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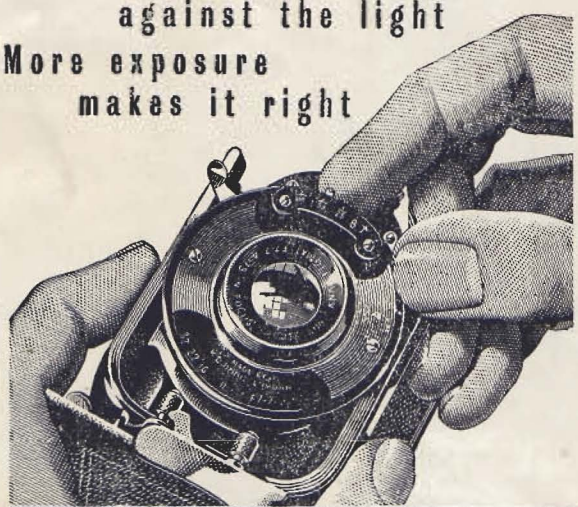
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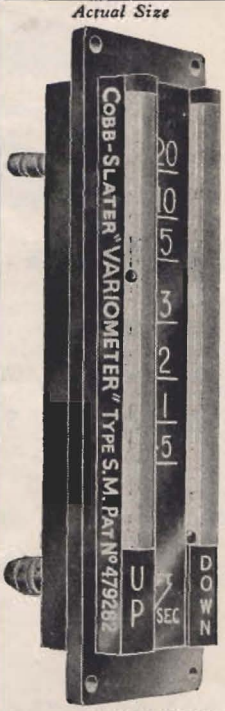
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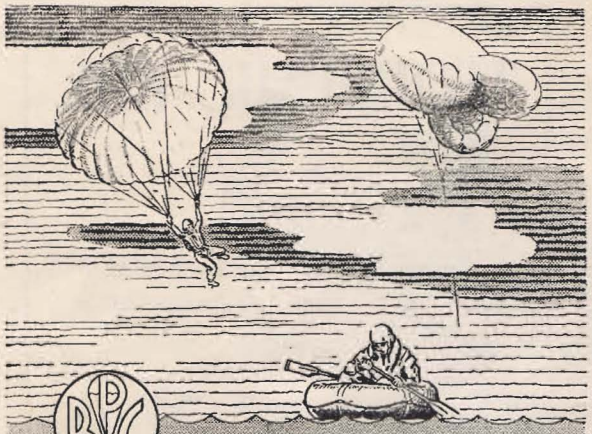
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Sailplane and Glider

THE FIRST JOURNAL DEVOTED TO SOARING AND GLIDING

OCTOBER 1946 ★ Vol XIV No 10

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THE NEED FOR LEADERSHIP

IT must be clear to any observer enquiring the state of Great Britain's political health to-day that we are suffering from poor morale. This is a symptom of debility, and may be due as much to the fatigue following an exhausting war as insufficient food of the right kind. Only thus can the servile docility of the masses of British workers, at work and play, under a muddling, ill-informed and inexperienced bureaucracy, be adequately explained. At the risk of inviting Direct Action from those of our readers who may disagree with this statement, we are going to remark that there is not in the present Government a single person who knows how to make money, or run a successful business, in the sense that our fathers made money or built up their businesses, on which the wealth of this country and its greatness in the last century, was founded. Theoretical politicians, economists, lecturers, Trade Union officials fed on a political theory now one hundred years old and fifty of them out of date, now try to run the most complex society which the world has ever seen. They are failing in no uncertain way, and the country must suffer for this failure, for which, however, having put the Government there, they have only themselves to blame.

Our success in the recent war was in no small measure due to our morale, which in turn came from the leadership which we were fortunate enough to find, for the second time in a generation. Our most successful general, of whom an enemy commander said "he is the only Field Marshal who has won all his battles," set about his task in no uncertain way. He made up his mind what he wanted to do, told his men what he wanted, and the results were never in doubt and were miraculous.

The contrast between then and now is remarkable. Where was all confidence and courage, now is hesitancy and almost craven doubt. In place of plans and achievement now is cap-in-hand suppliance of civil servants and pseudo-politicians without a drop of red blood in their veins.

This has got to stop and we must have new leaders in Peace as thrusting as those we had in War.

It might as well begin in the Gliding Movement, which is suffering from the malaise as much as any other activity in the country.

Those of us who see in our sport the great release into the air for the Youth of our Nation, which we know it can offer, are confronted by a sickening spectacle. True, there are about 30 Clubs operating in this country and in Germany, and these are represented in the British Gliding Association. But if the evidence which comes into the Editorial Office of *Sailplane* is any guide, there are enough would-be sailplane and glider pilots in the country to form ten times as many.

What is preventing this embryonic movement from getting into its stride? A whole string of reasons present themselves—lack of machines, lack of clubs, lack of sites, restrictions on some existing sites, lack of instructors, lack of money, lack of enterprise—in short, lack of leadership. The one thing there is not a lack of is enthusiasm.

It is not the function of the Press or of this journal to do more than cast the light of publicity on the problems of the day, to give a lead, to exhort, encourage, criticise, examine, create controversy and stimulate thought and effort. But it is clear that whatever may be the direct reasons of the present state of febrile inactivity in all but a handful of British Gliding centres, it is due in the main to lack of bold leadership in the Movement.

This is not an attack on the B.G.A., for they are not formed for that purpose, nor equipped for it.

It is not their function, for example, to start a school for two-seater instructors—the time has passed when the blind could lead the blind in Gliding—it is not their function to make available gliders in kit form, so that enthusiasts can make their own, thus gaining priceless knowledge of construction and maintenance and saving money; it is not their function to provide plans of primary machines at a nominal price for those who wish to build their own machines, nor to persuade Government Departments to release materials for this purpose.

Nor have the B.G.A. the resources to formulate a National Scheme for far more clubs than are at present contemplated. We are against all forms of Nationalisation, but this is one case where we do require a National Plan, by whoever sponsored. We understand that the R.A.F. are now about to take up Gliding in a big way. Detling has been selected as the H.Q. of the Instructors' School, as a beginning. Presumably all the 250 German Gliders which are rotting in Germany will find their way, after reconstruction by Slingsbys, to Detling.

Here is our chance to emulate the R.A.F. by a scheme as big and as bold, of our own. Who will lead this democratic movement to a great achievement?

There are several dozen Gliding instructors in Germany, who, since the decision not to allow them to be used, has been relaxed, could come here to instruct in all branches of the sport. Why cannot we have them? The Russians do—in their zones, just as the Russians have got the German Glider factories working at full pressure for them.

This is only one idea. There are a dozen others we could suggest. But what we need at this time is greatness of conception, for this plus moral force and action, is true leadership.

BEST AIR SPEEDS

By A. Mirsky No. 3

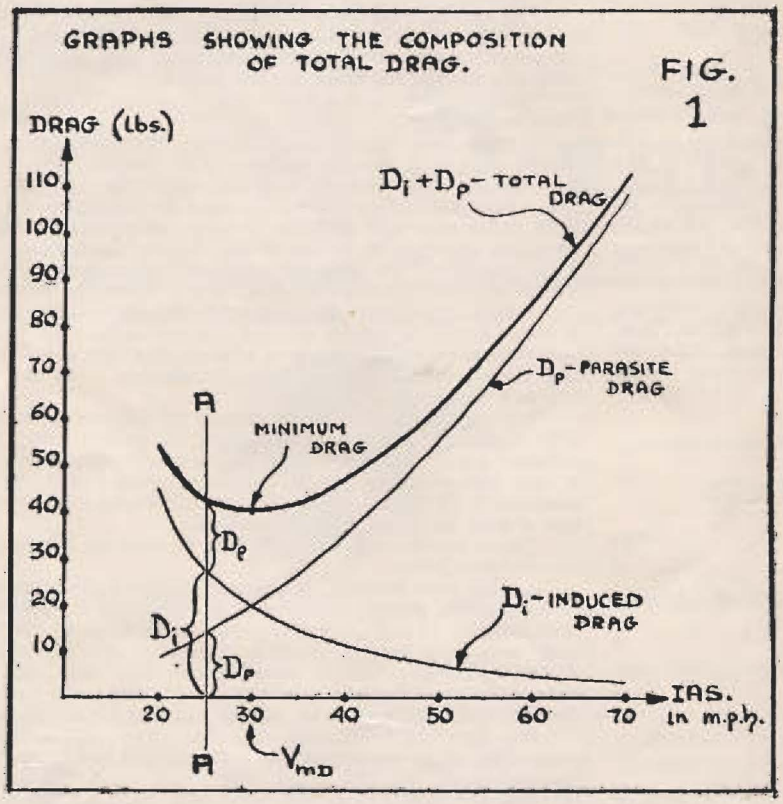
IN order to enable us to understand the effects of gross weight changes on the performance of an aircraft it is imperative to know a little about drag forces. In the subsequent discussion gross weight changes will be viewed in relation to

(1) maximum range speed in still air;
(2) effects on range performance at high speeds;
and (3) maximum endurance speed.

The total drag of an aircraft is that force which has to be overcome by the thrust exerted by the airscrew in the case of a powered aircraft, or by the component of the force of gravity resolved in the direction of flight in the case of a glider. The total drag varies with speed and density and is related to indicated air speed (not true air speed); it also depends on the gross weight of the aircraft.

The total drag of an aeroplane consists of two main types of drag, INDUCED DRAG and PARASITE DRAG. The induced drag is a necessary consequence of obtaining lift, and its value depends on the kind of aerofoil section used, the weight the aerofoil has to lift, the aspect ratio of the aerofoil and the indicated airspeed. The parasite drag, however, has nothing to do with the weight, but is composed of all the forces that hinder movement in the direction of flight. It is made up of the drag forces or resistance due to the shape of the aircraft—Form Drag, and the drag due to skin friction. As might well be expected,

GRAPHS SHOWING THE COMPOSITION OF TOTAL DRAG. FIG. 1



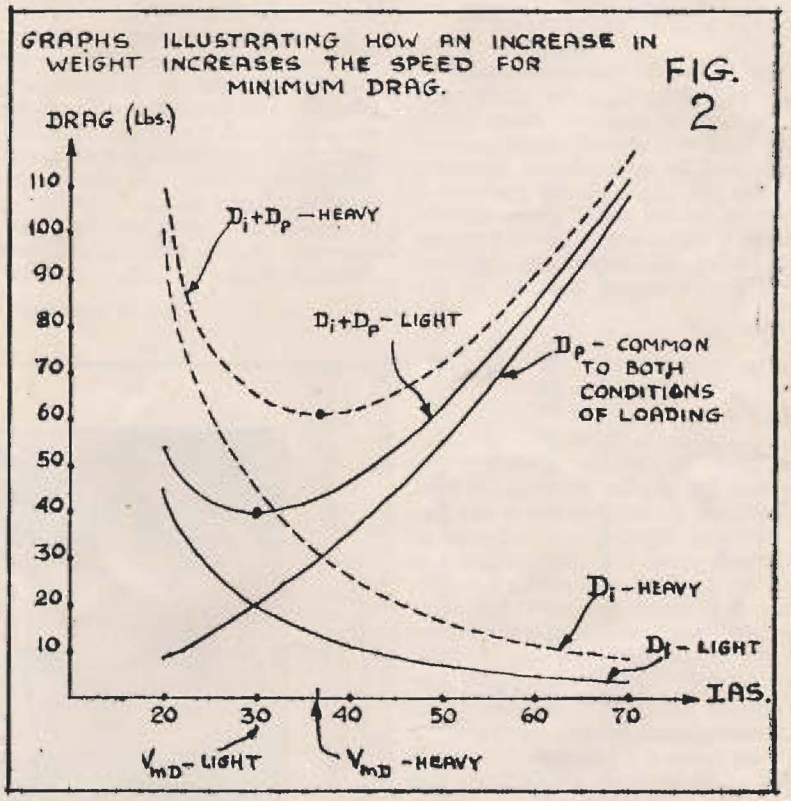
parasite drag increases as speed increases; induced drag, however, *decreases* with an increase in speed. The total drag, then, for any one speed is the sum of the induced drag and the parasite drag.

Should you find it difficult to see that the induced drag decreases with an increase of speed, imagine that for a given aerofoil its induced drag depends on the angle of attack. In straight and level flight, the lift component remains constant and the angle of attack decreases with an increase in speed, while the induced drag also decreases. The graphical illustration in figure 1 may help to form a clearer picture of the composition of total drag. The total drag curve is obtained by adding for each speed the values of induced and parasite drag as shown on AA on the graph.

For those who are not frightened of a little school algebra a simple story is told below of the relationship drag has to speed and weight.

when the weight of the aircraft and the forward and vertical speeds are known.

From the graph it can be seen that the total drag curve has a minimum at a certain indicated airspeed. This means that for the aircraft under consideration the resistance to motion is smallest at some clearly defined speed value. (V_{md} on the graph)—Notice particularly that that speed value is by no means the minimum speed at which the aircraft can fly. This is a most important recognition. An aircraft is in fact the only vehicle for which the resistance to motion up to a certain point decreases with an increase in speed. Once the speed for minimum drag is exceeded the total drag tends to increase rather rapidly and at an increasing rate; this calls for rapidly increasing increments of power in the case of powered aircraft or steeper gliding angles in the case of a glider. The degree of increase of required power or gliding angle respectively with increasing



If D_i = induced drag D_p = parasite drag
W = gross weight of aircraft
V = indicated airspeed
a = constant for induced drag of aerofoil
b = constant for parasite drag of aerofoil

$$D_i = \frac{a \times W^2}{V^2} \text{ and } D_p = b \times V^2 \text{ approx.}$$

Therefore the total drag $= \frac{a \times W^2}{V^2} + b \times V^2$

Hence the constants a and b can be easily determined

speed depends of course on the qualities of the aerofoil and the body of the aircraft, shape and smoothness of surface, etc. Designers of high performance sailplanes always strive to permit of large increases of speed beyond the speed for minimum drag with relatively small increases of gliding angle, in order to ensure what is commonly termed good penetration.

It is beyond the scope of this article to examine the qualities of an aerofoil that make for good

penetration, but a few more words on the speed for minimum drag are necessary.

For an aeroplane of given weight we can say that in uniform straight flight the angle of attack of its wing depends on its indicated airspeed. By the angle of attack is meant the angle formed by the mean chord of the aerofoil section and the flight path, which need not be horizontal. An increase in speed means a decrease in the angle of attack and a change in the total drag. Each aerofoil having to support a certain weight has an optimum angle of attack at some definite indicated airspeed, and that airspeed corresponding to the optimum angle of attack is the speed for minimum drag. Now at that speed for minimum drag, the *parasite drag is exactly equal to the induced drag*. Below is a simple arithmetical demonstration of that statement. If you cannot follow it you should accept it in good faith.

