; and on which a lot of the "meal morale" depends.

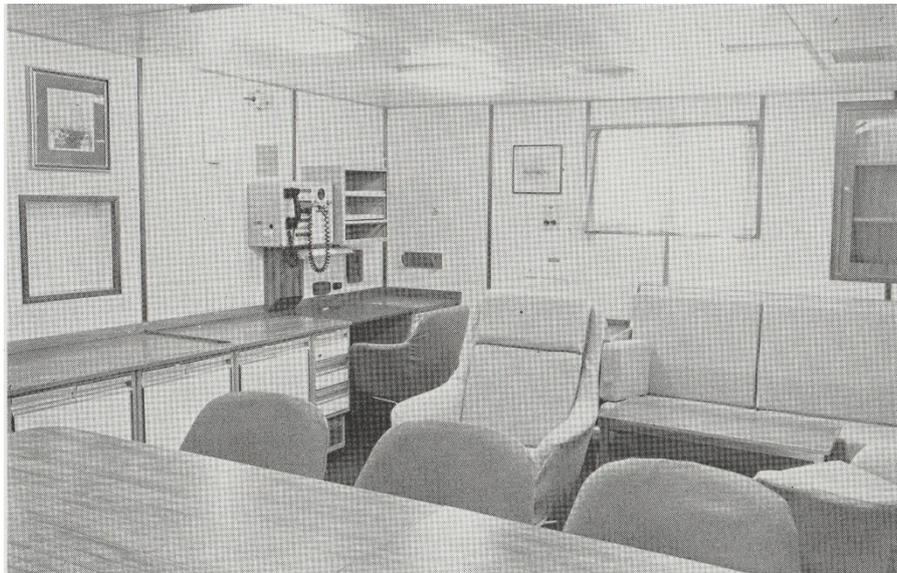
The Wardroom Galley, serving the Commanding Officer and the Ward-room, is the Main Galley in microcosm — about the size of the normal household kitchen. It is manned by a Petty Officer Cook, a Leading Cook and 2 Cooks, whose task it is, not only to produce from the central menu all the meal requirements for the 16 Officers onboard, but also to cater for those special functions — entertaining Government Officials, dignatories, foreign visitors, even Royalty — which do so much to perpetuate the Royal Navy's fine image in the public eye. The standards required are high — and it is therefore no surprise that both Wardroom and Main Galley cooks are all trained to recognised City and Guild qualification levels.



*The Main Galley*

Being in the public eye is a facet for which the Steward Branch in the Royal Navy is trained — and HMS BROADSWORD'S stewards, serving as they do in a First of Class, are very much in the forefront. The Captain's retinue, consisting of a Petty Officer Steward and 1 Steward, are responsible for all the Captain's domestic arrangements, the service of all meals, the cleanliness of the Captain's quarters, and the provision of a full valet service befitting a Senior Officer. Service of a high order is a consistent requirement — especially on the many occasions when a wide range of dignitaries are entertained. It is then that the Captain's Retinue stands as the archetype for traditional Naval hospitality. This is equally true for the Wardroom Retinue, who provide not only for the special occasion, such as the far-famed Mess Dinner, but provide essential domestic requirements on a daily basis for all the ship's officers, and the large number of official visitors involved in the ship's trials programme. The Wardroom staff of 1 Petty Officer Steward, 2 Leading Stewards and 4 Stewards (the latter number being augmented by two owing to BROADSWORD's intensive programme) have to be expert, not only in cabin and meal service, but detailed accounting procedures, victualling replenishment and bar work. In an age where service in its truest sense is an unpopular philosophy, our ship's stewards are a highly professional exemplar of more traditional values which should always be maintained.

The smallest Sub-Department, which certainly inhabits one of the smallest compartments onboard, is the Ship's Office, manned by the Captain's Secretary, a Petty Officer Writer and 2 Writers; yet it is from this area that much of the ship's administration emanates. The Captain's Secretary, as the name suggests, is in direct liaison with the Captain, and is responsible for the smooth running of all forms of correspondence to, from and within the ship ; fortunately the task of typing the myriad letters which any complex organisation produces devolves on all the staff! In addition, the Petty Officer Writer and the Writers have the vital task of running the pay accounts of all the personnel onboard, and of actually paying the ship's company fortnightly or monthly, dependent on whether the individual maintains a bank account or not. There is the constant demand to update pay and service information held on the computer in HMS CENTURION for each individual ; and when one considers the complexity of the Naval



*The Captain's Cabin*

rank/rate system, advancement procedures and pay system, the enormity of the task can be appreciated. The Petty Officer Writer also provides the vital service of cheque cashing to the ship's company and prompt payment of all forms of travelling, removal and daily expenses, and many more. All this is a considerable and constant area of responsibility, for pay is an emotive

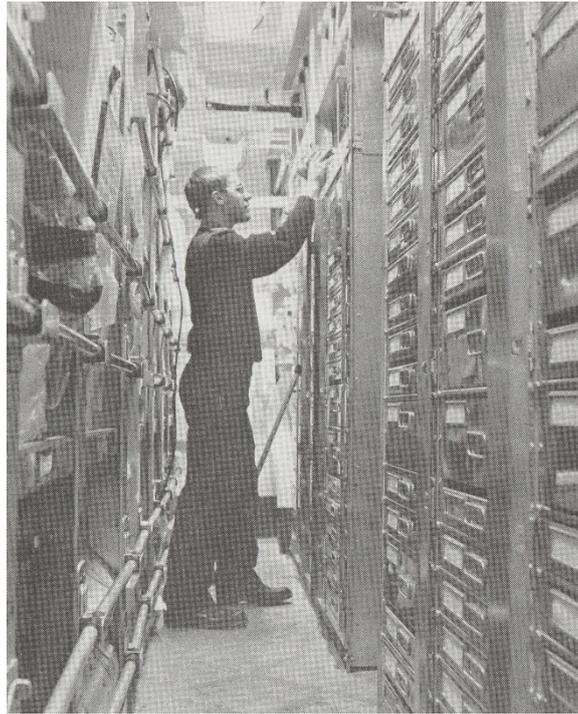
subject, correspondence and communication are vital to the success of any unit — and hours worked by the staff are long. However, the contribution which the ship's office makes to the ship's morale and efficiency is self-evident — and this knowledge brings its own satisfaction. In the final analysis, the sole "raison d'être" of the Supply Department is consistent support and service to BROADSWORD and the officers and men serving in her. Our work is never finite and perhaps more difficult to judge as successful in the immediacy than other departments; the satisfaction lies in providing a constant and reliable environment in which the other departments can together realise BROADSWORD's true potential as one of the Navy's most modern warships.



