



SIX LEANDERS

GALATEA: Since her conversion in September 1974 to the Ikara missile system, HMS Galatea has served in North Atlantic and European waters. The ship's programme for 1975 included visits to Harstad and Tromso (Norway), Aarhus (Denmark), Den Helder (Holland), St. Jean de Luz (France) and Gibraltar. In November the ship visited Hull to receive the Freedom of the City. Soon afterwards, and at very short notice, HMS Galatea headed north to assist in the protection of British trawlers off Iceland. Within minutes of her arrival in the disputed fishing grounds, HMS Galatea was

Above: Missile ship Galatea. Right: Charybdis. Below: Hermione. Overpage, Left: Andromeda. Right: Euryalus. Below: Naiad sails past Mount Edgumbe.

engaged in a cat and mouse duel with Aegir. Most of March, April and May this year were again spent defending the trawlers. Despite frequent close quarters situations with Icelandic gunboats, the ship was only involved in one collision and the damage suffered was minor. Since the Armistice, HMS Galatea has visited Copenhagen and Dunkirk and participated in a major national exercise.

HERMIONE: First commissioned on 17 September 1969, Hermione has served in areas as far afield as the Far East (including Japan, Hong Kong and Singapore) and the Arctic. More recently she has operated within the Arctic Circle, shadowing Russian warships which were taking part in major exercises. Hermione went into refit in Devonport in Autumn 1975 and has just emerged.

CHARYBDIS is another Leander that has recently completed a refit. She has held her sea trials, and her





AP/EL

appearance at Navy Days follows a visit to Swansea.

ANDROMEDA was launched in Portsmouth in May 1967. Her present commission started in March last year and since then the ship has visited ports in the Mediterranean, Northern Europe and the UK. Since December Andromeda's main role has been in the fishing dispute with Iceland. The ship has completed three patrols which took in the Christmas and Easter holiday periods. Andromeda had many skirmishes with the Icelandic coastguard vessels and suffered superficial damage in collisions with Odinn and Tyr. However she remained in the disputed fishing grounds protecting British trawlers. The ship is presently undergoing a short maintenance period before proceeding to sea again in September.

EURYALUS has recently completed a three-year Ikara conversion refit. Since commissioning in March 1976 the ship has been carrying out extensive sea trials to prove all the equipment fitted ranging from engine trials to armament firings. All trials have proved successful and after Navy Days Euryalus commences a work-up period at Portland.

NAIAD: Since completing her Ikara conversion last year Naiad has had a busy year. Her work-up at Portland was reduced and she sailed for Icelandic waters in January 1976 for Cod War duties. It was during her third patrol that she sustained the damage pictured on the previous page. The ship then went on her first foreign visit this commission to Amsterdam in July and will deploy to the Mediterranean and Indian Ocean in the Autumn.



THE LEANDERS: There are 26 of the highly-successful Leander class frigates in service with the Royal Navy. They are designed to hunt down and destroy highspeed submarines in all weathers and, as general-purpose ships, they can engage ships, aircraft and shore targets. The Leanders have a displacement of 2,800 tons and a complement of 17 officers, 58 senior and 185 junior ratings, although the Ikara Leanders need fewer crew. They are 372 feet long and draw 18 feet. Some are 41 feet in the beam and some 43 feet.



SHIPS AND THEIR WEAPONS

THE FRIGATE is the smallest unit of the Fleet that can be deployed independently world-wide, to provide a presence and be the traditional "main of all work". The Leander class is the backbone of our frigate force and most are fitted with a 4.5 inch medium range gun and the Seacat close range missile system. These ships also carry a Wasp helicopter which can fire air to surface missiles at high speed targets such as missiles or torpedo boats. In addition, in the antisubmarine role the Wasp carries two homing torpedoes and can be controlled to attack submarines up to ten miles from the ship. The new anti-submarine missile Ikara has been fitted to two of the Leanders in the Navy Days and later conversions are being fitted with the Exocet surface to surface missile system.

TYPE 21 FRIGATE HMS Amazon, the first of the Type 21 class, joined the fleet in May 1974 and has greater speed and needs fewer men than the Leanders. It is fitted with the new 4.5 inch quick firing gun, the latest version of Seacat and will bring to sea the new Lynx helicopter which has better speed and range than the Wasp and is designed to attack submarines with lightweight torpedoes. Later ships in the class are also being fitted with Exocet missiles.