Since D_i is proportional to $\frac{1}{V^2}$ (for a given weight)

and D_p is proportional to V^2 (independent of weight)

the product $D_i \times D_p$ is always a constant.

Now we want the sum of D_i plus D_p to be a minimum. Suppose that the product of the two drags has a value of 64, say ; 64 then will always be the product of the two drags multiplied by each other at whatever speed values the drags are taken. Our problem is now to find two values for D_i and D_p respectively, whose sum constitutes a minimum. Let us try and split up the number 64 into all its possible combination of two factors, and examine the sum of the factors.

Thus :

$64 = 64 \times 1$	sum of factors $= 65$
$64 = 32 \times 2$	" " " $= 34$
$64 = 16 \times 4$	" " " $= 20$
$64 = 8 \times 8$	" " " $= 16$

We can easily see that the smaller the difference between the two factors the smaller becomes the sum, and that the smallest sum is obtained when the two factors are equal. This is proof of the fact that at the speed for minimum drag the parasite drag is equal to the induced drag. It should need no further emphasis now, that the speed for minimum drag corresponds to the best range speed in still air ; so long as the minimum drag speeds are expressed in terms of indicated speeds their values for any particular aircraft will be the same at all heights.

The effect of increasing gross weight on the speed for minimum drag : In figure 2 a comparison is made of the performances of an aircraft flying light and heavy respectively. Since induced drag increases with an increase in weight we should expect the values of induced drag pertaining to the heavily-laden aircraft to lie above those of the lightly-laden one at any one speed. Parasite drag, remember, is unaffected by an internal increase in weight. To draw any conclusions from the graphs we must look for the points of intersection of the induced drag graphs with the parasite drag graph which is common to both, and examine the course of the total drag graphs for the two conditions of loading. We can then deduce three important points for the heavy aircraft.

(1) At its speed for minimum drag the total drag is at a higher value.

(2) Its speed for minimum drag lies at higher value than that for the light aircraft.

and (3) At a speed well above its minimum drag speed the total drag curves nearly coincide. This means that a heavily-laden aircraft may well have a more shallow gliding angle at a high speed than a lightly-laden one.

The last point embodies a most interesting feature and will be the subject of a later discussion.

The practical inferences from the above explanations are

(1) that the indicated speed at which you should fly a sailplane in still air is independent of the height at which you fly.

and (2) that the heavier the sailplane is the faster you should fly it to obtain best range. The degree of increase of speed with an increase in weight will of course vary with each type, and can be fairly easily calculated and plotted.

In figure 3 is an example of that of the " Kranich III," light and heavy. It can readily be seen that the discrepancies in best range speeds for the two conditions of loading are by no means negligible and are well worth studying. The data given are calculated and the author assumes no responsibility for their correctness, but feels confident that they provide a good guide. Further performance graphs of well-known types will be given in a later article, and will be preceded by a short discussion on the effect of weight on best endurance speeds.

(To be continued.)

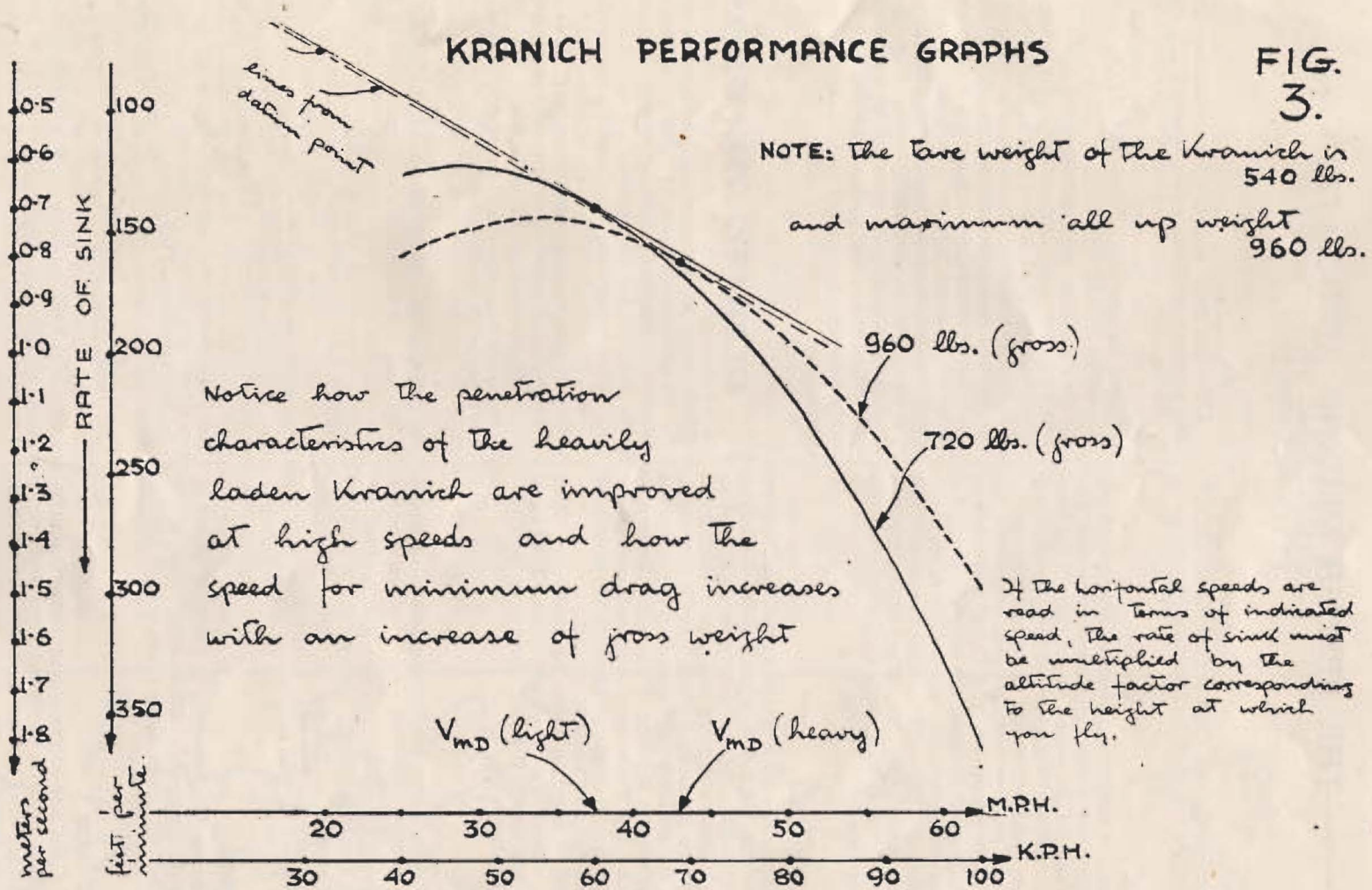


KIRBY CADET GOES HARVESTING

Although this machine crashed into a tree and fell 30 ft., the pilot was unhurt

KRANICH PERFORMANCE GRAPHS

FIG. 3.



THE BRITISH GLIDING ASSOCIATION

ANNOUNCEMENTS

New Clubs.

The Channel Gliding Club and 84 Group R.A.F. Gliding Club have joined as Associate Members.

Equipment.

As a result of further and repeated representations, it is possible that winches and beaverettes may now become available at prices lower than those previously quoted by the Ministry of Supply, details of which have been circulated. Clubs are requested to cancel their previous requirements made to the B.G.A., and to inform Mr. J. C. Rice, a Member of the B.G.A. Council, *direct* of the number of winches and beaverettes they now require, assuming that winches will be £20—£30 (without trailers) and beaverettes about £50. Mr. Rice, acting for the B.G.A., will then make a bulk tender offer to the Ministry of Supply.

Accident Procedure.

A ruling has now been obtained from the Treasury Solicitor to the effect that in his opinion S.R. & O. No. 650 of 1922, paragraph 1 may be considered to cover non-Military sailplanes and gliders which crash in this country but do not affect them if they crash out of the United Kingdom unless they are registered aircraft within the meaning of the Act. From now onwards, the Chief Inspector of Accidents accordingly proposes to treat sailplane accidents in the same way as accidents to other kinds of aircraft.

The Council requests Clubs to notify the Chief Inspector should an accident occur. The Chief Inspector has stated that full reports on accidents will be published.

Insurance.

The following Insurance Companies can be added to the list already circulated :—

(*e*) Royal Insurance Company Limited, 24—28, Lombard Street, London, E.C.3.

(*f*) Liverpool & London & Globe Insurance Company Limited, 1, Cornhill, London, E.C.3, and 1, Dale Street, Liverpool.

Gliding Camp.

The Leicester Gliding Club is taking a party to Long Mynd, September 22nd—29th, and would welcome members from other Clubs able to provide their own machine to join in.

Barograph Charts.

If any Clubs are interested in obtaining lithographed copies of charts for German type barographs will they please write to the B.G.A. offices ? If there is a sufficient response, a stock will be obtained and held.

R/T Sets.

There has been a hold-up in obtaining the R/T Sets required by Clubs, owing to the G.P.O. refusing to license until the wave-length position has been cleared up. In the meanwhile the sets are being reserved for the B.G.A., and the B.G.A. is holding the money sent by Clubs.

The trouble is that wave-lengths are being reallocated by the International Radiotelegraphy Commission, and it is doubtful whether the G.P.O. will be able to issue licences on the particular frequencies on which the sets operate (8.9 megacycles) when the new distribution takes place. A frequency of about 20 megacycles will be available, but from enquiries the sets cannot be converted to this without a good deal of trouble and expense. The 8.9 megacycle band may only be operative for some 2 months, and certainly not longer than 18 months.

Further information will be circulated as soon as possible.

GLIDING RECORDS

FIVE types of International Gliding Records are recognised by the F.A.I. ; similar National British records are recognised by the Royal Aero Club :—

1. Distance in a straight line.
2. Distance returning to point of departure (" Out and back ").
3. Distance to a declared destination (" Goal flight ").
4. Duration, returning to point of departure.
5. Height above point of departure.

There are two categories : Category I (Single-seaters) and Category II (Multi-seaters).

INTERNATIONAL RECORDS ON 1st FEBRUARY, 1946.

		Official Performance.	*British Equivalent.*
Category I (Single-seaters).			
1.	*U.S.S.R.* Miss O. Klepikova, in " Red Front 7 ", Moscow to Otradnoie (Stalingrad), 6th July, 1939	749.203 km.	465.6 mls.
2.	*U.S.S.R.* Boris Kimelman, in " Red Front 7 ", Toula-Riajsk-Toula, 23rd July, 1939	342.370 km.	212.7 mls.
3.	*U.S.S.R.* P. Savtzov, in " Red Front 7 ", Toula to Mikhailovka, 31st July, 1939	602.358 km.	374.3 mls.
4.	*Germany.* Kurt Schmidt, in " Grunau Baby," at Korschenruh (E. Prussia) 3rd-4th August, 1933		36 hr. 35 m.

(*Continued on page* 23)

LONG MYND to REDHILL

Hark, the herald Angels sing:
" Gracias is coming in."

July 14th, 1946 ***by C. J. Wingfield***

THE weather of July 13—14 underwent one of the most rapid changes I can remember. For the whole week the country had been in a heat wave. Saturday dawned hot, but a film of Ci-Str developed; hoping to winch into a thermal on the Long Mynd I telephoned the met. office, rather concerned. The forecaster reassured me; it had already cleared over him, and he expected it to clear generally. Although the anti-cyclone was dissipating, a trough to the West was weak, and moving very slowly. He did not expect it to change appreciably in the next 36 hours.

We drove to the Midland Gliding Club in our shirt sleeves. It did not look too hopeful; the Ci-Str was changing to Alt-Str, and there was not a vestige of a cumulus. The wind was Westerly, very light. On the first launch at 14.45 hours " Gracias " failed to soar after a winch launch, but by 17.45 hours the wind was strong enough to take off over the edge of the hill after a " shoulder launch "; two men lifted her up under the wings, walked forward, and she flew off their shoulders. In three hours the wind had risen from under 10 m.p.h. to over 25 m.p.h.; the barometer and temperature had dropped considerably, but the sky had not changed much.

I heard the story from the met. office afterwards. Polar air had worked round from the North-West, and spread rapidly over the country, bringing a fall in temperature of 16° F. Three fronts crossed the country. One at 16.00 hours on the 13th was observed as a heavy line of Cu to the North-East, but did not affect the Long Mynd. The main front passed during the small hours of the 14th, and moved S.E. at 25 m.p.h. and had cleared the country by evening.

The met. details for 11.00 hours on the 14th were that the lapse rate was super-adiabatic up to 900 mbs. Temp. at surface 60° F., at 950 mbs. 50°, at 900 mbs. 42°, at 850 mbs. 37°, at 800 mbs. 31°.

Wind at surface was N.W. 25 m.p.h., and at 3,000 feet 310°, 30 m.p.h. Cumulus tops extended to 12,000 feet, and probably up to 17—20,000 ft. The Nine o'Clock News that night was an awful history of thunderstorm, gale and tempest.

It looked good, very good, on the morning of the 14th. Great streets of cumulus were stretching down wind by 10.00 hours, and it was very cold at the club, 1,400 feet A.S.L. So before starting at 11.30 hours I put on my pyjama jacket under my coat, as all my warm clothes had been left at home. N.B.—All heights in future will be given above sea-level.

I had begun to fear that I was never going to make a long cross-country flight, as my best hitherto was only 42 miles. However, my barograph was sealed, and I optimistically declared the London Gliding Club at Dunstable as my goal, 108 miles to the S.E. without much hope of setting up a goal flight record. We started well; a few minutes after the launch I was climbing through heavy rain up to an approaching line of storm cloud, and climbed inside to 4,400 feet. Further inexpert fumbling did not do much good, and I came down through its base just North of Craven Arms.

There were no promising clouds down wind; the cloud I had just left had produced nothing but downcurrents in a complete traverse, so I gave thanks for Wenlock Edge nearby, and decided to imitate the pioneers of cross-country flying in sailplanes, and vary cloud flying with a little hill soaring. (I learnt afterwards that the cloud had come right down on to the Long Mynd, so that it was as well I did not try to return through it.)



I had to stay hill-soaring over Wenlock Edge for over an hour, down to within 400 feet of the ground at times. It was very rough; and I did not dare to explore too far because there are several gaps in the ridge, and my ground speed across the strong wind was very low. I soared in bright sunshine, watching a huge line of cumulus bearing down from the North-West.

By 1.15 I was off again under it; cloudbase was now up to 3,500 feet. I have twice previously had trouble in crossing the part of the county between Wenlock Edge and the Severn, so I stuck to this cloud, which was very large in area. Lift was not very good; I never made very much inside cloud, and was once down to 2,900 feet. It struck me how difficult it is under a big cloud-system to judge where the best lift will be, as one's field of view is so limited close to cloud-base. However, I tried the blacker-looking bits, and kept going.

