

## Fairey Swordfish

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**Type** [torpedo-bomber](#)  
anti-submarine

**Manufacturer** [Fairey Aviation](#)

**Maiden flight** [April 17, 1934](#)

**Introduced** [1936](#)

**Retired** [21 May 1945](#)

**Primary users** [Fleet Air Arm](#)  
[Royal Air Force](#)  
[Royal Canadian Air Force](#)  
[Dutch Naval Aviation Service](#)

**Number built** about 2,400

The **Fairey Swordfish** was a [torpedo bomber](#) built by the [Fairey Aviation Company](#) and used by the [Fleet Air Arm](#) of the [Royal Navy](#) during [World War II](#). Affectionately known as the *Stringbag* by its crews, it was outdated by 1939, but achieved some spectacular successes during the war, notably the destruction of the [Regia Marina](#) (the [Italian Navy](#)) in the [Battle of Taranto](#) and the famous crippling of the [Bismarck](#). It was operated primarily as a fleet attack aircraft, however, during its later years it was also used as an anti-[submarine](#) and training craft. Designed in the 1930s, the Swordfish remained in frontline service through to the end of the war in Europe in 1945.

### Design and development

The Swordfish was based on a Fairey [Private Venture](#) (PV) design; a proposed solution to the [Air Ministry](#) requirements for a Spotter-Reconnaissance plane - Spotter referring to observing the fall of a warship's gunfire. A subsequent [Air Ministry specification S.15/33](#), added the torpedo bomber role. The "Torpedo-Spotter-Reconnaissance" prototype **TSR II** (the PV was the TSR I) first flew on [April 17, 1934](#). It was a large [biplane](#) with a metal frame covered in fabric, and featured folding wings for [carrier](#) use. An order was placed in 1935 and the aircraft entered service in [1936](#), replacing the [Fairey Seal](#) in the torpedo bomber role.

By 1939 the Royal Navy had 13 [squadrons](#) equipped with the **Swordfish Mark I**. There were also three flights of *Swordfish* equipped with floats, for use off [catapult](#)-equipped warships. One such, from [HMS Warspite](#) spotted fall of shot (i.e., radioed gunnery corrections back to the ship) during the [Second Battle of Narvik](#) and subsequently sank the [U-boat U-64](#).

Swordfish flew from [merchant aircraft carriers](#) ("MAC ships"), 20 civilian cargo ships modified to carry three or four aircraft each, on anti-submarine duties with convoys. Three of these ships were Dutch manned, flying *Swordfish* from [860 \(Dutch\) Squadron](#).

## Operational history

The primary weapon was the [torpedo](#), but the low speed of the biplane and the need for a long straight approach made it difficult to deliver against well-defended targets. However, *Swordfish* flying from [HMS Illustrious](#) made a very significant strike, on [November 11, 1940](#), against the Italian navy during the [Battle of Taranto, Italy](#), sinking or disabling three Italian battleships and a cruiser. The successful Taranto attack may have given inspiration or confidence to the Japanese who would later attack [Pearl Harbor](#). *Swordfish* also flew anti-shipping sorties from [Malta](#).

In May 1941 a *Swordfish* strike from [HMS Ark Royal](#) was vital in damaging the German battleship [Bismarck](#), preventing it from escaping back to France. The low speed of the attacking aircraft may have acted in their favour, as the planes were too slow for the [fire-control predictors](#) of the German gunners, whose shells exploded so far in front of the aircraft that the threat of [shrapnel](#) damage was greatly diminished. The *Swordfish* also flew sufficiently low that most of the *Bismarck*'s [flak](#) was unable to hit them. The *Swordfish* aircraft scored two hits, one which did little damage but another which disabled the *Bismarck*'s rudder, preventing it from manoeuvring and thus sealing its fate. Surface craft sank the crippled battleship less than 13 hours later.