Because of the smaller complements and advanced designs in ships like the Type 21 it has been found that there is a greater need than ever to train officers and ratings to the peak of efficiency in their professional skills.

THE COUNTY class destroyers have a standard displacement of some 5,000 tons and a complement of 485 men. They carry 4.5 inch guns, a Wessex anti-submarine helicopter, the Seaslug medium range surface to air missile and some of the class are being fitted with the Exocet surface to surface missile system.

TYPE 42 DESTROYER HMS Sheffield, the first of the new type of destroyer to replace the County class, carries the new 4.5 inch quick firing gun, a Lynx helicopter and the Seadart missile system. Seadart

provides us with a much improved air defence capability, and is one of the most advanced missile systems in the world. Sheffield is also fitted with Scot, the Royal Navy's latest shipborne satellite communications terminal.

AIRCRAFT CARRIER At all levels of hostilities, the fixed wing aircraft carrier Ark Royal provides the most powerful overt deterrence that the Royal Navy can deploy. She will continue in service until the late 1970s and during these years her Buccaneers and Phantoms will provide a potent attack and air defence capability, while a squadron of Sea King helicopters provides an essential element in the anti-submarine warfare defence of the force.

NEW CONSTRUCTION: A new class of frigate called the Type 22 the first of which, HMS Broadsword

has already been launched — will carry the Lynx helicopter, improved submarine detection equipment and Exocet. They will defend themselves with Sea Wolf, a short range surface to air guided missile system which will destroy fast, low-flying missiles.

However, the most important surface ships of the future will be the anti-submarine cruisers. The first ship of the class, HMS Invincible, is now building at Vickers in Barrow. Aship such as this provides easily the cost-effective means of deploying essential anti-submarine helicopters to sea in worthwhile numbers and she will also provide command and control facilities, a Seadart missile system and can operate the Harrier vertical take-off aircraft.

This aircraft will provide limited air cover for the fleet outside the range of shore bases and will carry out that vital initial task of shooting down the shadower, upon which the Russian long-range missile armed ships and submarines depend for target information.

Salisbury — from Gibraltar to

The aircraft direction frigate, HMS Salisbury was the first ship to be laid down in Devonport Dockyard after the war and was launched on 25 June 1953.

Salisbury is one of four Cathedral class ships which have a tonnage of just over 2,000 tons and a complement of approximately 200 officers and men. Her length is 340 feet and beam 40 feet. Salisbury is powered by eight Admiralty standard diesels (four per shaft) driving through an oil-operated gear box. This gives her a top speed of about 24 knots.

Recently Salisbury has been heavily involved in the cod war, when she carried out some very successful patrols.

Last Christmas she was employed as Gibraltar guard ship and on completion visited Malta, where she

answered an S.O.S. from a small coaster, called Katerina, which had broken down in heavy seas and was wallowing badly. After she was located by an R.A.F. Nimrod, Salisbury took her in tow and proceeded to Malta. This undoubtedly saved the Katerina and probably the lives of the crew.

Fitted with several high-powered, long-range radar sets, her armament is a 4.5 Mark 6 semiautomatic turret forward, a 'Sea Cat' missile launcher aft and a triple-barrelled mortar.

There are four of the Type 61 frigates in the class. They are used primarily for the direction of carrier-borne and shore-based aircraft.



Not all Leanders look alike. This trio at Devonport are, from left to right, Scylla with 4.5 gun turret, Euryalus with Ikara missile system and Cleopatra with Exocet missiles (before launcher-containers were fitted).

the Cod War

HMS Salisbury





ON THE LAWN 5 p.m.

Lawn display in front of Wardroom of the Royal Naval Barracks.

Reviewing Officer Massed Bands arrives

The Reviewing Officer arrives and is received with a salute from the Ceremonial Guard provided by HMS Hermes, and the Massed Bands of Her Majesty's Royal Marines.

The Massed Bands of the Royal Marines will give a display of marching and countermarching, at the end of which the guard will present arms and the band will perform ceremonial sunset.