Over Cleobury Mortimer at 4,000 feet I decided I had worked it out, and made off down wind towards Bewdley. It did not look too good, but I decided that one or two small clouds ahead were growing. We sank and sank, mainly at that depressing rate of 5 f.p.s., which ususally heralds miles and miles of gently sinking air. I crossed the Severn; came under a ragged Cu which produced nothing; tried a military camp (or were they pre-fabs. ?) and the tall chimneys at Stourport; the smoke showed no trace of vertical currents. However, all the fields were big, so carried on until finally, at about 1,000 feet a.s.l. or 5 or 600 feet above ground I found something. The next quarter of an hour were spent struggling in lift which varied between 6 inches per second rise and sink.

I maintain that this lift can neither have been a thermal of the " bubble " type (or I would have fallen through the bottom of it after a few minutes), neither can it have had any connection with any particular ground source; for I drifted at about the same altitude of 1,000 to 1,200 feet in it for 6 miles or so. All the time I had to watch the ground for possible landing fields, and noticed that I passed over no villages, but only over grass and green corn with one wood and one large lake. The lift was altogether vague, and seemingly with no central core. The air suddenly changed to champagne, and we started to climb at a gentlemanly 3 f.p.s. Cloudbase was by now at 4,000 feet, and we climbed to 4,400 feet.

The rest of the flight was dead easy—an open " Dagling " could have done it. I got lost, and excursions inside cloud did not help; and I began to be dreadfully tired and uncomfortable. I pressed on down-wind judging my course by the few cloud shadows visible, and I seemed to be flying along an endless cloud-street. I ignored all slight lift for a change and ventured inside cloud in the better patches. Up-currents were of the 5 to 10 f.p.s. order, and down-currents were few and weak. I never saw the Cotswolds, but spotted when I was across them by the changed countryside and typical Gloucestershire towns.

I made one capital climb to 7,400 feet at 10 f.p.s. in a dead-smooth cloud, came out of the side for a change, and saw a large town below which I identified as Oxford.

This presented a problem. It was now about 3.45 p.m., and I was well off course to my goal. The goal would make a reasonable sort of British record, but would involve beating some 30 miles across a strong wind. That might take up to two hours, and it seemed pretty doubtful. Anyway, I left my cloud-street for a big Cu to the North which was blocking the view. It was a real beauty, and took me up at 10 f.p.s. or more; the altimeter read 7,550 feet at the highest, but the barograph had stopped working and I only kept it going by violent shaking twice a minute; it shows 8,100 feet a.s.l., or 6,850 feet above the low point reached at Stourport, if it can be believed. A pity, because I believe Gold " C " height was possible then, but the strain of I.F. barograph shaking and general cramp and cold were a bit too much.

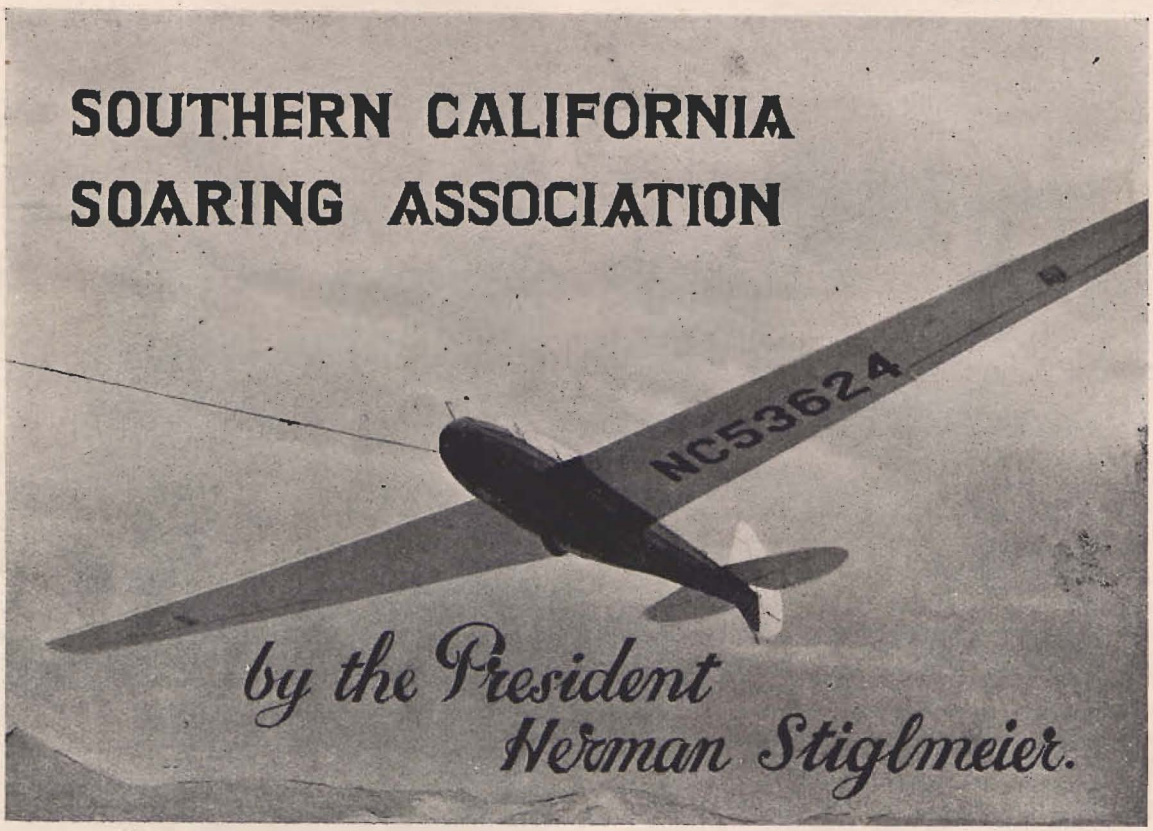
I came out of the side among a maze of lesser cloud-summits. I could see, however, that the sky towards Dunstable was quite clear of clouds. I saw Chinnor underneath, with the old Oxford Club's site nearby, so decided to repeat my Silver " C " distance flight, made from there to the Surrey Club in 1939. This time I thought I would call on Ann Douglas at Redhill.

I flew back to the same street which I had left; it must have been the father and mother of all cloud-streets, for it took me from Droitwich to Staines! The rest of the flight has merged into a few confused impressions; I was desperately tired and uncomfortable. Cloudbase was by now up to 5,000 feet and I never went below 3,000 feet. I saw the A.T.C. flying a " Kadet " at Booker. The sky South of the Thames looked quite dead. To my left a black and murky street led over central London into the distance. London Airport, untidy and ugly, littered with grounded Constellations. I was quite a long time round Staines, for the street ended here, and I began to use every bit of lift I found. Across the Thames at Hampton Court. Weak lift under one or two tired-looking Cu, the last one over Cheam. Croydon Airport in front, and from it I picked up the railway to Reigate. A long glide to Redhill. I decided to land in the field next to Ann's house in preference to Redhill Aerodrome, where I knew I would be greeted with a barrage of Red Verey lights. I was much too tired to take avoiding action, and they might hit me.

Staplehurst Farm looked deserted, so I shouted down to ask if I could come in, as I was not in a position to ring the door-bell yet. Ann was indoors, and heard her name being called from the heavens, ran to the window and saw me fly past at 400 feet, which explained it.

I never believed that it was possible to be so tired, have so many aches, or be given such a welcome. The distance was 147½ miles, and I had been 5 hours 50 minutes in the air. (One hour was spent on Wenlock Edge; allow say 20 minutes on the Long Mynd, which gives 4½ hours spent on the journey; average speed, 32 m.p.h. Wind speed was 30 m.p.h.!)

Tail-piece. My brother gave a young woman a lift, driving down with the trailer. My landing had not yet been reported to him. She asked him what was in the trailer, and where he was taking it. So he had to tell her, " There's nothing in the trailer, and I've no idea where I'm going."



OUR Fifth Annual Western States Championship Soaring Meet was a grand success. We feel that we accomplished our goal in proving that sailplanes can go cross-country and gain high altitudes, and that the conditions are available in California for these performances.

There were nineteen pilots entered with only twelve of these doing any cross-country flying. The latter made ninety-one take-offs to fly a total of two thousand two hundred and three miles. The total take-offs made were one hundred and thirty-nine for a total of two hundred and seventy hours flown.

John Robinson, of Altadena, California, was winner of the Meet. He afterwards went on to the National Contest in Elmira*, New York, to defend his title of National Champion. Raymon Parker, of San Diego, California, won second place. He also made the longest flight of the Meet—207 miles to Wickenburg, Arizona. The highest altitude of the meet was made by Robert Thomas, of Glendale, California—22,000 feet above sea-level. Herman Stiglmeier, of Inglewood, California, made the only goal and return flight—62 miles to Amboy, California. He also placed third in the Meet. The first two winners of the Meet flew single place ships, all other contestants flew two-place " Laister-Kauffmanns," "Schweizers," " Cinemas " or " Pratt-Read " planes.

The United States Navy gave the Southern California Soaring Association permission to use Condor Field at Twenty-nine Palms, California. This field was used by the Army in their glider training programme during the war before being turned over to the Navy. Soaring conditions are extremely good in this area. The field is located in the Joshua Tree Monument just north of Twenty-nine Palms in the California desert. The elevation is 1,761 feet above sea-level. Permission was granted to use one of the large hangars on the field. This was a big help in keeping the ships under cover when not flying, a clean place for repair work, and a blessing for the ground crews for the temperature was quite high—especially in the sun.

All in all it was a grand Meet. Everyone did a lot of flying—all airplane tows too—as well as hangar flying at night. Nine days of flying and fellowship !

* A Report of this Contest is on page 17.

WINTER LECTURES

Invitations are being sent to all Gliding and Flying Clubs to attend a series of lectures in the canteen of the Fairey Aviation Co., Ltd., Station Road, Hayes, Middx.

The first lecture entitled " Bird Flight and The Aeroplane"—Illustrated by Lantern Slides—will be given at 8 p.m., by Captain J. Laurence Pritchard, on Thursday, October 17th.

R.A.F. HILL-SOARING SITE IN GERMANY

By Group Captain D. W. Lane, C.B.E.

THE Gliding Club of Headquarters British Air Forces of Occupation in Germany is now using more fully a fine hill soaring site at Scharfoldendorf situated in most lovely hill country about 20 miles S.E. of Hamelin. The main ridge runs for about 17 miles in a N.W.—S.E. direction with its highest points at the ends, standing about 800 feet above the valley. At the launching area, near the S.E. end of the ridge, the slope facing S.W. is steep and in places consists of vertical rocky faces.

2. The Germans used Scharfoldendorf as a Gliding School during the war and they have left behind some very fine living quarters and hangars perched on the hill-top. All forms of glider training from elementary to advanced were taught there.

3. With a S.W. wind, the Germans used bunji for launching over a steep slope facing the valley. An emergency landing ground was provided at the bottom and gliders were hoisted straight up the hill-side on a rail trolley. This is now derelict and gliders from the valley have to be towed up a tortuous road in a trailer behind a jeep. This happened frequently in our early attempts at hill soaring !

4. With a North wind, hill soaring is also possible on a mile long subsidiary ridge running E.W. Gliders are winched off the main ridge parallel to its length and then hop across a valley to the subsidiary. This promotes a certain sinking feeling in case the lift should not be in fact available on the ridge when one arrives !

5. With a reasonably strong S.W. or W. wind, a pilot can stay up as long as his endurance permits. The longest flight when I left at the end of July was



First Aid for a Broken Cable.



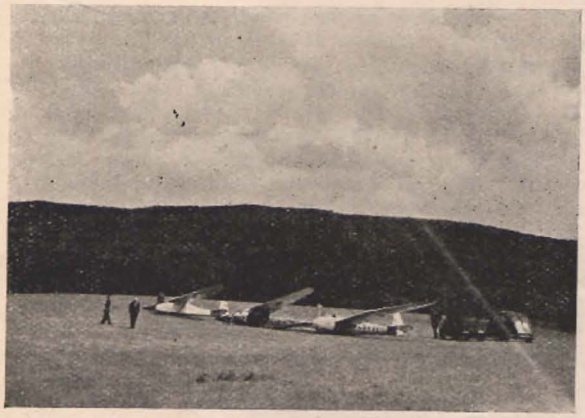
"Gaunau."

6½ hours in a "Rhonsperber." The fact that one is not confined to a short ridge and can, depending on the strength of the wind, dart out periodically into the valley, keeps one fully interested and busy even on a long flight.

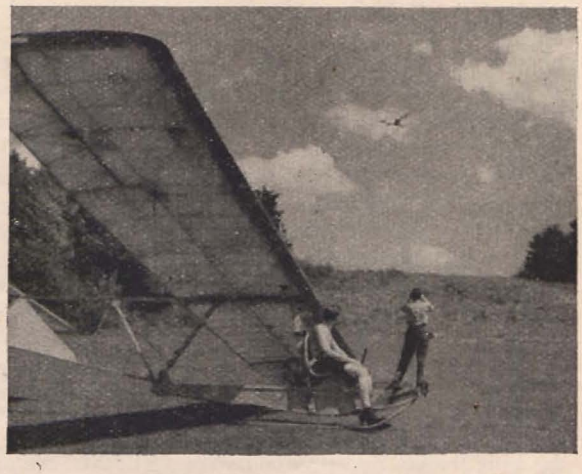
6. Even more interesting gliding, however, is provided by a combination of light winds and thermals. When thermals occur, they are often strong and seem frequently to originate near the vertical rocks mentioned above. In my own limited experience they have lifted me 3,000 feet even on a cloudless day.

7. As a gliding site, Scharfoldendorf is reputed to have been rated as second only to the Wasserkuppe and many long distance flights have been made from there. As long as enthusiasm and the supply of gliders persist there is no reason why the R.A.F., with their growing experience, should not at least emulate the performances put up by Germans.

5th September, 1946.



"Rhönsperber" "Olympia" "Grunau"



Official Photo SG38 at Barntrupp

TWO FINNISH SAILPLANES

IN recent years intensive study and research have been commenced in order to create a series of purely Finnish sailplane designs. The reasons for this are obvious. It has been found out that such aircraft which have proven very good in the leading soaring countries, are not always suitable for use in Finland. This is because of the different conditions in this country as compared to those in which most of our present sailplane types have been designed.

Finland is geographically a slightly rolling woodland, being as a whole relatively flat. The terrain is everywhere broken by lakes, which consist of more than a tenth of the whole country's area. The lakes of Southern Finland are frozen for about five months, and those of Northern Finland for about seven months a year. Almost three fourths of the area of Finland is forest, and cultivated areas are relatively scattered, particularly, since a third of the extent is more or less swamp. The greatest cultivations are in the wholly flat Western Finland, as well as in the South-Western, Central and Southern parts of the country.

