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JUNE, 1946

ONE SHILLING

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*The First Journal devoted to Soaring and Gliding*



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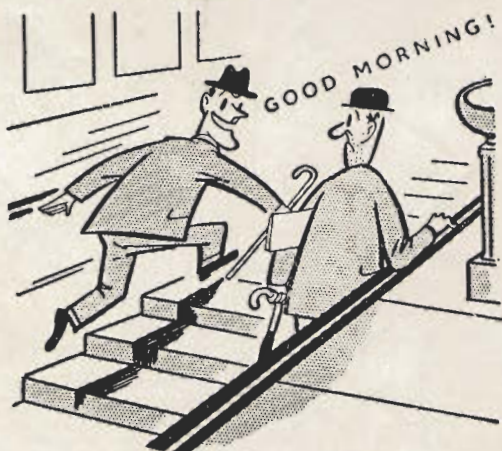
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# Sailplane and Glider

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TO SOARING AND GLIDING

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## OUR GUEST EDITOR—

**W. E. Hick writes—**

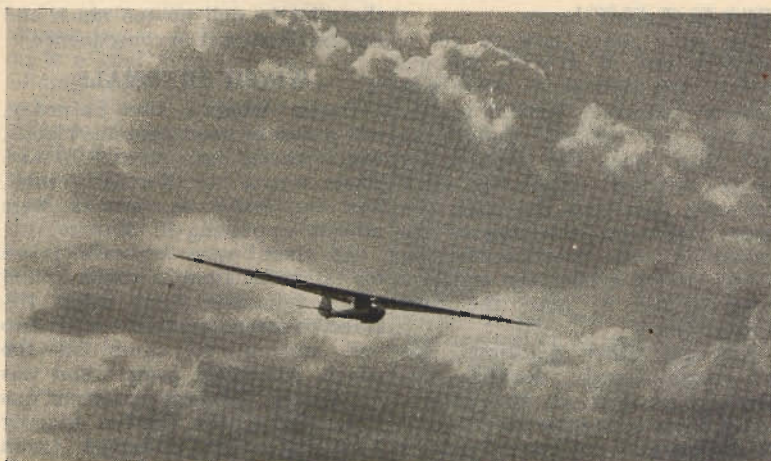
IN the March issue Mr. Hardwick ably answered his question, "Where do we stand?" It is the fact that we are in many ways at a standstill, though there is no lack of enthusiasm to get going. Motion may be a virtue in itself, but it can be made even more virtuous by attention to its direction. What do we really want to make of the gliding movement in this country? Or rather, what do we want to get out of it, because that ultimately determines how we shape it (subject to extraneous circumstances)?

There are those who see it as a relatively—only relatively—cheap way of getting into the air, and are not concerned much further than that. There are those whose passion is to fly further or higher than anybody else, or to excel in whatever other endeavour is fashionable. There are some fatherly people whose delight is to teach, explain, and help, and there are others who lean more to leadership and command. There are those who are absorbed in the technicalities of design and construction, and there are those whose pleasure is in organising and administering. There are some who must master every machine that comes their way, some who delight in inventing instruments and cunning devices, some who want to learn more about the vagaries of the atmosphere, some whose interest is largely aesthetic, and some who chiefly enjoy the good fellowship they find in a gliding club. And last, but not least, there are those who like a day in the country.

Each type is inexorably impelled in its own direction, and none need preen itself upon the superior purity of its motives; nevertheless, these motives inevitably conflict to some extent. How can the conflict best be resolved? The problem is made less formidable by the reflection that we are each a blend of all, or nearly all, of the types, with one or two predominating. The predominantly administrative mind thinks rapturously of mass air-mindedness—so much more to administer. The technical enthusiast dreams of new and queerer machines. The teacher loves to tell the young idea all about it—and of course the more of the young idea he can get hold of for the purpose, the better. The soaring purist *as such* has no use for the common herd. The motives of Guest Editors I leave to your imagination.