Field gun competition Reviewing Officers

A field gun competition using miniature field guns will be held between boys of Westcountry Sea Cadet units.

SATURDAY:

Commodore J. R. Grindle.

SUNDAY:

Major General R. J. Ephraums,
O. B. E.

MONDAY:

Vice Admiral A. G. Tait, D.S.C.

Royal Marine Commando

Sixteen men from 42 Commando, Royal Marines will give an all-action display of unarmed combat on the four corners of the lawn.

Girls Nautical Training Corps

Girls aged between 12½ and 16 years, from several Westcountry units, will give a physical training display to music.

HMS Vivid

Members of the Royal Naval Reserve from HMS Vivid will show how their predecessors dealt with bands of marauding pirates.



Top: Sea Cadets perform mini field-gun display. Top right: Marine drum major. Right: Cadets of the Girls Nautical Training Corps. Below: Naval Officer meets scoundrally pirate in the HMS Vivid display.



Royal Marines—Britain's sea soldiers

The Royal Marines featured in the lawn display are Britain's sea soldiers. Since their formation in 1664 as "The Admiral's Regiment" the corps has provided the Royal Navy with trained military forces which have enabled the influence of sea power to be extended ashore. Today detachments of Royal Marines are permanently carried in a number of frigates, in the Antarctic patrol ship HMS Endurance and in HM Ships Hermes and Fearless Royal Marines man the landing craft.

Royal Marines Commando units are shore based, but embark in amphibious ships when required. A Commando consists of some 680 men who are able to land, by helicopter or landing craft with all their vehicles, weapons and necessary equipment. Britain's amphibious forces, which include Royal Marines Commandos together with ships and helicopters of the Royal Navy, are assigned to NATO and have become specialist in operations in the rugged, arctic conditions on NATO's Northern flank in Norway. In addition to their NATO task Royal Marines

Commando units have a responsibility for the security of Britain's North Sea Oil and Gas installations. Commandos are also regularly called upon to back up the Army in Northern Ireland.

The Royal Marines who man the display in the exhibition hall, and who provide the unarmed combat display on the lawn, are all drawn from 42 Commando, Royal Marines. This unit

spent some months last year embarked in HMS Hermes exercising with United States, Dutch and Canadian forces in the Caribbean and ashore in North America. The Commando has recently returned from a tour of duty in Belfast and is now preparing for amphibious exercises to be held in Denmark and Norway in September.



Men of 42 Commando make an arrest in strife-torn Belfast, Easter, 1976.

WHY NOT BE A VIVID VOLUNTEER?

The spirited lawn display on an old-time pirate theme is given by a number of men and women living in the Plymouth are who already are special people. They come from all walks of life and daily pursue their varied occupations as shop assistants, civil servants, housewives, labourers, architects, school teachers, etc., but they are out of the ordinary because they are members of HMS Vivid, the Royal Naval Headquarters Unit in Plymouth and they train to man the Maritime Headquarters, Plymouth if we should become embroiled in another war or war-like emergency.

In return for the hard work they put in they enjoy a number of social and recreational facilities not available to other people. They have the use of

the swimming bath in HMS Drake, they learn to shoot at the Commando Training Establishment, Bickleigh (and when proficient they enter Naval Shooting competitions), they sail Naval dinghies, have their own social club, hold car rallies, visit HM Ships.

You may have served in the regular forces and feel the urge to slip back into Service life, or perhaps you wanted to join the forces, but were unable to do so, in which case the Reserve can help you to achieve that ambition as far as is possible.

If so, why not join the other special people and train as a plotter, teleprinter operator, cryptographer, message handler or clerk in your spare time? The others have found that they can do so in addition to

having a civilian job, running a home, or raising a family and you may be able to do likewise. Like them, you may be able to obtain a sense of achievement in performing duties of vital national importance at the centre of things and also enjoy the comradeship of a wide circle of friends with a common interest.

If you are aged between 18 and 44 and live in or near Plymouth, you can obtain more details by writing to the Staff Officer, HMS Vivid, Maritime Headquarters, Richmond Walk, Plymouth, for an evening appointment to attend a recruiting talk. You could then hear full details of the obligations and advantages of service in the Royal Naval Reserve, without obligation.

