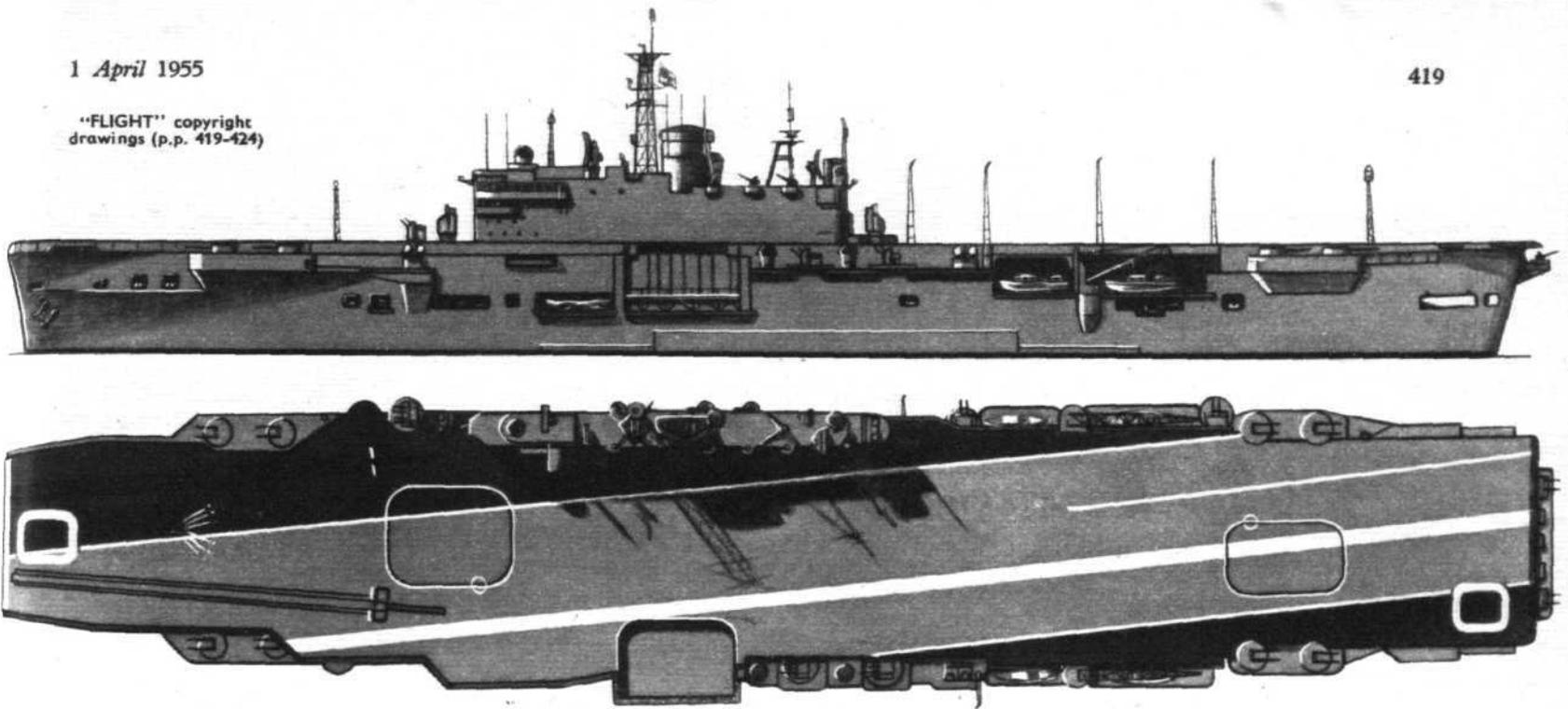


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drawings (p.p. 419-424)



H.M.S. ARK ROYAL Displacement 46,000 tons Length 808ft 3in Beam 112ft 9in Complement Over 2,000 Aircraft capacity 80-100

## ARK ROYAL

THE LATEST fleet aircraft carrier to be completed in the United Kingdom, H.M.S. *Ark Royal* was accepted by the Navy on February 25th of this year. She is the eighth British carrier to be completed since World War 2 and is one of the two largest ever commissioned by the Navy.

Following the sinking of the first fleet aircraft carrier *Ark Royal* in November 1941, the name was given to a considerably bigger carrier project previously known as *Irresistible*. The new *Ark* was laid down in May 1942, and launched seven years later, and began contractors' sea trials in June 1954. The ship is now working up and is due to embark aircraft—her capacity is from 80 to 100, according to size and type—in the near future.

An impressive selection of modern equipment and design features is provided in the ship, her completion having been delayed to provide them. *Ark Royal* is the first British carrier to possess both the steam catapult (two are fitted) and the deck-edge lift. The flight deck incorporates the 5½-degree "interim" angle, and other features are the use of the "optical deck-landing device," i.e., mirror landing sight, on both port and starboard sides, and improved ventilation equipment in the aircraft hangars.

Steam catapults will appear operationally for the first time in *Ark Royal*, and the ship is fitted with a more robust type of arresting gear, enabling the landing as well as the take-off of large modern aircraft to be accommodated. The use of the angled deck has reduced the number of arrester wires required to six.

The deck-edge lift—the first to be installed in a British carrier

—is situated amidships on the port side and serves the upper hangar, and there are in addition the two mid-deck lifts. This arrangement will contribute in a major way to the flexibility of flight-deck work, and must speed up flying operations considerably.

Aircraft fuel is stored in several groups of tanks dispersed throughout the ship in such a manner as to reduce to a minimum the risk of fire. Magazines for storing all types of airborne weapons are located in other protected parts of the ship, from which items such as heavy bombs can be raised by a special lift.

On the occasion of the *Ark's* recent commissioning, the ship's commanding officer spoke on her preparedness for atomic attack. He said: "It is well known that a ship, building or airfield suffering a direct hit from an atomic or hydrogen bomb will be destroyed. It is also well known that there is a 'near miss' effect for any bomb, whether it be H.E. or nuclear. It is also known that on the perimeter of a nuclear explosion there is the problem of radiation and of particles of vapour or dust which are contaminated.

"The engines of a ship require large quantities of air to keep them running, hence there is the possibility that contaminated particles of air or vapour may be drawn into the machinery. To enable this ship to steam in such circumstances, the machinery is fitted with remote control which would enable her to steam for a limited, but adequate, period, so giving her the ability to get away from the trouble. When the remote control is in operation there will be no hands in the machinery spaces. The machinery will be controlled from one of the many air-conditioned compartments."

Ark Royal

