

ON BLIND-FLYING *Blindly*

By P. A. Wills

There may be a few who are born blind flyers, there must be some who will achieve blind flying, but there already are several pilots now who have had blind flying suddenly thrust upon them. Since the results of this may be considerably more drastic than some of us realize, and since the subject is full of interest, it is hoped that the following notes will be useful. Always bearing in mind that the writer is no "number 7" technical hat, but merely an enthusiastic amateur.

I.

In the first place, at a recent meeting of the British Gliding Association a small sub-committee was set up to consider the creation of a "Golden C" badge, involving the mastery of blind-flying technique.

There are, it appears, varying opinions amongst gliding enthusiasts on the desirability of such a test; no doubt there were similar divisions when the "Silver C" was created.

Anyway, we first wrote to Dr. Georgii enquiring whether anything of the sort was at present being considered by the "Istus." His reply was of such interest that I copy it here in full:—

"Your propositions regarding the creation of a new award to soaring pilots, especially for cloud flying, have been of great interest for me. To my mind, the sporting as well as the scientific point of view makes it very desirable to give a particular encouragement to cloud flying by the creation of a new badge.

"Therefore I intend to suggest a discussion on your proposition at the occasion of the coming 'Istus' meeting. At the same time the special difficulties could be treated which are met by cloud flying. You certainly know that the types of gliders used until now could not endure all the stress to which they were exposed in cloud flying. The numerous accidents happening by this reason have caused, for example in Germany, a revision of the resistance regulation for gliders.

"Therefore at the 'Istus' meeting a particular large space will be devoted to this question. I think that on account of the near connection of the resistance regulation with cloud flying your proposition will be of special interest for the conference."

II

The second chapter of this account involves the writer much more personally. Having at last a machine equipped for cloud flying, I have for some time rather nervously been nibbling at clouds. I employed the technique of circling into a cloud as near as possible to one edge, so that when and if I had had enough I could come out in quite a short time by straightening up and steering a compass course for the adjacent edge. I found that in any turbulence the best I could do was from five to ten minutes, after which one's mental resistance seems exhausted. In smooth cloud, however, it is easier, and on one occasion I circled quite happily for perhaps 15 minutes and nearly 2,000 feet until I decided to come out on account of heavy snow.

This experience no doubt produced over-confidence, so that on June 7th, at Bradwell Edge, after a rather abortive week's holiday failing to glide in bitter north-easterly winds and rain, I circled into a rather amorphous and large mass of grey cloud at about 2,500 feet without locating an adjacent edge or anything else.

It was mildly, but not excessively, turbulent inside; the lift also was only mild, from 2 ft. to 7 ft. /sec., and in a gay and youthful spirit I straightened up once or twice and went searching for better patches, started circling again, and behaved generally like a Dittmar.

Suddenly the instruments went completely haywire. I worked out afterwards that I must have stalled: the nose drops, speed goes up; one corrects, but there is a lag in the air speed indicator, so one stalls again, more violently; the nose drops a second time, speed goes up higher; a third stall was followed by Bedlam. The turn indicator jammed hard left; the bank indicator hard right. The variometer showed its maximum of 25 ft./sec. descent, but as we were certainly losing height at over 150 ft./sec., maybe it had gone round six times. The A.S.I., however, exercised in me the greatest and most baleful fascination. It was registering a seemingly innocuous 40 m.p.h., but I had watched it with popping eyes achieve this by going twice round the dial. HJORDIS, feeling as tight as a drum, was bellowing like a bull in considerable pain, and perhaps the most dominant of my kaleidoscopic emotions was a desire to move nothing more than half an inch at a time.

It can be imagined that few actual seconds of this elapsed before I burst out of the cloud-base in a dive rather over the vertical, and in full view of a number of people on the ground. From this I gradually extricated her, and with the last of my excess speed zoomed back into the cloud. There was at that moment no spot in three-dimensional space which I would not have preferred; fortunately the Maw failed this time to Clutch, and shortly afterwards we got clear.

The heroes of this story are (a) Buxton (designer), and (b) Slingsby (constructor). I fill the role of the Foolish Virgin. For, spurred by this experience, I started to read up the subject.

I discovered that the entertainment sprung on me is the High-speed Spiral Dive, and is a standard experience of blind-flying learners in their early stages.

No machine can, in such a plight, stand up to forceful movements of the controls, nor can they be relied on if they are dived at these speeds into any rapid horizontal or vertical acceleration of the air.

The next section gives a few points which seemed to apply particularly to the sailplane pilot.

III

Part of the difficulty in obtaining accurate information regarding the difficulties of blind flight lies in most pilots' fear that an admission implies lack of skill in their

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