THE WORLD P

HMS Churchill, the third all-British nuclear powered fleet submarine of the Valiant class was recommissioned at Chatham on 28 October 1975 after a refit and nuclear refuelling lasting 18 months.

The submarine is 280 feet long, displaces almost 4000 tons when dived and has a crew of approximately 120 officers and men. From her base with the Third Submarine Squadron at Faslane in Scotland she is capable of reaching any point in the oceans of the world within 20 days.

Since recommissioning at the end of last year Churchill has taken part in trials and exercises with aircraft, submarines and surface units of British and NATO Navies. She has also visited Hamburg, Cardiff and Chatham.

Churchill was built by Vickers (Shipbuilding) Ltd. at Barrow-in-Furness and launched on 20 December 1968.

As a fleet submarine her most important role is to provide aggressive anti-submarine escort for surface task forces and to hunt and destroy enemy submarine and surface forces. Torpedoes are her main armament, and she is fitted with the latest sonar (underwater detection) equipment, navigation and communication aids.

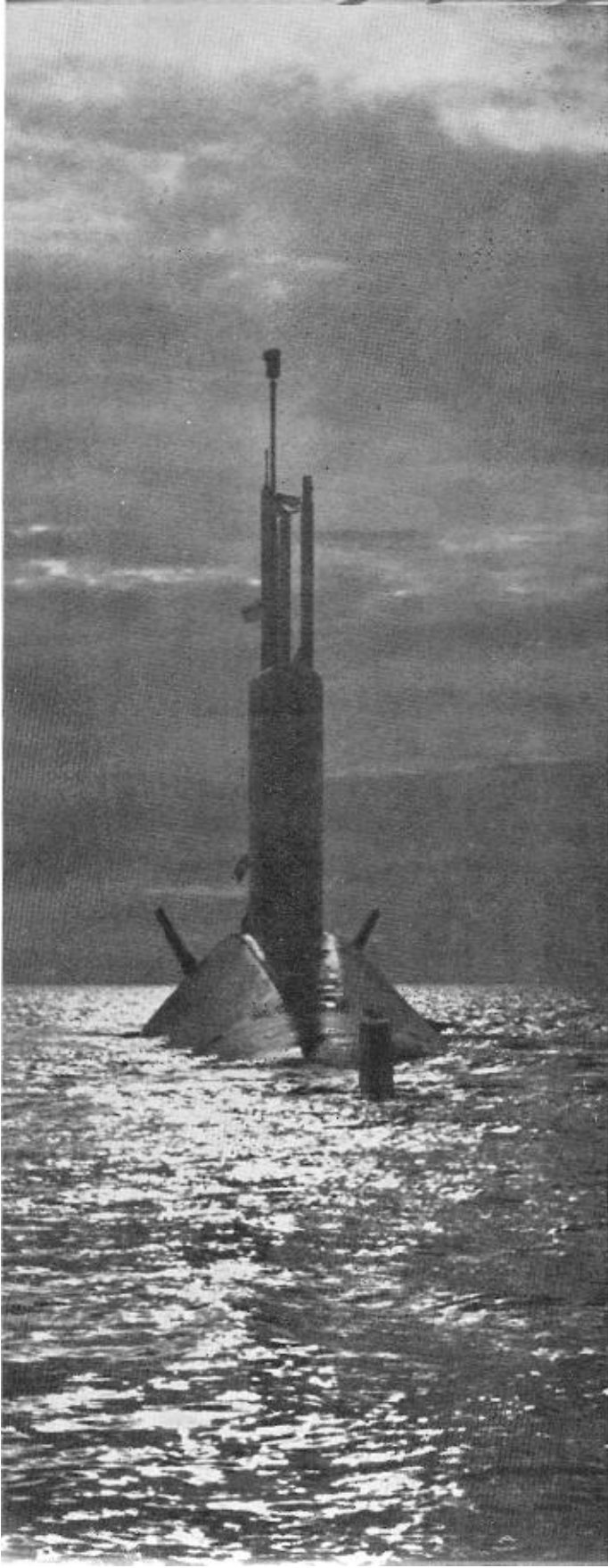
Like other modern submarines, she is capable of communication with her base while submerged. The submarine is handled by means of powered controls, using a type of joystick and elaborate panel similar to those in the cockpit of a modern aircraft.

