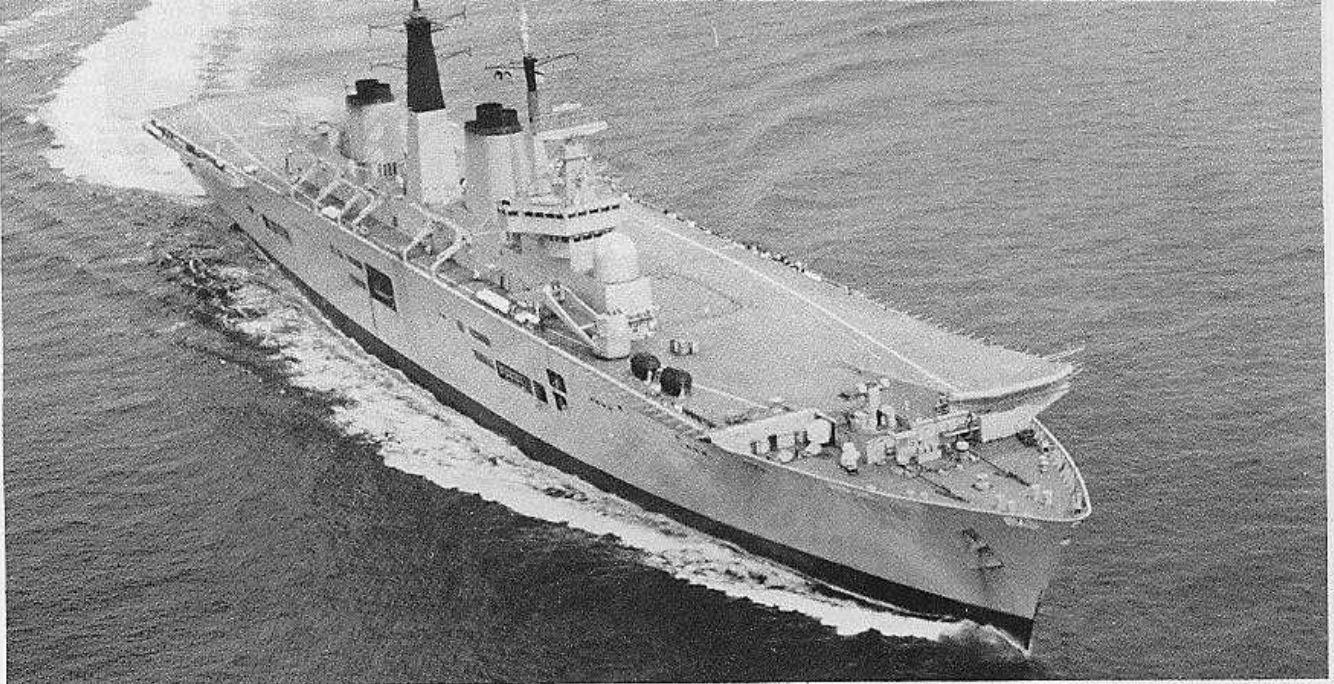


HMS Invincible

The Navy's latest carrier joins the fleet:
Heather Rawlings reports



HMS Invincible, the first of the Invincible class of anti-submarine carriers, was formally accepted into the Royal Navy on Wednesday March 19, 1980 at Portsmouth. She is the largest ship to be built for the Navy since 1944 and is the sixth ship to bear the name 'Invincible'. She was actually launched at Barrow-in-Furness by Her Majesty the Queen on May 2, 1977.

