

Seaplane used for vital research

Written by Donald Fullarton and Robin Bird

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JUST over 80 years ago, what is probably Britain's best known flying boat, the Shorts Sunderland, made its maiden flight — and the seaplane was to play an important part in the Helensburgh and Dumbarton areas.

The prototype aircraft K 4774 gave the name Sunderland to the new specification R22/36 aircraft.

It first flew on October 16 1937, and afterwards was handed over to the Marine Aircraft Experimental Establishment, which at that time was at Felixstowe.

Sunderlands went on to perform sterling service during World War Two, and they served with the RAF until 1959. Some 750 were made at four factories, including 250 at the Blackburn factory beside Dumbarton Rock.

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The extensive factory, around where Dumbarton FC stadium now is, began assembling aircraft by 1938, and at its peak employed around 4,000 workers who built several different types of aircraft.

The MAEE moved to the Gareloch and RAF Helensburgh, where the prototype K 4774 played a leading role in the Sunderland story, spending the war years there.

Its maiden flight before the war received worldwide publicity — but its last flight did not.

Aviation historians have been vague about that last flight, quoting 1942, 43 or 44. But for the first time in 73 years this website can publish the date, time of day and year that K 4774 flew for the final time.

The source is RAF Helensburgh flying logs made exclusively available to Helensburgh Heritage Trust by the MAEE author Robin Bird, whose research has led to a huge amount of information about the establishment's staff and work being published here and on the Trust website.

As the MAEE's long term test aircraft, K 4774 made a major contribution to how Sunderland types developed right up to the Mk 1V/Vs as tested in 1944 at Helensburgh.

K 4774 and the first production Sunderland L2158 were evacuated from Felixstowe on the outbreak of war destined for Helensburgh. L 2158 suffered gale damage on the way and spent a few months undergoing major repairs on the beach at Wig Bay on Loch Ryan near Stranraer.

At Helensburgh, K 4774 underwent trials and modifications as a warplane, including the fitting of radar and armament. Particular attention focused on hull and step design to further improve handling of this large four engine flying boat.

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Hull design and hydrodynamic stability were an ongoing challenge for the boffins at Helensburgh, and concurrent trials were conducted with a half scale Sunderland hull fitted to a Shorts Scion.

Sadly it crashed on March 15 1944, killing boffin H.G.White.

Most of the publicity and pictures featuring the Sunderland pre-war portrayed an immaculate silver looking K 4774. At its Gareloch base it was painted in camouflage colours — cosmetic appearance did not matter as no publicity pictures were allowed.

Behind the scenes at Rhu the boffins produced lengthy and detailed reports on flying boat design based on K 4774, and shared their findings with the Americans.

After being repaired at Wig Bay, L 2158 arrived on the Gareloch where it had its four Pegasus engines thoroughly tested. Vickers and Browning guns were fitted. Bomb racks under the wing were tested, carrying bombs of up to 500 lbs. After that L 2158 went off to war with 204 Squadron, but was lost with the crew over the Atlantic in 1942.

K 4774 never went to war, but made a major contribution to the war effort through its trials and tribulations. One example was when it was damaged by an exploding depth charge.

At the National Archives, at Kew, London, bundles of once top-secret reports, written by MAEE boffins, refer to K 4774. There are drawings, photographs, graphs, mathematical equations, comparisons and conclusions.

These reports are now of historic interest to aviation enthusiasts, but in their day they were most secret. Official MAEE reports do not even record the names of the test pilots.

Much of the early testing of K 4774 was carried out to improve the step and hull, and late in 1939 damage occurred to the inboard propellers during an attempted take off in choppy seas

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while heavily laden.

K 4774 suffered other damage during the years of testing but the wary old 'war horse' kept flying. Various guns and turrets were tried, one retractable. A Mk 1X bombsight was fitted, and this sight was used to drop the most secret Johnny Walker bomb.

In March 1941 K 4774 was fitted with a powerful 20 mm Hispano gun in the front turret.

MAEE Armament Officer Dennis Tanner recalled: "This was a private venture between Blackburn and RAF Helensburgh. The Hispano replaced the existing Vickers 0.303 gas operated gun.

"The extra fire power was intended to be used operationally against surfaced U-Boats, but Flight Lieutenant Pike emerged from K 4774 after firing the 20mm Hispano with a black eye due to recoil. 'It doesn't half kick!' he said."

