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EDITED BY ALAN E. SLATER



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Progress in South Africa

FOR some years after soaring first began in Europe, pilots used to sigh for the opportunity to practise their art nearer the equator, where they imagined the air to be seething with thermal currents. Two years' experience in South Africa has shown that the thermals there are certainly an improvement on the European ones, though the art of using them is not altogether as easy as the optimists expected.

Till recently the South African distance record was that set up by Hermann Winter last Christmas, when he flew a MINIMOX 81 miles, beating the previous record of 30 miles put up by P. A. Wills in a KIRBY KITE in October, 1936, in the course of a visit which introduced the art of thermal soaring to the South Africans. Then, on September 11th this year, Herbert Bartaune, who holds "Silver C" No. 106 and has worked hard for the spread of soaring in South Africa, flew a MINIMOX 210 miles from Johannesburg to Bremersdorp in Swaziland. Finally, Mr. Winter capped this with 214 miles during the competitions held last month—a very successful meeting at which 250 hours' soaring was done, and which is described later.

We have no further particulars of Mr. Winter's flight, except that he climbed to 10,200 feet. But Mr. Bartaune's, which was over a very similar route, has been described by him at length in *Flugsport*, from which we have taken the details that follow.

210 Miles from Johannesburg

Bartaune started from Alberton, near Johannesburg, at 11 o'clock in the morning by being auto-towed into a thermal, and was soon up above 3,000 feet. His intention was to try for Lourenco Marques, Delagoa Bay, nearly 300 miles away to the east. Although the air was thick and grey behind him, that in front was clear, though the sky was covered with a veil of cirrus. However, this, he says, does not inhibit the sun's radiation as it does in Europe. He tried at first to find something to take him higher before setting off eastwards, but there appeared to be a strongly stable layer at 3,500 feet. He had to go ten miles travelling at 55 m.p.h., before finding the next thermal at only 1,000 feet above some salt dumps.

The flight proceeded with alternate thermal climbs and fast glides, mostly keeping between 2,400 and 3,300 feet, though once rising to 4,250 feet. The thermals were extremely turbulent. After an hour's

going there was still a cirrus veil overhead, but some shreds of cloud from thermals appeared far away to the east. Below was the flat Transvaal, with occasional grass fires, one of which provided him with lift up to 5,250 feet, so that he grew bold and glided off from this height at 60 m.p.h. to expedite his eastward progress.

The first recognisable place on the map was a railway junction at Breyton. Beyond lay an area containing lakes, some with open water and some difficult to recognise through being filled with reeds; but, says Bartaune, "there was room to fly between them." He reached the aforementioned cloud shreds, but after finding that they were inclined to melt on him and leave a down-current in their place, he got fed up and decided to ignore them. In fact, the best thermal of all, which took him up to his maximum height of 5,900 feet, was found between two clouds under clear sky, and only a little wisp appeared at its top as he left it. Actually this was over 13,000 feet above sea level.

A Mountain Barrier.

Things now began to change. The landscape became hilly, with small woods about; the air ahead was thick with haze; the pilot, who had so far proceeded eastwards from thermal to thermal with the simplicity of an aeroplane pursuing a compass course, had to use all his skill to get any further. Soon a mountain range loomed out of the haze; this was the Drakensberg, and before long he arrived over the notorious Komati River Valley, where formerly two aeroplanes had their wings break off in the violent gusts.

All this was unexpected, as the pilot had only a road map which didn't show mountains at all. What with this and the poor visibility, it was impossible to know where there was a way through, and Bartaune went many miles to the north-east, nearly to Barberton, in a vain search for one. Returning on his course, he found the haze thicker and the thermals weaker and inclined to give out altogether. It was 3 p.m. and he had been four hours in the air. A shred of cloud provided evanescent lift, and then there was nothing to do but prepare for a landing in the only possible place, a stubble field by a farm. Yet only 100 metres above this, some weak patchy thermal lift again appeared; its kernel was hard to discover, but once found it lifted the MINIMOX slowly to 5,700 feet, and

this, combined with the drift of the wind, enabled it to clear the mountains.

At this point the pilot had to give up his idea of trying for Lourenco Marques, since it would have meant crossing 60 miles of bush country, impossible to land in without breakage, and inhabited by lions, crocodiles, snakes, and malaria germs, but hardly any of the human species. So Bartaune decided on a downhill run along the valley which descended from Mbabane to Bremersdorp. Along the east side of the valley the rocks rose 2,600 feet, providing a fine soaring slope 10 miles long, unblanketed by anything of consequence on the west side. Soaring along this ridge was extremely rough, and when at the end he cut off a corner to reach Bremersdorp, the resulting bump inflicted bruises on his head and shins which were still visible after a couple of days.

Arrived at 4,600 feet above the town at 4 p.m., the pilot still found some weak thermal lift about, but it was not good enough to attempt a crossing of the bush which lay ahead, so he sank slowly to a landing at 4.20.

The October Competitions

Some first-class flying was seen at the 1938 South African gliding competitions held at the Quaggapoot site of the Rand Gliding Club in October.

October 13th was a big day. Mr. H. Winter, a German "Silver C" pilot, flying a MINIMO, got away about mid-day and landed at Sulphur Springs, beyond Piet Retief, 214 miles away. The Transvaal Club's retrieving team were then faced with a 600-mile journey over the veldt to get him back. This flight qualifies for one leg of the "Golden C," and also wins him the P. A. Wills trophy for distance outright.

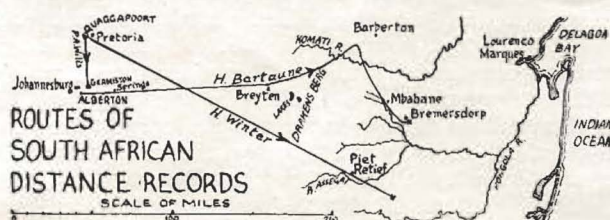
Warrant Officer J. Mayhew, of the (Air Force) Defence Gliding Club, flying probably a WOLF, flew on the same day 123 miles; Mr. Hahl, of the Transvaal Club, in a RHÖNADLER, flew 100 miles; and Mr. Domisse, of the Rand Club, completed his "Silver C" during the week with a flight of 47 miles in a GRUNAU BABY. During this flight, it is reported, he met with thermals up to 40 ft. per sec.

R. Rainey, whom many members of the London Club will remember, distinguished himself by doing three cross-country flights on three consecutive launches, of 70, 30, and 50 miles respectively, also in the club GRUNAU.

On the 18th Mr. G. Pearce flew 122 miles in the GRUNAU. At that time the Rand Club's "A" team were leading the competitions with 2,671 points, followed by the Defence Club with 1,434 points.

Mr. A. Brink, the owner and entrant of HJORDIS, unfortunately overturned his machine in a downwind landing on the first day and was forced to retire.

These performances show the most wonderful advance in the South African gliding movement. We congratulate them as heartily as we envy them.



From Here and There

Long Distance in Poland.—The longest distance flight ever made in Poland, a recent visitor to that country informs us, was one of 570 km. (354 miles) by T. Gora, who, on May 18th this year, soared a PWS-101 from Bezmiachova nearly to Vilna.

* * *

New Polish "Silver C's."—The National Aero Club of Poland publishes a list of pilots who have lately earned the "Silver C" in Poland. They have been allotted the numbers 955 to 982 and 1038 to 1048 inclusive. These 39 pilots all have Polish names except one, No. 1040, who is listed as "Wood, Charles McClintosh."

* * *

To Buenos Aires.—Mr. R. Philip Cooper, of the London Gliding Club, is setting off at the end of next month for Argentina, where he will spend a month or two at Buenos Aires. He intends to take with him a high performance sailplane, probably either the new VIKING brought out by Scott & Zander, or else a SLINGSBY GULL.

* * *

Cloud Streets in Derbyshire.—It seems that the various types of soaring conditions tend to be seasonal. Mr. Garnet Shepard, of the Derbyshire and Lancashire Club, writes: "During the same week this year that the National Competitions were held with us last year, some of the best cloud streets passed over us that we have seen this year, accompanied by W.S.W. winds; this occurred on four days of the week. But of course everyone was at work."

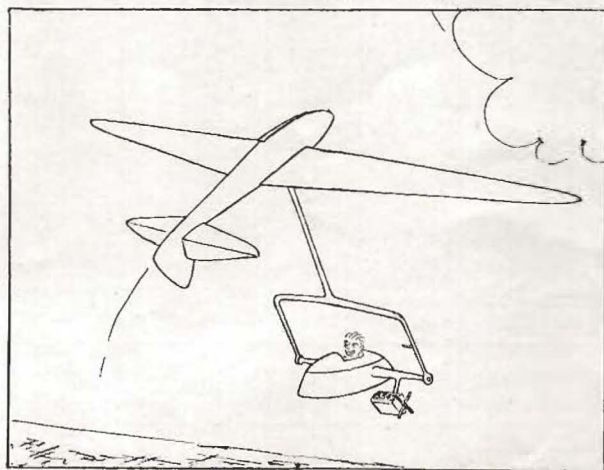
* * *

Cross-country from Norwich. The first cross-country soaring flight from the Norfolk and Norwich Aero Club was carried out by Baron de Sarigny, chief power-flying instructor to the club, on September 13th or 14th (our informant is not sure which). He was aero-towed in a KIRBY KITE to 2,000 feet, but was down to 500 feet after only going three miles. However, he then picked up more lift which took him to 3,500 feet, and carried on with various ups and downs until the lift finally gave out. He landed near Woodbridge, in the neighbourhood of Ipswich, after going 36 miles. He has never glided at any other club.

* * *

A Lecture by Dr. Lippisch.—Dr. Alexander Lippisch, pioneer sailplane designer, who was responsible for many famous designs from the ZÖGLING to the FAFNIR, is lecturing to the Royal Aeronautical Society on Thursday, December 15th, on the Smoke Tunnel of the German Research Institute for Soaring Flight. Tickets for the lecture may be obtained through a member of the society. Also a limited number of tickets for the lecture are available to the British Gliding Association by courtesy of the R.Ae.S., and will be allotted, in strict order of application, to members of gliding clubs who may wish to apply and are not members of the R.Ae.S. Requests to the B.G.A. for tickets should be accompanied by a stamped addressed envelope.

The Looping Record



"354... 355..."

[Drawing by J. S. Sproule.]

Visitors to Yorkshire.—The Yorkshire Gliding Club desire to notify all private owners who wish to fly at Sutton Bank or at Welburn that they must bring evidence of Certificate of Airworthiness and Third Party Insurance for their aircraft.

* * *

Olympic Soaring.—Finland has decided to hold an international sailflying contest in Helsingfors in connection with the Olympic Games in 1940, and German preparations, according to *Der Deutsche Sportflieger*, are being made by the National Socialist Flying Corps in consultation with the German Olympic Committee. In the spring of 1939 a meeting is to be held in Italy at which pilots of various countries are to try out the prototype sailplane, and an announcement by the British Gliding Association regarding this meeting will be found on another page.

Correspondence

Air-Speed Indicators

SIR,

"Rhoveesquared's" statement and argument supporting the fact that the cup anemometer is independent of air density seems to ignore the fact that a certain turning moment is necessary in order to make such an instrument function.

Consider the instrument revolving at a constant speed in an air stream of constant velocity. This means that the torque on the spindle exactly balances the turning moment produced by the differing resistances of the cups due to their attitude to the air stream; and, as "Rhoveesquared" agrees that resistance is proportional to density, then a difference of resistance is surely still proportional to density.

If the density is increased the out-of-balance resistance, which varies with density, likewise increases and thus the torque on the shaft increases. This must be absorbed and therefore results in an increase of speed.

FURNESS.

Diagram for Best Air-Speed

SIR,

It is with regret that an error has been made in the article on "The Best Air-speed to use in any Conditions" (September issue, p. 212).

The statement that the air speed meter reads in proportion to the air density must be amended to be in proportion to the *square root* of the air density.

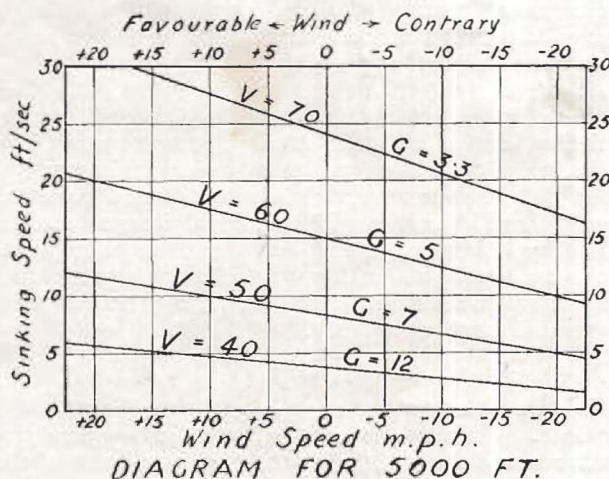
Readings at 5,000 feet must be multiplied by 1.1, and not 1.2 as given in the article.

The graphs for 5,000 feet must therefore be amended, and I enclose a new graph of best speeds; the graph of sinking speed at 5,000 feet is unnecessary and may be ignored.

I was glad to see the graph of sinking speeds for the RHÖNADLER, as this enabled me to draw the graphs for that machine, but as these are practically identical with those for the RHÖNBUSSARD I have not included them; they indicate that the best speeds are 1 or 2 m.p.h. slower and the gliding angles slightly worse at the lower speeds.

A further correction to make is that at the same indicated air-speeds the gliding angles are the same for any height.

UBIQUE QUO FAS.