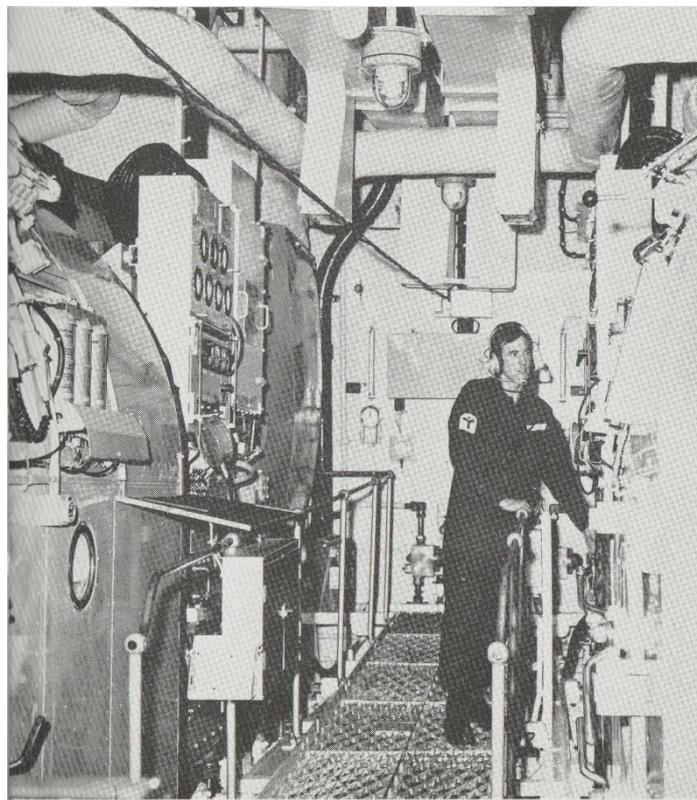
*Preparation work in the Main Galley*



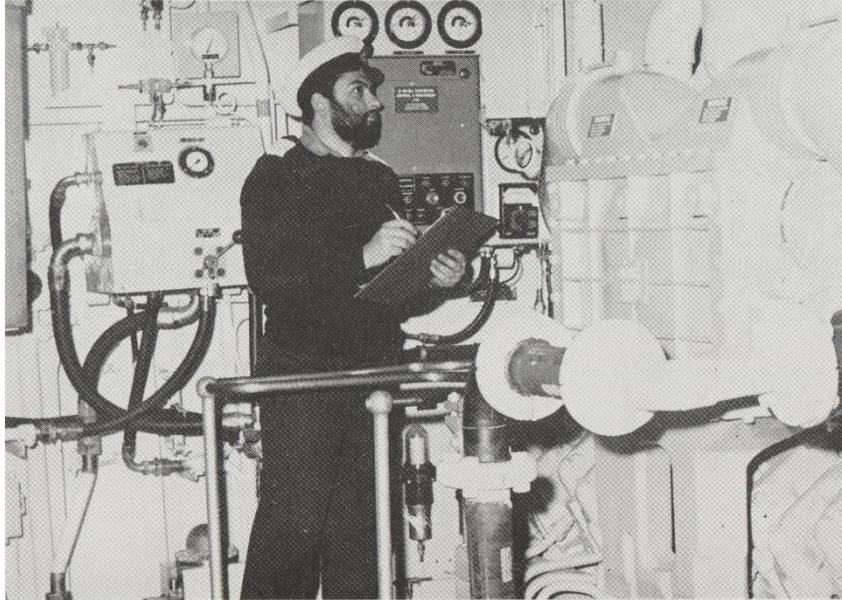
*The Wardroom Galley*



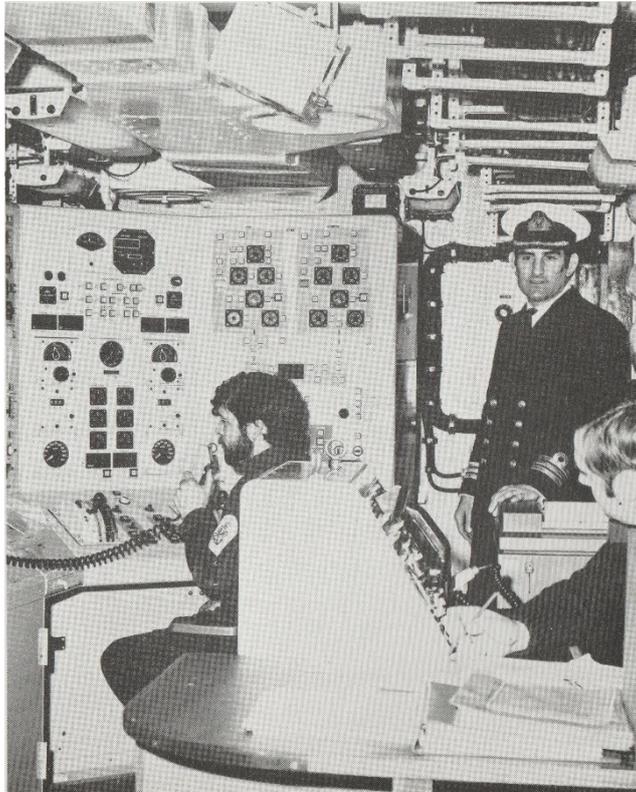
*A Naval Storeroom*



*Forward Engine Room*



*Forward Auxiliary Machinery Room*



*Ships Control Centre*

# THE FIRST HMS BROADSWORD

## Summary Of Service 1944-1968

HMS BROADSWORD was a destroyer of the "Weapons (Battleaxe)" class ordered under the 1945 Programme. Built and engined by Yarrow & Co Ltd, Scotstoun, Glasgow, she was laid down on 20 July 1944, launched on 5 February 1946 and completed on 4 October 1948. Of 1,980 tons standard displacement, the BROADSWORD was 365'0" in length, with a breadth of 38'0" and draught (aft) of 17'1". Designed top speed was 34 knots with an endurance of 6,500 miles at 15 knots, 4,500 miles at 20 knots and 1,650 miles at full speed. Armament when built was 4 x 4" guns in twin mountings, 4 x 440mm Bofors in STAAG mountings and 2 x 40mm Bofors in single mountings. She was fitted with 2 x 21" pentad revolving torpedo tubes for which she carried an outfit of 10 torpedoes. For anti-submarine warfare, she was fitted with 1 Squid mounting, for which she was outfitted with 120 missiles, and 1 rail with an outfit of 15 depth charges. In 1953 2 x 4" guns were removed together with the depth charge equipment. In place of the single Squid fitted, she was fitted with a double Squid (Port and Starboard). In 1958 the torpedo equipment was removed.

Upon completion HMS BROADSWORD was allocated to the 6th Destroyer Flotilla. She first went to Portsmouth and in November 1948 to Chatham where she was taken in hand on 29 November for completion of modifications, the work being completed on 31 December. She then left for Portland and thence to Campbeltown. In June 1949 she was attached temporarily to the 3rd Destroyer Flotilla for gunnery trials of Malta, returning to the UK in early September to rejoin the 6th Flotilla.

On 29 May 1950, after the Home Fleet Spring cruise, the BROADSWORD left the UK for Norfolk, Virginia, to be attached to the US Operational Development Force, mainly for gunnery trials. She left the USA on 21 August to arrive back at Sheerness on 1 September. After a short docking she took part in the Home Fleet Autumn cruise and in 1951 and 1952 was engaged in Home Fleet cruises and exercises.

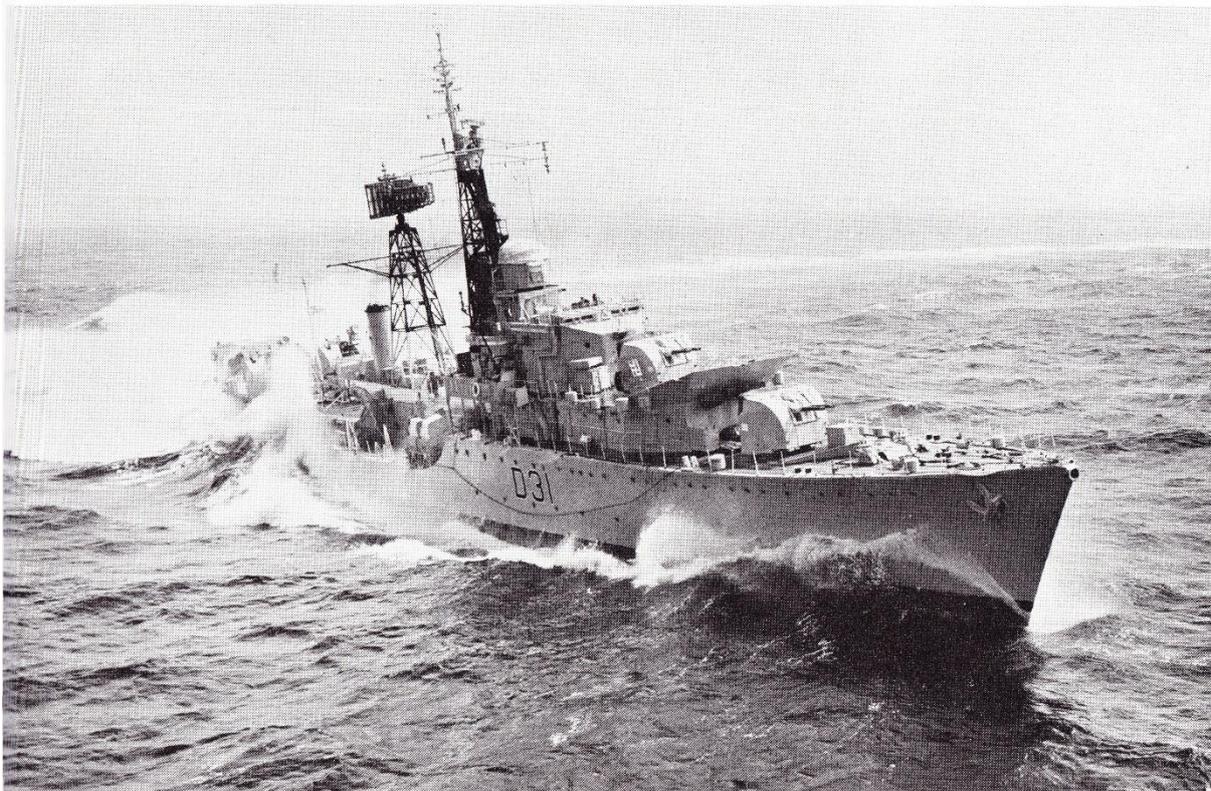
In April 1953 HMS BROADSWORD was reduced to the Reserve at Chatham and in August 1953 was placed in a state of preservation and dehumidification. Then in August 1955 she was removed from the Special Reserve; and in November 1956, she was towed to Rosyth for refit, not completed until October 1958. On completion she was allocated to the 7th Destroyer Squadron and, after work-up and trials, took part in the Home Fleet Autumn cruise.