Pilots who flew K 4774 included Flight Lieutenant Hobley, Wing Commander Brian Paddon and Squadron Leader Percy Hatfield.

Hatfield had flown one of the Catalinas which spotted the German battleship Bismarck, Catalina O, resulting in it being sunk on May 27 1941.

The other Catalina, AH545, was flown by Dennis Briggs, and both aircraft clocked up a record flight time of 26 hours 45 minutes.

It was Briggs who had flown in Britain's first Catalina at Helensburgh.

This was P 9630, the first Catalina to take part in the Battle of the Atlantic while on loan to

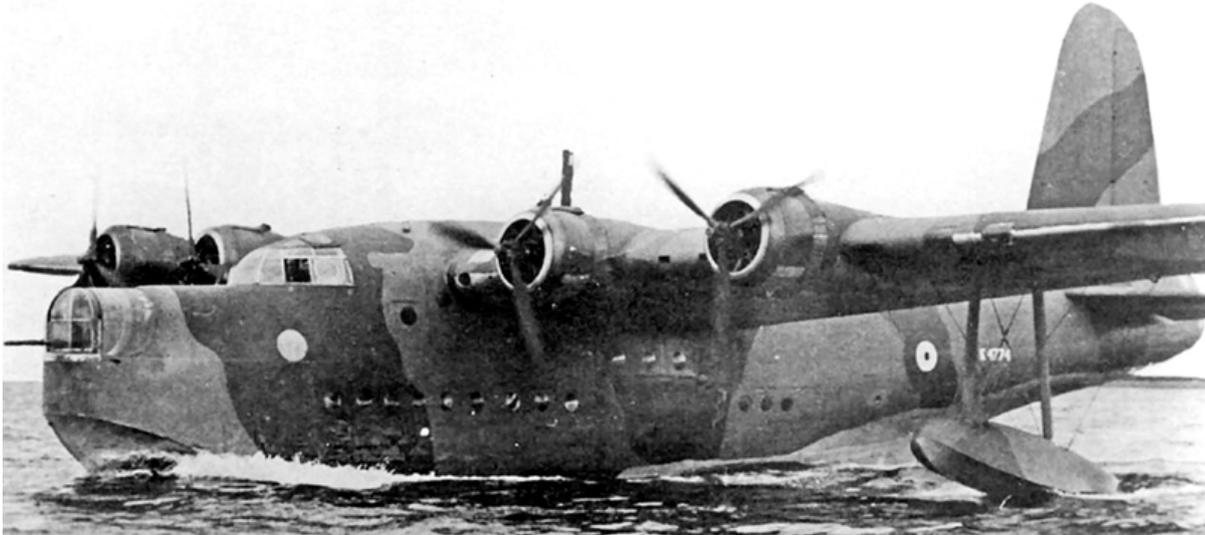
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Coastal Command from MAEE, serving with three squadrons, 228, 240 and 210.

It returned to Helensburgh, where it crashed after taking off from Rhu on February 10, 1940. Briggs was aboard but survived.



Hatfield was posted to Helensburgh after spotting the Bismarck. His role in finding the Bismarck never had the same amount of publicity Dennis Briggs received.

Briggs broadcast his account on BBC and became a national hero. Hatfield's reward for spotting the battleship was a posting to Helensburgh with a promotion to Squadron Leader.

Air Commodore D'Arcy Creig, the former Schneider Trophy pilot, spent time at Helensburgh, and his log records flying with Hatfield in K4774.

Other pilots who flew K 774 during what turned out to be its last days included Wing Commander Brice and 'Dizzy' Desmond Cooper. Australian test cricketer Flight Lieutenant Stan Sismey flew K 4774, completing circuit tests in March 1944.

It is the flying notes of MAEE engineering officer Peter Knight which record the last flight of K 4774 which was on April 13 1944. The pilot was Flight Lieutenant Fox, who took off at 3.40 pm

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on a local flight.

K 4774 was unceremoniously written off at Helensburgh in stark contrast to the publicity it received on its maiden flight piloted by J.Lankester Parker on October 16 1937.

The last Sunderland built at Dumbarton was VB 899 during October 1945. It was scrapped in 1956.

One of the few surviving Sunderlands can be seen at Southampton. It was formerly Sunderland JM 715 used at Helensburgh to test the fitting of manned chariots for a planned raid on the Tirpitz.