Every combination of these abstract types—that is, every individual interested in gliding—should ideally be able to find a place, for each type has something to give and something to receive. Flying must be cheap, so that few are excluded by poverty. Given that, the rest follows almost automatically. Numbers provide a pabulum for the organisers, administrators, and teachers; they also help to make possible the performances of the few outstanding pilots. A large organisation can often get what it wants when a few scattered enthusiasts could not—but then it wants more; so let it not be too large. Numbers encourage new designers and constructors, and stimulate the existing ones to brighter efforts—and let us fight obstructions to the amateur and what may be called the semi-amateur in this field; it is to them we must mainly look for the steady flow of original and experimental designs which is surely essential to life. There is much *ad hoc* scientific work waiting to be done by clubs large enough to include a few people competent to do it; they may not be the richest members. Too much should not be expected, but there is no doubt that research can be made both an interesting and stimulating ancillary activity, and a means of improving our methods and hence of increasing our enjoyment.





Tom Hughes landing the "Rhönadler" [Photo by A. E. Slater]

# LEICESTER MEETING

THE number of sailplanes at this, the first post-war soaring contest, adds up to fifteen if we include the A.T.C.'s "Falcon III", which was not really a competitor, but often caught thermal lift off the winch. The remaining fourteen and their owners or bringers were:

- "Minimoa", Prince Bira.
- "Weihe", P. A. Wills.
- "Petrel", J. E. Simpson.
- "Gull", D. G. O. Hiscox.
- "Blue Gull", Greig and Stephenson.
- "Cantilever Gull", J. C. Rice.
- "Rhönbussard", Cooper and Wright.
- "H-17", A. E. Firmin.
- "Kirby Kite" (Gracias), C. and O. Wingfield.
- "Kirby Kite", Derby and Lancs. Club.
- "Rhönadler", Cambridge Club.
- "Grunau Baby", Leicester Club.
- "Olympia" and "Mu 13", brought by the Naval Air Arm, having been lent to them by the D.S.R., Royal Naval Scientific Service.

On Friday, April 19th, the first cumulus appeared about noon (Summer Time), and thereafter there were always some in the sky, mostly round the horizon. But during the afternoon a few appeared in the neighbourhood and were used by pilots, who found the cloud base to be at just over 5,000 feet. However, several people found it almost impossible to reach the clouds, as the lift usually weakened just before getting there. Lower down, there was an almost

permanent thermal from the Auster factory on the edge of the aerodrome. Later on, an equally reliable thermal was found coming from a neighbouring Ordnance factory.

## RULES

On Friday evening Mr. Rice, the organizer and moving spirit of the whole show, called a meeting to discuss procedure. Various people were assigned jobs, including the novel one of Towmaster (or Towmistress, as the case might be). Traffic lanes were also assigned for winching, aero-tow, cable-dropping and landing. To make doubly sure of the rule of the road, Charles

Wingfield asked "does steam still give way to sail?"

On Saturday, April 20th, John Pringle made a valiant attempt on the prescribed out-and-return flight, which was to the Birmingham Municipal Aerodrome at Elmdon and back. He managed in the "Cantilever Gull" to progress 37 miles up-wind, but was driven to keeping Southward of his course by a large area of overcast sky to the North. From noon to 1.30 p.m. he found large areas of weak lift at 2 feet/second, but after that time each of these had a concentrated core of much stronger lift. After 4½ hours' hard going



Manhandling "Rhönadler"

[Photo by A. E. Slater]



## T H E   S A I L P L A N E

he had to land at Honily R.A.F. Aerodrome, between Birmingham and Warwick, as the lift was giving out. On the same day Hiscox flew 63 miles down-wind to Skegness.

### BRAINS TRUST

Saturday night's entertainment was a Gliding Brains Trust, possibly the first ever held. The Members were: J. Pringle, Bergel, Bolton, Sproule, Wills, Ann Douglas and Kendall, with Rice as Question Master.

The first question was on whether a thermal goes up from a fixed point or travels over the ground. Wills considered that it travels if there is a wind, and mentioned having seen dust-devils moving over the ground in Australia. Bergel had flown the towing "Miles Messenger" so often through the thermal to leeward of the Ordnance factory, that he was in favour

of the fixed point theory.