During the early part of 1959 the BROADSWORD was in the Mediterranean taking part in cruises and exercises. In April she returned to Portsmouth and thence to Chatham. She was on the Iceland Patrol from 19 May to 3 June and again from 24 July to 12 August and then went to Chatham for repairs which were not completed until the end of October.

After a short period on exercises early in 1960 HMS BROADSWORD was transferred in March 1960 to the Mediterranean Fleet where she took part in many exercises and visits. On 29 July 1960 she gave assistance to the SS HARTISMERE after an explosion aboard the latter ship of Malta. In August she was taken in hand at Gibraltar for a refit, the work not being completed until mid-November and on 25 March 1961 arrived back at Chatham having taken part in an exercise on her way home. During her year in the Mediterranean she had steamed 36,000 miles while engaged on NATO and National exercises.

The BROADSWORD had a further spell on the Iceland Patrol from 6 September to 25 September 1961. She then took part in a number of visits and exercises and in April 1962 returned to the Mediterranean Station, again taking part in many exercises and visits. On 6 December 1962 she left Gibraltar for Portsmouth, arriving on 10 December to enter the Reserve Fleet.

On 24 January 1964 the BROADSWORD was placed on the Disposal List. In April 1968 she was towed to Rosyth where she was used for a time in connection with torpedo trials. On 18 July 1968 she was sold to T W WARD Ltd for breaking-up at Inverkeithing.



*December 1962, on the way home from Gibraltar to Portsmouth. After nearly 20 years of service, HMS BROADSWORD still showing her paces during the last year of her operational life.*



*Councillor W F S Moorley  
The Right Worshipful  
The Mayor of Chester*



THE MAYOR'S PARLOUR,

CHESTER.

MESSAGE FROM THE RIGHT WORSHIPFUL THE MAYOR OF CHESTER;  
COUNCILLOR W F S MOORLEY

I would like to send warmest greetings from myself, the Mayoress, the City Council and all the citizens of the City of Chester, to the Captain and all the Ship's Company of HMS Broadsword. The beautiful and historic City of Chester is delighted to have the honour of an affiliation with one of Her Majesty's Ships.

The timing could not have been more fortuitous, in that the City of Chester celebrates it's 1900th Anniversary in the same year as our affiliation with HMS Broadsword.

I hope that our association will be a long and happy one. A warm welcome will always await the Ship's Company of HMS Broadsword when she visits our City - I hope that you will always find us hospitable and friendly and that you will come to visit us often. I know also, that HMS Broadsword is willing to help us in any way it can, and I am sure, will prove a valuable asset to the City.

As Mayor of Chester, I am also Admiral of the Dee, so I would like to say, welcome aboard, and hope that your journeys will be safe and happy ones.

Good luck and best wishes.

Mayor

## Our Affiliations: The City of Chester

### Chester Today and Yesterday



The historic county town of CHESTER is outstanding among the ancient cities of Britain. The Rows, seen at their best in Watergate Street, Eastgate Street and Bridge Street, are the city's most unique feature —these galleries above street level provide extra shopping which is enjoyable despite the weather's whims.

The old city is encircled by two miles of walls (part of the North Wall and most of the East Wall are of Roman foundation, the remainder following the Saxon extension of the 10th century). Much of the city and the surrounding countryside of Cheshire and North Wales can be best seen from the Walls — access points at all Gateways, the Cathedral and the Recorder's Steps. King Charles' Tower, Water Tower, Kaleyard Gate, and the Wishing Steps are of particular interest.

Chester's Roman history is seen best near the Newgate at the Roman Gardens ; you can also enter the

Roman Amphitheatre nearby. Other Roman remains are to be seen in the lower parts of the city walls near the Northgate and the Racecourse, and also part of the Praetorium building is on show in Hamilton Place near the Town Hall.

Chester Cathedral, originally a Benedictine Abbey built shortly after the Norman Conquest, stands in a very beautiful setting within the City Walls.

The streets of the city retain many features characteristic of Tudor, Stuart and Georgian England, especially the late 16th and early 17th century half-timbered black-and-white houses. Lower Bridge Street and Watergate Street contain the finest examples.

Watergate Street has some of the best preserved buildings : Stanley Palace (1591, now the Chester and Cheshire headquarters of the English Speaking Union), Leche House (1579) and Bishop Lloyd's House (1604). The Dutch Houses, Bridge Street, and Gamul House, Lower Bridge Street, have recently been restored as part of the Bridgegate Action Centre Scheme for European Architectural Heritage Year. Charles I stayed at Gamul House as the guest of Sir Francis Gamul when he watched his army defeated at the Battle of Rowton Moor in 1645.



*Salmon fishing boats below the Old Dee Bridge, Chester By courtesy of Vernon D Shaw, Altrincham, Cheshire and Chester City Council.*

Chester Castle, overlooking the River Dee, was originally built by the Normans, but was remodelled in the 18th century to accommodate the Assize Courts. The Shire Hall and Castle entrance were designed by Thomas Harrison, architect of the Grosvenor Bridge (1832) and the present Northgate. The Old Dee Bridge, originally made of wood and frequently set on fire by raiding Welshmen, was rebuilt in stone in the Plantagenet period and from the 14th century onwards has from time to time been repaired and partially rebuilt. It spans the water near a point of crossing used by the Romans who carried the line of Watling Street across the river here by means of a ford.

Downstream the river curves round the Roodee, a flat circular meadow, once the riverbed. Chester race meetings are held here in May, July and September.