Review

How the Flying Fishes came into Being. By H. A. REY. Chatto & Windus, London. Price 1s.

Messrs. Chatto & Windus are one up on THE SAILPLANE AND GLIDER. Seeing a book with this title in their catalogue, we wrote to ask for a review copy, stating that the subject of the flight of flying fishes was of interest to readers of this journal. The book proved to be, as its sub-title indicates, just "A Story in 8 Pictures." The publishers added: "We feel that you may find the theory expressed in this little volume somewhat revolutionary." It is, but it would be a shame to give it away. We will only say that, though the theory may prove slightly shocking to scientists—and others—the booklet would make a most suitable Christmas gift to a glider pilot.



Cross-Country Flights at the National Contest

AFTER the annual German gliding competitions it used to be, and perhaps still is, the custom for Professor Georgii to write a report on the more notable flying achievements, while Dr. Lippisch would report similarly on new sailplane designs. These reports would be published in a technical journal about six months later. However, not having Professor Georgii's prestige one does not feel able to get away with quite such a long wait.

At the early German meetings the few individual flights of note that were made had to be considered in isolation, but at national soaring contests nowadays so many pilots go off together under similar conditions that it seems worth while to try and correlate them to see if anything of additional interest can be learnt by doing so. Nearly all the pilots who made cross-country flights at this year's British contest have been asked to send details of their flights, and all have responded most generously.

Monday, July 11th.

This was the first day on which distance flights could be done. Unfortunately not all the timekeepers' records reached the officials, so there is some doubt about the starting times of many of the pilots.

Throughout the morning there was a slope-soaring wind blowing against Dunstable Downs in which no thermals could be found. The weather map (see page 261) shows that Dunstable was then bathed in so-called "tropical" air, which, having a southerly origin, tends to be stable, since its lowest layers are progressively

cooled as it moves northwards. "Polar" air (marked "B" on map) is approaching in the wake of a cold front moving southwards across England, which had reached Lincolnshire in the early morning; however, the front seems then to have dissipated, since the meteorologists lost track of it and did not enter it at all on the map for 13 hours (2 p.m. Summer Time). What did eventually reach Dunstable was the air mass marked "A," which is bounded by fronts to the east, south and west and can be followed in its progress across all the maps in turn. This also is polar air—unstable through having its lower layers progressively warmed as it moves southwards.

This new air arrived about 3 p.m., heralded by a line of piled-up cumulo-nimbus. This is shown in the above panoramic photograph, passing away to the east at 3.15. Into this mass of cloud P. A. Wills disappeared immediately after an aero-towed start. Its base was at 2,000 feet. He climbed inside it up to 7,000 feet, but then felt too ill to continue (owing to the effects of a sleepless night) and straightened up in order to escape from it. He flew straight for five minutes with the variometer jammed against the top (i.e., a rise of over five *metres* per second), and then, on coming out, found that he had been less than one-third of the way up the cloud. There was an aerodrome underneath which, owing to the suddenness of his emergence, he took to be Mildenhall, and only after telephoning his supposed whereabouts to headquarters was the mistake discovered: it was Duxford.

Next we will take P. M. Watt, who appears from

List of Cross-country Flights on Monday, July 11th.

Pilot	Aircraft	Launched	Left	Landed	Place	Distance
F. T. Gardiner	H-17	12.24 (winch)	—	13.01	Kensworth	3
R. M. Smart	KIRBY KITE	— (winch)	—	—	Redbourne	8
J. H. Saffery	GRUNAU BABY	— (winch)	—	—	Lilley	8
P. M. Watt	KING KITE	— (aero-tow)	—	—	Wymondham	87
P. A. Wills	MINIMO	14.57 (aero-tow)	14.57	15.47	Duxford	33
A. B. Wilkinson	KIRBY KITE	10.21 (winch)	15.15	15.53	Duxford	33
K. W. Turner	GRUNAU BABY	14.55 (winch)	15.15	15.35	Stevenage	15
A. Davies	GULL	14.31 (winch)	15.15	16.16	Duxford (Goal)	33
G. H. Stephenson	KIRBY KITE	14.07 (aero-tow)	15.15	—	Duxford	33
J. V. Rushton	KIRBY KITE	— (winch)	15.15	—	Luton	6
S. Humphries	RHONBUSSARD	— (winch)	15.15	—	Newport	33
C. Nicholson	RHONSPERBER	11.51 (winch)	15.15	17.35	Lowestoft	106
J. S. Fox	RHONADLER	— (winch)	—	—	Duxford	31
A. Ivanoff	GRUNAU BABY	— (winch)	—	—	Chiltern Green	10
P. Brown	KIRBY KITE	— (winch)	—	—	Lilley	10
J. W. S. Pringle	KIRBY KITE	16.30 (winch)	17.00	—	Haultwick	20



A panoramic photo of Dunstable Downs and the retreating cold front at 3.15 p.m. on Tuesday, July 12th. One of the larger cloud masses conceals P. A. Wills and his "Minimoa," while at the left-hand end, in line with the furthest right of the tent-tops, is the cloud under which seven pilots climbed together in a thermal current. The high cloud behind on the right is probably not "anvils" but the result of the previous "occlusion."

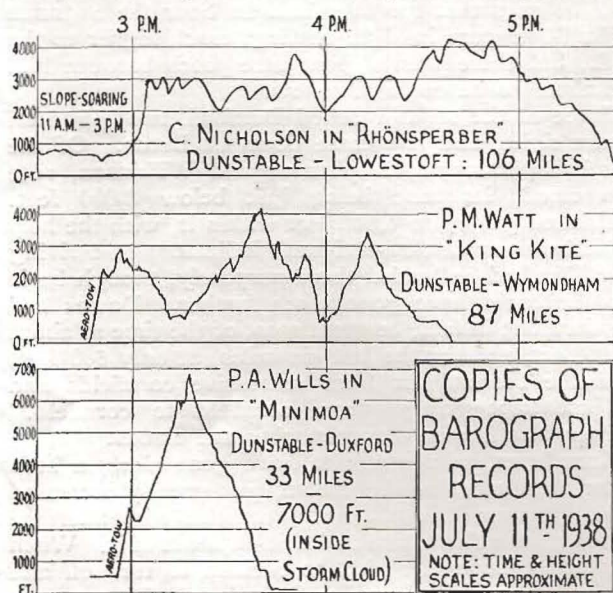
the records to have had the aero-tow before Wills; the time is not stated, but the barograph chart has been aligned on the assumption that it was 10 minutes earlier. His first cloud, encountered over Dunstable, he says, "provided little besides a wetting"; evidently he did not charge into the big mass which Wills was in, but his cloud, since it was big enough to disgorge rain, must have been an offshoot of the cumulo-nimbus mass. Over Luton he got so low as to pick on a landing field, but encountered a weak thermal which "put him right for Duxford." Of this part of the journey, which was completed between 3,000 and 4,000 feet,

he says: "One had to be careful not to cruise for long, because down-draughts were strong and the early part of thermals were scrappy."

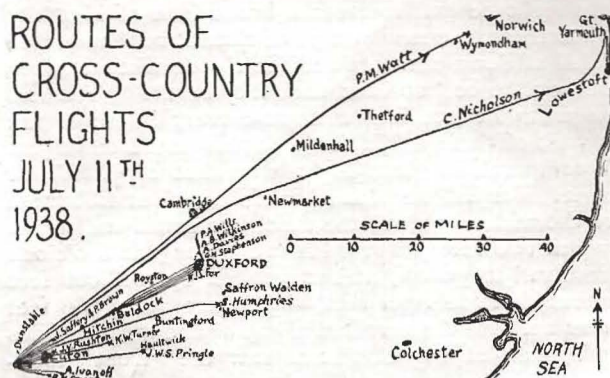
Actually the pilot had given Bircham Newton as his goal; this would have involved flying cross-wind to the left, but beyond Cambridge the sky began to flatten out, and he had to edge over to the east to keep in the air at all, giving up all hope of reaching the goal. There were one or two anxious moments short of Wymondham, and right at the end he got five feet per sec. rise, but was much too low to circle. Finally: "The chief mistakes were (1) starting off in a cloud that gave very little lift (the subsequent loss of height let me in for a long scramble which wasted a lot of time); and (2) going for a front that wasn't there." This apparently refers to the aforementioned southward-moving cold front which disappeared, but which had probably been mentioned in an aviation forecast.

C. Nicholson, who flew over much the same route at much the same time, also had to turn east on reaching Cambridge (which incidentally was his announced goal, but he got there at 4,000 feet and so decided to carry on). He saw to his left a dark overcast sky and rain. But he managed to carry on to the coast, where he found things very active. He went on to Yarmouth in the hope of increasing the total distance, but saw no landing grounds, so had to return to one he had picked on at Lowestoft. If the weather map is accurate, this final bit of active air must have been part of mass "B" rather than "A."

We now come to a real chance of "correlation." Seven pilots all went up in the same thermal at about 3 o'clock. They were A. B. Wilkinson, Turner, Davies, Stephenson, Rushton, Humphries, and Nicholson. All but Turner and Humphries had already been slope-soaring for various periods from a half to five hours, and evidently this was the first good thermal to come along. Just before it appeared at (or arose from) the "Bowl," Humphries detected "signs of thermals strengthening" there. Once it was discovered, everybody went into it, and there were two narrow escapes from collisions: Humphries was nearly rammed by someone who, his head being inside the cockpit and engrossed with the instrument board, was unrecognisable; and there was an awkward moment at 2,000 feet when Turner and Rushton found themselves face to face, until one of them dived out of the other's way.

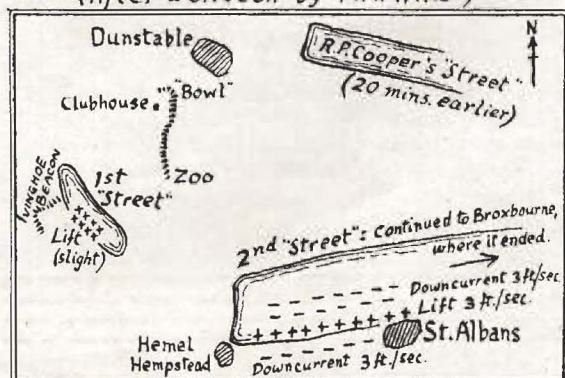


ROUTES OF CROSS-COUNTRY FLIGHTS JULY 11TH 1938.

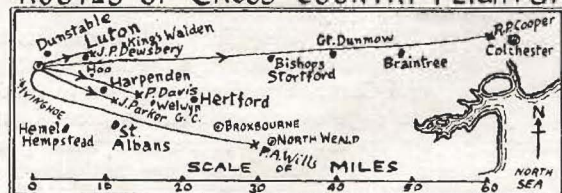


TUESDAY, JULY 12^{T.H.}, 1938.

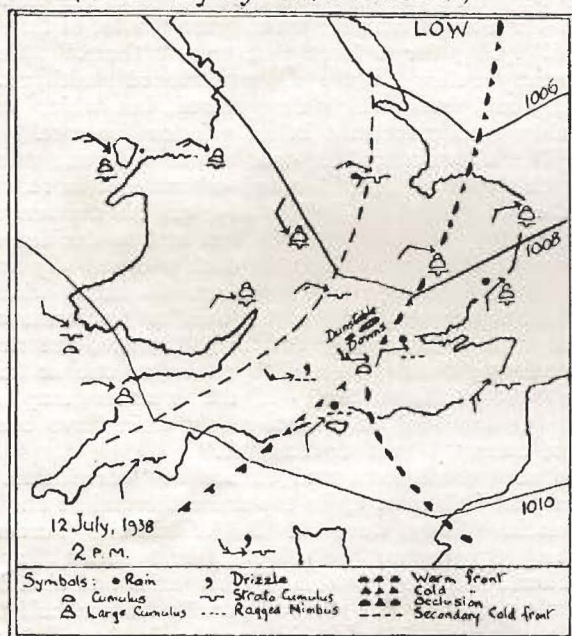
CONDITIONS AT START OF P.A. WILLS' FLIGHT (After a sketch by P.A. Wills.)



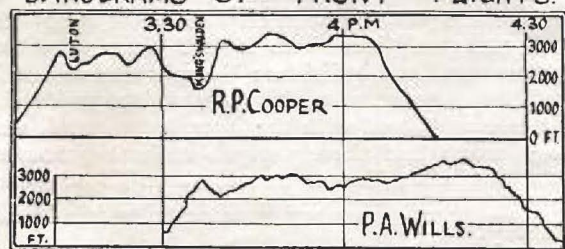
ROUTES OF CROSS-COUNTRY FLIGHTS.



WEATHER SITUATION AT 2 P.M. (Drawing by R.M. Poulter.)



BAROGRAMS OF "FRONT" FLIGHTS.



A photograph, at 3.35 p.m., of the actual "front" cloud used by Mr. Wills at the start of his flight on Tuesday, seen as it approached Dunstable Downs from the south-west (see adjoining sketch).

First to find the thermal was apparently Turner, though he says most of the others overtook him on the way up through it. Last to enter it, below all the rest, was Nicholson; yet eventually he went three times as far as any of them. The latter part of his flight has already been described. Reports from the others do not give much clue as to the reason of his success. Humphries says: "Down below to the south the SPERBER came whizzing along like a destroyer, went into a set of tight circles, rose like a rocket and shot into the clouds." And Davies "saw the SPERBER, much lower down, come up and pass me going cloudwards"; later he says that for over half an hour the SPERBER and a KITE were in sight circling, much higher to the N.E., but there was a great blue patch between him and them so he couldn't follow.

