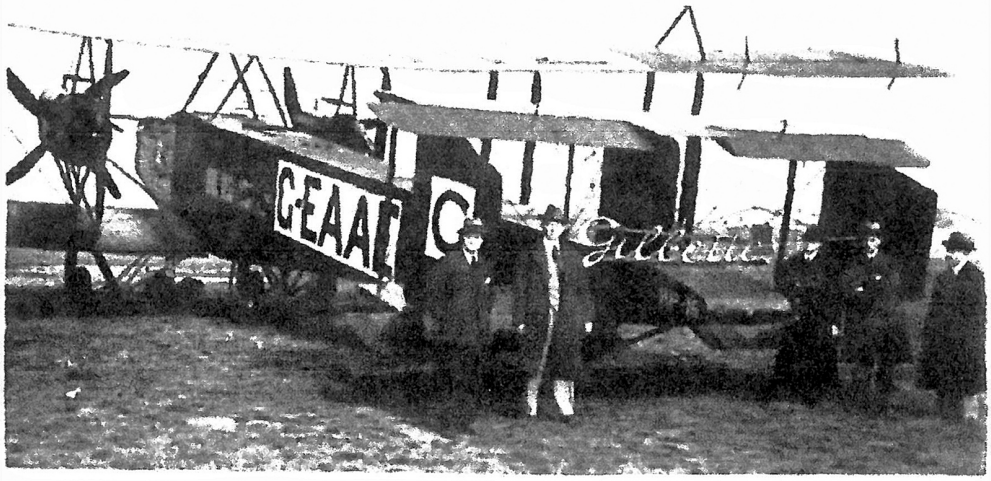
The First Handley Page Transports

By PETER W. BROOKS
BSc(Eng), ACGI, AFRAeS



One of the four O/400s converted for civil use in 1919

THERE has always been a good deal of uncertainty about that part of the early history of British transport aircraft development which concerns the O/400 transports produced by Handley Page Ltd in 1919-20 and the origins of the famous W/8 series—the first H.P. aircraft designed from the start for transport purposes. The article is an attempt to rationalize the conflicting information available and to suggest what may have been the sequence of events in the development of these pioneer multi-engined airliners.

TWO recent books, A. J. Jackson's *British Civil Aircraft, 1919-59* and R. Higham's *Britain's Imperial Air Routes, 1918-39*, throw new light—and revive some old uncertainties—on the rather confused history of development of the first transport aeroplanes by Handley Page Ltd immediately after the end of the First World War.

About 550 of the O/400 series of twin-engine bombers had been built during the war (probably more than of any other aeroplane with a loaded weight exceeding 10,000lb) and it was therefore natural that Handley Page should give immediate attention to adopting their design to transport purposes. They had, in fact, produced before the end of the war two crudely converted O/400s which were used from April 1918 to return ferry pilots across the Channel from Marquise to Lympne. These transports simply had rudimentary seats for 12 passengers inside the bomber fuselage.

During 1918 several O/400s were converted for passenger transport at Farnborough. In these aircraft the fuel tanks, which in the standard O/400 were mounted in the upper part of the central fuselage bay, were removed and replaced by long rectangular tanks extending through to the bomb cell in the lower part of the fuselage. The tanks were covered by slatted seats for about 12 passengers. "Guardian Angel" parachutes were provided for the passengers and a vertical polished hand-pole (as at a fire station) was provided to enable the aircraft to be abandoned by way of the bomb-bay opening which—as in the standard O/400—was normally kept covered with brown paper.

Soon after the Armistice—on December 13, 1918—the RAF formed No 1 (Communications) Squadron at Hendon to carry passengers and despatches between London and Paris during the Peace Conference. The squadron was expanded into a wing in January 1919 and continued to operate until September. At least three O/400s—His Majesty's Air Liners *Silver Queen*, *Silver Star* and *Great Britain*—were converted into VIP transports for use on this operation.

In these aircraft an attempt was made to improve the comfort of the passengers: the seats were more comfortable, there was internal trim to the passenger compartments, and windows were provided to give the passengers light and an outside view. For what they were, these conversions were quite effective, but they served to emphasize the unsuitable features of the O/400 fuselage when used for this purpose. The fuel tanks occupied a large amount of space in the centre-section and the criss-cross wire bracing of the frames seriously obstructed the interior. *Silver Star* had its main passenger compartment aft of the tanks while *Great Britain* accommodated its passengers amidships, with new tanks apparently similar to those fitted in the Farnborough conversions.

The first civil transport of Handley Page was a further adaption of the O/400 on similar lines to the two RAF aircraft. There were two passenger cabins, one forward and one aft of the fuel tanks, and seats for seven passengers. The forward cabin had two rectangular windows on each side and the aft cabin three. Four O/400s—G-EAAE, F, G and W—were converted to this new standard during the early months of 1919 and, on May 1, were granted what were amongst the first Certificates of Airworthiness to be issued. Handley Page Ltd (and later Handley Page Transport Ltd, formed on June 14, 1919 by Handley Page as an operating subsidiary) started proving-flying on various routes with these aircraft from May 1, when the official ban on civil flying within the United Kingdom was finally lifted. A scheduled service between Cricklewood and Bournemouth was operated during that summer, but scheduled airline services did not start on any scale until after the ban on international civil flying was lifted on August 25.

Strangely enough, the Chinese provided one of the first major incentives for the development of large transport aircraft in this country. Both Vickers and Handley Page sent training missions and aircraft to China in 1919 and both firms produced special transport aircraft for the purpose. Vickers developed the Vimy-Commercial out of their Vimy bomber—which, although too late for the war, achieved fame on several pioneering long-distance flights—and Handley Page produced the O/700, or O/7 as it later became known. The Vimy-Commercial (which first flew in February 1919) had an entirely new wooden monocoque fuselage of oval section, but the O/700 employed basically the same rectangular-section wire-braced wooden framework fuselage with fabric covering as did the O/400. The only important difference was that the wire-bracing of the frames in the centre portion was replaced by steel tubes arranged vee-fashion, thus facilitating fore-and-aft movement in the cabin. At the same time, the fuel tanks were moved out of the fuselage and put back into the engine nacelles where they had been in the O/100, the original model of the O/400 series. The lengthened nacelles were supported by the same arrangement of vee and inverted-vee interplane struts as the earlier aircraft. There were eight rectangular windows along each side of the new cabin, in which eleven seats were arranged singly each side of a central aisle. Entry was by way of a door on the port side at the rear of the cabin.

The first O/700—G-EAGN, which bore the earlier civil registration K 162 and the "private" Handley Page marking HP-1—flew on July 5, 1919 and gained its C of A on August 8. Six of these aircraft apparently went to China soon afterwards. Two or three O/700s were also sent to South Africa and further deliveries to China followed. G-EAAF, one of the original civil O/400s

This O/700, G-EAAF, flew scheduled services in Europe and is believed to have been the first civil transport aeroplane to carry radio