The problems with the aircraft were starkly demonstrated in February 1942 when a strike on German [battlecruisers](#) during the [Channel Dash](#) resulted in the loss of all attacking aircraft. With the development of new torpedo attack aircraft, the *Swordfish* was soon redeployed successfully in an [anti-submarine](#) role, armed with [depth-charges](#) or eight "60 lb" (27 kg) [RP-3 rockets](#) and flying from the smaller [escort carriers](#) or even Merchant Aircraft Carriers when equipped for rocket-assisted takeoff ([RATO](#)). Its low stall speed and inherently tough design made it ideal for operation from the MAC carriers in the often severe mid Atlantic weather. *Swordfish*-equipped units accounted for 14 U-boats destroyed. The *Swordfish* was meant to be replaced by the [Fairey Albacore](#), also a biplane, but actually outlived its intended successor. It was, however, succeeded by the [Fairey Barracuda](#) [monoplane](#) torpedo bomber.

The last of 2,392 *Swordfish* aircraft was delivered in August 1944; the last operational squadron was disbanded on [21 May 1945](#), after the fall of Germany; and the last training squadron was disbanded in the summer of 1946.

## Origin of the *Stringbag* nickname

The *Swordfish* received the *Stringbag* nickname not because of its construction but because of the seemingly endless variety of stores and equipment that the aircraft was cleared to carry. Crews likened the aircraft to a housewife's string [shopping bag](#) which was common at the time and, which due to its having no fixed shape, could adjust to hold any shape or number of packages. Like the shopping bag, the crews thought the *Swordfish* *could carry anything*.

## Variants



Fairey Swordfish in pre-war Fleet Air Arm markings

Swordfish I

First production series.

Swordfish I

Version equipped with floats, for use off [catapult](#)-equipped warships.

Swordfish II

Version with metal lower wings to enable the mounting of rockets, introduced in 1943.

Swordfish III

Version with added a large centrimetric [radar](#) unit, introduced in 1943.

Swordfish IV

Last serial built version (production ended in 1944) with an enclosed cabin for use by the [RCAF](#)

Almost 2,400 had been built, 692 by Fairey and 1,699 in [Sherburn](#) by the [Blackburn Aircraft Company](#), which were sometimes dubbed the "Blackfish". The most numerous version was the Mark II, of which 1,080 were made.

## Operators

 [Canada](#)

- [Royal Canadian Air Force](#)

 [Netherlands](#)

- [Dutch Naval Aviation Service](#)

 [United Kingdom](#)

- [Royal Air Force](#)
- [Fleet Air Arm](#)

## Specifications (Fairey Swordfish)

### General characteristics

- **Crew:** Three (pilot, observer, and radioman/rear gunner)
- **Length:** 35 ft 8 in (10.87 m)
- **Wingspan:** 45 ft 6 in (13.87 m)
- **Height:** 12 ft 4 in (3.76 m)
- **Wing area:** 542 ft<sup>2</sup> (50.4 m<sup>2</sup>)<sup>3</sup>
- **Empty weight:** 4,195 lb (1,900 kg)
- **Loaded weight:** 7,720 lb (3,500 kg)
- **Max takeoff weight:** lb (kg)

- **Powerplant:** 1× [Bristol Pegasus](#) IIIM.3 or XXX [radial engine](#), 690 hp (IIIM.3) or 750 hp (XXX) (510 kW / 560 kW)

## Performance

- **Maximum speed:** 138 mph at 5,000 ft (222 km/h at 1,500 m)
- **Range:** 546 mi combat; 1,025 mi ferry (879 km / 1,650 km)
- **Service ceiling:** 19,250 ft (5,870 m)
- **Rate of climb:** 1,220 ft/min (6.2 m/s)

## Armament

- 1x 0.303 in (7.7 mm) [Vickers machine gun](#) in engine cowling
- 1x 0.303 in (7.7 mm) [Lewis](#) or Vickers machine gun in rear cockpit
- 1x 1,670 lb (760 kg) [torpedo](#) or 1,500 lb (700 kg) [mine](#)
- 8x 60 lb (27 kg) [RP-3](#) rocket projectiles (Mk.II and later)

## Comparable aircraft

[Fairey Albacore](#)

## Designation sequence

Swordfish - [Battle](#) - [Seafox](#) - [Fulmar](#) - [Albacore](#)- [Seal](#)

## Related lists

[List of aircraft of the Fleet Air Arm](#)