The name Invincible has been used by the Royal Navy for more than 200 years. In May 1747, Admiral Anson captured the French ship L'Invincible off Finisterre and in August of that year the 74-gun vessel was registered on the Navy List. She served off the American coast before being wrecked on a shoal in St Helen's Roads off Portsmouth in February 1758. The second HMS Invincible was also a 74-gun ship, built at Deptford and launched in March 1765. She was present at the capture of Trinidad in 1797 and the surrender of Surinam in 1799 and was finally wrecked off the Norfolk coast in March 1801. The third HMS Invincible was again a 74-gun ship which was launched in March 1808 and was used as a coal depot ship in Devonport from 1852 and was finally broken up in 1861. The fourth HMS Invincible was a 6,000 ton armoured cruiser armed with ten 9 inch and four 6 inch guns. She was built at Glasgow and launched in May 1869. She was paid off in 1886 and in 1900 she was removed from the effective list to become a depot ship for torpedo boat destroyers, based at Sheerness. She was renamed Erebus in 1904 and again renamed Fisgard II in 1906. She foundered off Portland in 1914 while being towed to

Scapa Flow. The fifth HMS Invincible was a 17,000 ton battle cruiser, built on the Tyne and armed with eight 12 inch and sixteen 4 inch guns. She was launched in April 1907 and commissioned in the Home Fleet the following March. She was eventually sunk at the Battle of Jutland with the loss of more than a thousand officers and men.

The present HMS Invincible was launched 130 years to the day of the capture of L'Invincible by Admiral Anson.

HMS Invincible the sixth was constructed by Vickers at Barrow-in-Furness. It has taken in the region of seven years to construct her and about 30,000 people from different factories all over Britain were



An aerial view of HMS Invincible before her deck markings were completed.

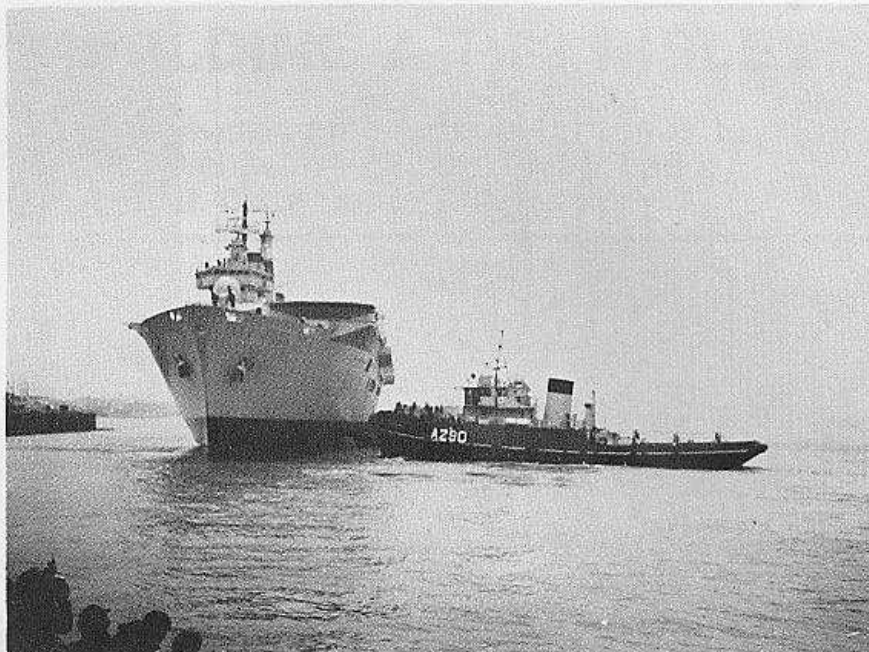
(Photo: MoD(N)).

employed in her making. Her official cost is a total of £175 million, which includes £19 million design costs.

HMS Invincible has set quite a number of records. She is the first ship with a VSTOL ramp; the first warship with a 'scissors' lift (in fact she has two lifts which are worked by hydraulic rams opening and closing in much the same way as a pair of scissors does) which allows aircraft in the hangar to load on three sides to be moved to the flight deck; and she is the largest warship in the world propelled by gas turbines. Within the Royal Navy, HMS Invincible owns the largest power shaft, the largest propellers, the largest electrical power and the biggest airconditioning system.

