

## ML UTILITY 1955

**CANCELLED**



The ML Utility was designed for easy transport and featured an inflatable wing. It could be packed into a military jeep and taken anywhere, increasing the reach of ground forces.

Made from material similar to that used for rubber dinghies, the wing's ribbed design ensured a slow descent if punctured. The ML Utility could fly, but was judged to be too slow. For this reason the UK Government did not go ahead with its production.



P003550 © RAF Museum

The wing of the ML Utility was fully inflated in 15 minutes. The aircraft could carry over 180kg, the weight of a heavy pig!

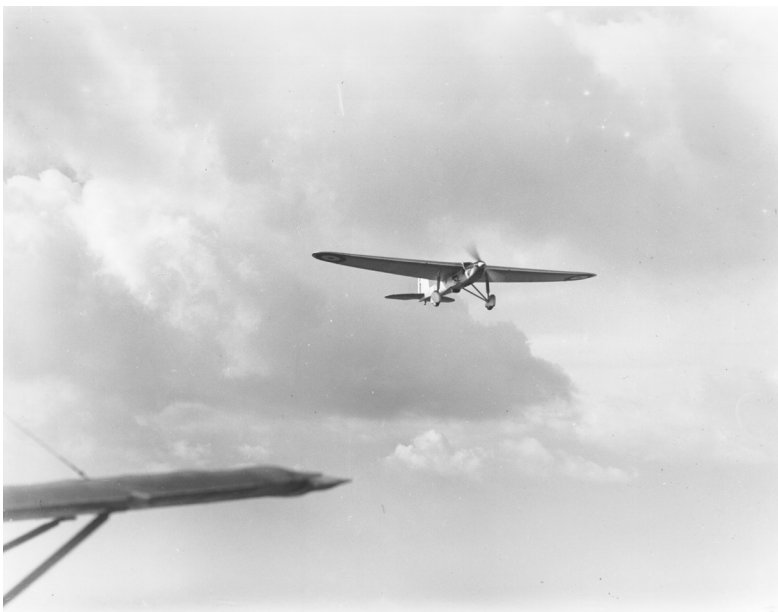
# FAIREY LONG-RANGE MONOPLANE 1954

**SUCCESS**



The Fairey Long-Range Monoplane was used to test how far aircraft could travel without stopping. Commissioned for the RAF, it was expected to break the long distance World Record.

The upholstered cockpit and airbed made the aircraft comfortable for long flights. After twice failing to beat the 1929 records, a second version was built. Flown by Squadron Leader Oswald Gayford and Flight Lieutenant Gilbert Nicholetts, it broke the record in 1933, travelling 8,544km (5,309 miles) from Britain to South Africa in 57 hours 15 minutes.



PC98/173/5163 © RAF Museum

The food for the record breaking flight included two cooked chickens, 20 sandwiches, 26 mugs of coffee, 48 oranges and over 1kg of dried fruit.

# SARO SRA/1 1947

**CANCELLED**



The Saro SRA/1 was able to take off and land on water, making it ideal for reaching small islands and calm coastal areas.

This flying boat jet fighter could have been instrumental during Second World War in the Far East during 1941-1945. However, the design came too late and the SRA/1 was unavailable to serve in the island-hopping campaign. By 1950, launching aircraft from aircraft carriers was more common than using flying boats, making the Saro SRA/1 redundant.



PC98/173/6189/5 © RAF Museum

The Saro SRA/1, nicknamed Squirt, was the only British manufactured flying-boat jet fighter. It was also used to test indicators which notified the pilot of damage sustained during battle.

# FAIREY ROTODYNE

## 1957

**CANCELLED**



The Fairey Rotodyne combined the vertical lift of a helicopter with the propulsion of an aeroplane. Able to land in tight urban spaces, it had potential for both military and commercial uses.

It could transport over 40 passengers from the UK to Belgium in just one hour and 36 minutes. However, the Rotodyne proved too noisy to operate in built up areas, causing interest to fade and development costs to rise. The project was scrapped in 1962.



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The Fairey Rotodyne was the world's first vertical take off and landing airliner.



## WEIR W6 1939

**CANCELLED**



The Weir W6 was an early British helicopter developed in the late 1930s.

With two seats, the Weir W6 offered an exciting opportunity for a passenger to be seated next to the pilot and experience vertical take off and landing. It made its first flight in 1939 but further production of the helicopter was halted by the outbreak of the Second World War.



X003-0290 © RAF Museum

The rotary-wing concept of the Weir W6 failed to achieve support or encouragement from the UK Government at that time.

# HAWKER P1127

## 1960

**SUCCESS**



The Hawker P1127 was used to test new technology for vertical and short take-off and landings (V/STOL). V/STOL aircraft are ideal for operating from aircraft carriers and can reach areas without a runway.

Using directional jets of air from its engine, testing of this experimental aircraft proved it could lift and hover. It could then fly off from this position and land vertically like a helicopter. It was developed further as the Hawker-Siddeley Kestrel in a partnership between the UK, USA and Germany, eventually becoming the Hawker-Siddeley Harrier.

A Harrier GR9 can be seen in Hangar 6.



PC98/173/6857/14 © RAF Museum

The Hawker P1127 was tethered during its first few flying trials exploring the new technology for hovering. It featured a Bristol Pegasus engine.

# BLACKBURN SHARK

## 1933

**SUCCESS**



The Blackburn TSR (Torpedo-Spotter-Reconnaissance) was designed to launch torpedoes at sea. It later became the Blackburn Shark.

It could take off and land successfully from aircraft carriers. With its hydraulic folding wings, the aircraft could be packed and transported to other destinations with ease.