Three of the seven reached Duxford, two edged off to the right, and one came down at Luton. Of the Duxford pilots two, Stephenson and Wilkinson, rose into cloud, its base being just below 3,000 feet. Wilkinson got up to 4,000 feet within it, with the help of his home-made turn-and-bank indicator; on arriving over Duxford he landed there purposely, though he is sure he could have gone much further. Davies had less fortune; in fact, he spent most of the time at about 1,000 feet, and for the last six miles, at only 600 feet, used the thermal lift from successive cornfields and so just kept going "from cornfield to cornfield." Turner, like Davies, never reached the clouds.

Humphries, who seems to have gone along a little faster than most of the crowd, got greatly increased cloud lift over Baldock, and proceeded with alternate soars into the cloud base and side-slips out of it. When Cambridge hove in sight, he decided to turn off and try for his announced goal of Orfordness. To get more to the right he had to cross a broad lane of blue sky and switch on to a new stretch of clouds, but the course was full of down-currents and the clouds when reached turned out to be "so dead that they smelt." The end came when he got into a down-current in lee of the hills west of Saffron Walden, and this ended the flight.

A comparatively late flight was that of J. W. S. Pringle. For half an hour after his launch at 4.30 there were thermals about all the time, but small and weak. So when two feet per sec. lift came along at 5 o'clock he resolved to go off, and was taken up to 3,000 feet at about three feet per sec., cloud base being 300 feet further up. He then crossed a gap of about three miles to a broken-looking cloud and saw the "front" look-

ing very impressive 10 miles ahead. Having then only 1,500 feet in hand, he made a valiant attempt to reach it at 70 m.p.h., but before long was down to 200 feet and had to land. His lesson is that "after a smooth period with the sun shining, it is *sometimes* safe to go away in a two feet per sec. thermal; presumably there should be a bit of instability stored up."

Tuesday, July 12th.

What happened on this day has been clarified by Mr. R. M. Poulter, of Farnborough, who has kindly sent his version of the weather map. An occlusion, he writes in a covering note, passed Dunstable at about 1 p.m., and Farnborough soon after, giving a slight veer of wind from W.S.W. to west. This is shown in the published weather map, but what is not shown there is a secondary cold front, which "gave a very definite change of wind to W.N.W. at Farnborough at 4 p.m. and would probably have passed over Dunstable at about 3.30." It is shown well on his map.

After the occlusion the sky remained overcast, but there were some cumulus-like clouds, and at 2.25 a large dark one came over into which Davis and Dewsbery disappeared. Davis had been circling without loss of height before entering it, then went in and spent most of his flight inside it. Dewsbery got under it and rose into it at three or four feet per second, came out and found similar lift over Luton, but nothing further.

J. Parker climbed 500 feet from his launch into cloud base at 2,500 feet, then attempted to use other thermals, but they were too small and weak.

The cold front did not bring lift of any greater magnitude, though it looked good from the ground. Cooper went off before it arrived, and at first spent some time wandering around looking for thermals. At last, over Bishop's Stortford, he got a "front" of some sort. There was a sheet of cloud above and to the left, and rags of cloud below going up into it, so he got into a kind of corner between these and went along eastwards over Great Dunmow and Braintree, where he saw the sea. Next he flew through some dirty stuff which included rain, and dropped at 20 feet per sec. down to 1,000 feet, then returned to the front, got no lift this time and had to land.

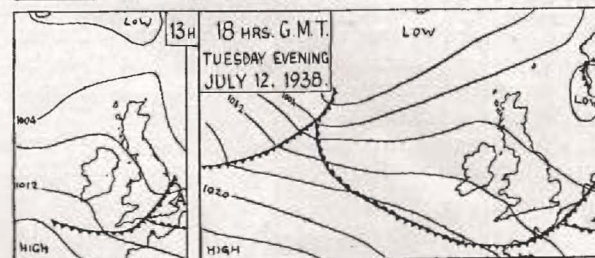
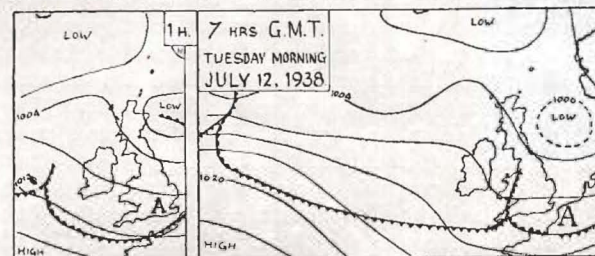
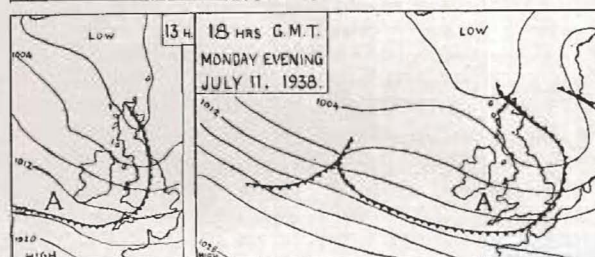
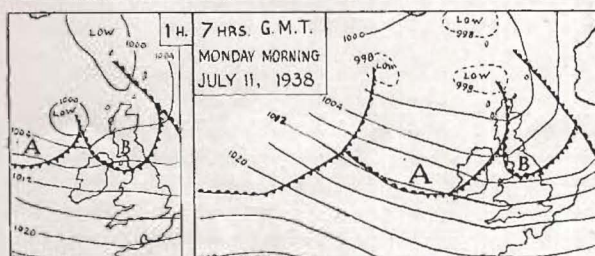
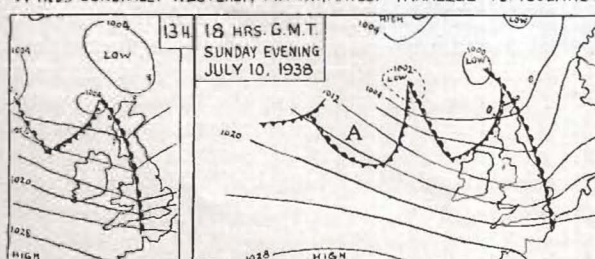
Wills's flight is best shown by his sketch. He first dashed off to the cloud labelled "No. 1," even overtaking the aeroplane which was returning to Studham. There was only slight lift under it, so he made for another piece of "front" (No. 2) and found a belt of lift just inside, with a down-current belt on either side of it, one in the cloud and the other in the open. So he flew along blind, keeping to the right track like flying along a Lorenz beam. This street of lift carried him as far as Broxbourne, where it ended and let him down to earth.

Next month there are those two great days, Wednesday, the 13th, and Sunday, the 17th, to describe, and there is reason to think that the "correlation" idea will bear better fruit than it has done in regard to the Monday flights.

A. E. S.

WEATHER MAPS Showing Fronts & Isobars only.

REPRODUCED WITH ACKNOWLEDGEMENTS FROM THE DAILY WEATHER REPORT ISSUED BY THE METEOROLOGICAL OFFICE. WINDS GENERALLY WESTERLY, APPROXIMATELY PARALLEL TO ISOBARS.



The Sunday evening map shows how three depressions have formed like waves at the boundary of the polar and tropical air currents. The first (to the east) caused the wind to back as it approached during the two-seater duration record on the Saturday night; the second brought thermal-soaring conditions to Dunstable on Monday afternoon; while the third was responsible for the "front" flights on Tuesday.

List of Cross-country Flights on Tuesday, July 12th.

Pilot	Aircraft	Launched	Landed	Place	Distance
P. B. N. Davis...	RHÖNADLER	14.10 (aero-tow)	---	Welwyn Garden City	14
J. P. Dewsbery...	RHÖNSPERBER	14.22 (winch)	---	Luton	6
J. T. M. Parker	H-17	14.45 (aero-tow)	---	Harpenden	11
R. P. Cooper	RHÖNBUSARD	15.08 (aero-tow)	16.23	Colchester	58
P. A. Wills	MINIMO	15.32 (aero-tow)	---	Epping Upland	30

Gliding Activities Abroad

A RECENT Air Ministry "Résumé of Commercial Information" gives news of gliding activities in many countries from which news is hard to come by. It includes statistics for the various countries for the year 1937, and other information, translated from the *Bulletin de la Fédération Aéronautique Internationale* published last April; also news taken from sundry foreign journals of more recent date. We give below the chief items of interest, and, since THE SAILPLANE has a world-wide circulation, we should explain that we have arranged the countries alphabetically.

Argentina

The history of gliding in Argentina begins in 1924, when the pilot Otto Ballod made a gliding flight at Tandil in the presence of F.A.I. representatives. The flight ended in a fatal crash. The glider, named REGINA, was built on the model of the famous VAMPYR, which made the first prolonged soaring flights in the world at the Wasserkuppe, Germany, in 1922.

From 1926 to 1930 further attempts were made by the brothers Barth at Buenos Aires and later at Tandil, and by a small group of Germans at Rio Colorado.

In 1930 the "Albatross" Gliding Club was founded at Buenos Aires. Subsequently a number of groups were organised in the interior, among them the "Condor" at Comodoro Rivadavia (Chubut). There are at present 30 gliding centres in the country, and flying is done regularly at six of them.

Sixteen "C" certificates have now been granted to members of the "Condor" and "Albatross" clubs, and one pilot from the Argentina Aero Club has obtained the "C" for a thermal flight lasting 35 minutes. Two pilots, H. Teichmann and A. Vignera, have made climbs of 1,000 metres, but the first lost his barogram and the second never had one. The outstanding event of 1937 was a flight of 50 kilometres (31 miles) by Hans Ott; he flew across the River Plate from Colonia (Uruguay) to Quilmes (Argentina). (As these towns are on opposite shores of the estuary, the pilot must either have got thermals off the water or have been aero-towed to a great height to begin with.) Hans Ott also did a duration flight of 11 hrs. 35 mins.

In Argentina there are 13 training gliders, 3 GRUNAU BABIES, 1 VIGNERA (Argentine construction), a CONDOR and a MINIMO.

Austria

Statistics are given of the total number of gliding certificates now held in Austria, and of the numbers issued in the last two years, as follows:—

	Total	1936	1937
"A"	1,012	307	299
"B"	922	117	362
"C"	421	52	166
"Official C" ...	199	32	68

(The "Official C" involves half an hour's soaring and an oral examination, and allows the pilot to soar outside the neighbourhood of a club ground.)

A distance record was set up in March, 1937, when Kahlbacher flew 98 miles from Spitzerberg, near

Vienna, to Buchov, Czechoslovakia, but it was beaten by Emmy von Roretz with 120 miles at the international meeting in Germany four months later. Another interesting flight was the first crossing of the mountain range north of Innsbruck. The pilot, Wiedmer, reached a height of 3,000 metres (9,843 ft.) and went 59 miles. Hütter put up a duration record of 27 hrs. 50 mins.

"Silver C" certificates at the end of 1937 numbered 17, not counting Robert Kronfeld and Emmy von Roretz, who got theirs in Germany. Of these 11 were earned during the year.

Belgium

Activities during 1937 were marked by the first aerobatic flights, thermal flights, and an increasing number of aero-towed flights. Types of machine towed were RHÖNADLER, GRUNAU BABY II, PFALK (PROFESSOR), and the two-seater AUSTRIA bought from Robert Kronfeld.

The Belgian altitude record was increased from 125 m. (410 ft.) to 1,200 m. (3,937 ft.), the latter being achieved in a thermal flight.

(We hear, by the way, that the Belgians have now ordered a FALCON III two-seater from Slingsby Sailplanes.)

Czechoslovakia

In the national organisation, *Masarykova Letecká Ligeř*, the number of certificates held up to December 1st, 1937, were: 1,001 "A" (of which 224 were gained during the year), 585 "B" (174 during year), and 144 "C" (43 in year). There are two "Silver C" pilots. The number of machines in use is: 233 primary gliders (41 of foreign type, the rest of Czechoslovakian types), 123 secondary machines (32 foreign, and of the rest about half are two-seaters), and 12 sailplanes (4 of foreign type). At a contest for new sailplane designs, 16 were entered, most of them having gull wings; two were chosen for construction during 1938.

There is also, or was until recent events, an "Association of German Pilots in Czechoslovakia," which had 43 local groups. By the end of 1937 this organisation had 220 "A," 135 "B," and 85 "C" pilots. The types in use were exclusively ZÖGLING primaries and a few GRUNAU BABIES, all being constructed, owing to shortage of funds, by the local groups, who put in 35,000 hours of work, all told, during the year. A new type of sailplane, the Lo. 105, has been designed and built by M. Lothar Vaght, a student at the German Technical College at Brno.

Egypt

There is only one gliding school in Egypt, founded in 1936 by the Egyptian Aero Club, and situated near Almaza aerodrome, Cairo. Winching is carried out from October to July, but the school is closed in the summer. Certificates earned are: 56 "A," 28 "B," and 5 "C." "C" tests were carried out on a slope near Cairo. A permanent ground is to be established near Suez on the Jebel Tweibid, where conditions should be specially favourable.

Finland

A German expedition which visited the country in the summer of 1934 gave the first impulse to the development of gliding in Finland. Groups were formed in different parts of the country, and began to produce gliders of types so various that the Air Defence League of Finland decided that the movement must be properly organised.

By now a number of experts, both in flying and in glider construction, have been trained, and in the early summer of 1938 thirty-two courses in construction were in progress, and more were being started. By that time 50 machines had been built and 32 more were under construction, all by voluntary labour to the number of 2,000 "young men of all ages." Most of the machines were of GRUNAU 9 (primary) type, some with nacelle; GRUNAU BABIES were also built, and the RHÖNBUSSARD is in use for high performance work. In addition there are Polish types, such as the WRONABIS and the KOMAR, which has been found particularly good.