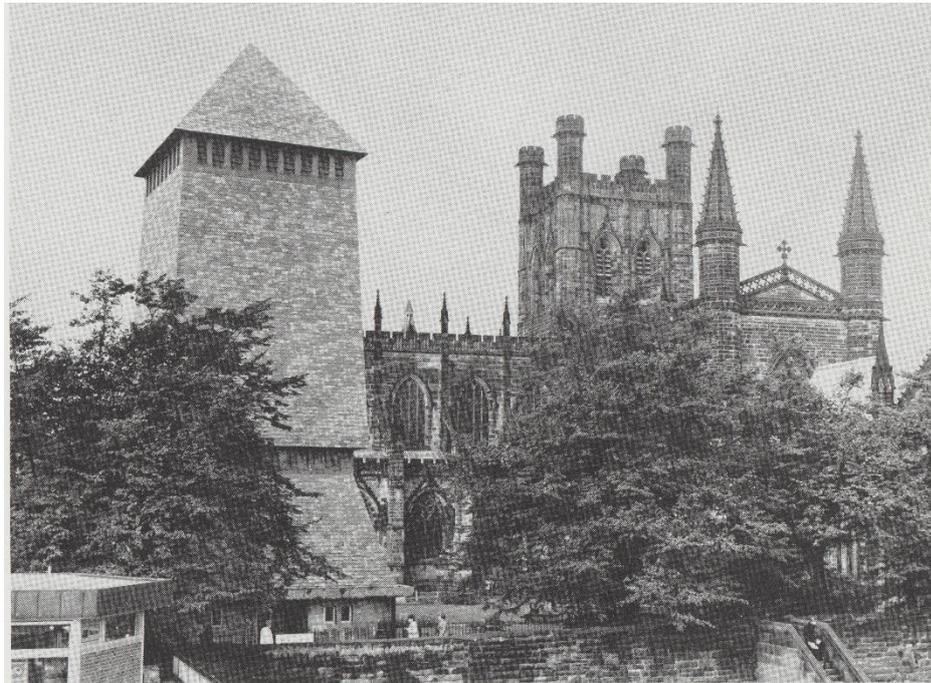
In medieval times, Chester's prosperity was derived from the port which was at its height in the late 13th and 14th centuries, Chester being one of the most flourishing ports in the country. Ships from the Baltic, France, Spain and other countries used the harbour.

In 1354 the Black Prince, as Earl of Chester, granted the Mayor of Chester Admiralty power over the River Dee. Today, when the Mayor attends a river occasion, as Admiral of the Dee, the Admiral's Oar is carried before him.



*The Oar of the Admiral of the Dee By courtesy of Cheshire Life and Chester City Council*

" . . . And Save His Good BROADSWORD, He Weapons Had Nom . . ." This famous line is not strictly true for Chester, as we are fortunate enough to have strong and cherished associations with the Cheshire Regiment, the Cheshire Yeomanry and the County of Chester Squadron RAF, but, in 1979, Chester is proud and honoured to strengthen its ties with the Admiralty in its affiliation to HMS BROADSWORD and they that go down to the sea in ships and occupy their business in great waters. May they sail in safety !



*By courtesy of Vernon D Shaw, Altrincham, Cheshire and Chester City Council.*

*Chester Cathedral and Bell Tower*

Whether the visitor comes to Chester for a few hours, a weekend or a week, there is plenty of interest. The shopping facilities are par excellence —the unique Rows alone are renowned for the many fascinating shops and their fine wares — and one must not forget the large market behind the Town Hall where Cheshire dairy produce, materials for dress and home furnishing, old books, jewellery, household goods, pets and their require-ments, are a few of the many commodities offered.

One can enjoy a lazy river cruise on the picturesque River Dee, or let 'Snowy', the magnificent Shire Horse, conduct you along the peaceful canal with its interesting locks, while Chester Zoo is justly famous ; its gardens are very lovely in Spring and Summer.

Permanent Exhibitions include the Chester Heritage Centre audio-visual presentation showing the architecture and conservation of the City, and the British Heritage Exhibition, which illustrates Chester's History, and here visitors can see a life-size reconstruction of 'the Rows' in Victorian times and models in period costume or try their hand at brass rubbing.

The Cheshire Military Museum display covers the Cheshire Regiment, Cheshire Yeomanry, 3rd Carabiniers and the 5th Royal Inniskilling Dragoon Guards. The Grosvenor Museum covers a very extensive range of exhibits, particularly of the Roman period. During the period Easter to September the Guildhall Museum and King Charles' Tower are also open to visitors.



*The Watergate*

*By kind permission of Chester City Council*

# The Blues and Royals

(Royal Horse Guards and 1<sup>st</sup> Dragoons)

*Colonel in Chief:* Her Majesty The Queen

*Colonel:* Field Marshal Sir Gerald Templer, KG, GCMG, KBE, DSO, DCL, LLD

*Commanding Officer:* Lieutenant Colonel H O Hugh Smith, MVO

## **BATTLE HONOURS**

Tangier 1662-80, Dettingen, Warburg, Beaumont, Willems, Fuentes D'onor, Peninsula, Waterloo, Balaklava, Sevastopol, Tel-el-Kebir, Egypt 1882, Relief of Kimberley, Paardeberg, Relief of Ladysmith, South Africa 1899 -1902.

The Great War — Mons, Le Cateau, Retreat from Mons, Marne 1914, Aisne 1914, Messines 1914, Armentieres 1914, Ypres 1914, 15, 17, Langemark 1914, Gheluvelt, Nonne Bosschen, St Julien, Frezenberg, Loos, Arras 1917, Scarpe 1917, Broodseinde, Poelcapelle, Passchendaele, Somme 1918, Amiens, Hindenburg Line, Cambrai 1918, Sambre, Pursuit to Mons, France and Flanders 1914-18.

The Second World War — Mont Pincon, Soulevre, Noireau Crossing, Amiens 1944, Brussels, Neerpelt, Nederrijn, Nijmegen, Rhine, Lingen, Bentheim, North-West Europe 1944-45, Baghdad, Iraq 1941, Palmyra, Syria 1941, Knightsbridge, El Alamein, Advance on Tripoli, North Africa 1941-43, Sicily 1943, Arezzo, Advance to Florence, Gothic Line, Italy 1943-44.

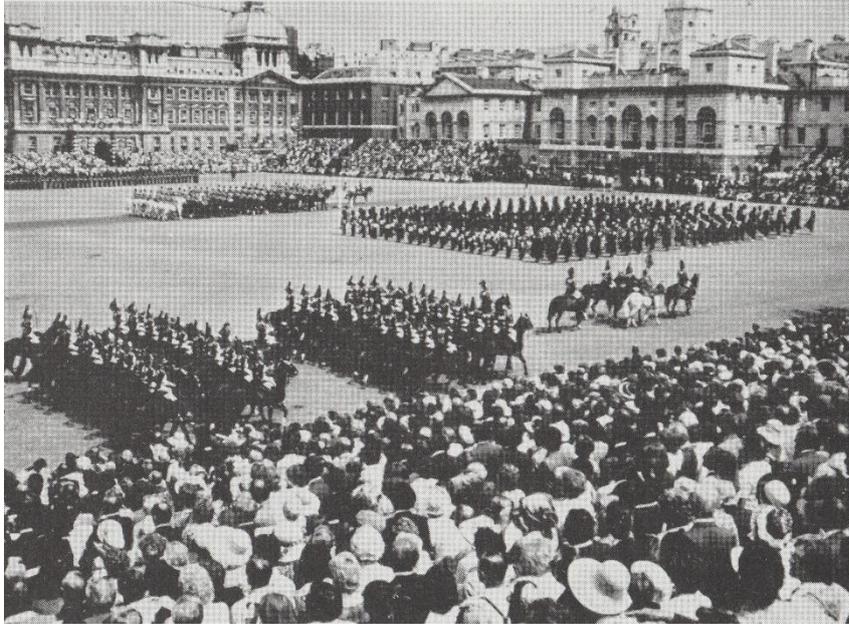
The Blues and Royals were formed on 29th March 1969 by the amalgamation of The Royal Horse Guards (The Blues) and The 1st Royal Dragoons. Together with The Life Guards, the Regiment forms the Household Cavalry.

Both parent regiments were formed in 1661, and between them have taken part in nearly every campaign in which the British Army has been involved, the most important exception being Burma 1941-45.

Since 1969 The Blues and Royals have undertaken numerous tours in Northern Ireland and, at the time of this commissioning ceremony, are serving as infantry in West Belfast. They have taken part in exercises in Norway, Greece, Turkey, Malaysia and Jamaica. Although presently serving in Northern Ireland they are based at Detmold in West Germany, as an armoured regiment equipped with Chieftain tanks, and will return there in June.

The Regiment provides half of the Household Cavalry Mounted Regiment, who are based at Knightsbridge Barracks in London, and who undertake all the traditional ceremonial duties for which the Household Cavalry are responsible.