At high underwater speed she also behaves and handles like an aircraft and can be set on course and depth by an 'automatic pilot'.

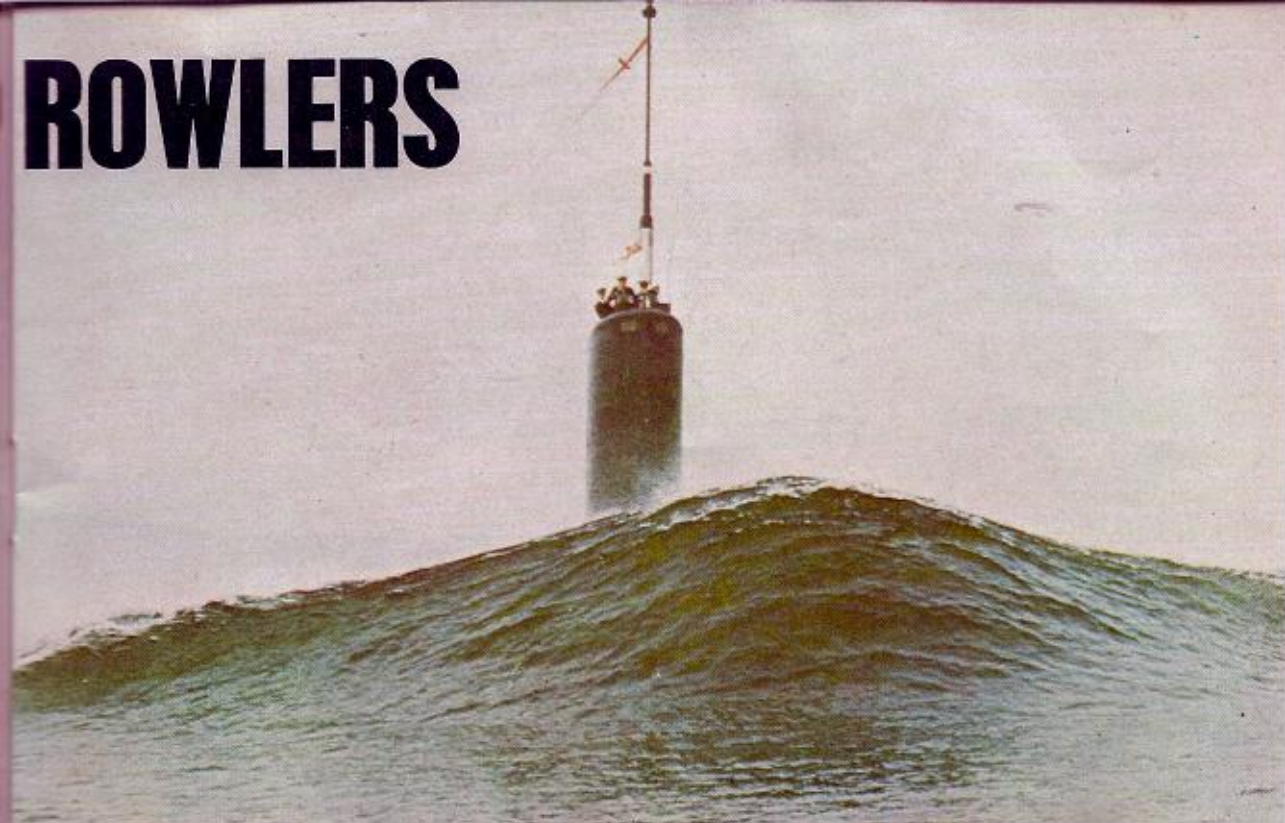
Comprehensive air-conditioning and purification equipment maintains strict and comfortable atmosphere control, and enables her to operate on patrols of more than two months duration without recourse to air from the surface.

The majority of the crew are watchkeepers, working four hours on duty and eight hours off watch. However the eight hours "off" is not entirely free, as everyone has a further task to perform of either routine maintenance of the many equipments, or housekeeping and cleaning. During major exercises the operations team in the Control and Sonar Room go to a "one-in-two" watchkeeping system. This means six hours on watch followed by six hours off watch, making a twelve hour day come rain or shine, but your time off watch is your own for eating or sleeping.

