

BOBOLINK TO DELTA...

been convinced that while there appeared to be ample downward movement of the elevator the upward travel was insufficient. Feeling a little diffident about criticizing the design directly I had joined the firm I did, nevertheless, discuss my misgivings with Mr. North, who gave instructions that the elevator movements and controls should be re-checked. This was done and I was told everything was correct. Still dissatisfied I told Mr. North that no doubt I could land the aircraft without accident, but that it would have to be at high speed, and eventually I took off with a passenger in the rear-gunner's position but none in front. Even with this help it was impossible to land with the tail down, and in order to prevent the nose dropping I approached at nearly 90 m.p.h. It took the entire aerodrome width to accommodate the landing run, which finished a few yards from the boundary hedge. After this I refused to fly the machine again until the elevator had been altered. Further investigation disclosed a mathematical error in the design of the elevator controls which had reduced the upward movement by over 30 per cent.

I learnt a lot from this incident and it taught me to dig my toes in when I felt it was essential to do so.

At Martlesham Heath the prototype Sidestrand made a good impression, but lateral control was considered too heavy and Frise ailerons were tried with highly satisfactory results. An out-rigger servo was next fitted to the rudder, and finally H.P. slots to the top wings, so that the machine became highly manoeuvrable for its size, and many will still remember its remarkable aerobatic displays at Hendon Pageants.

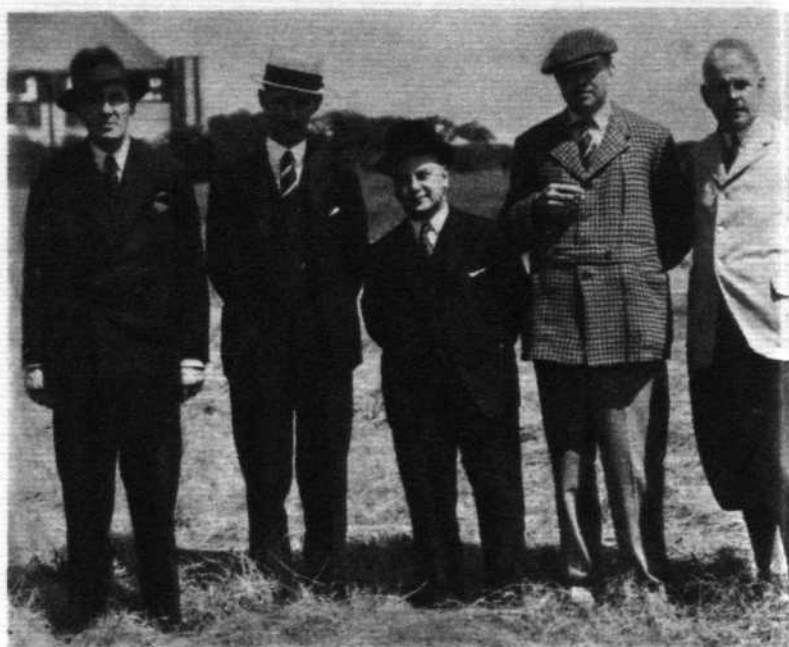
After some time the firm received its first production order and No. 101 Squadron was equipped with the Sidestrand—and subsequently the Overstrand, which was the first aircraft to be flown with a totally enclosed power-operated turret for the front gunner.

Capt. J. Dawson Paul, who was chairman of the firm's Board, decided to take up flying and quickly passed his tests under my tuition; but in discussions with members of the design staff I realized that many of them had little or no practical experience of flight and I obtained Mr. North's permission to take them for short flights in the P.9 as and when opportunities arose.

The design and drawing offices were moved up to Mousehold aerodrome, about a mile from the main Riverside Works in Norwich and these flights were thus easily arranged. I feel sure it proved helpful; at any rate they were very popular and the demand grew to such an extent that we had to ease up, especially as the departments concerned were now extremely busy on new designs. Among these were the Bittern and Partridge, the former being a twin-engined night fighter powered by two Armstrong-Siddeley Lynx engines. It was a cantilever monoplane; the wings, however, proved to be too flexible, necessitating a major modification involving bracing struts from the wings to the undercarriage. That of course, reduced the performance considerably. The aircraft was duly delivered to Martlesham and although very pleasant to fly in its modified form failed to qualify for a production order.

The Partridge was also to an official order, to meet an exacting specification for a single-seat fighter. In its original form, it looked likely to make its mark—apart from the position of the undercarriage-strut attachments, which were too close together. These were modified, but shortly before delivery to Martlesham official policy called for re-positioning of the gun mountings much lower than originally planned. The only way this could be achieved was by altering the almost perfect shape of the fuselage by adding "bulges," which entirely spoiled the appearance of the machine

Flown by S/L. Rea, the Mail Carrier comes in to Mousehold.



At Mousehold in 1933: (l. to r.) Major Jack Stewart, O.B.E., Capt. J. Dawson Paul, John Carter, J. D. North, S/L. C. A. Rea, A.F.C.

and reduced its performance considerably. This precluded any hope of securing a production order.

While on a test flight on the Partridge late one winter afternoon I was so busy taking down performance figures that on reaching about 16,000ft (without oxygen, of course) I found I was completely lost in a heavy snow storm. After some anxious moments occupied by a flat dive in an easterly direction I found the coast and soon located Mousehold, where I landed in almost complete darkness.

The little Phoenix proved very pleasant to fly, but was underpowered for a two-seater, and although flown by many pilots of varying experience (all of whom reported favourably on its handling and flying characteristics) it was decided not to proceed with quantity production. I took many passengers for flights in the Phoenix, among them General Brancker who always showed such encouraging interest in any type of civil aircraft.

When Mr. Guy Fiske, who managed the London office, died after a short illness, Major Jack Stewart, O.B.E., took over his duties, and at about this time the firm secured an official order for a twin-engined mail-carrying aircraft design to transport a ton of mail for 1,000 miles at 150 m.p.h. On the first flight I took off at high speed and landed again successfully; but on the second attempt I found I was unable to correct a pronounced swing to the right, which rapidly developed to such an extent that I had to cut the throttles and apply the brakes. These however proved practically useless at high ground speeds although moderately effective for taxiing. I complained about the brakes and was told they were correctly adjusted to satisfy official requirements. Later I found that the retarding effect had been considerably reduced by agreement of resident Ministry officials and the firm's technicians. There is not the slightest doubt that had the full braking power been available the subsequent accident could have been easily avoided; but I could not stop the ground run before colliding with a fence of the sheep pen variety surrounding a cricket pitch. I still thought all would be well, but shut off the fuel as a precaution. However, when the main wheels struck the fence they flattened it without breaking the wiring which retained the uprights in position; but when the tail-wheel made contact with the fence it had sprung up again. The tail was thrown upwards and the machine turned over on its back.

Eventually it was found that at small angles the rudder was almost completely blanketed—this in spite of extensive model tests at the R.A.E. On subsequent inquiries there I found that readings had only been taken at neutral, medium and maximum angles and no readings covering the small angles used in flight had been taken.

A major modification which included the fitting of twin rudders in the slip-streams overcame the defect, and I duly delivered the aircraft to Martlesham. It crashed there while on test and was completely destroyed, though the pilot escaped with only minor injuries.

The last product of the firm which I tested was the first of two feeder-liners for the then Imperial Airways. The late F/L. C. Feather made his first test for the company on the second one.

The aircraft branch had now grown to considerable size and it was decided to form a new company to take over the business which, in addition to making complete aircraft, had also developed its own patented method of constructing metal wings and other