

THE AVRO TYPES 501 & 503 FLOATPLANES AND THEIR GERMAN DERIVATIVES

by Eric Harlin



A NUMBER OF THE EARLY AVIATION PIONEERS were of the opinion that it was safer to attempt to fly from and above water than over land. Indeed, Gabriel Voisin made his first, and the first, flight from water when he ascended from the River Seine on 6th June 1905, albeit on a box-kite glider fitted with floats towed behind a racing motor launch. By late 1908, Glen Curtiss in the USA was also experimenting with a floatplane, as recorded in the first issue of *Flight* for 2 January 1909, but it would take another two years before he would achieve his goal.

In Europe, despite advances in landplane aviation it was not until 28 March 1910 at Martigues, France that Henri Fabre on his 50hp Gnome Omega-powered canard floatplane made the world's first powered flight from water, although he was only airborne at a height of about two metres for some 457 metres and had no previous experience of flying!

During this time there was little interest in marine aviation in the UK and Alliott Verdon Roe was too involved with his landplane experiments. He had developed a fascination for flying from 1906, first of all building successful models and,

later in 1908, by constructing his first canard biplane. Financial support for his early experiments was initially provided by his father and brother Humphrey, who was an experienced businessman and owner of H.W. Everard & Co. producers of 'Bulls Eye' men's trouser braces (*suspenders*) then the fashion.

Over the winter of 1908-9 Alliott conceived his first triplane, the Roe I, on which he made preliminary 'hops' in June 1909 and on 23 July flew some 300 yards (270m) at a height of nine feet (2m). Two days later Louis Blériot succeeded in crossing the English Channel on his own design monoplane. This fired the public's imagination and flying became all the rage. Humphrey immediately saw the business potential in this new craze and together they formed A.V. Roe & Co. on 1 January 1910.

During the period 1909-1912 Alliott was, in the main, entirely preoccupied in the development of his own triplane, and later, biplane designs, whilst Humphrey sought additional income by manufacturing, and selling parts, and complete aeroplanes of other designs, to would-be aviators. It was this building service which brought about the company's first brush with marine aviation.

In Cumbria, North West England, two aviation enthusiasts, E.W. (later Lord) Wakefield and Oscar Gnosspelius, no doubt influenced by their living in close proximity to the large stretch of water, Lake Windermere, were collaborating in the design of floats for their prospective floatplanes and Wakefield sought the assistance of A.V. Roe & Co. in the construction of his own machine.

Initially, Wakefield was looking for a Blériot type machine, but when news of Glen Curtiss's successful ascent from water on 27 January 1911 was published in *Flight*, he changed his mind to a Curtiss machine. Presumably fearful of losing an order, Humphrey persuaded him that Avro could build him a replica of the Curtiss, so they settled on a price for the aeroplane with 50hp Gnome rotary engine and Wakefield immediately placed an order. It was also agreed that it would be built as a landplane and Wakefield would take responsibility for converting it to a waterplane once testing was complete.

Avro built the aircraft at Brownsfield Mill, Manchester, transporting it to Brooklands for flight testing in early May 1911. The machine made its first flight on 19 May and after further tests as a landplane at Brooklands, it was sent to Hill of Oaks, Windermere for floatation testing. A centre float was fitted in place of the wheeled undercarriage with a pair of cylindrical floats mounted below the wing-tips for lateral stability on the water.

During the course of re-erection and modification Wakefield became dissatisfied with the machine's construction and that Avro had also supplied a defective 50hp Gnome engine.



Gabriel Voisin's glider fitted with floats made the first flight from water on 6 June 1905 towed behind a racing motor launch. :Colin Huston

Henri Fabre's pioneer floatplane Le Canard made the first powered flight from water.