On being asked how to get a sailplane out of a spin, Sproule replied that it depends what you mean by sailplane. Kendall recommended full opposite rudder at first, then, when the rotation has nearly stopped, push the stick forward; pushing the stick too early may cause shielding of the rudder. On the question of using rudder during a turn, the majority were against it, once the turn is established.

Amongst other questions, the one most fiercely debated was whether to dive at an obstacle and pull up over it, or fly straight on and hope for the best. Pringle's answer was the most scientific; he said that aerodynamically one should keep straight on; but psychologically it is better to dive and climb, otherwise the mere sight of the obstacle below causes

the pilot to pull up too much and then stall on to it in consequence.

### WINCH THERMALS

Easter Sunday, like Saturday, was a day of good cumulus clouds, which started forming at 8.15 a.m. There was a fair Northerly wind, and by 9.45 a.m. streets were already appearing in the sky.

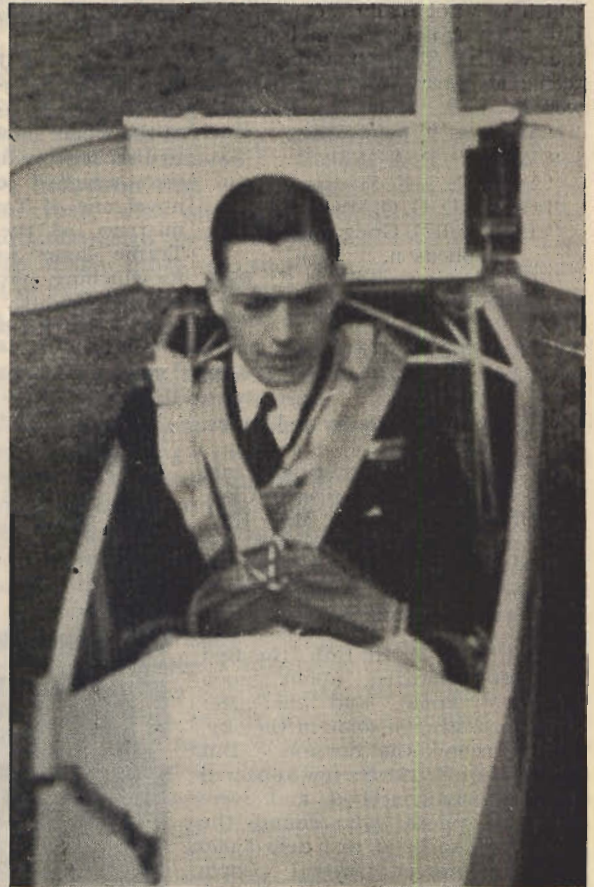
As there were separate prizes for altitude from aeroplane and winch launches, some pilots decided to forego an aero-tow or two and attempt to climb off the winch, where the competition was less fierce. The best performer was Prince Bira, who climbed to over 3,000 feet in his "Minimoa" from a winch-launch to 700 feet.

The best of the day's cross-countries was one of 122 miles by Wills to Detling Aerodrome, near Maidstone, where the A.T.C. were holding a show. He intended



[Photo by A. E. Slater]

*Prince Bira in "Minimoa" accompanied by dog to maintain correct position of centre of gravity.*



[Photo by A. E. Slater]

*Lieut. A. M. Davis in the "Mu 13"*



## YORKSHIRE CLUB

NOTES OF ACTIVITIES IN MARCH/APRIL/MAY, 1946

to get there, although not officially announcing it as his goal. Hiscox made a goal flight to the London Gliding Club at Dunstable (62 miles), Charles Wingfield went 32 miles to Wellingborough, and Bira finished his altitude flight at Deenethorpe, 23 miles away. Greig went 18 miles to Medbourne, and Rice 8 miles to Tugby, where he unfortunately damaged his "Gull" while trying to remember what the Brains Trust had advised him about the technique of surmounting an obstacle.

