

the selector switch on "No. 1." There was a wild rush for shelter; and when I landed, expecting hearty laughter, I was nearly lynched. I hurried back to Norwich to tell my story to B. and P. before the official report got in.

It was through B. and P. that I got really into the seaplane business, which has been my greatest aviation interest ever since. One of their jobs was the building of hulls for the big F.3 and F.5 flying-boats and they made a most beautiful job of it. In mid-1918 they were commissioned by the Government to set up a National Seaplane factory and I was assigned to assist in surveying various possibilities for a suitable site on one of the Norfolk Broads. I had little seaplane experience at the time so it was decided that I should undergo an intensive refresher course at the nearby Yarmouth air station. There, under such masters of the seaplane arts as Cadbury and Lecky, I was checked out on all sorts of craft from the little Sopwith Schneiders to the big F-boats. The National Factory project was abandoned through the ending of the war but the experience I had obtained led to my getting an expanding series of seaplane test jobs in the post-war period.

After the war, when I was demobilized, I continued my work on the development of B. and P. aircraft as a civilian on a consulting basis (so that, in fact, I was never actually on their staff). During this period I handled several experimental aircraft of great interest, including the Bolton, the first of the high-tensile-steel jobs, and the Bodmin, which had two engines in the fuselage driving four propellers through shafts and gears. Curiously enough, after the numerous transmission troubles had been corrected in ground-running, this complex aircraft gave singularly little trouble in flight.

I learned a great deal from all this work. I had only one crash, which occurred on a type known as the Atlantic. This was a sort of modified Bourges, with two (then very powerful) Napier Lion engines, which the directors, with their usual sportsmanship and enterprise, had agreed to build for the immediate post-war *Daily Mail* transatlantic prize. In fact, they even went to the extent of building two aircraft in case something happened to one of them.

The design contained a number of very interesting and advanced features, but time was against us. In the haste to get flight tests done as soon as possible, I ran up the two engines separately, thus failing to discover a defect in the fuel system which prevented a sufficient supply to both engines together. One engine cut out just as I took off and the machine went into a yawing dive before I could correct the situation. The cockpit was an interesting integral structure which just broke off with me in it, and I wasn't hurt.

Alcock and Brown got across the Atlantic before anything more could be done, but I later flew the second machine, which performed very well. (Incidentally, some nine years were to pass before I attempted the Atlantic—this time on a Dornier, again with two Napier engines. I fell into the middle; and, although I ferried dozens of aircraft over the Pacific during the last war, I still haven't flown the Atlantic.)

The relationship at that time between the firm's directors and the strictly aviation people was a rather curious one. With the exception of Capt. J. D. Paul, I don't think any of the directors knew, or pretended to know, anything whatever about aviation as such. They did know, however, that it was highly important to the current war effort and that, somehow or other, it had a great future. Consequently they paid close and earnest attention to the quality of their products, and no aircraft were better or more carefully built than those of B. and P., a fact which was deeply appreciated by those of us who had to fly in them. However, actual flying was not for them (I believe I did once entice Mr. Howes up for a short flight) and they apparently considered people like myself as noble heroes in a dangerous but necessary business, so that we constituted a mutual admiration society which is pleasant to remember.

I retain vivid memories of Charlie Brown, my mechanic on the Bourges, leaning casually out of the front cockpit whilst we were rolling or spinning; of Martin, the inspector, busily tending the mechanisms in the "engine room" of the Bodmin whilst, low on

Frank Courtney looping the Bourges I over Hendon.



fuel, I was trying to get back into Mousehold in a thunderstorm; of Odgers and Sayers in uproarious aerodynamic arguments; of "Old Man fiske" striding up and down at a Board meeting with riding breeches and crop. It is hard to believe that all that was so long ago.

After several years the work of Boulton and Paul reached a point where they were able to engage a full-time pilot, and when C. A. Rea joined them my work for them came to an end. Unfortunately I have not maintained direct contact, especially since they moved to Wolverhampton; but my very pleasant recollections of those earlier days still remain and I am always running into someone who says: "Of course, I remember you when you were with Boulton and Paul." One such is Bill Nicholls, formerly of B. and P., who is now with me in Convair's engineering department.

There was one event at B. and P. which I tend to remember: one 1918 day I was driving from the Rose Lane works at Norwich to the Riverside factory when one of the telephone operators asked me to give her a lift to Riverside. She never quite got rid of me after that and, at this moment, she is in the next room building a Dry Martini—with which I think we should drink to the continued prosperity of Boulton Paul.

1926-1935

by S/L. C. A. REA, A.F.C.,
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TOWARDS the completion of my R.A.F. service my C.O. at the M.A.E.E., Felixstowe (the late G/C. Maycock), put me in touch with the London Office of Boulton and Paul, Ltd. The manager (the late Mr. Guy fiske) had asked him if he knew of a pilot of some experience who, in addition to test-flying, could assist the technical staff from the Service standpoint. Up till that time the firm had employed free-lance pilots, like Frank Courtney, but now proposed to have their own test pilot and Service representative. I wrote to Mr. fiske and he arranged for me to meet him and Mr. J. D. North. I joined the Company in July, 1926.

My first meeting with Mr. North impressed on me his keen sense of humour and during subsequent years, when we had the usual wordy arguments which generally arise between test pilots and the design staff, this characteristic of his tided over many more-or-less difficult situations. I distinctly recollect a fierce argument between Mr. North, the late H. A. Hughes (who was responsible for detail design) and me, when I endeavoured to put over what I thought was the Service view on some question of design. This was not acceptable, and I left the conference hurriedly in a "take it or leave it" mood, feeling I had rather upset Mr. Hughes. A few minutes later Mr. North followed me and to my surprise said, "Let us have some more of these arguments; the staff can learn a lot from them." With this sort of spirit in the firm good results were bound to accrue.

On arrival at the Norwich works I was shown the prototype Sidestrand, fitted with two Jupiter VI engines, and at once felt that in it we had a most promising aircraft. It was to be ready for flight shortly and I looked forward to my first test for the firm with pleasurable anticipation.

I was told that a small two-seater—the P.9—was available for my personal use and for visits to R.A.F. units and other aircraft firms when necessary. I also raced it successfully at the ill-fated Bournemouth flying meeting in 1927 when I won two first prizes and one second and missed another first by passing on the wrong side of the finishing pylon rather than fly too close to another competitor. This was the meeting at which S/L. Longton and Major Openshaw collided with fatal results to both.

Shortly after the meeting a gold cigarette case, suitably inscribed, reached me at Norwich, together with a eulogy on the flying qualities of the P.9 and its pilot. I was very surprised to find that the sender was a well-known bookmaker who apparently had done well out of the performance of the "dark-horse" P.9. Many years later I was able to give some slight assistance to this sportsman when he was trying to get his son into the R.A.F.

About six P.9s were made and I often thought development should have been continued as the type had a good turn of speed and was, in many ways, ahead of its time. It had, for instance, two suitcases fitted into the top of the fuselage behind the passenger's seat; these were shaped to the fuselage contour and could be removed in a matter of moments. Powered with a 90 h.p. Raf engine, driving a four-bladed airscrew, it could do well over 100 m.p.h., was easy to fly and quite reliable, provided one did not run the engine at full throttle for too long. Mine was finally written off by a pilot who borrowed it, when the engine failed from this cause.

The first flight of the Sidestrand was marred by a slight accident after landing, when one of the wings struck a hockey goal-post at a corner of Mousehold aerodrome. For some time I had