In the evening there is time for relaxation; with film shows, quiz competitions, indoor games and literature being popular. The ship's internal radio provides most kinds of music. This usual pattern of life is of course interspersed with periods of intense activity by day or night, when carrying out the operational purpose of the patrol.



ROWLERS





ARK ROYAL-THE LAST ATTACK CARRIER

The Ark Royal, a Navy Days favourite and a Devonport-based ship is the sole survivor of the RN attack carrier fleet. She is the last of the big ships associated with naval aviation until the Invincible, the first of a new breed of anti-submarine cruisers that will take the Harrier vertical take-off aircraft, joins the fleet.

Ark Royal completed a £30 million refit in 1970 at Devonport, and in 1974 she was fitted with satellite communications equipment. She is now a strategic part of NATO and our

own maritime forces operating in and around the Atlantic and Mediterranean.

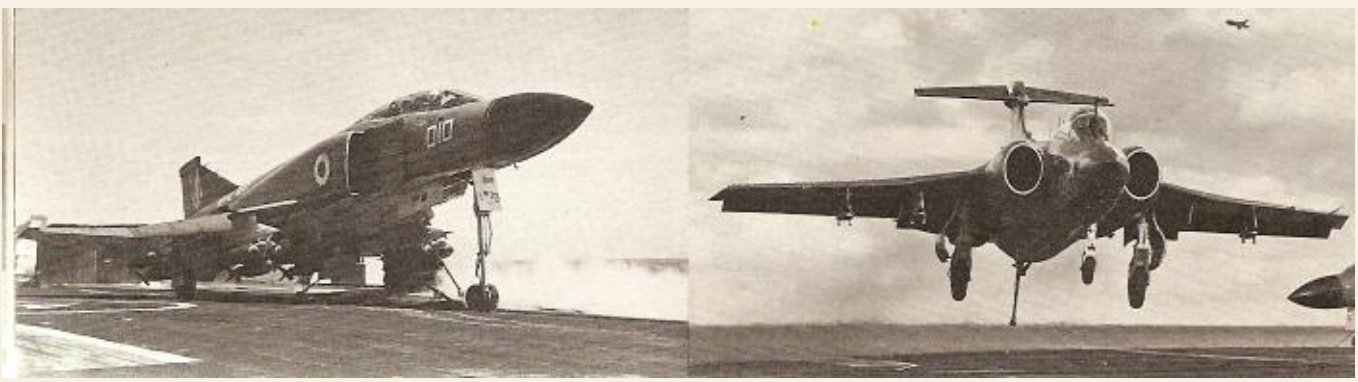
Ark Royal is the most powerful ship the Royal Navy has ever had. With her aircraft the ship has the ability to detect and destroy the enemy in any of three dimensions — in the air, on the surface, and under the water out to ranges of 1,000 miles and provides protection to shipping from attack by aircraft or missile over many thousands of square miles of ocean and she can change her