A Central Flying School has been established at Jämsä, with its own buildings, including sleeping accommodation, restaurant, baths, workshops, store rooms, and three hangars; at the school 100 pupils can be taken simultaneously by the 20 instructors. A "Klemm K1/25" is in use for aero-towing, and put in over 400 tows in the summer of 1937. At that time the sailplanes carried no instruments except barographs, but this year instruments and parachutes are being carried. As a result of intensive training at local clubs during the winter 1937-8 many of this year's pupils were already partly trained.

By the end of last year the certificates earned at the Central Gliding School were: 308 "A," 182 "B," 42 "C," and 54 instructors' tests.

The Finnish records for duration and altitude were set up in the autumn of 1937 during one flight, when a pupil soared in a KOMAR for 7 hrs. 44 mins. and reached 9,186 ft. (6,890 ft. above launch) in thermal currents.

Holland

At the end of 1937 there were 30 clubs, owning 33 machines, with a membership of 800. Certificates issued were 130 "A," 103 "B," and 23 "C," while one pilot had the "Silver C." A national duration record of 24 hrs. 3 mins. was set up.

Hungary

Three years' progress in Hungarian gliding is shown thus in statistical form:—

	1935	1936	1937
No. of active groups ...	19	19	20
No. of active members ...	—	—	982
No. of gliders ...	78	97	104
No. of flights ...	7,596	14,057	17,804
Flying time (hrs.) ...	214	303	453
"A" certificates ...	99	141	232
"B" certificates ...	52	71	109
"C" certificates ...	16	22	24
"Silver C" ...	1	—	1

The figures given for 1937 only include the first ten months.

The 104 gliders are divided into: 58 primaries, 26 secondaries, 20 sailplanes. New types brought out in

1937 were the VOKSOK training glider and the M-22 aerobatic sailplane of the Budapest Polytechnic School (this is the one in which Mr. Mole did 147 consecutive loops in Egypt). There were no accidents during the year.

The national records, which were not improved upon in 1937, were all set up by Ludwig Rotter; they are: duration, 24 hrs. 14 mins.; altitude, 6,037 ft.; goal flight, 203 miles.

Italy

The chief centre is the Asiago school, where soaring is dependent entirely on the use of thermal currents, and the duration of "C" test flights varies from a minimum average of 15 mins. to a maximum of 1 hr. 30 mins. (The Air Ministry translator renders "15 minutes de vol à voile pur" into "15 m. (49 ft.) of gliding proper.")

A Gliding Week was held at Asiago from August 8th to 15th, 1937, during which a daily average of 50 winch launches and 20 aero-tows was maintained. The first Italian Amateur Gliding Rally was held there at the same time. Duration flights of up to six hours were made, and the maximum altitude reached was 4,921 ft. above release, or about 9,800 feet above sea level. A distance flight of 31 miles was achieved.

Five courses were held at the Asiago School in 1937. A second school was opened at Sezze di Littoria in the same year, and in 1938 was equipped with entirely new material. In June, 1938, courses were held not only at Asiago and Sezze di Littoria, but also at Casabianca (Turin), Vizzola Ticino (Varese), Poggio Renatico (Ferrara), S. Caterina (Udine), and at the Taliedo Federal School (Milan). These courses are attended by members of the G.U.F. (Fascist University Youth), G.F. (Fascist Youth), and *avanguardisti*.

Lithuania

There are two gliding schools functioning in Lithuania. One at Kaunas, the capital, teaches aero-towing, thermal soaring and aerobatics. The other is at Nida, on the Kurische Nehrung, the narrow strip of land composed mainly of huge sand dunes on which, a few miles away, the famous German gliding school of Rossitten is also situated. Of the twenty gliders in the country, 9 primaries and 6 secondaries are of Lithuanian type; the remaining five are of German type constructed under licence in Lithuania, and include a FALKE, a GRUNAU BABY II and a MINIMOX.

Certificate holders in the country include 178 "A" (of which 42 were issued in 1937), 102 "B" (29 in 1937), and 73 "C" (14 in 1937), while four pilots completed one or two legs of the "Silver C." During the year there were 2,546 launches, and 104 hours were flown in free flight.

Norway

At the end of 1937 there were seven gliders in the country, including a GRUNAU BABY, and four more were under construction. In August that year a gliding ground was established by the Norwegian Aero Club at Gredrikstad, and 25 "A" and 12 "B" certificates were obtained there with Norwegian instructors; in addition, 15 "A's" and 10 "B's" were granted in the first half of the year. At Aero Shows held at Stavanger, Tonsberg, Fredrikstad and Kjeller, gliding demonstrations

in a GRUNAU and WOLF were given by a German and a Norwegian pilot.

Poland

We have already published much news of gliding in Poland, but here are the statistics for 1937:—

Number of gliding groups: 130, with 30,000 members, including 10,000 glider pilots. "Silver C's": 107. Number of launches: 8,000, with 7,000 hours' flying time (approximately). Number of distance flights over 50 km.: 256. Total distance flown: 18,347 miles.

Roumania

At the end of 1937, seven large and three smaller gliding groups were affiliated to the Royal Aeronautical Federation. As there were no gliding instructors, the Federation has established a centre at San Petru, near Brasov, for training instructors, and for this purpose has obtained a qualified instructor from Germany. The centre was equipped with a ZÖGLING 35, a GRUNAU BABY, a RHÖNBUSSARD and a WOLF, all bought from Germany. Ernst Philipp (who once designed a tail-less sailplane and flew it at the Rhön meetings) was chief instructor, and he trained 27 instructors during the year.

Sweden

Following the reorganisation of the Swedish Aero Club in March, 1937, gliding has made great progress in Sweden. Donations have enabled the Aero Club to grant subsidies in 20 cases for the construction of gliders, covering up to half the cost. In addition, the club has engaged an expert to instruct the various groups in construction. About 30 primaries and 4 secondaries were being built at the end of last year, and this year 60 gliders should be available.

It is proposed to establish a central school of gliding, and for this purpose the Aero Club has picked a suitable ground at Salen, in the province of Dalarna, where a temporary course was held in the summer of 1937.

In May, 1938, the Royal Aero Club applied to the Crown for a subsidy to be applied, amongst other things, to training young glider pilots, but the Civil Aviation Commission replied that, so far as it could judge, the measures proposed (10,000 Kr., equivalent to £551, towards the cost of a course for gliding instructors) "do not appear to be of such immediate importance for purposes of defence as to justify a grant for this purpose."

(We have just had a letter from E. E. H. Collins, who has been staying in Stockholm for some months past, saying that he has assisted in forming a gliding club there, and hopes to take an active part in its operations. There are already 60 members, and they are negotiating with Poland for machines. They expect to be able to start flying—on ice—a week or two after Christmas.)

Switzerland

Certificates granted during 1937 were: 127 "A," 107 "B," 48 "C," 57 towed flight certificates, and 3 "Silver C's." Totals for the country in these categories were 787, 464, 192, 214, and 8 respectively.

From January to November, 1937, 900 pilots belonging to 50 groups carried out 1,560 hours' flying, with

17,000 launches. Gliders then in commission were: 56 primaries, 35 secondaries, 27 sailplanes; while 56 more machines were under construction, making 174 in all.

National records at that time were:—

Distance, Hans Sandmeier, 130 miles.

Altitude, Marcel Godinat, 7,864 ft.

Duration, Fritz Schreiber, 25 hrs. 50 mins.

Yugoslavia

The Royal Aero Club of Yugoslavia has organised gliding in 8 regional sections, with 30 local groups. At the end of 1937 there were 49 gliders in commission, including 7 sailplanes.

Certificates issued in 1937 were: 138 "A" (total number 414), 85 "B" (total 211), and 11 "C" (total 39). There were 2 "Silver C" pilots.

National records at the end of 1937 stood as follows: Duration, 10 hrs. 45 mins. Altitude, 4,462 ft. Distance, 78 miles.

There were two regional gliding schools and four local ones.

A Notice to Airmen

The last time we commented on a *Notice to Airmen* was when the Air Ministry advised power pilots to take notice of vertical air currents. Conditions which sailplane pilots recognise as "good for soaring" were described as dangerous, as they undoubtedly are to pilots without soaring experience—especially to those who are confident that sailflyers have nothing to teach them.

The latest *Notice*, No. 265 of 1938, may be regarded as a historical landmark: it is the first to recognise that gliding grounds have become so numerous as to be worthy of notice by power pilots. This is the text of it:—

LAND USED FOR GLIDING ACTIVITIES. NEW GROUND SIGN.

(Amendment to "The Air Pilot")

1. Land used for gliding activities may be rendered identifiable from the air by means of a ground sign in the form shown below:

[Here follows a picture of an equilateral triangle.]

2. This equilateral triangle should be marked out in white lines, at least ten yards long and two feet wide, and placed centrally on the landing area.

3. Land marked in this way should not necessarily be regarded as suitable or safe for power-driven aircraft. Pilots of such aircraft are therefore advised not to alight on such land except in an emergency.

4. "The Air Pilot."—The necessary amendments will be issued in due course.

By direction of the Secretary of State,

DONALD BANKS.

Air Ministry,
London, W.C.2.

11th November, 1938.

Gliding Certificates

The following gliding certificates, for which qualifying flights were made on the dates shown, were granted by the Royal Aero Club on October 28th:—

"A" Certificates

No.	Name.	Club.	Date.
1122	Beatrice S. Macdonald	Oxford Univ. and City	21.8.38
1123	P. Adames	Oxford Univ. and City	11.8.38
1124	W. G. Kaeppli	Oxford Univ. and City	21.8.38
1125	H. Rudoff	Oxford Univ. and City	29.7.38
1126	N. Bunting	Oxford Univ. and City	31.7.38
1127	D. C. Maxwell	Oxford Univ. and City	11.8.38
1128	A. N. Young	Midland	14.8.38
1129	E. E. Bustard	Newcastle	25.9.38
1130	F. Lucas	Newcastle	28.8.38
1131	E. G. W. Johnson	Midland	5.6.38
1132	G. Wardle	London	4.9.38
1133	G. C. R. Marshall	London	11.9.38
1134	A. W. Higson	Yorkshire	19.7.38
1135	J. A. Mains	Yorkshire	21.7.38
1136	P. G. W. Walker	Cambridge Univ.	5.5.38
1137	E. Hughes	Inverness	31.5.38
1138	L. R. Dorrien Smith	Oxford Univ. and City	4.6.38
1139	D. O'Malley	Oxford Univ. and City	14.9.38
1140	R. B. Knibbs	Oxford Univ. and City	14.9.38
1141	Joan Burchardt	Oxford Univ. and City	20.6.38
1142	E. F. T. Exon	Oxford Univ. and City	31.8.38
1143	D. M. Edmundson	Newcastle	25.9.38
1144	N. J. M. Barry	Cambridge Univ.	6.3.38
1145	R. Hadekel	Yorkshire	24.8.38
1146	J. H. Blyth	Scottish Gliding Union	11.9.38
1147	J. W. Gardner	Scottish Gliding Union	4.9.38
1148	T. Crawford	Scottish Gliding Union	4.9.38
1149	H. H. Ricketts	Cambridge Univ.	6.12.37
1150	T. P. Graham	Scottish Gliding Union	4.9.38
1151	J. R. C. Randle	Scottish Gliding Union	3.8.37
1152	Mrs. W. M. Crossley	London	24.4.38
1153	W. Lawson	Scottish Gliding Union	11.9.38

"B" Certificates

No.	Name.	Club.	Date.
1117	R. A. G. Morgan	Midland	21.4.38
1121	A. Bouwens	Midland	21.4.38
1109	A. Archangelsky	Oxford Univ. and City	14.9.38
1126	N. Bunting	Oxford Univ. and City	14.8.38
1124	W. G. Kaeppli	Oxford Univ. and City	21.8.38
1123	P. Adames	Oxford Univ. and City	18.9.38
1122	Beatrice S. Macdonald	Oxford Univ. and City	26.8.38
1109	Hon. Lady M. Bailey	Oxford Univ. and City	21.8.38
1128	A. N. Young	Midland	15.8.38
1127	D. C. Maxwell	Oxford Univ. and City	13.8.38
1020	J. S. Brough	Derby and Lanes.	24.9.38
1131	E. G. W. Johnson	Midland	10.9.38
680	C. J. Draper	Kent	18.9.38
1134	A. W. Higson	Yorkshire	20.7.38
1135	J. A. Mains	Yorkshire	22.7.38
1136	P. G. W. Walker	Cambridge Univ.	17.5.38
1137	E. Hughes	Inverness	20.6.38
1125	H. Rudoff	Oxford Univ. and City	27.9.38
1142	E. F. T. Exon	Oxford Univ. and City	21.9.38
1141	Joan Burchardt	Oxford Univ. and City	1.7.38
1140	R. B. Knibbs	Oxford Univ. and City	22.9.38
1139	D. O'Malley	Oxford Univ. and City	18.9.38
1138	L. R. Dorrien Smith	Oxford Univ. and City	11.6.38
1001	S. J. D. Acland	Dorset	2.10.38
1144	N. J. M. Barry	Cambridge Univ.	11.3.38
995	J. T. Robson	Yorkshire	31.7.38
1145	R. Hadekel	Yorkshire	24.8.38
1152	Mrs. W. M. Crossley	London	24.4.38
1151	J. R. C. Randle	London	13.8.38
1149	H. H. Ricketts	Cambridge Univ.	6.3.38
1148	T. Crawford	Scottish Gliding Union	25.9.38
1147	J. W. Gardner	Scottish Gliding Union	25.9.38
1059	R. M. F. Jones	Cambridge Univ.	16.10.38

"C" Certificates

No.	Name.	Club.	Date.
562	J. F. Copeland	London	18.9.38
1121	A. Bouwens	Midland	22.4.38
795	N. S. R. Ball	Derby and Lanes.	2.7.38
1128	A. N. Young	Midland	16.8.38
1048	D. Payne	Southdown	4.9.38
974	J. W. W. Hurdall	London	19.6.38
1134	A. W. Higson	Yorkshire	26.7.38
1135	J. A. Mains	Yorkshire	26.7.38
1138	L. R. Dorrien Smith	Oxford Univ. and City	22.6.38
1139	D. O'Malley	Oxford Univ. and City	9.10.38
1115	R. T. Gething	Oxford Univ. and City	9.10.38
1110	H. J. Curtis	Oxford Univ. and City	9.10.38
1112	A. M. Fitzrandolph	Oxford Univ. and City	9.10.38
900	T. Horsley	Derby and Lanes.	10.10.38
1149	H. H. Ricketts	Cambridge Univ.	13.6.38
1152	Mrs. W. M. Crossley	London	3.9.38
1093	S. P. B. de M. Bucknall	London	9.10.38

In this list the Oxford Club has distinguished itself by getting more certificates than any other club in each category. Among its number are two notable names: Flt.-Lieut. R. T. Gething was in No. 1 of the three "Wellesley" R.A.F. 'planes which have just set up a world's distance record. Lady Bailey obtained her "A" certificate with the London Club on January 14th, 1931.