## THE NAVY

The Navy did well. Lieut. A. Dennis in the "Mu 13", and W. J. Heard in the "Olympia", both of whom are newcomers to gliding, each put up "Silver C" distance and altitude. The former went 34 miles to near Sywell and climbed from 1,500 to 6,200 feet, and the latter 45 miles to Little Stoughton with a climb from 1,800 to 5,300 feet. Nobody attempted the official out-and-return flight to Lichfield, or succeeded in reaching the official goal, which was Hurn, 125 miles away.

On Easter Monday the clouds were still good, and there were thermals of up to 15 feet/second. There were more cross-countries, the best being another goal flight to Dunstable, this time by Stephenson. Slazenger set out in the "Petrel" for North Weald, and succeeded in getting 45 miles of the way, landing North of Bedford.

Sproule took the Olympia 47 miles to Cranfield, where he arrived at 3,000 feet. On landing, he found it was the new home of the Empire Test Pilots' School, and that among the diverse types included in the flying course there was an ex-German "Grunau Baby" and a Tiger Moth for towing it. Of course they were delighted to see him.

If we include a flight of 5 miles by Owen Wingfield, the total mileage for the Meeting adds up to 602 for the 14 cross-country flights. The greatest height reached was 7,700 feet by W. Morison, of the Cambridge Club. He got to this height after having sunk to 450 feet following an aero-tow; the last 3,000 feet of the climb were made in cloud.

Mr. Rice is to be congratulated on a very successful meeting, which has given post-war gliding a fine send-off.

OWING to a mistaken address, no notes of this club's activities appeared in the May issue, but flying has in fact been in progress most week-ends since March 30th. The week-end of March 30/31 was indeed the first time since 1939 that there was flying for all members—this in the shape of our first delivery—a "Cadet". (Apparently one has to spell it with a "c" these days). It should be said here that such flying was and will be for people with flying experience only; in the absence of subsidy it is quite impossible to contemplate primary training, but for one who is keen enough it should be possible to learn *ab initio* via the two-seater. This would be a long and expensive process and it might even be suggested that it would pay an intending trainee to seek some dual on powered aircraft before he essays to fly gliders. This point is open to argument, but aeroplane flying shouldn't do a chap any harm if he doesn't do too much at it!

## FLYING UP TO THE TIME OF WRITING

March 30/31. Nine members took part in training and rehabilitation exercises under Barker's instruction.

April 6/7. Some hill-soaring—the "Cadet" and the "Kite" logged 5½ hours over the two days (including 35 minutes by Clarence Jowett in his own "Kite"—his initial soaring flight in the machine).

Billy Sharpe was rapidly promoted from the "Cadet" to the "Kite": Cox soared the "Cadet"—his first flying since 1939.

April 13/14. Weather conditions being pretty useless, little more than a few test launches took place. The two-seater was rigged, also an A.T.C. machine (a "Cadet") and both tested by the responsible parties. Barker flew a few circuits with various passengers in the two-seater and brought a little welcome revenue to our poor coffers.

Easter Week-End. April 20th was a wash-out, but a total of 4 hours and 40 minutes soaring was logged on the 21st; this included "C" Certificate qualifying flights by Brian Hartness and Mann. The latter is A.T.C. trained.

April 22nd. There was a North-West wind with rather too much North in it but some thermal activity, Barker, for instance making a quick 1,500 feet above hill top level during a test of the "Cadet"—with no instruments of any kind. Later in the day both Sharpe and Barker were able to reach 2,500 feet in the "Kite", and the total flying for the three machines over the day was 6½ hours, including 5 passenger flights for the two-seater,

on which machine Billy Sharpe was tested, and duly passed out to fly. To sum up: 16½ hours flying may not be an impressive total, but with better weather ahead and more old members rejoining and new ones coming along, the total should increase very much before the time comes to report progress again.