The Regiment welcomes this affiliation with HMS BROADSWORD. We look forward to looking after her officers and men who we hope will visit us often. The affiliation is particularly appropriate in that all officers and men of the Regiment in full dress carry a sword.



*The Sovereign's Standard of the Blues and Royals, followed by two divisions of the Sovereign's Escort on the Queen's Birthday Parade, 1978.*

*In the background can be seen the Massed Mounted Bands of the Household Cavalry.*

*A Chieftain Main Battle Tank of the Blues and Royals moving closed down on a battle run in Germany.*



## *Our Sea Cadet Units*

### **TS BROADSWORD**

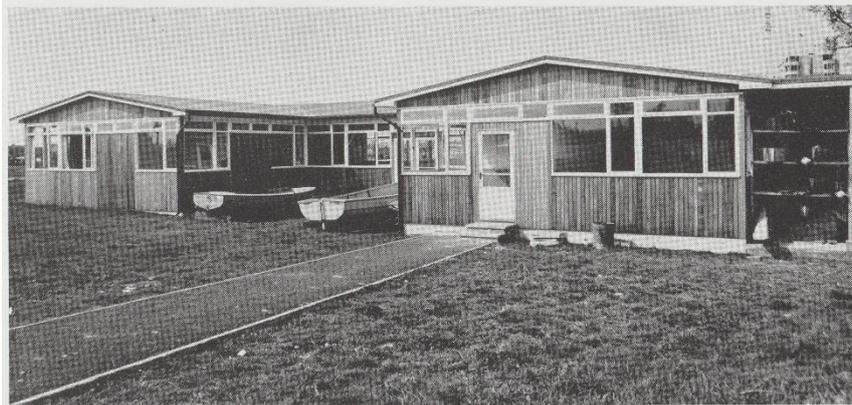
A Sea Cadet Corps Unit was first formed in Aylesbury in 1942. It did not at first have a name, just a number — Unit No 16 — but in 1946, when the practice of giving names to units became general, it adopted the name of TS HAMILTON, after Rear Admiral H D Hamilton, who played a prominent part in the unit's early days and was the first President. At that time the Sea Cadets had the use of the main hall and classrooms in Ceely Road Primary School in Southcourt, a large housing estate growing up on the outskirts of Aylesbury. A few years later the unit moved to Quarrendon County School and, in 1963, built their own headquarters in Walton Street on ground owned by the Vale of Aylesbury District Council. The headquarters were officially opened on 8 June 1963 by Vice-Admiral R Shelley, CB, CBE, DL. In 1973 the unit became affiliated to HMS BULWARK, and enjoyed a most friendly relationship with her until she was taken out of commission in 1976. Each year cadets were able to go to sea in her and the unit had many visits from her Commanding Officer, Captain (then) D W Bazalgette, Royal Navy, and others of her officers and ship's company. In 1978 the unit became affiliated to HMS BROADSWORD and a lively link was rapidly established between the ship and the unit. To forge this link more closely application was made in 1978 to Sea Cadet Headquarters to rename the unit TS BROADSWORD; on 26 January 1979 the renaming ceremony took place in Aylesbury, attended by the Commanding Officer of HMS BROADSWORD, Captain A M Norman, Royal Navy, and officers and ratings from the ship.



*Captain A M Norman inspects divisions on 14 September 1978*

Over the years the numbers in TS BROADSWORD have fluctuated, perhaps the best period being during the sixties, when the unit regularly won coveted Efficiency Pennants and Burgees. At that time there were as many as 50 cadets, a Royal Marine Cadet detachment of 24, and a flourish-ing unit of the Girls Nautical Training Corps. The latter, unfortunately, had to be disbanded in 1971 and the present strength is 25 Sea Cadets and 28 Marine Cadets, with an Officer and Instructor strength of 10. The majority of the unit live in Aylesbury, but some come from neighbouring villages, though transport is too much of a problem to permit much support from rural areas.

Fortunes have also fluctuated in National Sporting events. The unit swept the board in 1958, winning the National Boatwork, Sailing and Canoeing Championship, and was again National Sailing Champion in 1961. In the early years of the present decade TS BROADSWORD also gained prominence in National Canoeing events, taking part in the River Wye competitions and in Adventure and Exped training featuring annual trips to the Snowdon area.



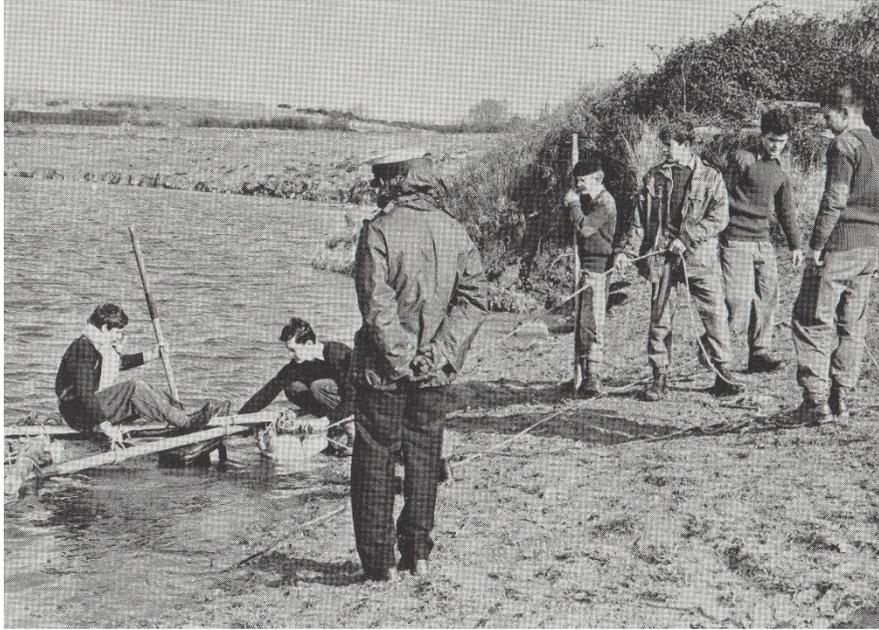
*The Unit as it stands today.*

The unit's present flotilla, based on Grebe Lake, the Greatmoor Sailing Club's water, consists of an ASC acquired in 1959, used for pulling, and a GP dinghy, acquired in 1957. A recent acquisition is a fibre glass hull motor boat, which will double as a very necessary safety boat. Canoeing is carried out on the arm of the Grand Union Canal, which runs into Aylesbury; other than this, all other canoeing is carried out at Greatmoor. It is hoped to purchase another sailing craft this year to increase the sailing capacity. In addition, the unit has two berths allocated annually in TS ROYALIST, and now is able to make use of the Southern Area's MFV's.

Despite being so far from the sea a regular quota of cadets take up the sea as a career, one or two a year entering the Royal Navy and Royal Marines, some to the Merchant Navy, and occasionally one into the Army.

TS BROADSWORD is highly regarded in Aylesbury and takes part in a number of the town's annual events — Remembrance Day parade in the Market Square, Colour and Remembrance ceremonies in the Civic Centre for the Waddesdon Parade, and Chamber of Commerce Festival and Procession. A parade is held on Trafalgar Day in each town which has a Sea Cadet Unit within the district, in rotation — Chesham, High Wycombe, Marlow, Oxford, and, in the past, Slough.

TS BROADSWORD is now part of the Southern Area, whose office is in HMS NELSON at Portsmouth. The present Area Officer is Commander J Dorrington, Royal Navy, who will shortly be leaving to take up another Navy appointment. The present chairman of the Management Committee of the Unit is Captain Sir Thomas Barlow, DSC, Royal Navy, who took over the position in November 1969 from Captain R C Medley, DSO, OBE, Royal Navy, who had held the office since 1958.