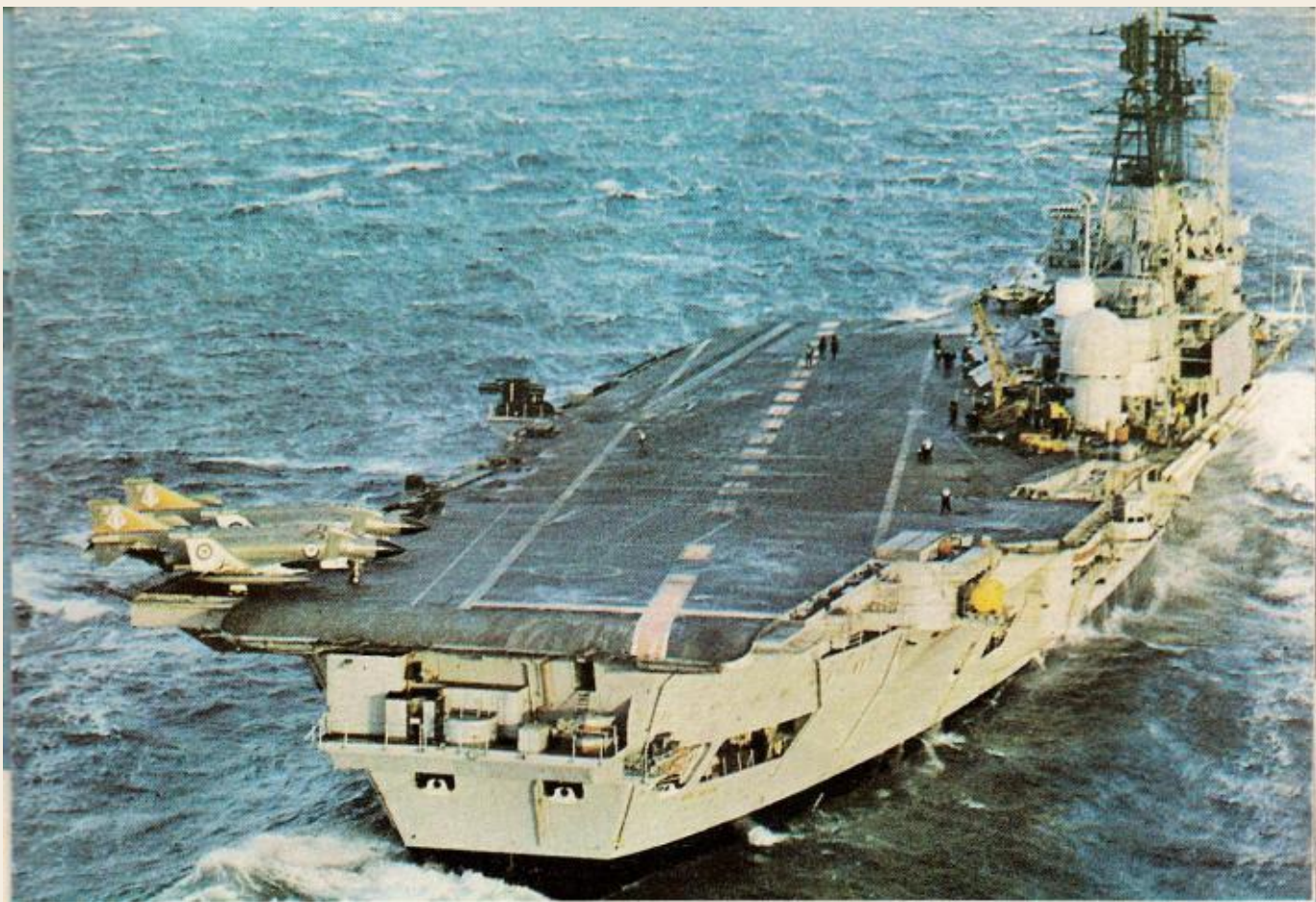
operating area by up to 700 miles each day.

Detection on the surface and in the air is provided by the combination of the ship's own radars and the powerful search radar fitted in the airborne early-warning aircraft, the Fairey Gannet.

Laid down during the war, the Ark Royal was launched in 1950 by the Queen Mother, who also came to Devonport in 1970 for the recommissioning ceremony. Her Majesty has maintained a close

ARK AIRCRAFT Phantom FK4 all-weather fighters of 892 Squadron. Buccaneer S2 strike aircraft of 809 Squadron.





interest in the ship, the fourth to bear the name in the Royal Navy.

"The Ark" has always been a trend-setter. Her long "droop snoot" protruding from the bow is an aircraft launching bridle-catcher, designed to catch the expensive wire strops used to launch aircraft from the catapults. Also fitted during her long re-fit in Devonport was the powerful steam

catapult in the port waist. Ark Royal is now firmly in the public eye thanks to the candid television series about her and her crew, currently being screened by the BBC.

Ark Royal has recently returned from the USA, where she has been taking a big part in the bi-centennial celebrations (see p. 4-5).

VITAL STATISTICS

Length	846 feet
Beam	168 feet
Horsepower	156,000
Speed	over 30 knots
Deck Angle	8½ degrees
Catapults	2 steam
Electrical power	9 megawatts

Gannet air early-warning aircraft of 849 B Flight



Sea King anti-submarine helicopter of 824 Squadron.