For these reasons, ridge soaring cannot generally be done in Finland, and the aircraft must have good thermal qualities—small sinking speed, low wing loading, and good handling and turning qualities. In addition, the planes must be small of size, because the spaces available, for instance, in case of a forced landing, are as a rule small. Despite all this, the aircraft should have a penetration and speed good enough to permit cross-country soaring without much difficulty.

The economical circumstances affect Finnish sailplane designs greatly because, as the club members build their aircraft themselves, the materials must be as cheap as possible and the construction and repair must be easy and simple. In general it may be said that specialisation in sailplane types cannot easily be afforded in Finland, and efforts must be made to incorporate characteristic qualities of different types of sailplanes as far as possible in each case.

The operational requirements must also be considered a vital factor. As the aircraft are built and used by clubs, whose tools and other equipment are by no means always perfect, the construction, as already stated, must be as simple and as straightforward as possible. The aircraft must be suitably strenghtened to withstand handling in the rough terrain of Finland during transportation and retrieving.

As training generally is done on ice or airfields, that is to say level ground, the planes must be provided with a back-placed release and must also be strengthened to take the additional stresses caused by use of this type of winch or car-tow launch.

The Finnish raw materials are, however, the main reason for this rapid development of sailplane types of our own. The fact lies in the discovery that if we build our aircraft—e.g., the "Grunau Babies"—according to the original drawings, their empty weight becomes some 10—15 per cent heavier than the plans provide. The reason for this is the specific gravity of Finnish pine and birch plywood which we use exclusively, which is greater than that of the corresponding Central-European materials the plans provide to be used. Their strength values are respectively better, and so the structures tend to become slightly overmeasured. It may be mentioned that when the compressible strength of German pine is reported to be about 82 lb./sq. ft., that of Finnish pine is about 125 lb./sq. ft. The tensile strengths are respectively 143 vs. 194 lb./sq. ft. The resultant increase in weight has a harmful effect not only on the performances but also on the handling qualities by the increase of the moments of inertia about the different axes. In addition, the aircraft tend to become tail-heavy.

Consideration of these requirements has so far

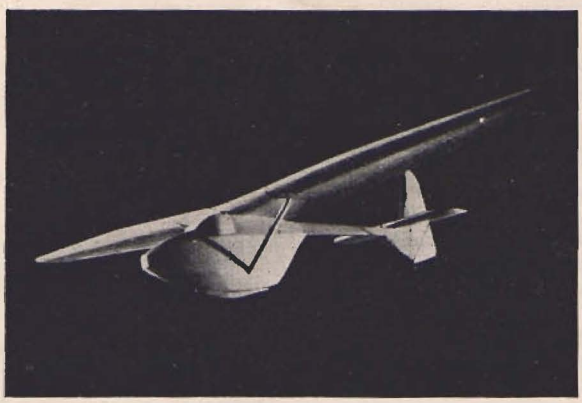
resulted in designing of two new sailplane types, called " PIK-5 " and " PIK-6," respectively.

The " PIK-5 " has been designed by Mr. K. Temmes, who, besides his duties as Chief of the Aeronautical Department of the Finnish Aeronautical Association, is an aircraft engineer with distinct promise. In this design he has aimed to performances comparable to those of the " Grunau Baby IIB," but at lower speeds even better; as nice handling qualities as has the Polish " Salamandra," and so simple a construction that even the smallest clubs should be able to build it themselves without difficulty.

" PIK-5 " is a high-wing, single-seat intermediate training sailplane, the strut-braced wing of which is a single-spar structure. The box spar, calculated according to a new theory on unelastic bending, has pine flanges and plywood webs. The ribs are of built-up wooden structure with plywood stiffeners. Forward of the spar the wing is plywood-covered, forming the torsion box. The rest of the wing and the ailerons are fabric-covered. The wing is attached to the fuselage by four bolts, two of them joining the spars and two joining diagonally attached false spars in the roots. In order to achieve a simple construction the wing has neither geometrical nor aerodynamical wash-out. It is provided with dive-brakes which prevent the terminal velocity exceeding 125 m.p.h.

The aerofoil section is Göttingen 533 throughout, with a chord/thickness ratio of 14 per cent. The aspect ratio is 10.5 and the load factor is 10.4.

The supporting structure of the front fuselage consists of a massive longeron which, by a built-up

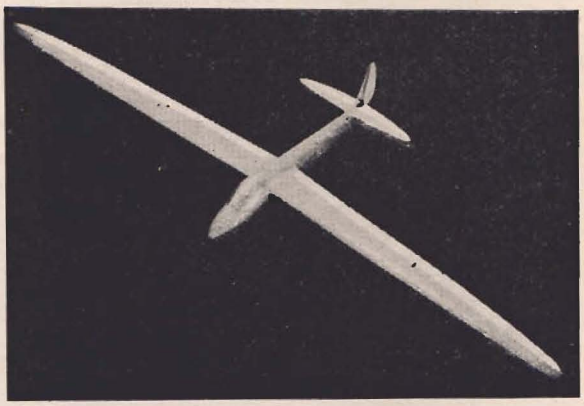


Pik-5

wooden structure, is attached to the tail bearer of similar layout. Both of these beams are of wooden box construction with pine flanges and plywood webs. As a result of this layout the fuselage is as easy to build as that of any " Primary." The aerodynamical shape of the forward fuselage is given by a light, easily removable shell which, despite its simple construction, reduces the fuselage drag to a value corresponding that of the " Grunau Baby " fuselage. The instrument panel is equipped with an A.S.I., altimeter, turn-and-bank indicator and a variometer. A transparent cockpit hood may be used, but the plane may as well be flown as an open-cockpit or even open-fuselage type.

By virtue of earlier research work there is, in addition to the normal nose-placed release gear, a back-placed release, which permits about 30-50 per cent higher initial altitudes than is possible with the normal release in a winch launch.

The tail surfaces are also designed to be of the simplest possible construction and so, for instance, all the tailplane ribs are similar, being built up with light wooden flanges and plywood webs. Both the tailplane and the fin are covered with diagonally applied plywood, which makes the use of diagonal



Pik-6

members or stringers unnecessary. The tailplane is adjustable on the ground.

The prototype " PIK-5 " is now in an advanced stage of construction and will probably have flown when this is in print.

The following type of the " PIK-series," the " PIK-6," will be a single-seat high-performance sailplane for cross-country flying, which has been designed with a special consideration of club work and use. Its designer is Mr. P. Schalin, another of our young aircraft engineers. His work is now in a final stage, but it is not probable that the prototype would fly before the summer of 1947.

Mr. Schalin has taken the task to make the best possible compromise between two extremities: a pure cross-country sailplane and a thermal sailplane. In addition, he has paid regard to the limitations set by the present material situation of using in the various parts of the airframe that particular Finnish timber which suits best in every specified case.

" PIK-6 " will have a cantilever shoulder wing of wooden construction. The root aerofoil is NACA 23012 and the tip section NACA 43012—thus a very thin and " fast " section. The aspect ratio is 17 and sweep-forward four degrees. The single box spar has plywood webs and wooden flanges, of which the upper is of birch and the lower of pine, birch having very high compressive strength. The torsion box extends to the ailerons, being covered with diagonally

applied plywood. The wing is provided with dive brakes and fabric-covered trailing-edge flaps.

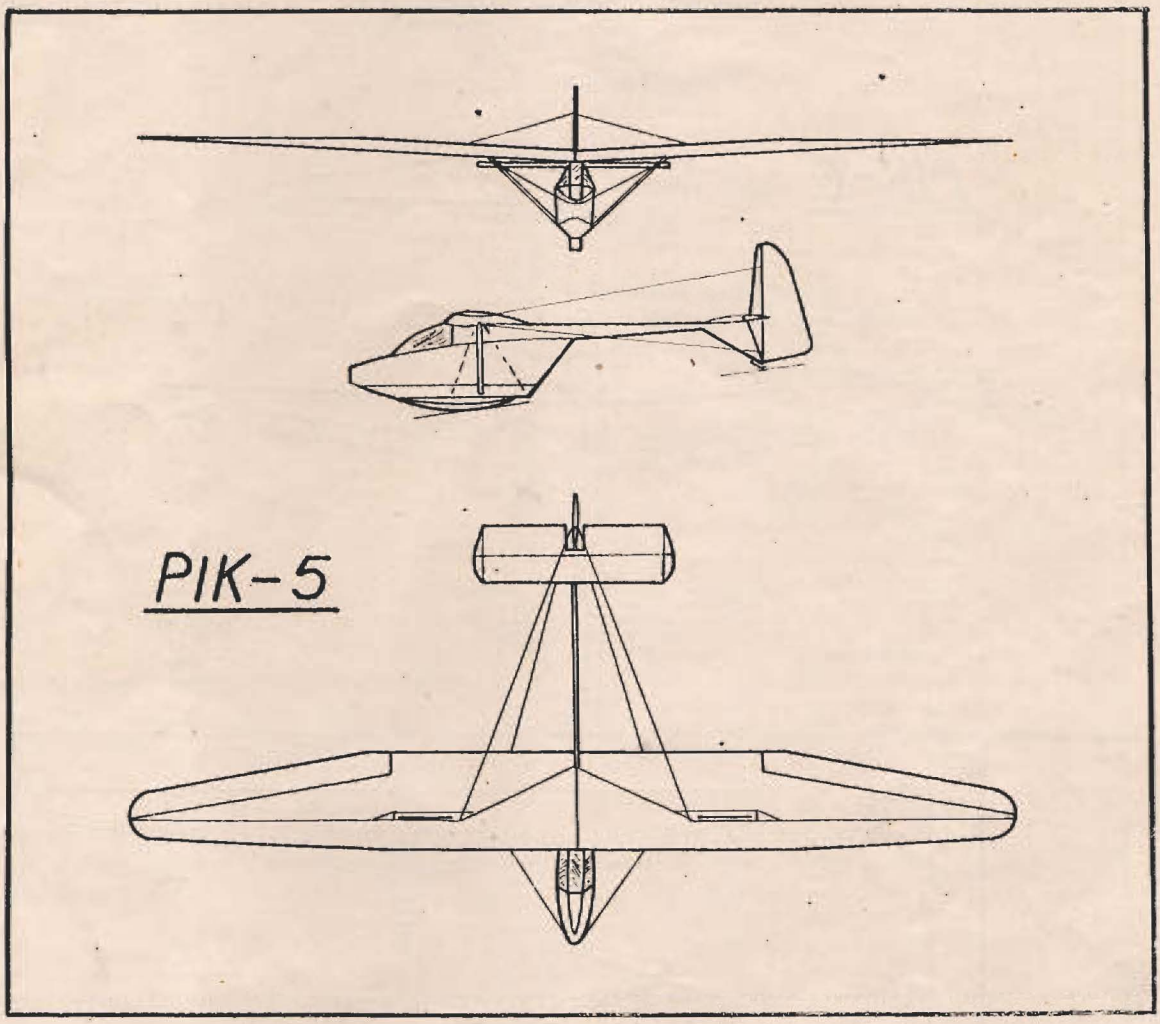
The fuselage is of all-wood construction, the load-bearing structure consisting of an upper and lower pine longeron and the semi-monococque, former-supported plywood covering.

The fixed tail surfaces are of wood with diagonal-plywood covering, the control surfaces being fabric-covered. The ailerons, controls of which are fully enclosed in the wing, droop with the flaps and are differentiated in 1:3.

" PIK-6 " will be equipped with the two usual releases, and a full blind-flying panel may be fitted. Oxygen equipment and radio may also be carried. The cockpit is forward of the leading edge; its single-piece Plexiglass hood may be removed with the instrument panel to permit easy entry and exit to and from the cockpit.

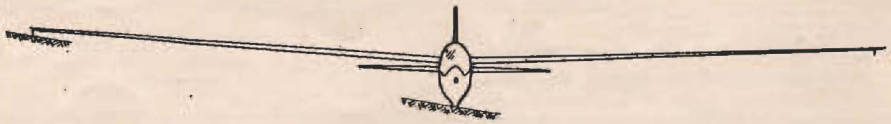
These two types of the " PIK-series " will be followed by others in the near future, there being quite a number of types being designed. It is thus hoped that these two types will only be the beginning to an exclusively Finnish " race " of sailplanes.

Dimensions, weights and performances of the PIK-5 and PIK-6

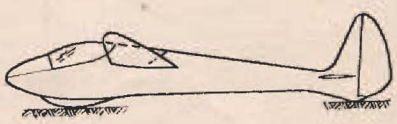


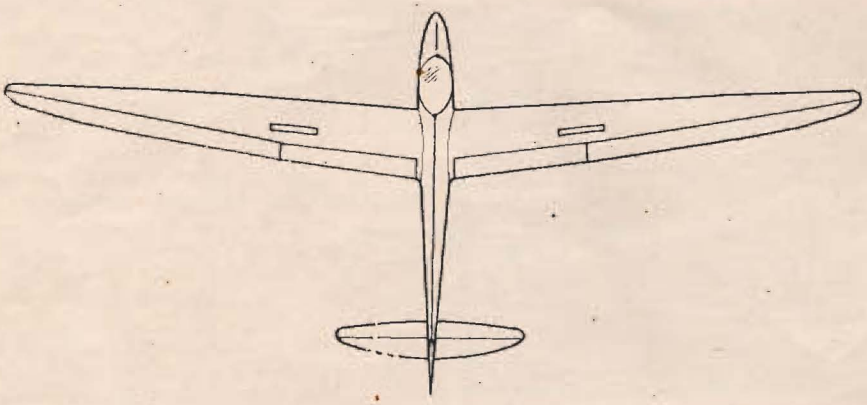
PIK-5	
Dimensions :	
Span	40 ft. 8 in.
Length	21 ft. 0 in.
Height (tail down)	6 ft. 2 in.
Fuselage width	1 ft. 5 in.
Fuselage height	4 ft. 3 in.
Fuselage front area	6 sq. ft.
Dihedral	3 degr.
Root chord	4 ft. 5 in.
Tip chord	2 ft. 2 in.
Incidence	5 degs.
Gross wing area	151 sq. ft.
Tailplane area	23 sq. ft.
Fin and rudder area	13 sq. ft.
Weights :	
Empty weight	264 lb.
Load	198 lb.