*Adventure training on Grebe Lake.*

## **T S DEVA**

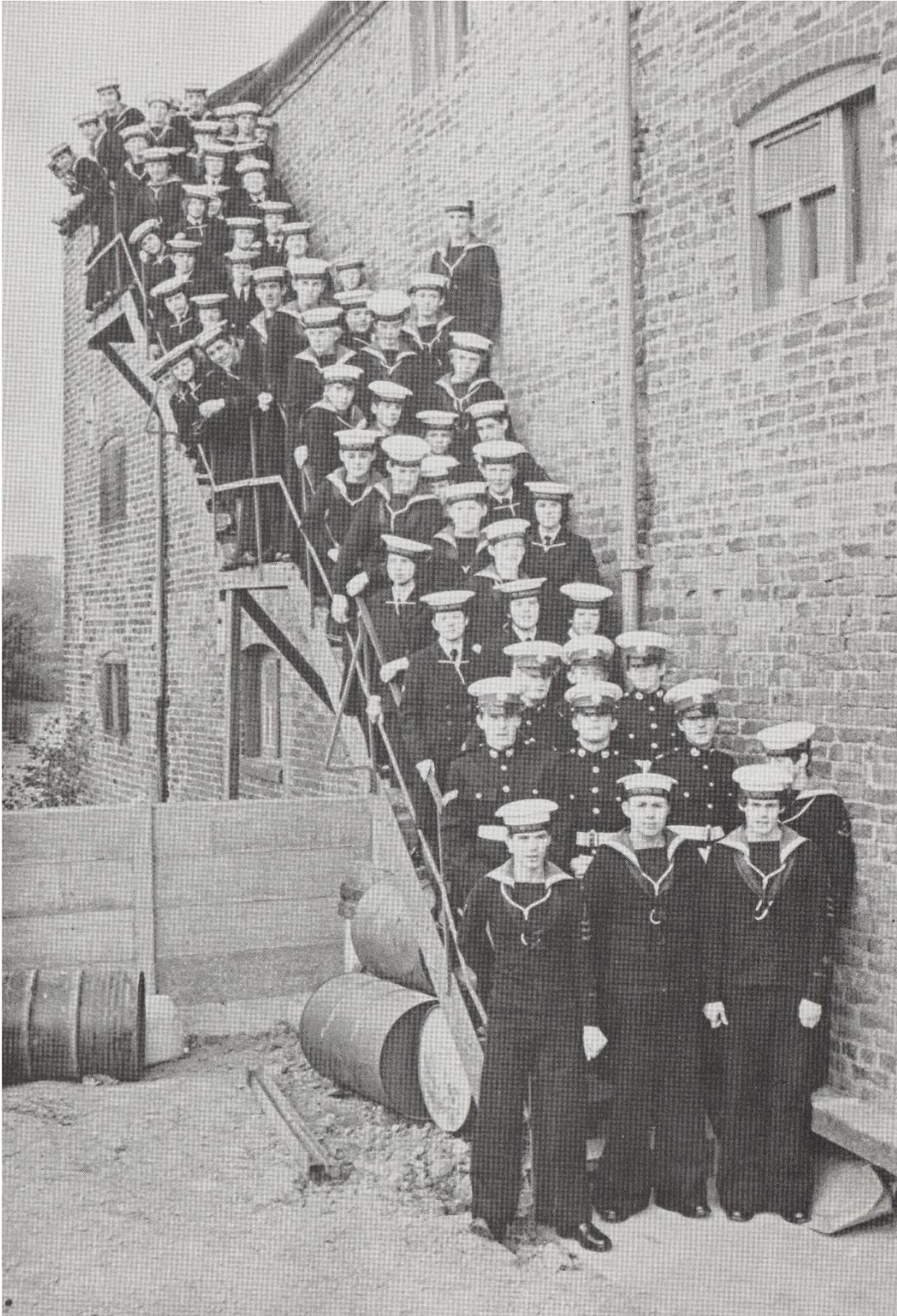
The Chester unit was formed in 1942 by Sub-Lieutenant, later Lieutenant Commander, W J Rutter, who was awarded an MBE for his service to the Sea Cadet Corps. The unit moved to its present headquarters in 1951, although the building had previously been used as a boatwork centre before the final move. His Royal Highness, Prince Philip, Duke of Edinburgh, opened the unit during that year.

A three-storey warehouse on the bank of the tidal River Dee houses TS DEVA's training facilities. The upper floor is open and forms the quarterdeck and drill deck. The middle floor is used for class rooms, offices and the wardroom. The lower floor is the boat store. A job creation scheme has recently been completed to convert an adjacent cottage into toilets, showers, galley and chartroom.

Sea Cadets, Marine Cadets and the Girls Nautical Training Corps form the Ship's Company of about one hundred. The staff consists of six officers and three NCO's for the Sea Cadets, one officer and two NCO's for the Girls Nautical Training Corps, and two NCO's for the Marine Cadets. Several civilian instructors also assist from time to time.

The unit is an RYA teaching establishment with boatwork being the principal interest. In the last two years TS DEVA has had considerable success in the National Boathandling Competition, winning the Trophy in 1977 and being runners-up in 1978. The "fleet" consists of two MOD(N) boats, namely an elderly 161' Admiralty Sea Cadet dinghy and a 164' SMB, three Mirror dinghies, a Mayfly, an Enterprise, a Poole Zephyr, a Dell Quay dory and several canoes.

In addition to Seamanship, the training syllabus also includes the following specialisations — Marine Engineering, Communications and Electrical Engineering.



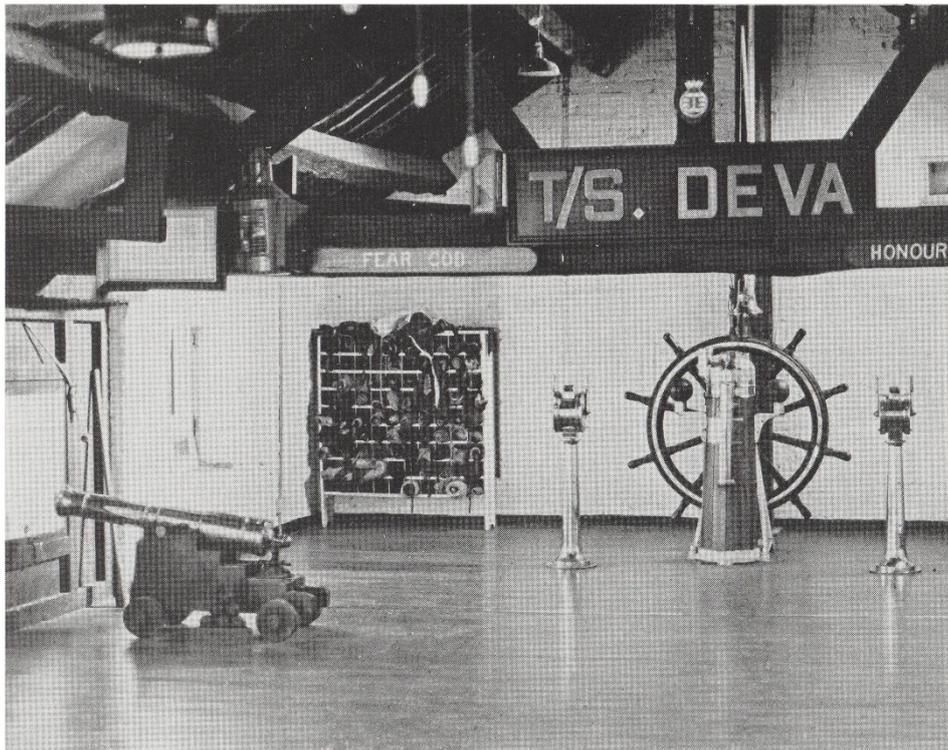
*A Show of strength at the unit headquarters.*



