

The RAF BE2a in the Naval Wing

by Paul R. Hare



During the early days of the RFC its Naval Wing appears to have shown little or none of the prejudice against the designs created by the Royal Aircraft Factory that appears to have developed later and happily operated four examples of the BE2a. The first two machines (serial Nos 46 and 47) were ordered by the Admiralty, towards the end of 1912, along with a dozen other machines of various designs, all of which needed to be delivered before the end of the financial year. Early in 1914 the Naval Wing acquired two more BE2as (49 and 50), which had been ordered from Hewlett and Blondeau for the Military Wing, but which were transferred to the Navy before completion, and before military serials were allocated to them.

All four machines had long and useful service careers, each of them serving on the Western Front at some point, and one then going on to the Aegean, all as described below.

46, The First Machine

BE2a 46 was built by the Royal Aircraft Factory and fitted with 70-hp Renault engine No.30193/AF126. It had the same large lifting tailplane as the original design and unequal span wings and was completed by 31 March 1913, when testing began. It was officially accepted on 9 April and by 13 April it was with the Naval Flying School at Eastchurch on the Isle of Sheppey. Although it suffered some damage on 23 April, whilst on the ground, this was slight enough to be repaired on site. By 21 May it had flown a total of approximately 1240 miles (i.e.18-20 hours) mostly piloted by Commander Charles Rumney Samson, and had already had its warp wires renewed. Samson, although fond of the machine, was rather critical of some elements of its design, including both the diameter of the warp wires and of the sheaves over which they passed, as well as the finish of the bracing wires, whose ends were formed into eyes without a thimble insert, contrary to all his previous ship-board experience.

Samson's report was circulated to the other RFC squadrons operating the BE2a for comment and although some responded that they had also needed to replace the warp wires,

BE2a 46 as originally built with the overhanging top wing. In August 1913 it was fitted with new equal span wings of an improved aerofoil section and strengthened rear spar.



it was generally considered that the type merely needed regular inspection and more frequent lubrication of the sheaves. However, this criticism together with the fatal crash of 205 at Montrose on 27 May 1913, which was due to the collapse of the upper wing, persuaded the Admiralty to ground its own two BE2as until the investigation into the accident was completed. This eventually determined that failure which caused the crash had been due a badly executed repair, rather than any inherent structural weakness, and the ban was lifted.

In August 1913, 46 was returned to the Royal Aircraft Factory for an overhaul and to be fitted with new equal span wings with a modified aerofoil section allowing a strengthened rear spar, as was being done to all extant BE2as. This work completed, it went back to Eastchurch where it remained until the following July when it was again returned to Farnborough, this time for conversion into a BE2c, the improved model unveiled in June. This new version, although based upon to the original design, had a completely redesigned tail plane, and new staggered wings with ailerons for lateral control, together with the addition of a fin and some modifications to the fuselage, with only the rudder and undercarriage being retained unaltered. Full conversion of an existing airframe was therefore not possible and, when other RFC squadrons requested that their BE2as be converted, the Royal Aircraft Factory issued a statement to this effect and pointed out that some of the design improvements were not able to be included. Unfortunately the

The cockpits of BE2a 46. The Elliot instrument board in the pilot's cockpit includes a climb/descent gauge (at right) in addition to the ASI (at left) clock altimeter and tachometer usually fitted with two separate pressure gauges mounted above. There is no map board as usually fitted to army machines. The observer's cockpit has the gravity tank mounted within the forward decking.

:via Colin Huston