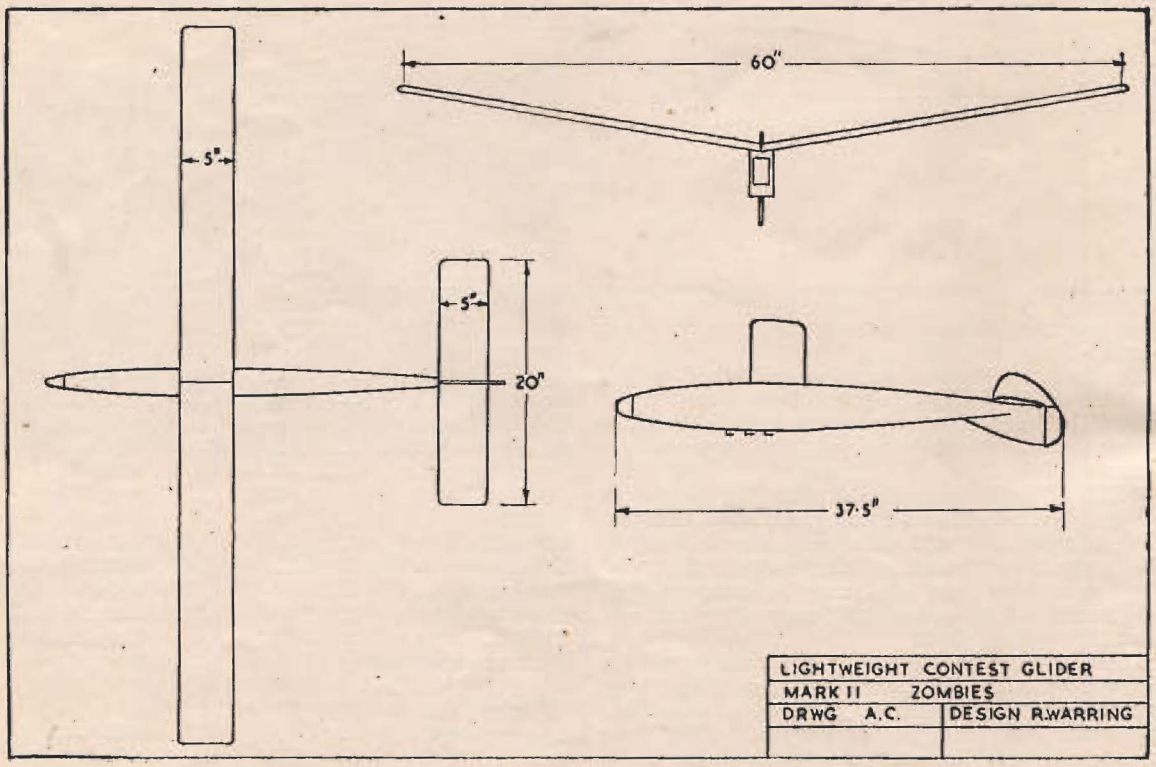
THE SAILPLANE



PIK-6





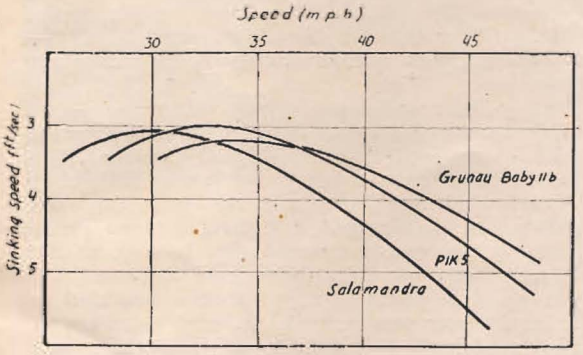


LIGHTWEIGHT CONTEST GLIDER	
MARK II ZOMBIES	
DRWG A.C.	DESIGN R.WARRING

All-up weight .. .. .. 462 lb.
Wing loading .. .. .. 3 lb/sq. ft.

Permissible Speeds :

Winch launch .. .. .. 56 m.p.h.
Aero tow .. .. 73.5 m.p.h.



Cruising .. .. 73.5 m.p.h.
Diving (with brakes) .. .. 118 m.p.h.

Performances (estimated) with 198 lb. load :

Best gliding angle (Speed 35.5 m.p.h., sinking speed 3.15 ft. sec.) 1:17
Minimum sinking speed (Speed 33.4 m.p.h., gliding angle 1:16) .. 2.95 ft. sec.
Normal speed range .. .. 30-43.5 m.p.h.
Stalling speed .. .. .. 28 m.p.h.

PIK-6

Dimensions :

Span .. .. 49 ft. 7 in.
Length .. .. 22 ft. 1 in.
Total wing area .. .. .. 140 sq. ft.

Weights :

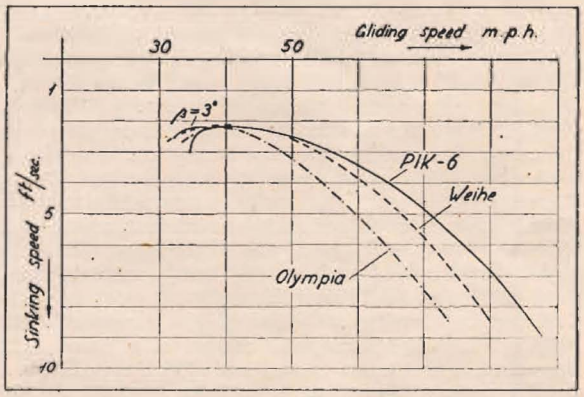
Empty weight .. .. .. 352 lb.
All-up weight .. .. .. 550 lb.
Wing loading .. .. .. 3.9 lb./sq. ft.

Permissible speeds :

Aero tow .. .. 90 m.p.h.
Cruising .. .. 93 m.p.h.

Estimated performances :

Best gliding angle (speed 50 m.p.h., sinking speed 2.35 ft. sec.) .. 1:30.



Minimum sinking speed (Speed 40 m.p.h., gliding angle 1:27) .. 2.16 ft. sec.
Maximum useful cruising speed .. 78-81 m.p.h.
Landing speed (flaps down) .. 30 m.p.h.

13th AMERICAN NATIONAL SOARING CONTEST, 1946

THE annual 16-day Soaring Contest, sponsored by the Soaring Society of America, was revived this year, after a war-time gap, and was held once again at Elmira, N.Y., the home of American gliding. Owing to the difficulties of re-organisation, it was not held until the beginning of August; thus some of the best soaring weather was unfortunately missed.

After gliding this summer at both Salzgitter and Long Mynd, it was surprising to find a very similar site at Elmira, with very similar facilities and buildings. All three were built when slope-soaring was everything, and are right on the edge of westerly slopes. All three consist of a club, a restaurant, hangars and offices, and only Long Mynd omits a swimming-pool.

In the usual American manner, the meet was on a very large scale, with 49 gliders and 68 pilots taking part. The most advanced gliders were two "Minimoas," both bought before the war; but all the better flights were made by John Robinson in his

" Ross-Stephens," designed and built in the U.S. in 1937. The predominant glider there was the ex-Army " Lister-Kauffman TG4," many of which have been sold as surplus by the Army, which used them extensively for initial glider-pilot training in 1942. The other popular gliders there were two-seater " Pratt-Reades " and various " Schweizers." A " Kite " and a " Gull," built by an enthusiastic and brilliant carpenter-glider pilot in New York, made a great impression because of their exceptional appearance.

At this year's contest stress was laid on out-and-return cross-country flights, which is obviously admirable policy, as they are more difficult flights to carry out, and they avoid the bother of long-distance retrieving. The national there-and-back record was broken four times during the fortnight, John Robinson, with another pilot in formation, finally flying 100 miles and back.

Robinson, for the third time, won the whole contest, with 3,106 points, while his runner-up, Compton, an Eastern Airlines pilot, had only 1,986 points. Robinson did the longest flight of the meet—187 miles to New Castle, Delaware. He still holds his national record of 290 miles, which he did in 1940. His final prize-money amounted to nearly $1,000.

As this was the first contest since the development of cargo and combat gliding during the war, there was a great deal of co-operation with the 3rd (Troop Carrier) Air Force. As well as competitors, their Commanding General came to the contest, along with five " Curtiss C46 " transports towing ten " Wacos," a C47 towing a Fw189, a " Waco " with engines, and a " Fairchild Flying Boxcar."

Other interesting statistics of the meet are: 28 Silver " C " flights made, 7 Silver " C's " won, 718 launches, 6,600 miles flown, and 375 hours flown—which makes interesting comparison with the 295 hours flown at the Cambridge University Club's fortnight meet with only nine gliders.

The two new " Schweizer " intermediate gliders were taking part. Both are already in production, the two-seat " SGS-2-22 " selling for $1,475, and the single-seat " SGS-1-19 " for $1,095. Both are Dural tube fabric-covered high-wing gliders, with triangular-section fuselage. Clean lines have been sacrificed for ease of production, but they are already being produced on a large scale, and it seems unlikely that any other American manufacturer will produce gliders. " Schweizers " have also a high-performance sailplane " on the boards," the prototype of which should fly this winter, and which should be in production next summer.

FATAL ACCIDENT DURING CONTESTS.

According to witnesses, a tow plane had just launched another glider and came in low over the field to drop the tow rope at a low altitude. The pilot then banked sharply in a steep climb, turning to the left and coming up under a glider. The propeller cut into the glider fuselage severing the tail from the body. Both occupants of the glider were killed.

Letters to the Editor

DEAR SIR,

I was very interested in your recent remarks about " out and return " flights, as the principle is one I have tried to encourage for some time.

I would like to suggest that a new International Certificate and Badge be given for an out and return flight of fifty miles (80 km.) from starting point to turning point, which would be open to Silver " C " Glider Pilots, and could be called a Glider Navigation Certificate. The Badge being two uprights and a banking Glider between, forming a capital " N "—the two uprights symbolizing the out and return points.

Such a flight would not be easy to complete—and would therefore be worth working for—as it would entail (*a*) two goal flights of equal distance, (*b*) a hundred miles cross country, (*c*) one goal flight in reversed wind conditions. At the same time one would not be handicapped, as in long distance flights, by having the coast-line inconveniently near, so that as long as one was fifty miles from the coast, the flight could be made in any direction provided an official observer was present. Lastly, there are all the advantages you mention in connection with retrieving, such as petrol consumption and saving of time.

Yours faithfully,
H. TUDOR EDMUNDS.

DEAR SIR,

It is possible that a few observations from a personal contact made with Gliding enthusiasts at a Club in Eastern France may be of interest to your readers.

On Sunday morning, 21st July, I arrived at Pont Saint Vincent, Meurthe et Moselle, and had a very sincere and cordial welcome. I was given every opportunity to see the system (which appears to be general throughout France) on which they train pupils, but the information I obtained was from my own observations, from verbal replies to questions I asked, and must not be taken as official.

In the first place the majority of their aircraft are ex-German, taken from Germany after the cessation of hostilities, and most of the single-seaters are " Grünau."

All aircraft are complete with instruments, and all pilots use parachutes whilst flying, the system of training being by two-seater and follows the lines of club power flying methods. I cannot remember the name of the two-seater used, but in my opinion is a very good type for the purpose. I enclose a snap taken of the machine (with the writer in the port side seat) which may enable you to identify it. It appears to have a shorter wing span than the "Falcon III," is considerably lighter, a perspex hood, side by side dual control, all the usual instruments, and the controls are as light as a feather. There are spoilers fitted to each wing lying flush with the wings in flight, but when in operation rise up from the upper surface and drop from the lower simultaneously and the skid has a pneumatic tyred landing wheel fitted with a very effective hand brake.

All pupils are trained on this two-seater up to circuit stage, and I understand that the Instructors



" Goebier " two-seater

are full-time qualified pilots in the employ of the Government. There is also a small ground staff under him to winch and do the necessary repairs.

The site is ideal with 3 sides for slope soaring, thermals seemed to be in abundance whilst I was there, and the landing ground is like a tennis court.

The winch is a similar type to the one shown me in course of construction at Derby and Lancs. Club at Camp Hill, the cable running through guide rollers.

As far as I could gather the whole show is sponsored by the French Government, and suitable candidates are trained free of charge. Naturally a friendly argument arose on the very debatable subject of two-seater training *versus* slides and hops, but they have a firm conviction that their present method is best, with few U.S. aircraft and very rare crashes.

Then came a suggestion that I would like to see in operation, of visits on an exchange basis between members of French and British Clubs. If you know of any club sufficiently interested, they should write to :—

Geoffrey Thiesson,
Centre Inter Club De Troyes,
Aerodrome, Barberey,
Troyes (Aube), France,

and he would be delighted to make the necessary arrangements at his end.

Finally, I can assure anyone that the welcome given to any British subject is sincere, and I will always have a very happy recollection of my first visit to a French Gliding Club. The Club I visited was :

Centre Vol a Voile,
Pont Saint Vincent,
Meurthe et Moselle, France,

whose chief instructor, J. Lamort, Moniteur, would also welcome exchange visits with British Clubs.

Yours faithfully,
H. HUMPHREYS, F/O R.A.F.V.R.

(Continued on page 26)

"AIRMET" FOR SAILPLANES

THE Research Committee of the British Gliding Association has persuaded the Met. Office to arrange a daily broadcast from the Central Forecasting Station at Dunstable for the benefit of sailplane pilots. Here is the announcement :

" The forecaster's appreciation of the weather situation anncounced during the 10-minute period 0820 to 0830 Clock time will be condensed as necessary so as to finish by 0825 when the announcement will be made : ' The following information is for gliding pilots especially.' Then will follow particulars of the surface pressure, temperature and humidity and the temperature and humidity for the levels 950, 900, 850, 800, 750, 700, 650, 600, 550, and 500 mb. at approximately 0600 at Larkhill and Leuchars. The heights of any important inversions will then be given, followed by an estimate of the maximum temperatures expected to be reached inland in Great Britain during the afternoon . . .

" The statement will be read slowly enough for the average listener to enter the figures on previously prepared forms.

" It is proposed to commence on September 15th and to discontinue at a date to be agreed later."

Although lapse rates can be calculated from the figures given, calculations can be saved and a very much clearer picture of the state of the atmosphere obtained by entering the data on a special type of graph known as a " Tephigram," the use of which is explained in most of the better meteorological text-books.

A.E.S.

NEWS FROM B.A.F.O.

136 Wing at Fassberg have got a S.G.38, and are operating their own gliding school after working hours.

CORRECTIONS.

In the caption of the picture on page 23 of the August issue, the wing section of Mr. J. R. Vanderbeek's experimental model was given as R.A.F. 30. This should, of course, have read 34.

On page 19 of the September issue, details of Mr. P. A. Wills' single-seater flight on the 27th July, 1946, were wrongly reported as a *distance* flight from White Waltham to *Leiston*. The report should have read :—*Goal Flight*. P. A. Wills, in " Weihe," White Waltham (Berks.) to *Leiston* (Suffolk) on 27th July, 1946. 113 miles.