"Silver C" Certificates

Four more "Silver C" certificates have been awarded to British pilots by the International Commission for the Study of Motorless Flight (Istus). The recipients, with their numbers in the international series, are:—

1061	...	K. M. Chirgwin
1062	...	R. Pasold
1063	...	J. W. S. Pringle
1064	...	J. A. Rooper

Mr. Chirgwin, of the Imperial College Club (section of London Club), did the height and distance tests in Poland. Mr. Pasold belongs to the London Club; Mr. Pringle is joint secretary of the Cambridge Club; and Mr. Rooper did all three tests in two consecutive days at the Midland Club last August. For the first time in this country two brothers, Ingo and Rolfe Pasold, both have the "Silver C"; the nearest thing to this hitherto has been the case of R. G. and L. R. Robertson, who are cousins.

Three more pilots have completed the tests and sent in the documents, and now await their certificates; these are P. M. Thomas (Cambridge Club), A. Davies (Derbyshire and Lancashire Club), and J. L. Raphael (Yorkshire Club). Further, J. Saffery, of the London Club, has just completed the tests.

The British Gliding Association has now issued forms which must be filled in by those applying for the "Silver C" and "Gold C" certificates. The full requirements for carrying out the tests for "Silver C" (5 hours duration, 50 kms. distance, 1,000 metres altitude), and "Gold C" (300 kms. distance, 3,000 metres altitude), were given in THE SAILPLANE last month on page 232.

British Gliding Association

Official Notice

Test Flights of Gliders for Olympic Games.

The test flights of the prototype Olympic gliders will be carried out in Italy in the spring of 1939, and countries are being asked if they can assist by providing pilots for this purpose. It should be pointed out that the pilots will be required to pay their own travelling and subsistence expenses.

Any British pilots who may wish to have their names considered for the flight trials should forward their names to the B.G.A. not later than **December 15th, 1938.**

Council Meeting

A meeting of the General Council of the British Gliding Association was held at 119, Piccadilly, London, W.1, on Friday, October 28th, 1938. Present:—

In the chair: Prof. D. Brunt.

London Gliding Club: H. E. Bolton and J. R. Ashwell-Cooke.

Scottish Gliding Union: E. T. H. Godfrey.

Derbyshire and Lancashire Gliding Club: Major Alan Goodfellow.

Midland Gliding Club: C. Espin Hardwick.

Yorkshire Gliding Club: L. H. Heath.

Oxford University and City Gliding Club: R. Kronfeld.

Southdown Gliding Club: G. A. Little.

Royal Aero Club: Major H. Petre.

Cambridge University Gliding Club: J. W. S. Pringle.

Kent Gliding Club: E. G. Sanguinetti.

Furness Gliding Club: F. Slingsby.

Newcastle Gliding Club: P. A. Wills.

Individual Representatives: Capt. C. H. Latimer-Needham and Miss R. H. Sinclair.

Treasurer, B.G.A.: D. Hiscox.

In attendance: E. H. Spence, Assistant Secretary.

The following items on the Agenda were dealt with:—

"The Sailplane."—The Council recommends to all clubs that a subscription form to *THE SAILPLANE* should be incorporated in all club entrance forms and annual renewal forms.

Finance Committee.—Mr. J. R. Ashwell-Cooke was appointed to the Finance Committee, in place of Mr. E. G. Seaward, resigned.

Lantern Slides.—The Council decided to obtain a new set of 100 lantern slides. Clubs are asked to forward to the secretary negatives or prints of gliding photographs of local interest for inclusion in this series.

Election to the B.G.A.—The Scottish Gliding Union was elected to the Council.

Association.—The Birkenhead and Wirral Gliding Club was elected as an Associated Club.

Civil Air Guard.—The Special Committee appointed to negotiate with the Air Ministry submitted its report on the replies received from the clubs. Further proposals were discussed and approved for submission to the Air Ministry.

Technical Committee Meeting

A meeting of the Technical Committee was held on October 28th. Present: C. H. Latimer-Needham (in the chair), H. E. Bolton, G. A. Little, F. N. Slingsby. In attendance: E. H. Spence (Assistant Secretary).

Numerous items on the Agenda were discussed.

B.G.A. Inspectors and Club Ground Engineers.

Pending the completion of the revision of the B.G.A. Technical Rules, the B.G.A. Technical Committee has made the following provisional rules:—

B.G.A. Inspectors. QUALIFICATIONS:—Possess A.R.B. Glider Ground Engineer's Certificate of Competency and be appointed individually by the Technical Committee.

DUTIES:—All Certificate of Airworthiness Inspections on Construction and Renewals.

Club Ground Engineers. QUALIFICATIONS:—Possess A.R.B. Glider Ground Engineer's Certificate of Competency.

DUTIES:—Daily inspections. Reports on modifications and repairs. Certification to the B.G.A., or B.G.A. Inspector that any C. of A. modifications and repairs called for by the B.G.A. or B.G.A. Inspector have been carried out.

A Club Ground Engineer who is also a B.G.A. Inspector is allowed to certify his own club aircraft for C.'s of A.

Provisional Factors.

Pending the complete revision of the B.G.A. Technical Regulations, the following provisional [safety] factors are being taken into use forthwith as from 1st November, 1938:—

	Normal	Acrobatic
C.P. Forward	8	10
C.P. Back	6	7
Inverted flight	4	5
Up and Down Gust 25 ft. per second at three times stalling speed...	2	2½
Limiting Nose Dive	1½	1½

H. E. PERRIN, Secretary,

119, Piccadilly, W.1.

Future of "The Sailplane"

The Secretary of the British Gliding Association has addressed the following letter to the officials of British Gliding Clubs:—

DEAR SIR,

I have recently had an opportunity of meeting the publisher of *THE SAILPLANE* and we discussed its future.

It can justly be claimed that it is an attractive publication both in style and layout, dealing with the gliding movement in all its aspects, and it is interesting to hear that both at home and abroad it is considered one of the best publications dealing with gliding.

As you are no doubt aware the B.G.A. makes a monthly contribution towards the expenses of production and editorial, and even allowing for this contribution, the paper is not a paying proposition.

The chief difficulty is the small circulation which makes it almost impossible to attract advertisers, and advertisement revenue is an important factor in its production.

It would be a serious loss to the Gliding Movement if the paper closed down for lack of support.

I think the clubs as a whole appreciate the value of *THE SAILPLANE*, and there are two ways in which they can assist in keeping it alive.

The first is by increasing the circulation, and this can be done by asking your members, who are not already subscribers, to take out a yearly subscription to *THE SAILPLANE*, the cost of which is 10s. per annum.

I am enclosing a supply of forms which I trust you will distribute to those members with a request for their support, and also to new members on election.

The second effort is to increase the advertisement revenue. An extra page of advertisement would go a long way towards this. I have discussed with the publisher the possibility of introducing this extra page confined to club advertisements.

I cannot help but think that such a page containing the names of all the clubs and facilities offered would be of the greatest possible assistance to readers, and would, at the same time, save a lot of correspondence from persons wishing to know where a particular club is situated and terms of membership, etc.

I enclose sheet showing the proposed layout of these advertisements. The charge would be £2 10s. per annum for each space.

It is hoped that all clubs will co-operate in this endeavour to secure the continuance of *THE SAILPLANE*.

Yours faithfully,

HAROLD E. PERRIN, Secretary.

News from the Clubs

A Club for Surrey

Way back in 1930 there was a Surrey Gliding Club which functioned on a ground at Chilworth, near Guildford, and earned the distinction of being able to make ends meet on a subscription of only one guinea *per annum*. The club then became absorbed into what is now the Southdown Gliding Club, but its name is to be revived in a new club which will operate at the foot of Buckland Hills, near Reigate. Soaring has been done over, and from, the site at various times this year by members of the London Gliding Club, which at one time thought of running it as a subsidiary site. A winch is already available, and primary instruction is to begin in the middle of this month. Also a KIRBY KADET, with additional TUTOR wings, is on order, as is also an Ellis hangar, while a hut is to serve as temporary club house. The secretary of the new club is Miss A. C. Edmonds, Buckland Court, Betchworth, Surrey.

Midland Gliding Club

No. 3 of the club magazine, *Wing Tips*, begins with a most interesting article by Mr. C. E. Hardwick on the distribution of lift over the Long Mynd site in a N.N.W. wind. (The hill faces W. at the north end and W.N.W. at the south end.) It is to be followed by an article on soaring there in a S.W. wind.

Among various items of news are the following:—

Gerry Edwards has been appointed Ground Engineer.

The club's KIRBY TUTOR is to be fitted with a variometer.

One week-end during September P. A. Wills visited the club with his MINIMA, and Mr. and Mrs. Baker, Mr. and Mrs. Price and R. P. Cooper came with their RÖNNRUSSARD. On the Saturday Wills picked up the "Mynd thermal" in a north-east wind. According to a note in the magazine: "At one time successful finding of a thermal off a winch launch caused a sensation throughout the club, but nowadays this is a common occurrence among those who visit the Mynd irrespective of the wind or weather conditions. A glance at the map in the club house, where pilots mark the position of their thermals discovered, will indicate the interest taken."

There is a report of a strange cloud: "On October 22nd, approximately half an hour before dark, two or three club members were looking out towards the west at a large dark cloud, the top of which appeared to be 2,000 ft. high and the bottom approximately 100 ft. below the top of the hill. The cloud stretched across the horizon for about a mile, merging into a dark haze towards the ground. The remarkable feature of this cloud was that wisps of small cloud appeared to be drawn from the top of the cloud at an extraordinarily rapid rate several hundred feet up and then turn over to the west before they disappeared. The impression gained by the onlookers was that the cloud appeared to be rotating with the top turning over to the west."

Summer Camp.—This, held from July 29th to August 8th, before the Public Schools Camp, was not favoured with a west wind, so no "C" certificates resulted; nevertheless, six "A's" and eight "B's" were gained. Among those who earned both certificates were Mr. Williams, a visitor from the Cornwall Club, and Mr. Colcombe, the resident Assistant Ground Engineer. A 2,800 ft. length of cable was in use for winching.

Annual Dance.—This is to be held on Wednesday, December 14th, from 8.30 to 2 a.m., at the Botanical Gardens, Birmingham.

[A German visitor to the Public School Camp in August, M. Naumann, describes his experiences at length in *Flugsport* for October 26th. In conclusion, after describing the thermal map in the club house, he writes: "Thermal flying and cloud or blind flying as in Germany is not possible in England on account of the less intensive solar radiation and the hardly changing ground covering. Also the necessary instruments are lacking. Only a very few sailplanes possess blind flying instruments. An original variometer was the Slater-Cobb of English design. The English esteem German sailflying very highly, as they showed by their friendly reception of me. They have a great desire to learn of German conditions at first hand, and wish to be allowed to take an active part in German competitions."]



Here is John Aspell, aged 10, son of the Oxford Club Secretary, who has qualified for his "A" certificate. The sandbags at the back of the seat serve the double purpose of enabling him to reach the pedals and keeping the centre of gravity in the right place. He did the flight off a winch tow.

[Photo by C. G. Dorman.]

Oxford University and City Gliding Club

With the new term at Oxford flying has begun once more among the undergraduates, and an enthusiastic group of new members is undergoing its first training. Membership of the club has tripled since May. Continuous daily flying since June 19th has been under the management and instruction of Robert Kronfeld, and 68 certificates have been gained. With but two or three exceptions all the members are *ab initio*.

Two "C" expeditions have been made to the hill site at Aston Rowant. The standard of flying has been continuously raised and another batch of "C" candidates is now waiting for a west wind. The total flying membership to date is 85.