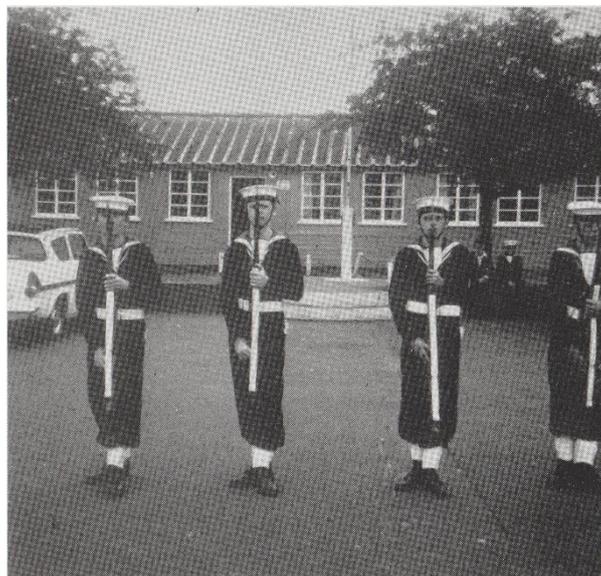
*Sail training on the river Dee.*

## **T. S. NEWFOUNDLAND**

The Training Ship NEWFOUNDLAND, the Wolverhampton Unit of the Sea Cadet Corps, first came into existence in 1941, when the Unit Headquarters were set up in a large house in the Borough. Its strength in those days was about fifty, all boys. The present headquarters is a sizeable but in the grounds of Springfield Road School, which was presented to the Unit in 1942 and has been in constant use ever since. It is beginning to sag a little in places, but it is propped up where necessary from time to time, and will stand for a few years yet. It was also in 1942 that HMS NEWFOUNDLAND, a Colony class cruiser, became affiliated to Wolverhampton, hence the unit's present name.



*The Quarterdeck in the unit.*



*General Salute outside Unit Headquarters T.S Newfoundland.*

T S NEWFOUNDLAND has strong ties with a sister unit in Bear Lake, Newfoundland, which operates under the aegis of the Royal Canadian Navy.

The unit also has active links with the local TAVR centre, the Royal Naval Association, the Royal National Lifeboat Institution and the Civic Authority. The unit provides the Mayor's armed Guard of Honour at the Mayor's inauguration and the Festival of Remembrance Cenotaph service.

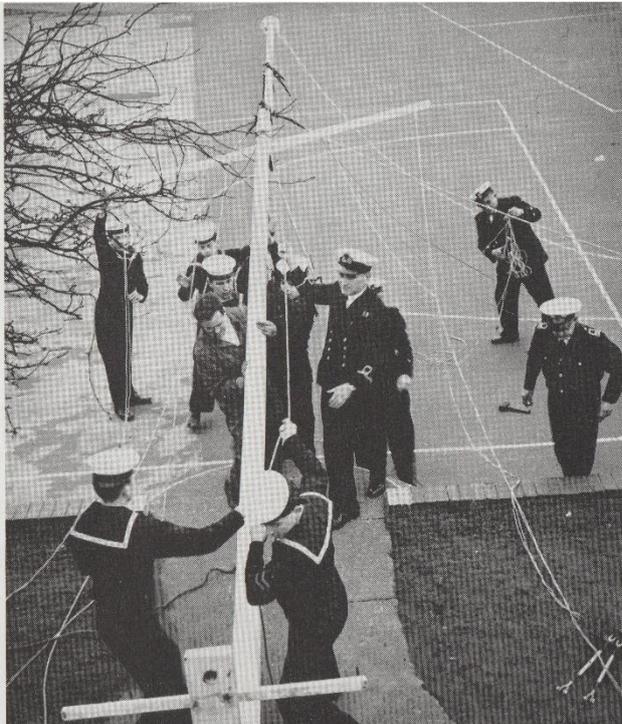
The present ship's company consists of three officers, two Chief Petty Officers, one Petty Officer, two cadet instructors and forty-four cadets of all rates.

The unit has a variety of boats, a 1 ASC dinghy, a 14' RNSA dinghy and a 12k' Tradewind, all MOD(N) owned, a rather specially fitted-out RNSA, and a Mirror dinghy which the unit themselves built. Further facilities include a nearby camping site on the Staffordshire-Shropshire border, where six weekend camps are held each year to carry out all aspects of expedition training for the Duke of Edinburgh's Award scheme. Recently, the unit won the Mercia District Seamanship Competition, and has also participated in five-a-side football, guard and ceremonial, pulling, sailing, canoeing and boat-handling competitions.

In addition, during 1978, cadets from the unit sailed on T S ROYALIST, the Sea Cadet Association's sail-training brig, attended the South Western Area boatwork course at Rame Head and took part in two MFV cruises.

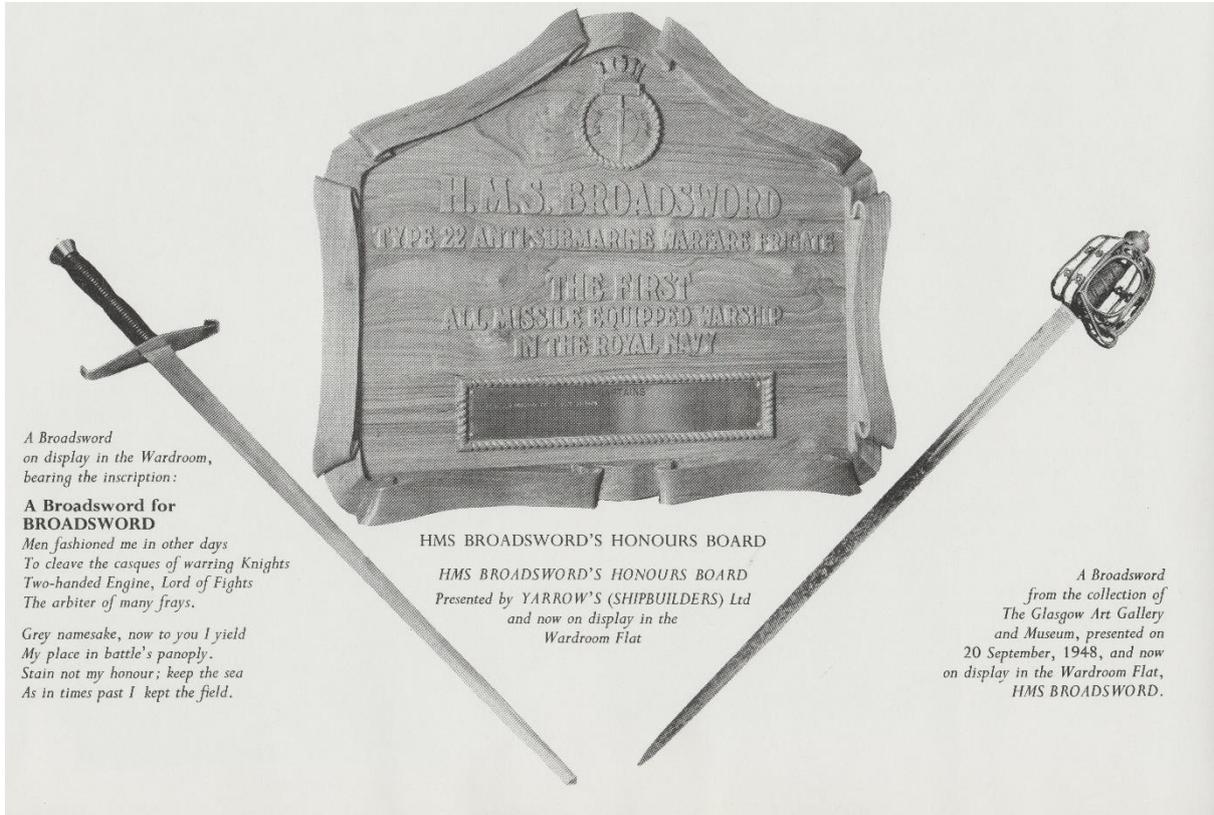


*Presentation of SCC Colour to TS NEWFOUNDLAND, May 1975*



*Raiding a New Mast.*

# The Ship's Trophies



*A Broadsword  
on display in the Wardroom,  
bearing the inscription:*

**A Broadsword for  
BROADSWORD**

*Men fashioned me in other days  
To cleave the casques of warring Knights  
Two-handed Engine, Lord of Fights  
The arbiter of many frays.*