Australian Gliding Association

THE GLIDING CLUB OF VICTORIA

HIGH WINCH LAUNCHES

ON 14th July, 1946, in a Force 5, north wind at Somerton, a record height of 2,400 feet from a winch launching was attained by Charles Lambeth in the Club's " Grunau Baby II " sailplane, taking off at 2.50 p.m. He gained 200 feet after releasing the towline and was in the air for 21½ minutes.

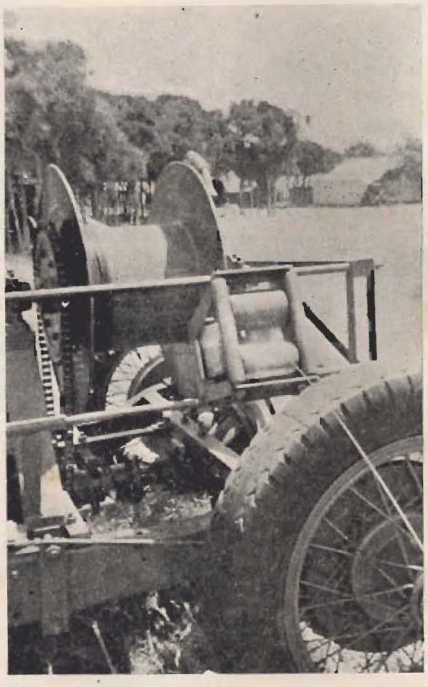
Soon after the take-off the winch (No. 2) stalled when the machine was at a height of 300 feet. The winch driver applied the brake and the pilot continued to climb and finally released at 2,400 feet altitude.

The towline on winch No. 2 is approximately 3,000 feet of 10 cwt. cable, and during the afternoon other tows ranged from 1,800 to 2,200 feet altitude in the " Grunau." On the last flight of the day the winch was stopped when the machine was still at a low altitude (150 feet) and the pilot (N. Hyde) continued to climb until about 1,800 feet was reached when he appeared to need more speed. The tow was then continued in first gear and then stopped. Later the tow was resumed and the machine reached a maximum height of 2,200 feet. See below (previous high tows).

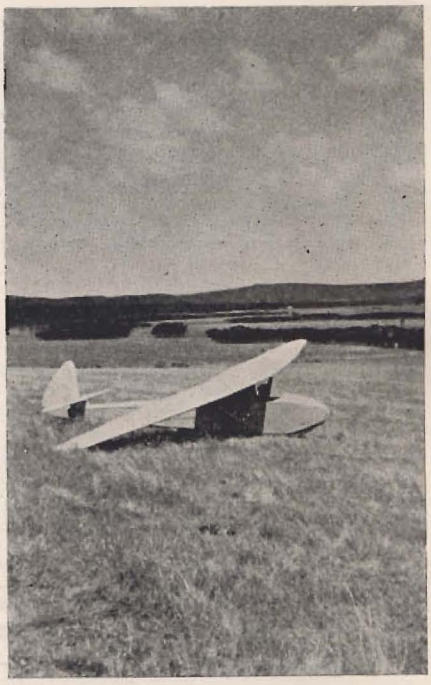
NEWS FROM JAPAN

Alex Barrie and Bruce Hearn are endeavouring to start a gliding club amongst the members of their Squadron (R.A.A.F.) stationed in Japan. In a letter dated 3rd June, 1946, Alex Barrie mentions visits to Japanese aircraft factories, including a glider factory, in an endeavour to obtain materials for the construction of a glider. He says :—" I had many interviews with Japanese aircraft designers—the place I visited yesterday was a glider factory, and believe me it was an eye-opener—they used to build them by the thousands. I was shown photos of rows and rows of primaries, secondaries and sailplanes—hundreds of them—it really took my breath away. I never thought there were so many gliders in this part of the world. Unfortunately they have all been burned since the war—blue-prints and all. By the way, the manager of this Jap factory proudly displayed a photo of a line-up of 30 German ' Grunaus '."

The previous highest tow recorded in the Club's books was a car tow to 1,900 feet altitude in the " Grunau," piloted by Arthur Hardinge, on 16th July, 1939, at Laverton. Duration 10 minutes. Some members can recall a car tow to a height of 2,300 feet about this time, but all the heights are not shown in the Flight Records and this flight cannot be traced.



Close-up of T.M.F.G. Winch Dromara Soaring Site



" White Kestrel " Dromara Soaring Site



Victorian Motorless Flight Groups Winch No. 2.
" Rhon Ranger " primary and " Heron " primary in background.

SYDNEY SOARING CLUB.

FLEURS AIRSTRIP, 14th July, 1946

Report by Harry Ryan. After being fitted with a new steel skid, the " Gull " was taken by trailer to the Airstrip for the day. One of the objects of the outing was to initiate Dr. Bowen into the mysteries of soaring flight. Also present was Dr. Backhouse, a friend of Dr. G. A. M. Heydon. Dr. Bowen is at the Sydney University headquarters of the Council for Scientific and Industrial Research and has been in Australia for about 2 years. He was closely connected with the development of Radar in England and America and is interested in its use as applied to all aircraft, including gliders. Unfortunately no one was able to gain any height, as except for a light westerly breeze during the earlier part of the day, the air was quite stable. M. Warner and H. Ryan were towed to 2,000 feet and Dr. Heydon to 3,000 feet by L. Schultz in the Doc's " Tiger Moth," and after some searching around in vain for lift did loops, etc. Dr. Bowen was auto-towed in the " Falcon " two-seater with H. Ryan as pilot. He was able to fly the machine for a portion of the flight and was intensely pleased with gliding in general, and we fully expect to see more of him in the future. The Club is receiving numerous enquiries from people with extensive flying experience who wish to indulge in soaring flight, so it is quite evident that more machines and training facilities are badly needed.

SYDNEY METROPOLITAN GLIDING CLUB.

FLEURS AIRSTRIP, 14th July, 1946

Flying was commenced at 12.40 p.m., and 15 flights were made in the " Falcon " 2-seater up to 4.45 p.m. for a total time of 1 hour 41 minutes. Jack Munn made his first aero-tow in the " Falcon," being towed by L. Schultz in Doc Heydon's " Tiger Moth " to a height of 3,200 feet. He was in the air for 22 minutes. Norm Wickens also made an aero-tow in his Red " H. 17 " sailplane. The " Studebaker " winch is being modified into a self-mobile type.



" White Kestrel " on winch launch Dromara Soaring Site

Gliding Club of Broken Hill. 16 flights were made over the week-end, 30th June, 1946, by 6 trainees. Heights of up to 100 feet were reached.

BREVITIES

The ill-fated Mordialloc Hangar has now been dismantled and transported to Fawkner.

Sydney Metropolitan Gliding Club has been carrying out a number of moonlight flights.

The " H.17," now grounded in England, seems to be a popular and efficient type of machine in Australia. Meanwhile our Australian friends are awaiting with interest the results of the B.G.A. tests and enquiries into British-built " H.17's."



Perth Gliding Club. Western Australia

NEWS FROM THE CLUBS

CAMBRIDGE UNIVERSITY GLIDING CLUB.

Since operations started at Bourn Aerodrome many experiments have been made with auto-towing on the concrete runways, and this is now the standard method of launching all types of gliders. 1,400 feet of rope is used for full launches, but a shorter one is used for ground slides and low hops. Take-off is from the runway, except for aircraft without a wheel and for people doing ground slides who start from the grass on one side. This auto-towing method has proved very successful, the chief difficulty being the rather rapid wear of the rope. This is literally eroded away when dragged along the runways, but the many advantages of the method include:

(1) Only one qualified person is required—the car driver who returns to the start before each flight.

(2) The necessity of having a vehicle to retrieve the wire is eliminated.

(3) There is only one vehicle to go wrong. This has not been adjusted or altered in any way and is therefore less likely to do so.

(4) The towing vehicle acts, when not launching, as the Club transport and so is always in use.

The Club was very fortunate in obtaining 4 " Kirby Cadets " in the early spring. They have been much used and several members have graduated from them on to the " Cambridge "—the only Club sailplane. It should be noted that practically all members have started from scratch, and the following certificates have been obtained :—30 A, 22 B, 12 C. Owing to lack of support the public camp has had to be cancelled.

With the new academic year beginning this month it is hoped that the number of members of the Club will greatly increase. An " Olympia," a " Kite II " and a " Grunau Baby " kit are eagerly awaited to add to the present Club fleet of 4 " Cadets," a new " Tutor " and the " Cambridge."

SCOTTISH GLIDING UNION

In the period under review, from 17th August to 8th September, there was a disappointingly small amount of flying due to our having to return the winch we had on loan. Our own winch is not yet completed. However, there has been lots of " back room " activity on the organization side.

Parker and Lawson are progressing with their power flying on the Kinross Flying Club "Swallows," and Lawson has recently had some dual in the " Tiger."

We were pleasantly surprised to find that bunjies are again available from Messrs. Luke Turner, of Leicester, and although they now cost £15 fully made up, we actually took delivery 5 days after ordering. We shall be using bunjie launching for soaring from Bishop Hill as soon as the trailer is completed and the track to the Hill smoothed out.

We hear from our London representative, J. W. Gardner, that he visited Dunstable on 11th August, and was very much impressed by Dudley Hiscox's unexpected arrival with his new " Olympia " on its first cross-country flight.

On September 1st at Balado we again had trouble with the autovac on the " Guy " Truck while we were preparing to do some auto-towing with the " Cadet." Eventually Thorburn was auto-towed by Campbell's " Hillman Minx," but this did not prove very satisfactory, as the " Cadet " could only be climbed very gently, due to the lack of power and only reached 100 feet before the " Minx " arrived at the end of the runway.

On September 7th a meeting was held at Milnathort to discuss various problems and get the programme taped off for our part in the display which is being organized by the Kinross Flying Club at Balado on 21st September. After tea the meeting moved to Balado and a new autovac was fitted to the " Guy " Truck.

YORKSHIRE GLIDING CLUB

Flying Activity.—The month has been a furious struggle with the weather, and it can be said that in the spare time of the work-a-day types who compose the membership, the elements have been cheated of all possible flying hours, in addition to which a good deal of practice (and profitable passenger riding as well) has been packed into the non-soaring weather. Counting the A.T.C. course, which still had a few days to run at the beginning of the month, we have logged 59½ flying hours from approximately 200 launches. The 31st July was a good rough hill soaring day with occasional showers; A.T.C. flying was in the majority and produced four " C " certificates—29 launches and 14 hours' soaring all told. On August 1st there were fair slope-soaring conditions, but the wind decreased towards the end of the period; several aircraft reached 1,500 feet. The 2nd August began with rough conditions and low cloud—the " Falcon I " showed a strong tendency to enter cloud, and needed considerable restraint. Later in the day, the cloud base rose above the effective level of hill-lift, and the evening produced some very pleasant pure thermal conditions. The new " Slingsby Tutor " was flown again, and put up an impressive performance. The 3rd August produced a good day's hill-soaring, including a 5-hour flight by George Counter; 2 qualifying flights for " C " certificates were made by R. Maw (son of Norman Maw) and W. J. Ingles. The " Falcon I " suffered a little damage as the result of an undershoot. Barker tested a new " Cadet." Total launches, 35; hours, 18.40. On the 4th August the wind was at first south-easterly, but veered westerly later; conditions were never easy throughout the day, and 31 launches produced only 4½ hours' flying time. The 5th was a day of light variable wind and except for a few circuits for R. C. Pick, now back in circulation after far too much India, very little happened. One or two people

remained at the site on the 6th, and a veer of wind in the afternoon rewarded them with some pleasant hill soaring. The Bank Holiday and all other excuses for slacking now having expired, the next opportunity, Saturday, 10th August, was a soaker with 99-tenths, at no feet at all ! ! Sunday, the 11th, was a day of short flights (best time of the day 20 minutes—Billy Sharpe) and 22 launches produced only 2½ hours' flying. The 18th was interesting, but deficient in hill-lift though thermal activity was good in the morning, Billy Sharpe reaching 3,000 feet in the " Kite," and Brian Hartness 2,300 feet in the same aircraft. Some A.T.C. officers had winch circuit training in the afternoon. On the 25th, there were three test circuits for the " Kite II," flown by John Leach and Higson, but the conditions were so poor that there were no regrets in adjourning at 16.30 hours, for the Annual General Meeting. To conclude the month, on the 31st, Brian Hartness " scraped the edge " for 10 minutes, and confirmed another dud day !

Annual General Meeting.—This took place at Hambleton Lodge on August 25th, and due to bad weather conditions the attendance was not large. The press was well represented, and we hope they put on record our opinions :—(1), that it is time some official assistance was given to encourage normal club activities, so that decent aircraft and equipment may be available to the largest possible numbers of those who will make the best use of them, and (2) that it is high time the industry was given some aid and freedom, so that records can be made in British aircraft. We might then see an end of the embarrassing free-for-all in competition for the old German left-overs. Arising out of the meeting was a reduction in entrance fee from three down to two guineas, and a scheme to rebate proportions of subscriptions paid by Service members, when they are posted away from the district. Mr. L. H. Barker and Mr. G. A. Hinchliffe were elected to the two vacancies on the Board of Directors of the proprietary Company. The meeting approved in principle all action taken by the Committee since the resumption of activity in January 1946.

G. A. H.

(*Continued on page* 24)

" Grunau " in Thermal

GLIDING enthusiasts at Heston were treated to a worthy exhibition of thermal soaring on Sunday, Sept. 15th, by Gould, flying the Central Gliding School's " Grunau."

Whilst not a particularly noteworthy performance from a club viewpoint, it was a very good show under the circumstances, for the lift was extremely weak at first and Gould had never before flown a sailplane in a thermal.

After a winch launch of a thousand feet the " Grunau " dropped down to about seven hundred, where the base of a thermal was contacted. Climbing slowly up to one thousand five hundred, Gould found himself ascending at 3 metres a second. He was forced to return after topping the two thousand mark owing to the necessity for landing back at Heston.

He was airborne for twenty one minutes and easily qualified for his " C " badge.

B.G.A. ANNOUNCEMENTS—(*Continued from page* 8)

(*Note* : A record of 55 hours 52 minutes was set up on 23rd-24th September, 1943, in Germany by Ernst Jachtmann. In 1945 the F.A.I. decided to cancel all records set up during the war years.

5.	*Germany.* E. Ziller, in " Kranich," Hirschberg, 21st November, 1938 ..	6838 m.	22,434 ft.

Category I I (*Multi-seaters*).