The following members have gained their certificates since June 19th:—

"A"

Joan Burchardt	Derek O'Malley
F. H. N. Parry	E. D. Carter
Prof. H. H. Price, Jr.	R. B. Knibbs
Gilbert Ryle	R. L. Lowe
A. M. FitzRandolph	Vera E. Strodl
H. Rudoff	H. Meyer-Klopstock
Nigel Bunting	F. J. T. Atkins
R. T. Gething	J. S. Walters
Alexis Archangelsky	C. M. Atkins
Hubert John Curtis	J. C. Trenchard
David C. Maxwell	J. T. Jones
P. Adames	R. J. Graham
L. W. Taylor	John Aspell-Verdi
W. G. Kaeppli	M. S. Brander
Beatrice S. Macdonald	N. R. K. Davis
E. F. T. Exon	

"B"

C. J. Danby	B. G. Macdonald
Joan Burchardt	A. Archangelsky
K. G. Robinson	P. Adames
Gilbert Ryle	V. E. Strodl
A. M. FitzRandolph	E. F. T. Exon
F. H. N. Parry	R. B. Knibbs
R. T. Gething	E. D. Carter
David C. Maxwell	J. S. Walters
Nigel Bunting	F. J. T. Atkins
H. J. Curtis	H. Rudoff
Hon. Lady Bailey	J. C. Trenchard
W. G. Kaeppli	

"C"

Lionel Derrien Smith	H. J. Curtis
Michael P. Fellowes	A. M. FitzRandolph
R. T. Gething	Derek O'Malley

Scottish Gliding Union

The first organised display of gliding to be given in Scotland since 1931 was held on the Bishop Hill site during the week-end August 20th and 21st, when weather conditions proved highly satisfactory on the Saturday though less favourable on the Sunday.

On the Saturday there was a steady 20 m.p.h. wind blowing, and over the scaring edge of the hill a straight lift to 200 ft. was obtained by all pilots without any effort.

Through the generosity of Mr. Slingsby a FALCON III was sent up from Kirbymoorside to take part in the display. One of his engineers, Mr. George Wright, who had brought the machine, found himself confronted with a big task when he started to transport it from the farmhouse up the steep difficult road to the hill summit, assisted by two heavy Clydesdale horses hired from an adjoining farm.

Owing to the work involved, it was after mid-day before the machine was launched on its first flight, piloted by W. B. Murray, and George Wright became the first passenger to be carried in a sailplane in Scotland. After half an hour the machine returned to the hill-top to take on the first fare-paying passenger, Mrs. Rogerson, wife of the club secretary. Murray and R. H. Shaw continued to take passengers up at the rate of three an hour until 7 p.m.

Thorburn's FALCON I and Davie's H-17 (from Cambridge) were on the hill top but their owners were away. Miss Ann Edmonds, however, made the most of the flying conditions and her GRUNAU Baby was seldom on the ground. Either Shaw or Murray flew it when she did not, and all three gave a very fine display of aerobatics, Miss Edmonds doing so for the first time in a sailplane. Once she did three loops in quick succession, and at the close of the day's flying remarked: "This is what I call arm-chair gliding. I don't think I have ever had so enjoyable a day's gliding before." Her longest time was 2 hrs. 10 mins., and Shaw's 2 hrs. 15 mins.

Whereas on Saturday an immediate lift to 200 feet could be obtained by merely pushing a machine over the edge of the hill, on Sunday it was almost impossible to get height at all without the aid of the winch, and on releasing at 200 feet only hard work could add to the altitude. Nevertheless the GRUNAU, FALCON I and FALCON III were all able to take the air in the early afternoon, but ill luck befell the FALCON III about 3 p.m. when it was caught in a rainstorm and was driven below the hill top. The pilot had no option in his choice of a landing ground at the bottom, and certainly did the safest thing, though we did tease him a bit about it.

For the success of the display, which brought some new enrolments, the club extend their thanks to their visitors.

Primary training has since been carried on with much success, and the local duration record was raised to 3 hours on September 4th by Davie in his H-17.

Ulster Gliding Club

Friday, September 2nd.—A fresh N.W. wind brought half a dozen enthusiasts out, only to discover the breeze slowly dropping. The first man aloft in the KADET achieved twenty minutes. The second man thought he would do ditto, but couldn't, and came down somewhat unexpectedly in the sand dunes. To the surprise of everyone nothing was broken or even bent.

Saturday, September 3rd.—The tide prevented an early start, but as soon as the strand was usable the KRRE and KADET were launched into a good N.W. wind. Lift was plentiful, and Metcalfe reported reaching 3,400 in the KRRE. Once again the wind did the dirty on us soon after tea, and this time it was Reid who came unstuck. He lost the lift at the end of his first heat, vanished among the trees at the foot of the Umbra, and was eventually located in the exact centre of a field of standing corn. No harm was done. Truly, some of us must have been born under lucky stars.

Sunday, September 4th.—A good day and quite like old times with five machines and assorted pilots soaring, as someone said, "in spite of themselves." Liddell performed in his new GULL, while Douglas did his five hours in the GRUNAU. Odd patches of low cloud added spice to the proceedings, and it is reported that Billy and his BABY were seen travelling really fast when emerging from one bank. He refused to say much about what happened inside, but his barograph showed 2,100, cloudbase at the time being about three hundred feet below that. Meantime the KRRE, KADET and FALCON III did their best to augment the bank balance, the Great British Public positively clamouring for flights in the latter.

Friday, September 9th.—A few of the lucky ones managed to sneak away from business during the afternoon and had the FALCON III and KADET in the air by tea-time. By a curious coincidence the first three passengers, strangers to one another, bore the same surname and were all equally delighted with their five bobs' worth. Our youngest passenger, aged four, had her first flight and is now greatly envied by her two-year-old brother! "Catch 'em young" is our motto.

Saturday, September 10th.—Absence of lift confined us to circuits with the FALCON III and KADET. Dr. Evans had his first slides and hops, and was duly thrilled.

Wednesday, September 14th.—Once again the lucky folk who live near the site took advantage of the evening breeze and managed to get in four and a half hours' soaring before dusk. Our old friend Beck was with us again, and had his first flight in the KRRE.

Sunday, September 18th.—Clouds as low as 150 feet and heavy rain squalls do not constitute ideal gliding conditions; nevertheless the more intrepid members managed to fly for three hours or so. The FALCON III even took up some passengers, and for 24 minutes Metcalfe chased sundry startled gulls along the cliff face.

Summary for September.—Flying time: 34 hours 54 minutes. Launches 80.

October.—The less said about this month the better. Flying was only possible on two days, and even then was confined to circuits in the KADET. Reluctantly we have been compelled to lay up the machines for the winter and take Boanerges away for a much-needed overhaul.

Summary for October.—Flying time: 47 minutes. Launches: 21.

Yorkshire Gliding Club

October.—Comparing this October with last year's October, there seems to have been very little to choose between them. We have done more flying this year, and the club has in every way been busier; more and more applications for membership are being received and dealt with, and although it has been very unencouraging outside at times, and despite the lateness in the year, surprisingly large numbers of members and visitors continue to "week-end" regularly at the club. There has been little thermal activity; the best height of the month is less than 3,000 ft. above the Bank, but we have had a reasonable number of good hill-soaring days, and, whether it is that the hill-soaring is pleasanter at Sutton than elsewhere we don't know, but no one seems to get blasé or bored. Even our high performance crowd (some of 'em are quite good) show no signs of temperamental distress, although they occasionally bang a bob or two in the 'phone box for a hopeful few minutes' connection with the distant "Met." office. Flying done is briefly summed up as follows:—

September 29th.—Mid-week; A. O. Pick did a couple of hours. Primary training the following Saturday.

Sunday, October 2nd.—Gusty S.W. wind, 20-25 m.p.h. Hastwell, Pick and Fishers soared three hours between them. Thermals to 1,800 ft., very rough.

On **October 5th, 6th, 7th, and 8th** there were westerly and south-westerly winds of varying strength, gale force at times. Flying took place each day; Fisher, Hancock (now promoted to the GRUNAU), Gibson, Pick, Pearson and Hastwell each put in several hours.

Sunday, October 9th.—South-westerly gale, moderating to 30-40 m.p.h. Pick, Barker and Wordsworth in GRUNAU and KRRES rushed about for a total aggregate time of 2 hours and 40 minutes. Night falls about six nowadays!

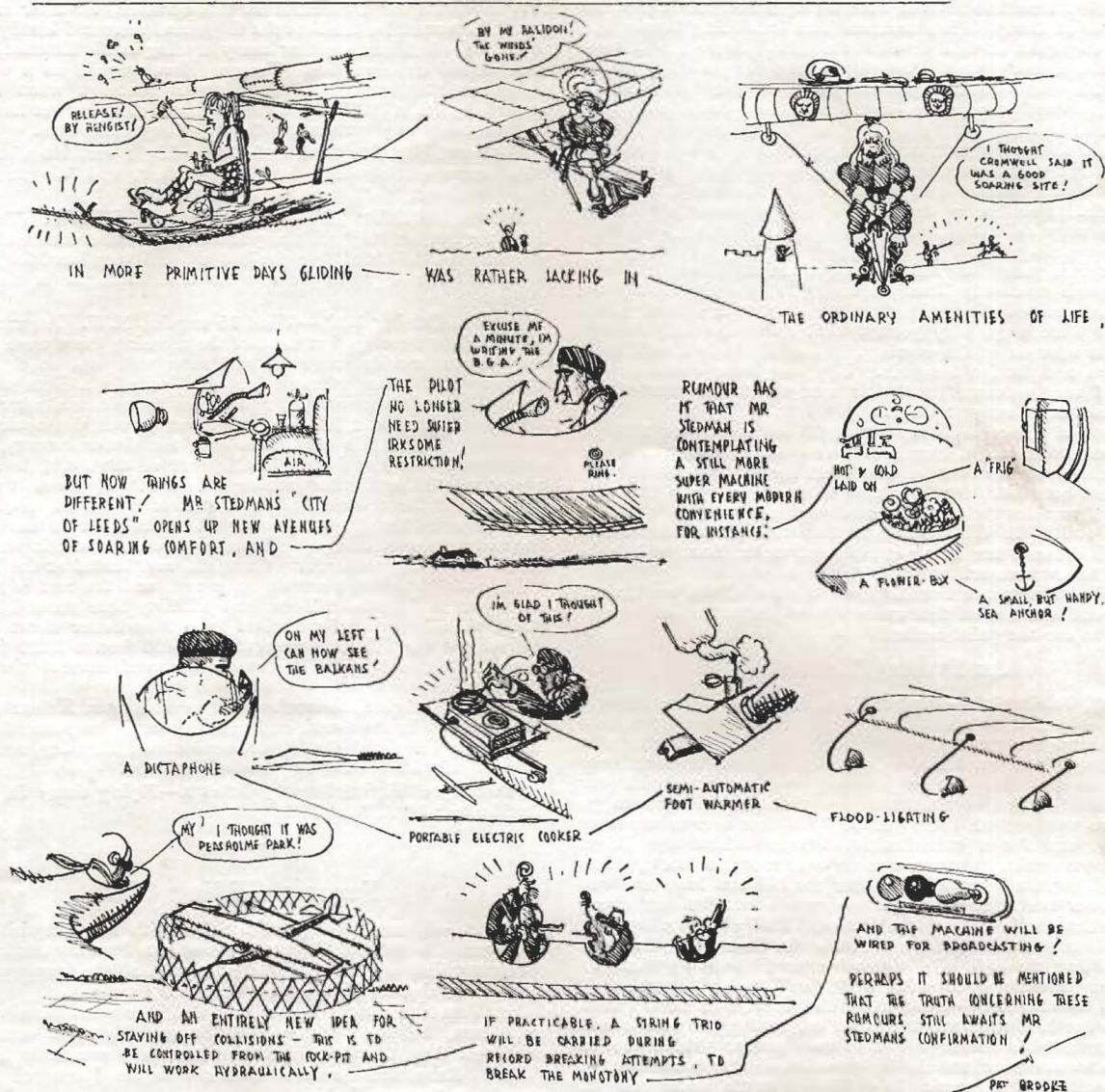
October 11th.—South-west wind, 15 m.p.h., decreasing. Renwick and Pick did a couple of hours.

Saturday, October 15th.—Variable south-westerly wind, sometimes 20 m.p.h., sometimes nil. Very early in the morning Shaw took off solo in the FALCON III (S) (two-seater), the spare room on the seat heavily encumbered with this and that. Twenty minutes later he landed at the bottom: the object of this flight is not yet known. Later in the day Pick, Shaw, Fisher and Billy Sharpe flew about five hours in KRRES and GRUNAUS.

Sunday, October 16th.—A very decent day; west-south-westerly wind about 20 m.p.h., small thermals and odd spots of cloud lift. Fourteen members flew, some of them more than once—and a total flying time of 14½ hours was put up. Leakey, still in his plaster jacket, had a ride with Sharpe and still likes soaring!

October 19th.—Mid-week. Shaw (GULL), Pearson, Pick, and Gibson put in 5 hours 42 minutes. Next day the wind was easterly.

THE STEDMAN WONDER — OR HOW TO MAKE GLIDING COMFORTABLE



[Drawing by Pat Brooke.]

October 23rd.—South-easterly wind, 5-10 m.p.h. Training and winch practice only. Very pleased to see Greig and Saffery, who stayed overnight with us; some of us had the privilege of seeing an exhibition of Greig's new lantern-slides, on which he is to be warmly complimented. Another visitor was Wingfield, from Midland Club, with his KIRBY KITE.

Sunday, October 30th.—North-westerly wind, 10-15 m.p.h. Pick reached 2,900 feet in thermal lift, and the same conditions were experienced by Hastwell and Fisher. Fourteen members flew altogether, some training was done, and several new members were up for the first time.

Taken all round, quite a merry month; fifty-seven and two-thirds hours flown and good progress made by the "C" pilots. The next lot of cross-country weather will find some new aspirants lying in wait, and as it is possible for a comparatively poor man to take a machine away (only ten bob mid-week, and a pound on Sundays, plus retrieving if he hasn't a pal with a draw bar, plus a reasonable increase in damage liability), we may still indicate our position on the map with a proud, though grubby, finger.