The seaplane version used shock absorbing floats to help it perform well on choppy waters. When this version was replaced by the Fairey Swordfish in 1937, some were converted to target tugs which dragged unmanned vehicles for target practice.



PC98/173/5787/12 © RAF Museum

A padded headrest was fitted to the cockpit of the Blackburn Shark so pilots could comfortably brace themselves for take off via catapult.

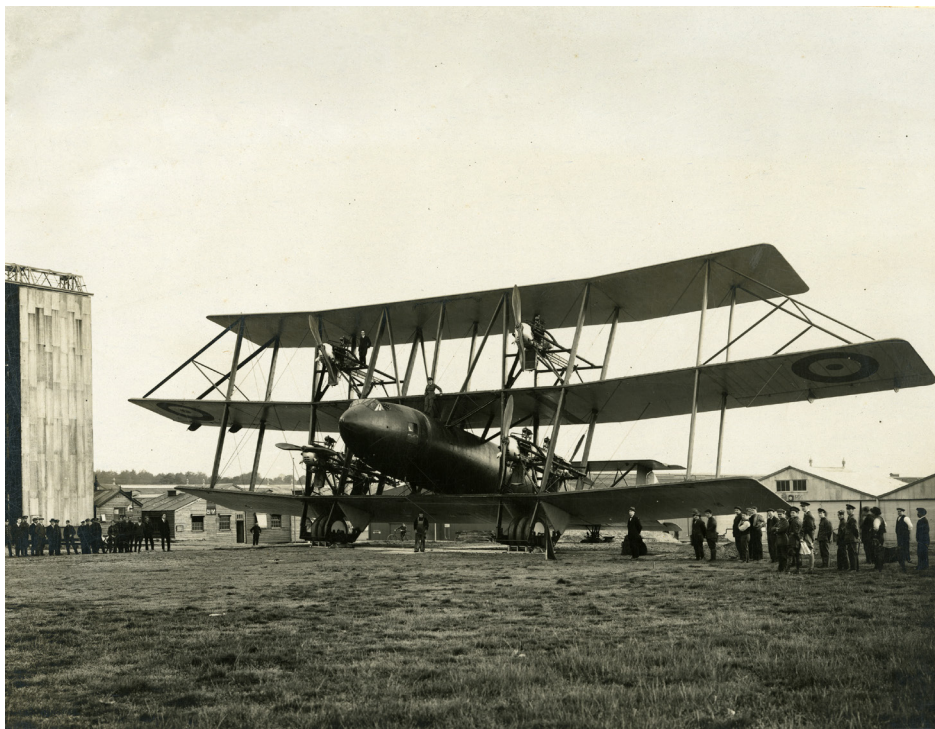
# TARRANT TABOR 1919

**FAILED**



The Tarrant Tabor was designed to carry heavy loads further than other large bombers of its time. Originally designed as a biplane, an engine change meant an extra wing was added, making it a triplane.

Developed towards the end of the First World War, it was briefly the largest aircraft in the world. Standing at over 11m (36ft) tall, it had a wingspan of 40m (131ft), the length of five London buses.



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The Tarrant Tabor was created by building contractors WG Tarrant, who had no previous experience of aircraft design. The first prototype aircraft crashed on take-off, killing the pilots, Captains Frederick G Dunn and PT Rawlings.



# CAVITY MAGNETRON

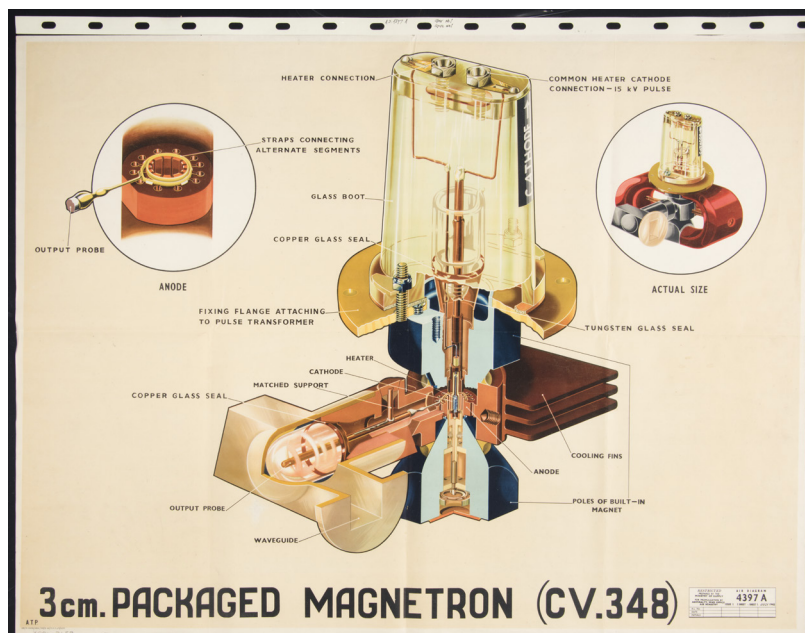
## 1937

# SUCCESS



The cavity magnetron was used in radar equipment during the Second World War. It used microwaves to detect enemy aircraft which were too far away to be seen. It enabled the RAF to ensure they could intercept the enemy despite having fewer aircraft.

The ability of microwaves to cook food was accidentally discovered by Percy Spencer in 1945. Standing near an active radar set, he realised the chocolate bar in his pocket had melted.



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The cavity magnetron was considered one of the key scientific breakthroughs of the Second World War and was used to detect U-Boats and enemy aircraft.