1.	*U.S.S.R.* I. Kartachev, pilot, P. Savtzev, passenger, in " Stakhanovetz," from Moscow (Ismailovo) to Ouchinia (region of Tchernigov), 17th July, 1938 ..	619.748 km.	385 mls.
2.	*U.S.S.R.* I. Kartachev, pilot, V. Checkoulkine, passenger, in " Stakhanovetz," Toula-Riajsk-Toula, 23rd July, 1939	342.370 km.	212.7 mls.
3.	*U.S.S.R.* I. Kartachev, pilot, A. Gorokhova, passenger, in " Stakhanovetz," from Moscow-Gorki, 1st July, 1939 ..	395.730 km.	246 mls.
4.	*Germany.* August Bodecker and Karl Heinz Zander, in " Kranich," Rossiton, 9th-11th December, 1938		50 hr. 26 m.
5.	*Spain.* Luis Vicente Juez Gomez, pilot, Juan Joso Jurado Bembibrs, passenger, in " Kranich E-C 2-2" Hussca, 25th Sept., 1945	6,263 m.	20,548 ft.

BRITISH RECORDS ON 1st FEBRUARY, 1946.

Category I (*Single-seaters*).

1.	P. A. Wills, in " Minimoa," Heston (Middlesex) to St. Austell (Cornwall), on 30th April, 1938	209 statute miles
2.	Squadron-Leader W. B. Murray, in " Rhonbussard," Ratcliffe Aerodrome to Castle Bromwich Aerodrome and return, on 7th April, 1939. 34 miles each way	68 miles
3.	(Instituted 1.4.39). No award.	
4.	Sub-Lieutenant A. N. Young, in "Falcon II," at Long Mynd (Salop), on 18th August, 1938	15 hr. 47 m.
5.	P. A. Wills, in " Minimoa," Dunstable (Beds.), on 1st July, 1939	14,170 ft.

Category I I (*Multi-seaters*).

1.	No award.	
2.	No award.	
3.	(Instituted 1.4.39). No award.	
4.	Flight-Lieutenant W. B. Murray and J. S. Sproule, in " Falcon III," at Dunstable (Beds.) on 9th-10th July, 1938	22 h. 13 m. 3 s.

NEWS FROM THE CLUBS

(*Continued from page* 23)

DERBY AND LANCS.

OUR last notes covered up to the August Bank Holiday. A few fortunate members who managed to stay on for the Tuesday had the best day of the lot.

Tuesday, fresh Westerly wind with nice cloud was used to advantage by Thomas, Kaye, Shepherd, Armstrong, Thompson and Ashton, who untiring was at last rewarded with a strong enough wind to keep the " Kadet " above launching height long enough for him to get his " C." George Thompson enjoyed himself in the " Grunau " for over 2 hours, the other three pilots sharing the " Kite " and " Grunau " brought the total up to nearly 10 hours soaring time for the day.

11/8/46. A day which started well with a nice W.S.W. breeze and a little thermal activity which took the first two pilots off. Gerry Smith in " Kite " to 1,800 and Roger Dickson in " Grunau " up to 1,400 ft., but later the sky clouded completely over and the wind dropped so that the later flyers could only manage extended circuits. This sort of weather has been in evidence all the month, each morning giving promise of a good day only to deteriorate by lunch time. Flying time 2 hours 37 minutes.

18/8/46. The flying list this day was notable for the number of names on it. 21 different pilots flew some three or four times each but only extended circuits could be achieved, with the exception of C. Verity who had a good ride first off in the " Kite " for 35 mins. Total flying time 3 hours 50 mins.

25/8/46. A fair day with a W.N.W. wind, and best direction about 8-10 m.p.h. The " Kite," " Wren " and " G.B. " just held up but the " Kadet " team had to be content with circuits. Total flying time 6 hours 20 minutes.

Not a very spectacular month on the whole but useful for training. The " Penguin " was kept hard at it every Sunday and did 159 launches, making a total of 359 launches for the month. Total flying time 38 hours 21 minutes. 2 " A "; 2 " B "; and 1 " C "; Certificates were obtained.

MIDLAND GLIDING CLUB

JUNE AND JULY

(*Abridged version*)

Sunday, June 2nd, broke the spell with a grand 30 m.p.h. West wind, considerable cloud-lift, and economised in man-power and bunjy by enabling most aircraft to be launched by the THROW-OFF method. This can only be done when the wind speed approaches the flying speed of the sailplane. One man lifts the sailplane under each wing, and they walk or run forward together: the sailplane floats off their shoulders. It is just as fascinating to experience as it is to watch: motorless flight carried to its logical conclusion.

Saturday, June 15th, was the opening of the joint Midland and Cambridge University Clubs' camp, which has already been most inadequately reported. The weather kindly cleared in the late evening, and we were able to show our guests what the Mynd was like for hill-soaring.

6 or 7 sailplanes all soaring together (what a sight !).

The utterly fantastic nature of *Sunday, June 23rd* is shewn by the fact that only three winch launches out of 15 failed to connect with thermals ! From 2 p.m. onwards one Cu began to develop between the landing ground and Pole Cottage, and stayed there until by 4.30 it burst in a terrific thunderstorm and moved off to the N.E. Wills was in this cloud until about 3 o'clock, when we saw him, very high, making off to an even bigger storm to the S.W. over Bishop's Castle. The writer can testify to the uncanny and frightening effect of seeing lightning strike within half a mile of the sailplane; the thunder was deafening, and he was flying at 60 m.p.h. just within cloudbase and unable to get down. A most unpleasant 20 minutes' flight.

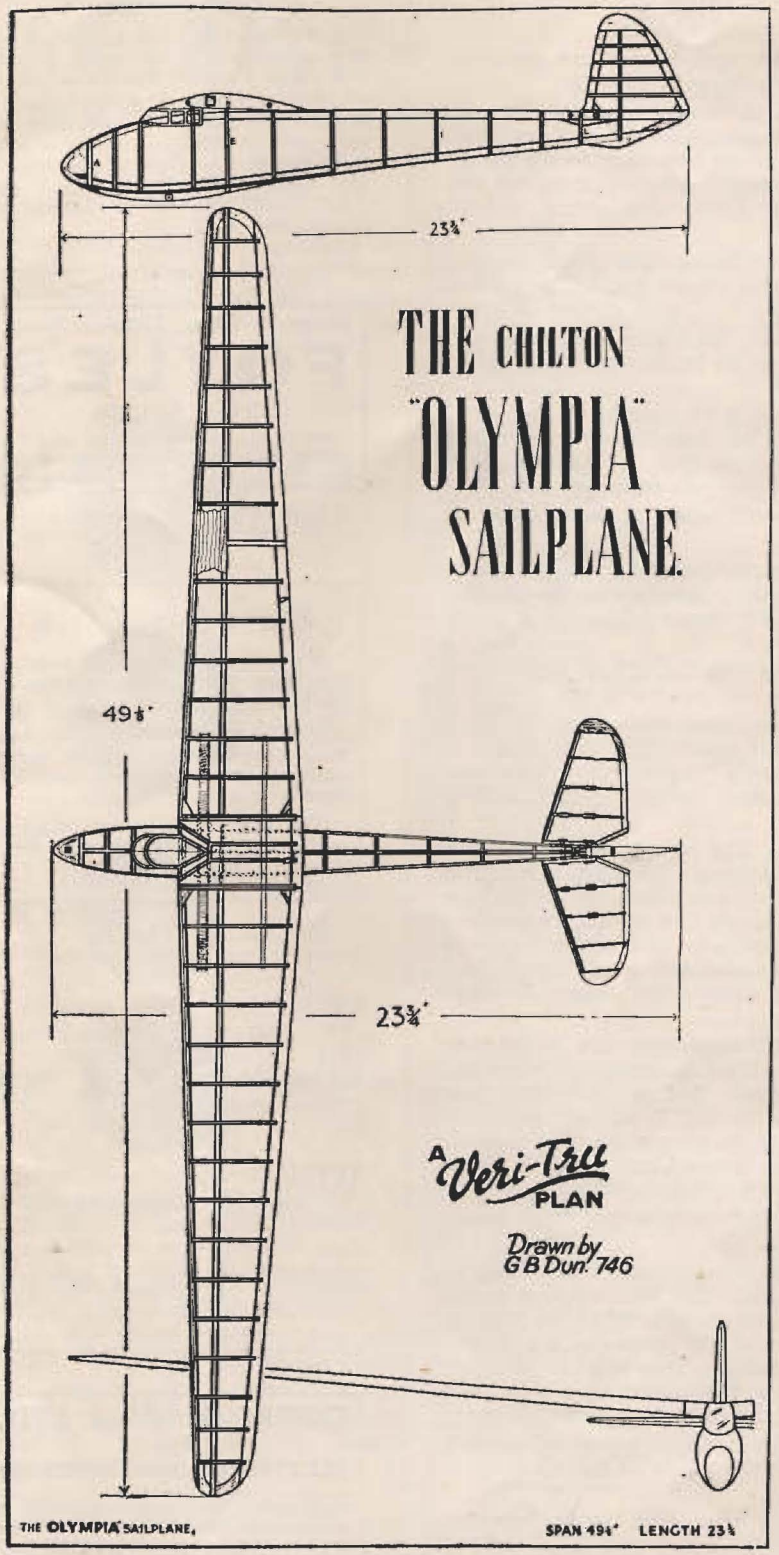
Saturday, July 13th. A West wind got up at 3.30, and soaring went on until dusk. Espin Hardwick had an hour in " Gracias," reached 2,300 ft. and went about 3 miles up-wind. Thermals never went above this, and were not associated with any Cu. Wingfield reached 2,000 ft. Testar, Healey, Pringle, Baker and Stevenson, London Club, soared the " Wolf." Total time 12.30 hours.

Sunday, July 14th. The great event was Charles Wingfield's cross-country to Redhill, 147½ miles in " Gracias." Meanwhile soaring went on in the strong N.W. wind, interrupted several times by heavy storms coming right down on to the hill. (It was in the first of these that Wingfield went off.) Roger Thwaite had a lucky escape in one of them. Testar, Owen Wingfield, Thwaite, and Healey all flew Club aircraft. Healey and Testar both had the experience of flying the " Wolf " at 120 m.p.h. with the green ball trying to get out of the top of the variometer during storms. Total time 10 hours.

Monday, July 22nd. We had a very welcome visitor in the person of Doc Slater who flew the " Wolf " for 1 hour 10 minutes. In the evening there was a break in the Stratus which had been 10/10 all day. The Doctor in " Wolf " and Testar in the two-seater climbed through the hole at 600 ft. and continued to climb with a beautiful blue sky above them and a carpet of stratus below. The two-seater was still going up at 2,600 ft. but as the hole below was getting smaller and smaller it was thought wise to get down.

Saturday, 27th July. A stormy West wind, bags of Cu. and throw-off launches. Total flying, 18 hours. F/L. Haines, G.C., C.F.I. Saltzgitter, and S/L. Ward of Air Ministry joined the Club. S/L. Ward took off, connected with a cloud, and the next we heard of him was that he had landed near Wolverhampton. Wingfield in " Gracias " and Testar in two-seater reached cloud base at 2,200 ft. Testar completed his 50 hours soaring since demob in May. Suzanne Chapman got her " C " with a very good flight of 45 minutes. She has been flying with A.T.A. during the war. She is the first lady member to get her " C " at the Mynd.

Monday, July 29th. An aggravating day. Although the wind was O.K., the Cu. were not. They looked all right, but gave no results, and about 2,000 ft. was the best. Sybil Aldridge got her " C " with a very good flight.



The great popularity of the Chilton " Olympia " sailplane has attracted the interest of model enthusiasts all over the country. Numerous enquiries have been received and Veri-Tru have decided to produce plans, which are now available. The price is 3/- per set.



In the scale model a slight alteration in the tailplane dimensions has been found to be necessary and figures giving the exact performance are not available at the time of going to press.

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By **A. E. SLATER**

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LETTERS TO EDITOR (*continued from page* 18.)

SIR,

I am a gliding enthusiast recently demobilised and prepared to do " almost anything " to get some flying.

Having been to the war, where money is hard to make, I cannot buy my own sailplane, nor have I been able to loot one from Germany. I am unable to engage in the best sport in the world, and, I think, I can claim to be fairly representative of the 100,000 gliding enthusiasts quoted by the *Times* aeronautical correspondent on the 10th July.

I live in London and the nearest Gliding Club is the London Club, which is refusing members who do not possess their own sailplanes.

This is a very poor show indeed. No gliders and no clubs. Not the sort of thing we are looking for in this post war world of ours at all.

What is the B.G.A. doing about it ? Nothing, apparently. I understand that the average age of the members of that exalted body is well over thirty, some are over fifty. A grand tribute to their youth, but too much for the nineteens to twenty fives.

Do they appreciate how much enthusiasm is being wasted ? And do they care ?

France was occupied by the Germans, yet there exists already a wonderfully organised gliding association, sponsored by the Government, with an order for 1,500 new machines and many taken from Germany.

Has the B.G.A. a public relations officer ? If so, where does he hide ?

We must ask the B.G.A. to press again for a subsidy. For a lead, and for an active lead. The squatters had no flats ; it is perhaps unfortunate that one cannot " squat " in a sailplane. Must we go to Russia or to the Argentine (with its quarter million subsidy) before we can glide ?

No, this, sir, is not good enough. The young men and women of England want to fly, thousands of them. They have had their victory over the enemy, and now they want their fun. They are tired of eating austerity, drinking austerity, and clothing themselves in it. They won the war. THEY, let it be said, and not the old gentlemen who sit down on their—chairs and drink brandy and soda. Now let them spread their wings again in the interests of health and freedom.

I am told that the leading Glider Manufacturer is a millionaire, who did a great deal by subsidiziug gliding manufacture before the war towards making gliding possible. He probably has had enough, but is there no one else with E.P.T. to spare who will subsidize Boitish Gliders and Gliding, as presumably the Government won't, or have they not been pressed far enough ? With even a block grant of £50,000 we could put British gliding on its feet.

We could lead the world, with a little help and a lot of work, which we are prepared to do.

In order to take both feet off the ground again I have had to join the A.T.C. as a civilian instructor. The sorry story goes on. One ancient " Grunau " goes round and round between the schools. Passed from hand to hand to give a few moments joy to the instructors between spells of instructing. This same " Grunau " is going to Dunstable on the 28th of September for the purpose of obtaining " C " badges for fourteen men in the course of a week.

The time has come to speak out, sir, and I hope you will publish this letter as an indication of what the youth of this Country is thinking about gliding.

As I don't want to be blackballed when I do find a club that will take members, I sign myself,

AMOR BOREALIS

ROYAL AERO CLUB GLIDING CERTIFICATES.

We regret that owing to the large number of these now coming forward each month—usually several hundreds—we shall be unable to publish the list of those who gain " A " certificates for some time to come. It is hoped later to include them in a special supplement. For the time being only " B " and " C " certificates will be gazetted in SAILPLANE.

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It is proposed to issue a Soaring Card for club use with the name of the club overprinted.

In view of paper restrictions and the anticipated demand for these cards, applications should reach the EDITOR as soon as possible.