We understand that Durham Branch has earned a "B" certificate this month but no further details of their activities are to hand. On the 20th we had a delegation of members of the new West Riding Branch, which will operate a training site at Holmfirth, near Huddersfield. They hope to commence next

Sunday, November 7th; Cyril Brooke is kindly giving his services as instructor, and several of our week-end instructors have promised to assist. This branch is getting a most encouraging start with over a dozen members up to the present time. The policy of this club, in "fathering" local training groups, has in the case of the Durham Branch proved to be a very sound one, and we feel confident that results in this case will be up to expectation.

Finally, I suppose we ought to add that there has been a good deal of aerobatic work going on this month: the chief instructor has not had much to say about it—yet. According to one exponent the recipe is, given 1,500 over Lake Gormire:—

"Stick forward—65 on the clock—water—pull stick right back—water again!"

The dinner and dance at the Fleece in Thirsk, by the way, was a very successful affair—tickets sold right out. We were very glad to see visitors from other clubs, and hope they will make a habit of it. After the dance the film cartoon, "Cloud Cuckoo," was shown, and Stedman's new training film, which has been mainly shot at Sutton Bank.

Tailpiece.—Our blonde thinks that a "laps(e) rate" is the highest speed at which a given girl can move from one pair of masculine knees to another situate within a given distance. She can't spell, either.

Derbyshire and Lancashire Gliding Club

October.—Winter has arrived with a vengeance, and the week-end weather at Camphill has assumed that forbidding look which we come to expect at this time of the year. Snow has already fallen on the higher ground, though not on us as yet. Singularly enough, this same weather provides some of the best training and soaring days imaginable, if all members would only take advantage of them.

A gale in the early part of the month did us some damage, and we hear it was a good sight to see Boulton tackle our wind sock, which was already well on its way to the coast, in a 100 m.p.h. gale. Boulton is our new ground engineer, and he is making a very definite place for himself in our organisation; he is also learning to fly.

A Peter Pan party, organised by the ladies, proved to be a very enjoyable function. Those attending were required to dress as children, and to bring with them a photograph of themselves when they were very, very young, which was the subject of a competition later on in the evening. Basil Meads in Etons, with shorts, was a sight for the gods. The party was well attended and raised very welcome funds. It was the ladies' first effort, and they are to be congratulated.

A party and dance is being arranged for November 26th at the Marquess of Granby, Bamford. We shall be glad to see our many friends from a distance, who often spend a week-end with us on these occasions, for it is now a recognised fact that this pub always provides the makings of a good party.

Burnett and A. B. Wilkinson from Dunstable have soon settled down with us, and are doing much good work, Burnett in particular in the two-seater.

Of particular note are Freddie Boulle's stout efforts on hangar painting, but where is all that assistance which he was so lavishly promised before the paint arrived?

An Evening Thermal.

Saturday, October 1st.—Wind 10-15 m.p.h., W.N.W. A thermal afternoon with lift to about 1,000 feet. Then about tea time there appeared the great bank of cloud to the west with thin dirty-looking pieces continually breaking off and drifting over Camphill at 600-1,000 feet, which we now associate with our evening thermal, and sure enough, everything soon began to go up. There was smooth lift to about 3,000 feet everywhere over the valley, and for a considerable distance behind the Edge. Getting down again, however, was an even more serious problem than usual, for the layer of cloud over the hill was low, and was getting lower and thicker; cloud base was about 200 feet above the hill when the last machines landed. Philip Brown brought his new MINIMO to Camphill, and flew up in the evening thermal, and not liking the look of the cloud-covered landing ground he took the opportunity of introducing "Mini" to the bottom.

Sunday, October 2nd.—Wind 30 m.p.h., S.W. with fierce gusts. Cloud on the hill, and drizzle cleared off at 4 p.m., and a few very uncomfortable soaring flights were made. Robertson in the BUSSARD under-estimated the intensity of the down-draught over the back wall, for, coming in at 250 feet at the, as he thought, comfortable speed at 45 m.p.h., he was rapidly carried 20 yards behind the wall, and putting the speed up to 55 m.p.h., barely arrested his backward progress. He was forced to land on the moor, and the BUSSARD had to be lifted back over the wall—oh, shameful indignity!

Saturday, October 8th.—Wind 25 m.p.h., W. The great gale during the week had completely written off two trailers. In spite of being heavily weighted with stones they had been blown right across the hangar field, and one had been blown over a stone wall, and across the car park field as well. The scattered bits of these were first collected together, and then all machines lifted out of the hangar, whereupon an extra wet occlusion [warm front—Ed.] arrived, and they were all put back again. (Note: Next day, Brown's new MINIMO trailer was seen to be weighted, pegged down, additionally supported by its own corner legs, and securely roped to the four largest trees near by, as well.)

Sunday, October 9th.—Wind 55-60 m.p.h., W. An almost textbook cold front passed over about 10 a.m., after which a luscious thermal sky developed, but we had to be content with looking at it, for the wind was still too strong. By 3.30 p.m. the last off the cloud streets disappeared in the distance, the wind had dropped to 35-40 m.p.h., and flying was commenced; but there was nothing much to do, beyond sitting at 1,000 feet like a bunch of pole-squatters. It was ludicrous to watch Smith coming in in the FALCON two-seater; each time when he had completed his ten minutes of pole-squatting, he just backed the machine from the Edge to the wall and landed.

Week-end, October 15th and 16th.—Wind 30 m.p.h., S.W. Many training circuits by more advanced members, and some rather

scrappy soaring with the hill lift changing every beat. C. Faulkner made a "C" attempt, but we think that his weight (14 stones) was too much for a NACELLE on this occasion, for after one beat the N.D. turned its back on the Edge and retreated hastily homewards. Godson had a rather heavy landing in his KESTREL, which necessitated some repairs. Terence Horsley paid us a welcome visit from Newcastle, and stayed until Monday, when he was rewarded with a "C" flight, which lasted for over an hour, and was in every way excellently flown. Congratulations.

Week-end, October 22nd and 23rd.—Light variable winds provided some much-needed training weather, and Wagstaffe and Pye completed "A" tests with "S" turns.

Saturday, October 29th.—Wind 5 m.p.h., W.S.W. Training. Pat Gent got her "A" with a grand flight of 40 seconds, at which we were all delighted, for she has worked very hard for it, and being an ultra-lightweight has its disadvantages in the early stages.

Sunday, October 30th.—Wind 15 m.p.h., N.W. A grand day. All machines were up, but most of the morning there were enough thermals to provide one each and some to spare, so that there was plenty of room to move in. A. Verity in a KITE was sent up with a sealed barograph, and orders to quit, and after reaching cloud base at 2,300 feet duly disappeared down-wind; but he encountered stable conditions over the flatter country, which seems to be the usual case in this part of the world during the winter months, and, after gaining a little in a few weak thermals, he landed at New Whittington, near Chesterfield, 14 miles away. P. Brown in his MINIMO went off to Siggert to see if that northerly slope was soarable in a north-west wind; it was, just, but he could not get back to Camphill, and landed at the bottom.

At lunch time the thermals gave out, and the rest of the day was spent in dignified hill-soaring. A dirty haze about 1,500 feet thick, visibility one mile, arrived from Manchester about 3 p.m., and with it the hill lift improved from 400 feet to 1,200 feet and more. This autumn phenomenon occurred several times last year also.

We were delighted to receive another visit from Hubert Wynne, who went up in the GULL, and put it through its paces, finishing up with a delightful display of aerobatics. The day was nicely rounded off with a "C" by Charlie Faulkner.

Summary of Flying During October.—Flying time: 71½ hours. Certificates: 3 "A", 2 "C."

Furness Gliding Club

August.—A month of good activity with new acquisitions in the form of a nacelled DAGLING, parts of a PRIMARY and a sound trailer together with some useful oddments, all the former property of the Workington Club which has finally wound up.

Mr. Foster, the mainstay of this club, has now joined up with us. Boss, Skirrow, Holme and Bramwell put in some good consistent flying, and the first two especially are ready for their "C's." Raby had a spot of bother with the HOLDS and finished up with a "warped" skid.

Cross-country Flights.

The 20th saw the first real attempt to reach Sutton Bank, but the rather poor condition forced Charles, in the KITE, to land near Kendal, a distance of approximately 27 miles. Conditions improved on the Sunday and tempted both Charles and Stevens away from the site; Stevens in GRUNAU landed 22 miles from home on the Sevens Flats, followed by Charles 38 miles from the site at the Moorcock Inn, half-way between Sedburgh and Hawes, being forced down in the rather deep valley by a rainstorm. Hard luck, but at least another stage towards the "Silver C." Only another 200 feet would have gained the certificate. Redshaw, high up in the two-seater, saw both of them off. A good day finished with a late meal at the Moorcock Inn, and a return just before midnight.

September.—A month of poor conditions, but interest was sustained by the putting into service of the winch—a 30 h.p. Chrysler car, a drum on the back axle, two wooden ramps to run the rear up on to a steel trestle, 2,300 feet of wire constitute the equipment. An impatient attempt to try out same on a temporary wire resulted in the pushing in of the KADET's nose by having to avoid a stone wall, the predicament brought about by a cut-out engine.

Sunday, the 18th, saw another attempt under better conditions with a temporary wire as we still awaited delivery of the new one. Charles 2, Redshaw 1 in the KITE, Boss 2 and Skirrow 1 in the DAGLING, proved everything in good order.

Sunday, the 25th, saw the new full length wire fitted, and whilst conditions were not good, eight flights were made by Stevens, Smith, Charles and Redshaw. With the winch about 150 feet below the take-off of the machine a good height was obtained. It will be more interesting winching the opposite way with the machine below the winch, but so far conditions have not allowed this to be tried. On all conceivable opportunities Charles and Redshaw kept the two-seater going, giving the junior members some flying experience.

October.—The 16th was the first possible day for any activity, with flying by Stevens, Smith, Charles and Redshaw, followed by dual in the two-seater with Mrs. Stevens and Creed up. The 30th saw seven hours of flying and at last a day suitable for the patient Skirrow to try for his "C." A very steady flight of 13 minutes with a safe landing in the field alongside the road below did the necessary. Redshaw wandered up and down the valley in the KITE for close on two hours, and Stevens and Smith flew their GRUNAU. Charles plugged away with passengers, taking up five. We are squeezing as much taxi work out of him as possible before the special arrives from Slingsby.

As additional weather protection, the hangar is now being covered on the sides and ends with a layer of thick calico well tarred to position, and this we anticipate will make it thoroughly damp proof for the winter.

Next year we hope that some of the members of other clubs will find time to give us a call and show us a thing or two.

We thank John Pringle and his brother for their visit, when we showed them how to push in the nose of a KADER and managed to give a two-seater flip to Pringle junior and congratulate J.P. on his Cambridge to Dunstable effort.

London Gliding Club

Before starting on the October news we have something hitherto left unsaid about Friday, September 2nd. On this day R. Pasold completed his "Silver C" by flying 32 miles to North Weald aerodrome in his RHÖNBUSSARD, and getting well over 1,000 metres height on the way. We haven't discovered what his height was, but conditions for high altitude work must have been good since Peter Davis on the same day got up to over 7,000 ft. in the RHÖNADLER, also starting from Dunstable. He climbed inside a cloud and was fairly near the top when he came out.

The upper air report from Mildenhall at 12.45 shows why he could get no higher, for there was a stable layer from 6,530 to 8,250 ft., between which heights the temperature fell only two and a half degrees Fahr. Below that the lapse rate was almost equal to the dry adiabatic. The weather map shows anticyclonic conditions.

Sunday, October 2nd.—Rain till the afternoon, when, in a strong S.W. wind, Grant took the DESOUTTER G.B. to 550 ft. and four others in turn flew the SLINGSBY G.B. As usual, when the weather clears only a few hours before dark, private owners had settled down so comfortably for the day in the club house that it was too much effort to change their minds.

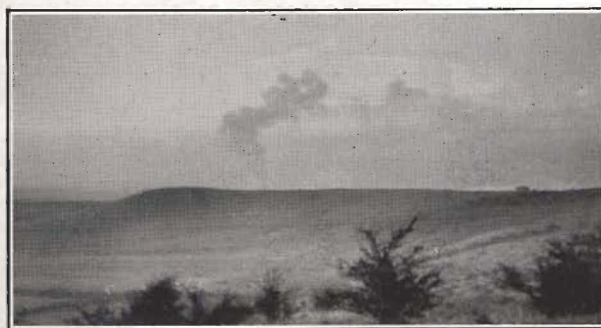
What does a cold front look like when it has just become occluded, as the weather maps said it had when it passed over at 2 p.m.? The effect to-day was that the high alto-stratus, instead of clearing off all at once, thinned out gradually over a period of half an hour or more.

Sunday, October 9th.—W.S.W. wind, so rough that only one club machine was allowed out. Ann Edmonds was first up in her GRUNAU, which she then lent to R. H. Shaw, while Ivanoff was tossed about in the CAMEL. The GREY KITE's new owner achieved one of the objects for which he had bought the machine, earning his "C" with a flight of 18 minutes. Later the FALCON III and GREEN WREN were up.

O. H. Furlong spent the whole of the following week at Whipsnade and turned up whenever it was soarable in the hope of finishing off his "Silver C" height, but without success.