The complement of HMS Invincible is 107 officers, 114 Chief Petty Officers, 122 Petty Officers and 560 junior ratings, totalling 903. This includes the Air Department which consists of 10 officers and 73 men, and also includes Squadrons which, when embarked, consist of 54 officers and 218 men. She is commanded by Captain Michael H Livesay who was appointed to stand by her at Barrow-in-Furness in March 1979.

The Invincible class are anti-submarine carriers possessing a first class air defence system and an effective anti-surface vessel



HMS Invincible, being nudged by tugs into her correct place, just before she was officially accepted by her Captain (Photo: C. Ellis).

DETAILS OF HMS INVINCIBLE

Dimensions

Length Overall	206.6 m
Beam	27.5 m
Flight Deck	167.7 x 12.8 m
Depth	6.4 m
Speed: max	28 knots
cruising	18 knots
Displacement (Standard)	16,257 tonnes

Machinery

Type	COGAG
Turbines	4 x Rolls-Royce Olympus TM3B marine gas turbines
Electrical	8 x RP200 1.75 MW diesel generators

Weapons

Missiles	1 x twin Sea Dart SAM
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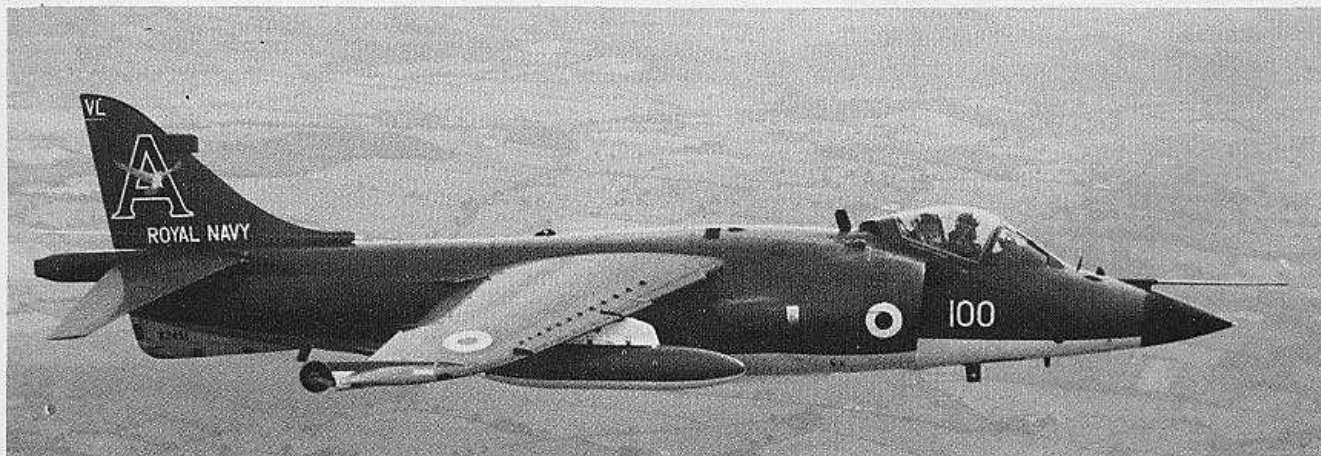
Aircraft

5 Sea Harrier VSTOL aircraft
9 Sea King helicopters

capability. It is envisaged that carriers of this class would normally lead an anti-submarine warfare (ASW) Task Group, supported by various ships such as the Type 22 frigates. These Task Groups may operate in areas such as the Greenland/Iceland/United Kingdom gap which would be a choke point for the passage of hostile submarines to and from the Atlantic, or they may operate in direct support of convoys carrying vital reinforcements or supplies to Western Europe.