The price will be one shilling each ; 6/3 a half-dozen post free, or 12/- a dozen.

WANTED. Back numbers of SAILPLANE, 4 copies January 1946 ; 3 copies April 1946. 2/6 will be paid for each copy. Write : PUBLICITY MANAGER, Glider Press Ltd., 139, Strand, W.C.2.

WOULD any aeromodellers living in the neighbourhood of Pewsey, Wiltshire, be willing to give instruction to an Air Ranger group (girls 16—21)?—Miss M. L. W. HARRISON, Willow Cottage, Pewsey.

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ROYAL AERO CLUB

GLIDING CERTIFICATES

"A" CERTIFICATES: 207 (Nos. 5059—5265)

"B" CERTIFICATES: 49

No.	*Name.*	*A.T.C. School or Gliding Club.*	*Date.*
2093	Gordon Joel Clark	Glider Pilot Regt.	5.6.45
2441	Donald Craven	23 E.G.S.	21.7.46
2514	Norman Macdonald Craig	E.102 E.G.S., Norwich	23.7.46
2652	Arthur Walter Horley	163 E.G.S.	4.8.46
3127	William Henry Barber	167 E.G.S.	28.7.46
3390	John Stephen Kelly Chilcott	48 E.G.S., Castle Bromwich	11.8.46
3582	Gordon Joseph Robert Saunders	108 E.G.S., Desborough	4.8.46
3697	Frank Gladwin	182 E.G.S.	11.8.46
3775	Peter Geoffrey Binder	108 E.G.S., Desborough	4.8.46
3926	John Stephen Gore	145 E.G.S.	4.8.46
4441	Philip Bruce Atkins	R.A.E. Technical College G.C.	17.7.46
4653	Arthur Yeates	130 E.G.S., Oxford	26.6.46
4816	John Maxwell Hands	E.106 E.G.S.	30.6.46
5116	Peter John Edward Verrall	161 E.G.S., Ford	28.7.46
5060	Patrick Slaney Davis	Halton G.C.	6.7.46
5077	Nigel Bicknell	Cambridge University G.C.	22.4.46
5080	John Humphrey Ream	106 E.G.S., Henlow	6.7.46
5087	Edwin Earnshaw	Lubeck G.C.	30.6.46
5128	Allan Macdonald	Air Division G.C.	27.5.46
5129	Edward George Mann	Air Division G.C.	22.4.46
5130	Dennis Tyrrell Smith	Air Division G.C.	1.5.46
5135	Francis John Truman	89 E.G.S., Christchurch	30.6.46
5144	James Douglas Earnshaw	84 Group G.C.	15.9.45
5157	Eric Sydney Henty Adamson	Lubeck G.C.	14.7.46
5161	Alfred Roy Driessen	104 E.G.S.	22.7.46
5170	Richard Hessey Pilcher	Midland G.C.	22.7.46
5173	Albert Malaney	85 Group G.C.	6.7.46
5181	Kenneth Arthur Hammer	M.41 E.G.S.	16.6.46
5182	Geoffrey Everard Robinson	B.A.F.O. G.C.	22.4.46
5185	Robert William Johnson	N.W. 186 E.G.S., Speke	21.7.46
5189	Alexander Peel	22nd Armoured Brigade	30.6.46
5191	Maurice Reginald Chantrill	92 E.G.S.	20.7.46
5193	Peter Wykeham-Barnes	2 Group G.C.	28.5.46
5198	George Richard Davies	B.A.F.O.	28.4.46
5199	James Arthur Brook	Midland G.C.	15.6.46
5213	John Bain	Lubeck G.C.	5.8.46
5218	Willis Greenhalgh	N.W. 186 E.G.S., Speke	26.5.46
5219	Victor James Fenner	Air Division G.C.	27.7.46
5220	Derek Leslie Barker	Air Division G.C.	26.7.46
5223	John Raswell Butler	B.A.F.O G C	1 6 46
5228	Derek Ransome-Jones	2 Group R A F	6 7.46
5229	Michael Hugh Ferrar	Cambridge University G.C.	9.8.46
5225	Wm. C. Maclean	84 Group G.C., Gitter Harz	24.2.46
5235	Sydney J. Rawlins	84 G.S., Christchurch	21.7.46
5284	Wm. D. Wiggins	Air Division G.C., Bantrup	29.5.46
5249	Wm. G. Cross	104 G.S., Martlesham	28.7.46
5264	David L. Pratt	22nd Armoured Brigade, Hungriger	28.7.46
5229	Michael H. Ferrar	Cambridge U.G.C.	9.8.46
5165	R. William Johnson	186 G.S., Speke	21.7.46

"C" CERTIFICATES: 41

1785	Amos Binfield	61 Group G.C., R.A.F.	22.7.46
1786	Arthur George Shearing	103 E.G.S.	22.7.46
1912	Harry Richard George Ashton	Derby and Lancs. G.C.	6.8.46
2069	George Henry Newberry	146 E.G.S., Southend	14.7.46
2229	John Nield Walker	45 E.G.S., Meir	13.7.46
2283	Thomas Curtis Phillips	108 E.G.S., Desborough	22.7.46
2328	Frank Bull Henson	108 E.G.S., Desborough	22.7.46
2514	Norman Macdonald Craig	Midland G.C.	24.7.46
2567	Robert Proom Maw	N.E. 31 E.G.S.	3.8.46
2912	Ian Gunn Wilton	28 E.G.S., Sutton Bank	1.8.46
3019	John Michael Stephenson	Air Division G.C.	14.7.46
3133	William John Inglis	28 E.G.S., Sutton Bank	3.8.46
3364	Cecil Seymour Walker	Halton Apprentices G.C.	14.7.46
3434	Patrick John Cowles Loney	106 E.G.S., Henlow	29.7.46
5263	Victor Woods	Lubeck G.S.	8.8.46
5223	John R. Butler	B.A.F.O. G.C., Mindeheide	24.7.46
5228	Derek Ransome-Jones	2 Group G.C., Oerlinghausen	9.7.46
5170	Richard H. Pilcher	Midland G.C.	22.7.46
5182	Geoffrey E. Robinson	B.A.F.O. G.C.	13.7.46
5157	Eric S. H. Adamson	Lubeck G.C.	14.7.46
5161	Alfred R. Driessen	104 G.S., Ipswich	22.7.46
5129	Edward G. Mann	Air Division G.S., Bantrup	16.6.46
5130	Dennis T. Smith	Air Division G.S., Bantrup	5.6.46
4089	John Venner Garnett	108 E.G.S., Desborough	22.7.46
4104	Richard Caiston Trewecks	Air Division G.C.	11.8.46
4700	Robert Dumello Rose	103 E.G.S., Tuddenham	22.7.46
4725	Frederick Kirkham	2 Group G.C., R.A.F.	13.7.46
4900	John William Sharpe	Lubeck G.C.	7.7.46
5077	Nigel Bicknell	Cambridge University G.C.	25.6.46
5087	Edwin Earnshaw	Luberk G.C.	7.7.46
5094	Ian Fraser Stewart	Lubeck G.C.	5.8.46
5129	Edward George Mann	Air Division G.C.	16.6.46
5130	Dennis Tyrrell Smith	Air Division G.C.	5.6.46
5157	Eric Sydney Henty Adamson	Lubeck G.C.	14.7.46
5161	Alfred Roy Driessen	104 E.G.S.	22.7.46
5170	Richard Hessey	Midland G.C.	22.7.46

CLUB ANNOUNCEMENTS

THE MIDLAND GLIDING CLUB LIMITED

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Full particulars may be obtained from the Secretary, F. G. Batty, F.C.A. 2, Lombard Street, West Bromwich, Staffs.

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THE SURREY GLIDING CLUB

Owing to the lack of equipment, the re-opening of the Club has had to be postponed.

Due notice of the commencement of activities will be given in these columns as soon as possible.

Will past and prospective Members kindly note change of secretarial address to: A. Dukinfield Jones, 36, Deepdene Vale, Dorking.

As soon as training facilities can be made available, this will be announced.

Subscription, £5 5s. Soaring, 10/- per hour, during interim period.

Further particulars from the Secretary, A. D. Jones, 23, Rose Hill, Dorking.

KENT GLIDING CLUB.

Will all ex-members and others interested and living in the Maidstone or Chatham area, contact the Secretary:

MRS. R. H. HADDOCK, "LENHURST," HARRIETSHAM, KENT.

SOUTHDOWN GLIDING CLUB LTD.

We shall commence Gliding and Soaring again at the Devil's Dyke. Old members and prospective members should write for details to:

Hon. Secretary, R. F. BRIGDEN, 99, NORTH STREET, BRIGHTON.

F. A. I.

(Extract from the 39th General Conference)

SQUADRON LEADER E. H. D. SPENCE, Secretary of the B.G.A. spoke of suggestions for amending rules for gliding height records, which had been proposed by the Gliding Committee. The Swedish Aero Club said it was necessary to draw distinction between licences and certificates. Licences would be dependent on agreements the Governments made through PICAO. Mr. Weld said it seemed to him that the time was distant when PICAO would be interested in gliding licences. S/Ldr. Spence said that might be the case in the United States, but in Europe it was quite easy to go from one country to another when gliding or soaring.

On a discussion of amateur status it was decided by the Gliding Committee by 7 votes to 1 that they were in favour of the amateur status being forfeited by anyone who accepted a paid post as an aeroplane or glider pilot.

It was agreed to hold an international gliding contest in 1948 organised by the F.A.I., the venue to be decided later.

After a discussion on finance, and on the future functions of the F.A.I. the President closed the meeting with the words: "As an international conference this may well rank as one of the most perfect which have been held."

Mr. Philip Wills, C.B.E., and Squadron Leader E. H. D. Spence were elected Chairman and Secretary, respectively, of the Gliding Committee F.A.I.

Other countries at present represented on the Committee are: Belgiun, Egypt, France, Netherlands, Norway, Sweden, and Switzerland.

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Full particulars from Secretary, R. B. Rogerson, 59, Carmyle Ave., Glasgow, E.2. Shettleston 1328.

ROYAL AERO CLUB GLIDING CERTIFICATES—*contd. from page 27.*

No.	Name.	A.T.C. School or Gliding Club.	Date
5182	Geoffrey Everard Robinson	B.A.F.O. G.C.	13.7.46
5193	Peter Wykeham-Barnes	2 Group G.C., R.A.F.	29.5.46
5199	James Arthur Brook	Midland G.C.	25.7.46
5223	John Raswell Butler	B.A.F.O. G.C.	24.7.46
5228	Derek Ransome-Jones	2 Group G.C.	9.7.46

SILVER BADGES: 8

68	Prince Birabongse Bhanubadth	(Cert. 4943)	20.6.46
69	Hans Neubroch	(Cert. 4803)	11.8.46
70	Ralph Chivas Gully Slazenger	(Cert. 403)	22.4.46
71	William Mark Douglas Tuck	(Cert. 5268)	1.6.46
72	Robert Cameron Forbes	(Cert. 5269)	11.6.46
73	Mark Twomey	(Cert. 5278)	29.6.46
74	Henryk Trybulec	(Cert. 5270)	20.7.46
75	Lorne Welch	(Cert. 1327)	11.8.46

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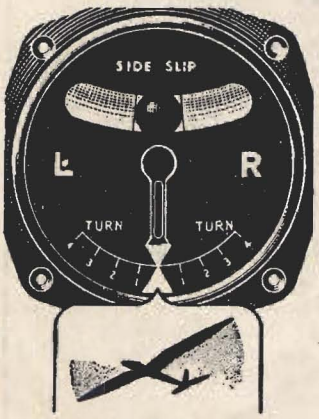
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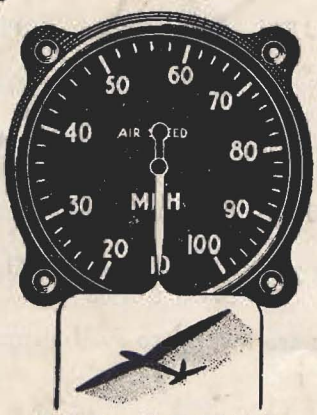
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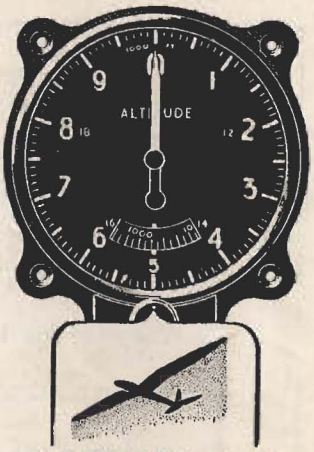
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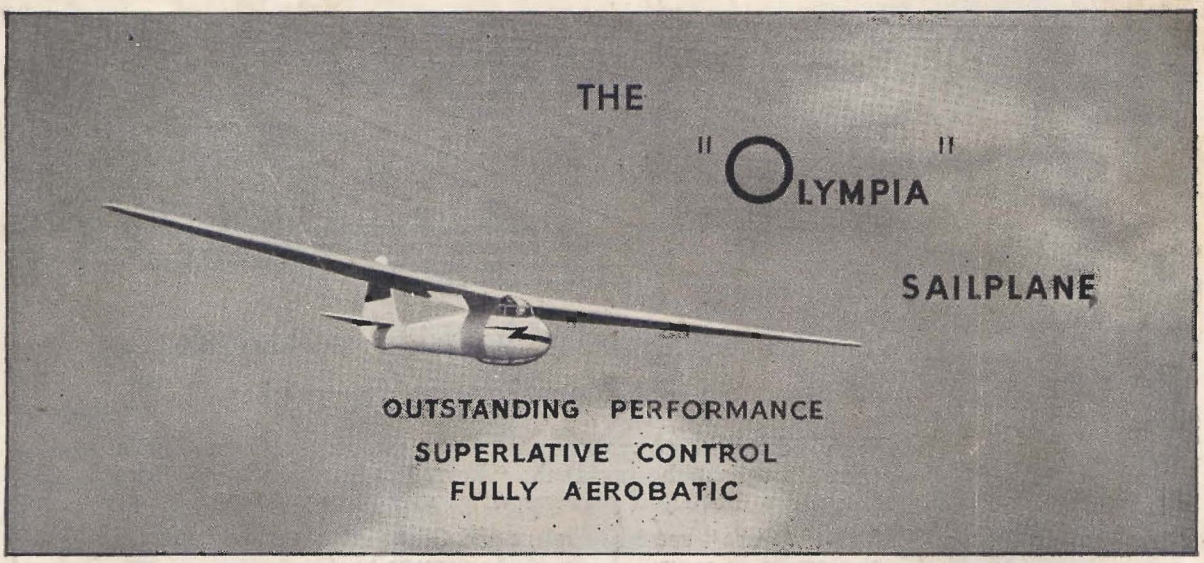


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