Tuesday, October 11th.—John Parker, of Cambridge, arrived just in time to catch a secondary cold front at 3 p.m. in a club GRUNAU. Launched by winch into a light W.S.W. wind, he circled twice and then flew straight out up-wind under the dark cloud and rose to 2,000 ft., where he had to leave it, being almost up to its base and without parachute. Typical dark rags were forming below and rising into it, while a short cloud street extended from it up-wind. Davie, also from Cambridge, brought and soared his H-17, afterwards lending it to Kidd.

Sunday, October 16th.—S.W. wind; soaring only between Bowl and Bastion. GREY KITE hasn't got used to its new owner yet,



Cumulus from smoke: A photograph of Dunstable Downs taken at 7.40 p.m. (Summer Time) on the evening of August 22nd this year, showing smoke from the Dunstable cement works, beyond the hill, rising up and forming what had the typical appearance of small cumulus cloud. Twice last year, after an aero-tow, Mr. Ivanoff found lift in this smoke when most of the surrounding air was "dead." The first time, on June 27th, it raised him at 3 ft. per second; and the second time, on August 22nd, he climbed in it from 1,000 to 3,000 feet, again at 3 ft. per second, and then set off on a flight of 29 miles to Maidenhead.

for it stalled on a left-hand turn in the Bowl, tried to spin with its wings vertically banked, touched down noisily on the hillside and took off again, and finally landed intact. It was still intact after the next flight, when the cable broke and an awkward landing on skid and wing-tip resulted. Is the machine trying to put a hoodoo, not only on its new owner, but on the old ones also for deserting it? One of the latter, who have ordered a GULL, tried out Hiscox's on the 29th and started to spin off a winch launch, though he recovered in the conventional manner with 100 feet to spare.

An odd behaviour of the clouds was noticed on the 29th. Wind on the ground was very light from west, not soarable; it was the same at the base of the few low clouds present. But the tops of the smaller clouds moved from east, though sooner or later a portion of the top would reach an unstable layer and soar upwards into a westerly wind once more. With aero-towed starts, would dynamic soaring have been possible between these various air currents? According to the weather map, two warm and two cold fronts had combined into an occlusion which more or less crossed Dunstable, so there must have been five separate "air masses" struggling for supremacy.

Summary of Flying.

Week ending:	Days of Flying	Ground-hops	Timed Flights	Flying Time hrs. mins.
October 9th ...	5	34	38	24 23
October 16th ...	5	89	74	18 30
October 23rd ...	4	106	41	7 49
October 30th ...	3	48	77	6 1

Totals since January 1st: 1,483 hrs. 41 mins. flying time; 12,591 launches.

Certificate Flights.

October 9th: Bucknall, "C."

October 30th: Rischworth, "A"; Cramer, "B."

Beacon Hill Gliding and Aero Club

The following extracts are from the Secretary's report to the Annual General Meeting held in September:—

The membership now totals 16, of whom 10 have taken part in gliding, the average attendance being between six and seven. Gliding has taken place on 19 Sundays; for 30 Sundays we had no gliding site, and the others were wet days.

The Dickson glider has been launched 867 times, not including test hops after rigging, which has to be done every time we get it out as we have to stow it in a very small shed. The only damage done has been some landing wires and a couple of wing ribs which were damaged by the broken landing wires.

We had quite a large number of enquiries from prospective members. Some of these have since been interviewed, and stated that they had either joined the Civil Air Guard or were waiting to see if it would include the gliding movement.

We have two members with "A's" and one with a "B" certificate; all were obtained at Dunstable this year.

Umtali Gliding Club

The following extracts are taken from a letter to Mr. F. N. Slingsby, of Slingsby Sailplanes, from Mr. C. J. McGrane, of Umtali, Southern Rhodesia:—

As far back as April, 1936, Mr. H. Went (our very able and energetic secretary), and a couple of others who had no previous experience of any kind of flying, conceived the idea of starting a Gliding Club, and before August of that year had formed a committee of which Mr. Perrem and myself were elected members. Mr. Perrem is a post-war pilot owning a "Heinkel" machine and I am an ex-war pilot.

Owing to lack of means and other facilities I have not piloted a power machine since 1919, but have always retained my old love of the game, and was glad and even honoured to become a committee member of the first Gliding Club in Rhodesia.

Anyway, we got going and ordered a kit of parts for a PRIMARY from your firm, read as much as possible on the subject in the meantime, and became affiliated with the South African Gliding Association, etc. Mr. Topper, another energetic member, also ordered parts for a KIRBY KADET from you, and with the aid of a couple of personal friends built the machine and, incidentally, made a first-class job of it. In the meantime club members erected the PRIMARY, and by the end of June of last year everything was ready to take the field.

We had permission from the Municipality to use the local aerodrome (little used then except by Perrem, our local pilot), and Mr. Perrem and myself were made official instructors and registered as such with the S.A. Gliding Association.

Although Umtali is situated in mountainous country it was already realised that the main features ran parallel with the prevailing wind, and as no suitable soaring site could be obtained we were obliged to have recourse to the aerodrome and auto-tow training.

We started on 3rd July, 1937, Mr. Perrem and myself testing out the machines on the first day, using an old though powerful towing car with a 300 ft. rope and employing a locally made quick release on the PRIMARY and car ends. This release, I may add, was since seen by Wolf Hirth and very favourably commented upon.

A few short flights in both machines sufficed to make Perrem and myself sufficiently conversant with their handling, and the following day took some of the other members in hand.

Unfortunately, however, the king-post in the PRIMARY "caved in" after the first three week-end practices; I must mention here that gliding practice is only carried out during week-ends as most of our members are unable to get away during week days, and there is practically no twilight in these latitudes.

The "old" king-post was reinforced with ply wood and then plated, but finally broke altogether, and we set about building a completely new "gate." Shortly afterwards a crash by a pupil from about 40 ft. put our PRIMARY out of action altogether. This happened at the end of August, 1937, and put an end to main club activities pending arrival of spares from your firm.

In the meantime Perrem and myself, through the courtesy of the owner, experimented on the KIRBY KADET and secured our "A" and "B" certificates; Mr. Topper himself gaining his "A" on this machine.

On receipt of spares in December members worked until late at nights and had the PRIMARY ready to fly by the end of January this year. An ash king-post was used and the diagonal bracing member dropped to the foot of the post as already described to you by Mr. Went.

We took the field again in the first week in February, employing an altogether revised and more gradual system of training, with the result that at the time of writing 15 "A" certificates and 8 "B" certificates have been gained by pupil members without any damage to the PRIMARY or the KIRBY KADET. It was only a matter of a few weeks ago that the club was in a position to purchase the latter machine from Mr. Topper, and within two week-ends 6 "B" certificates were gained in this machine, the remaining two in the PRIMARY from heights of approximately 420 ft.

It must be realised that our membership is very small and people out here are probably not sufficiently air-minded. We held our official opening day in April last at which our Prime Minister (Mr. Huggins), the Director of Civil Aviation (Major Cloete), and many other leading people of this country were present.

As a result of this event we had hoped that some response in the form of a Government Grant or Subsidy would result so that we could acquire a sailplane and go ahead, but we are still living in that hope!

One result of this meeting was that some enthusiasts in

Salisbury (the capital) have formed a club, and I understand intend placing, or have placed, an order for a machine.

Mr. Perrem left for Europe in his "Heinkel" some two months ago, intending to spend a couple of weeks in Germany and the remainder of his holiday in England.

We badly need a sailplane but haven't the funds to purchase one as yet, and I am now requested by our committee to ascertain from you the cost of a pair of improved wings for the KIRBY KADET completely assembled and landed C.I.F. Beira, which is our nearest port, and approximately 200 miles by rail from Umtali. Having already constructed two complete machines as well as being engaged on the construction of a second PRIMARY, we consider we cannot afford the time required to build these wings for the KIRBY.

We have made arrangements for an extended runaway from the aerodrome which will give us an additional 500 yards, and allow of a length of approximately 800 ft. being obtained.

Wolf Hirth, who paid us a flying visit early in April last on his way to the Union of S.A., gave us to understand that we had excellent thermal conditions here, and our only course at present is to experiment and ascertain whether these can be reached at the height mentioned, but we cannot hope to do anything until we have a machine capable of soaring. I have tried out our KADET on numerous occasions at 400-500 ft. and the longest flight obtained after drop of tow has been 2½ minutes.

[Mr. McGrane encloses some statistics of the club's activities from July 1st, 1937, to June 30th, 1938. During this period there were 491 ground-slides and 607 flights. The average number of ground-slides before the pupil was allowed to take off was 19, followed by an average number of 37 flights before he got his "A" certificate. At the end of the period there were 18 members active; 13 "A" certificates had been gained (of which 10 were *ab initio*), and 2 "B" certificates. Of the club's two machines, the PRIMARY has spent a total of 50 hours ground-sliding (heavy steel plating is used on the skid) and 87 minutes in free flight, while the KIRBY KADET has made 132 flights with 86 minutes free flying time. The following have gained both "A" and "B" certificates: C. J. McGrane, C. H. Perrem, G. Levy, H. Rudolph, K. Ward, W. Stevens, Miss P. Ternouth, Miss B. Neale, C. W. Topper, J. Harrold, and the following "A's" only: R. C. Griffin, G. Cox, H. Went, M. Howie, W. Hoar.]

Since the above letter was written the club has ordered a KIRBY KITE with centre wheel for launching, and other training equipment.

Bloemfontein Gliding Club

This club, in the Orange Free State, South Africa, possesses a GRUNAU 9 primary machine and a GRUNAU BABY II sailplane, but the membership now warrants a further addition to the club fleet, and they are on the look-out for a second-hand primary. The hon. secretary (P.O. Box 373, Bloemfontein) writes that the club is anxious to get in touch with a progressive club in England with a view to securing a few hints on club organisation, training methods, etc.

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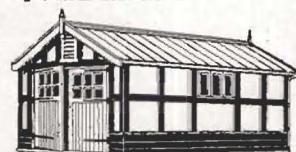
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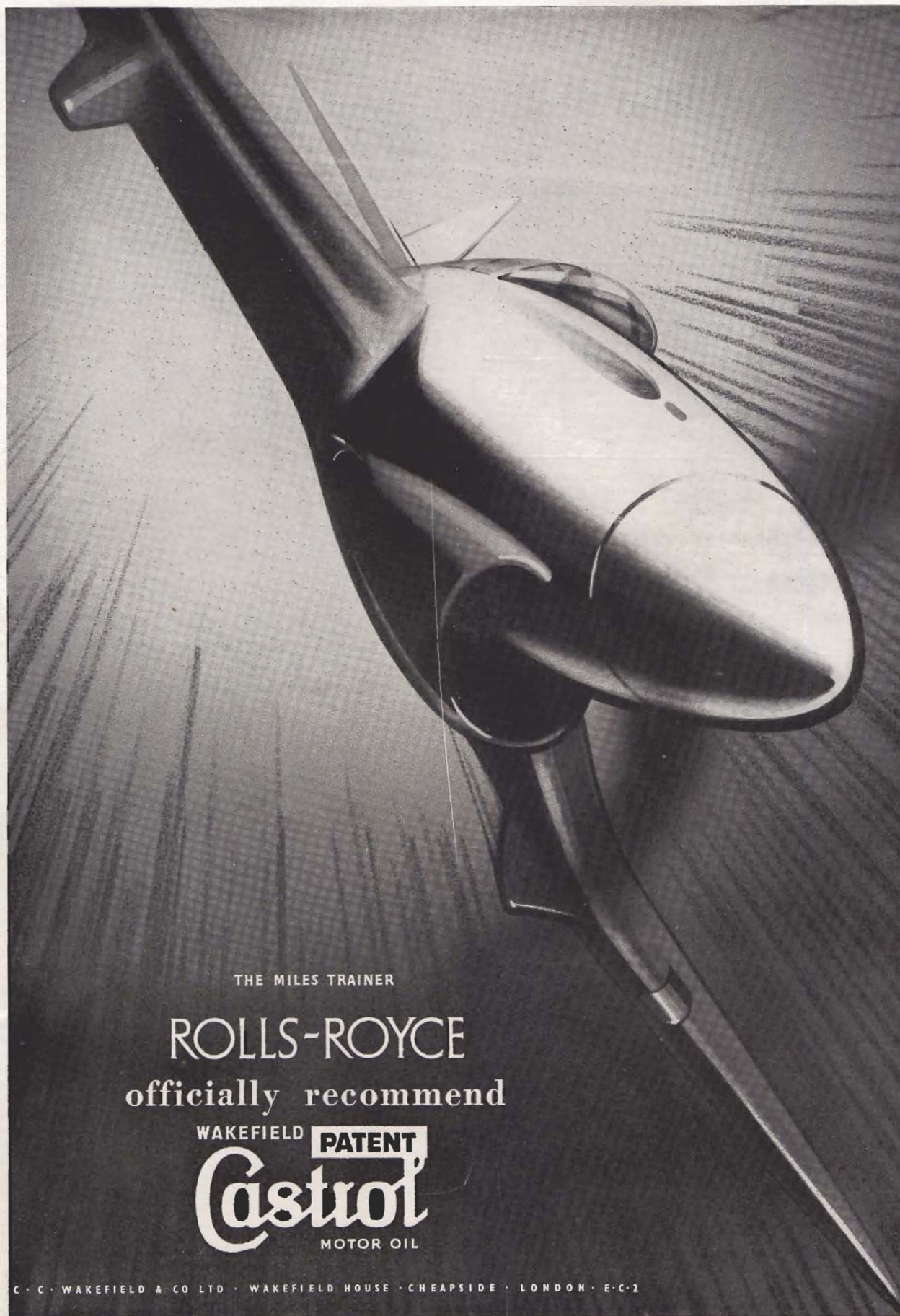
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