

The Royal Aircraft Factory BE6

by Paul R. Hare

AS WAS THE CASE WITH THE BE5, BE6 was ostensibly reconstructed by the Royal Aircraft Factory from an existing aeroplane, thereby circumventing the War Office instruction that the Factory was not to create new aeroplanes without special order. In this case, the original machine was the Howard Wright pusher biplane that had previously served with No 2 Company of the Air Battalion, based at Larkhill, as F3, and had originally been the property of Captain Edward Maitland, before that officer transferred his attention exclusively to airship operations. This machine was purchased from Maitland by the War office for £625 in June 1911, but was declared unserviceable due to engine failure after slightly less than two hours service flying and, as a result, was delivered to the Royal Aircraft Factory for overhaul in January 1912. As usual, the Factory planned to use it as the basis of a completely new machine, bearing no relation to the original. The Howard Wright was fitted with a water cooled ENV eight cylinder engine of 60hp, and it was originally intended that this, when repaired, should be fitted to the new machine, almost certainly the only part of F3 to even be considered for re-use. This would have made BE6 very similar to its immediate predecessor, BE5, as originally built. However before construction was completed, the Factory's Superintendent, Mervyn O' Gorman, noted¹ that a second hand 60hp Renault V8 (No. 22215AF19)² was to be used instead, thus making BE6, as built, a standard BE2, similar, if not identical, to those then already being manufactured, in small batches, by commercial contractors. It, therefore, included a decking at the rear of the engine and in this the gravity petrol tank was housed, thereby eliminating the

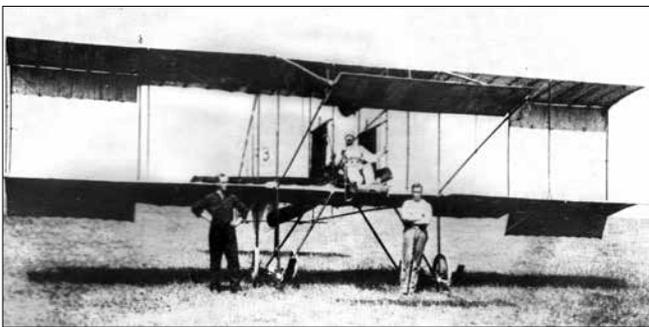
teardrop shaped tank under the upper centre section which had been a feature of earlier versions. This small change may have been sufficient to qualify the machine as a different, experimental, design and so justify the Factory's having built it. In any event this internal gravity tank was to become a feature in the BE2a model when it entered production.

O'Gorman also noted,³ on 15 August 1912, that the new machine would be ready in 10 days, but in this he was a little optimistic as the completed aeroplane did not make its first flight until 5 September, when it was taken up by Geoffrey de Havilland, then the Factory's chief test pilot as well as its best designer, and was reported as having passed all its flying tests on the same day.⁴ Clearly it must have been satisfactory as built for just three days after its first flight it had been handed over to the RFC and assigned the serial number 206, although this took some time to appear on the machine.

By 12 September, BE6 was in service with 2 Squadron, based at Farnborough, Lt John D. Mackworth making several solo flights in it during the day and then, in the evening, taking up a passenger.⁵ The following day he flew it again, in the calm of the early morning, and again in the evening, staying up until it was almost dark.

The reason for all this apparent haste was the forthcoming Army manoeuvres which were to take place from 16 to 19 September in East Anglia and for which 20 aeroplanes were required to participate, eight for each of the opposing forces and four for the umpires use, a quantity which represented almost the entire effective force of the RFC at that time. 206 was, therefore, flown to Thetford, where most of 2 Squadron was already assembled at a temporary airfield, and served with B flight throughout the manoeuvres.⁶ It was part of the Blue, attacking, force under Lieutenant General Sir Douglas Haig, who was comfortably beaten by the defending Reds, commanded by Sir James Grierson. From these manoeuvres, many valuable lessons were learned about aerial reconnaissance, and about the need for concealment.

During October, BE6 was returned to the Factory for modification, and to continue the development of the design which had been interrupted in order to make it available to participate in the autumn manoeuvres. The standard twin skid undercarriage with which it had entered service was removed, and replaced with one made of steel tubing, incorporating oleo



The Howard Wright biplane from which BE6 was ostensibly reconstructed and BE6 itself, marked with its military number and showing the unequal span mainplanes that were fitted. :CCI Archive