The second ship of the Invincible class, HMS Illustrious, was ordered from Swan Hunter, Tyneside, in May 1976 and was launched in December 1978. She is currently being fitted out in preparation for contractor's sea trials. The third ship, HMS Ark Royal, was ordered from Swans in December 1978. All three ships are expected to be operational by about the mid 1980s.

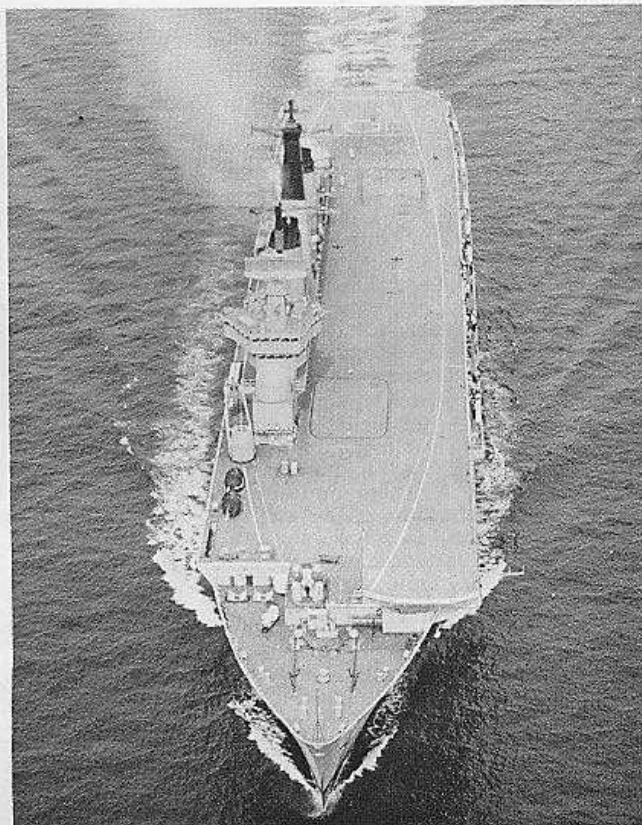
The main anti-submarine warfare weapon of the Invincible class is the Sea King helicopter, of which HMS Invincible is to have nine. Sea Kings are capable of quick reaction to fleeting sonar contacts and are invulnerable to counter attack by the hostile submarine and are virtually



Sea Harrier FRS Mk 1, XZ451, the first production Sea Harrier which was accepted into the Royal Navy on June 18 1979. Invincible is due to have five Sea Harriers. Modelling notes on the Sea Harrier are in the September 1979 issue of Airfix Magazine. (Photo: MoD(N)).



HMS Invincible, the Navy's latest acquisition. A beautiful photo of a beautiful ship. (Photo: MoD(N)).



Here the two 'scissor lifts' positions are clearly shown. They are the two dark-edged, rounded cornered squares on the deck. (Photo: MoD(N)).



Captain Michael Linesay, RN, Commanding Officer of HMS Invincible. MoD(N).

impossible to detect by the submarine that it is attacking. The ship will also be equipped with five Sea Harriers which will provide both an anti-surface vessel capability and will make a valuable contribution to the air defence system for both the carrier itself and for any Task Group that it might be leading. There is a 'ski-jump', which is a 7° ramp, on the forward end of the flight deck which will greatly improve the take-off performance of the Sea Harriers by giving extra lift to the aircraft being launched and enabling a greater payload to be carried. As well as the Sea Harriers, HMS Invincible is

fitted with twin Sea Dart missile launchers which will provide area air defence.

HMS Invincible will spend her early days in Part IV trials in the Channel area which involves the testing of all her equipment and machinery. She will then engage in a period of 'work-up' in which her crew will familiarise itself with all the procedures necessary for her efficient operation. She is due to commission at Portsmouth in July 1980 after which she will continue her trials before becoming fully operational in the summer of 1981.



Royal Navy Sea King Helicopter, XZ576. The Invincible's main anti-submarine warfare weapon will be Sea Kings and she is to have nine of them.