*Grey namesake, now to you I yield  
My place in battle's panoply.  
Stain not my honour; keep the sea  
As in times past I kept the field.*

HMS BROADSWORD'S HONOURS BOARD

HMS BROADSWORD'S HONOURS BOARD  
Presented by YARROW'S (SHIPBUILDERS) Ltd  
and now on display in the  
Wardroom Flat

*A Broadsword  
from the collection of  
The Glasgow Art Gallery  
and Museum, presented on  
20 September, 1948, and now  
on display in the Wardroom Flat,  
HMS BROADSWORD.*

# The Ship's Company

*Commanding Officer:* Captain A M Norman *First Lieutenant:* Lt Drd D J A Nealon

## **Operations Department**

Lt R J Potez  
Lt P B Towl  
Lt P J De Sa  
Lt J S M Davidson  
Sub Lt R N Corfield

## **Marine Engineering Dept.**

Marine Engineer Officer:  
Cdr P J Hoskin  
  
Lt R O Broad  
Lt R A Doxsey

## **Weapons Engineering Dept.**

Weapons Engineer Officer:  
Cdr J F Game  
Lt Cdr C P Sherwin  
Lt Cdr P W Pool

## **Supply Department**

Supply Officer: Lt T A W Lewis  
Sub Lt D T M O'Donovan

## **Missile Division**

CPO (OPS) (M) M L Atkin  
PO(M) J M Hall  
LS(M) G Callaghan  
LS(M) M F Melmoe  
LS(M) C P Nicholls  
LS(M) J Robson  
AB(M) P D Broadbent  
AB(M) C Davey  
AB(M) J C Francis  
AB(M) J D Geekie  
AB(M) A Gregory  
AB(M) B M Roberts  
AB(M) E Sims  
AB(M) L Stokes  
AB(M) N C Sweeney  
AB(M) G Wilkinson  
S(M) K French  
S(M) D R Hughes  
S(M) G Jardine

## **Radar Division**

CPO(OPS)(R) A G R Coles  
CPO(R) P J Horrocks  
PO(R) J W Dodd  
PO(R) J Duncan  
PO(R) B J Snee  
LS(R) R A S Allman  
LS(R) P C Mountier  
LS(R) J T Roberts  
AB(R) R S Monaghan  
AB(R) R Nicholas  
AB(R) T Peters  
AB(R) A K Quigley  
AB(R) S R Radcliffe  
AB(R) J D Robinson  
AB(R) D L Toney  
AB(R) G Workman  
S(R) J I Davies  
S(R) A W Henocq  
S(R) B J McInerney

## **Electronic Warfare Division**

PO(EW) P M Davies  
LS(EW) D G James  
LS(EW) M R Rand  
R01(W) S W Blake  
R01(W) A L Frost  
S(EW) G Davies  
S(EW) J D Plummer  
  
Sonar Division  
PO(S) P Maher  
PO(TASI) T M Ross  
LS(S) J M Gorringer  
LS(S) S K A McGourlay  
LS(S) A S Moore  
AB(S) F A Bailey  
AB(S) G Duncan  
AB(S) N Elvery  
AB(S) T G Owen  
S(S) P A Barraclough  
S(S) A R Barr  
S(S) S S Baverstock-Couter  
S(S) C A Brown

S(S) J Newbold  
S(S) A M Thurgood

## **Communications Division**

RS S A Smith  
CY M Stannard  
LRO(G) N A J Wallace  
LRO(G) G Hindmarch  
LRO(T) P J Hogben  
RO1(G) R J B Baker  
RO 1(T) A Bibby  
R01(G) R J E Brown  
RO 1(T) G H Fraser  
RO1(G) M C McCarthy  
RO1(G) S J Wootton  
R02(T) A D M Baxter  
R02(G) S C Ferris  
R02(T) C R Jones  
R02(G) M S Leppard  
R02(T) M A Squires

## **Executive Department**

MAA C G Kirk  
LREG K P Lestrangle  
POMA F M Harvey  
LPT B A Sowden  
Marine Engineering Dept.  
FCMEA(P) J M Hayes  
MEA(P)1 B M Bishop  
MEA(H)1 T Burley  
MEMN(P)1 R A Corner  
CMEM W Dell  
MEMN(P)1 H R Jackson  
MEA(P)1 A Mohamet  
POMEM L G Dolley  
POMEM J Greensmith  
POMEM C Lewis  
POMEM R W Morrison  
POMEM J Woodcock  
MEA2 M A Clarke  
MEMN3 R E Harris  
MEMN3 C P James  
MEMN3 P A Lee  
MEA2 K Reynolds

LMEM j W Kirby  
LMEM H T McLoughlin  
LMEM D J Pickop  
LMEM D J Sawyer  
LMEM M R Smith  
LMEM A G Wallace  
LMEM N A Walthall  
MEM1 M A Asquith  
MEM1 K D Bingham  
MEM1 G Edwards  
MEM1 A S Fender  
MEM1 D L Giles  
MEM1 H N C Harvey  
MEM 1 R Louch  
MEM 1 B C Norris  
MEM 1 N Phillips  
MEM1 A N D Redding  
MEM2 S R Barnes  
MEM2 P W Citrine  
MEM2 S P Grosvenor  
MEM2 K L Jackson  
MEM2 G R Templeman  
MEM2 M A Wain  
MEM2 V J Doyle

**Weapons Engineering Dept.**

FCCEMN R Lake  
COEL A S Anderton  
OEA1 J E Balchin  
CREL R Dixon  
CREL M J Gregory  
COEMN P Hobson  
CEMN1 R G Holland  
CEMN1 J A Johnson  
OEMN1 R Marshall  
REA1 J McAllister  
OEA1 J Sherriff  
REMN1 D F Smith  
CREMN N Snape  
CEMN1 D J Waterman  
REMN1 R V Wood  
CEA2 D J Bogue  
POCEL G Gilchrist  
REMN2 G Gill

POOEL A D Mackay  
POREL W T Rutherford  
POOEL B D Wilkes  
LCEM C Biggs  
LCEM A R Culshaw  
LOEM K P Curthoys  
LREM W I K Dazley  
LOEM J St Galloway  
LOEM D Kennerley  
LOEM B J Moriarty  
LCEM P R Shilling  
LREM K J Watts  
LREM J R Young  
OEM1 P E Edwards  
OEM1 A M Henderson  
CEM1 D A Johnson  
OEM1 R J Kell  
REM 1 K B Norcott  
CEM1 A W Pratt  
REM1 T Stapleton  
CEM1 S C Telfer  
OEM1 I L Watson  
CEM 1 S J Woolham  
CEM2 I J Carr  
OEM2 P S Crofts  
CEM2 I H Golder  
REM2 S J Hitchens  
OEM2 S A Large  
OEM2 T P McGinn  
REM2 B C Newman  
REM2 D A Platten-Higgins  
OEM2 N C Wilce

**Apprentices**

OEA/APP D J Cooper  
OEA/APP S W Fletcher  
CEA/APP J E G Strother  
CEA/APP P M Turner

**Juniors**

JOEM P McGinley

**Supply and Secretariat Dept.**

CPOSA M Richards  
LSA T A Pickard  
LSA P D Stirk  
LSA T A Turton  
SA C Carman  
SA G McGrath  
SA B Rae  
SA D K Roberts  
POCK J Brodie  
POCK S A MacMillan  
LCK K Howourth  
LCK A H Kitcing  
LCK T J McCallion  
CK S R Barry  
CK S C Norton  
CK D J Russell  
CK J L Searle  
CK I Welch  
CK G Wiggins  
POSTD D Port  
POSTD P J Toms  
LSTD B Cochran  
STD R Daniels  
STD P R Davies  
STD W K McIntosh  
STD M Silverwood  
STD A P Smith  
POWTR P A Nicholls  
WTR N D Bond  
WTR J Thirlaway  
POCA J E Deane  
LCA M D Mee  
CA R A Harris