## "FLYING FEES."

To turn to a more stogy, but none the less serious side, several committee meetings have taken place and thrashed out financial matters in the light of sub-committees' reports, and flying fees have been fixed and new flying and general regulations drawn up and adopted. As we all expected, flying fees will be considerably heavier than they were in the past, and mechanical launching will have to be paid for at a higher rate. Further, comprehensive insurance has to be effected, and all flying members will pay in addition to their annual subscriptions a sum of £4 in this respect, and, of course the individual concerned will stand the £5 excess. Flying fees (examples) are as follows:

	s.	d.
Winch launches (Circuits) ..	3	6
Soaring flights ..	14	0
Soaring flights (2-seater) (members) ..	16	0
Soaring flights (2-seater) (non-members) ..	18	0

(a) To all the above add 2s. winch fee. (b) Note that the rate for soaring is a flat rate; the time is subject to the chief instructor's order normally it would not be less than 30 minutes, but can be more if the machine is not in demand; the idea is to encourage people to fly at quiet periods and to reduce ground handling and the numbers of take-offs and landings, which after all are the things that wear out the aircraft.

Work is in progress at Hambleton Lodge, part of which we have rented as a Club-house, but it will be some little time before we are fully organised in those premises.

In conclusion, we have perhaps more to be pleased about than we dared have forecast when we had our first meeting in January. It will be in a long time, and only after a lot of toil that we shall approach anything like our 1939 standard so far as the domestic and social side of the Club is concerned, but given anything like a decent flying year, there is no reason why we shouldn't make great strides in the next twelve months. Applications for flying membership are numerous and although we have little to offer the non-flying member at the moment, he or she will be very welcome if he will (or she will) take an active part in reconstruction.

G.A.H.



# STANDING WAVE: B.G.A. REPORTS

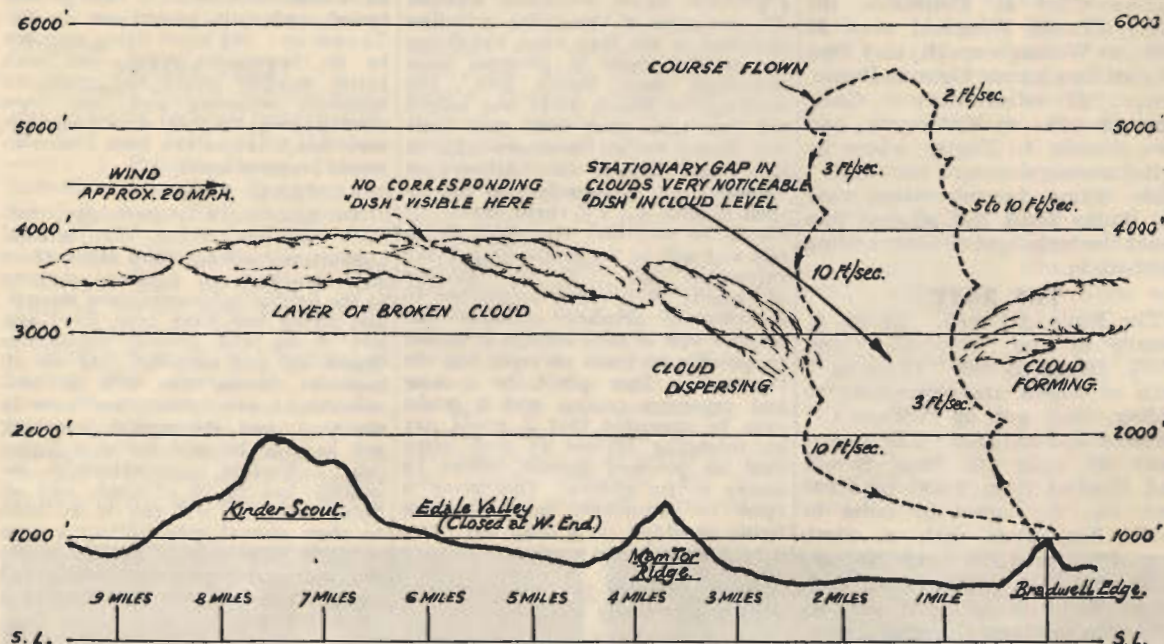


Diagram taken of cross-section view through Bradwell Edge showing G. O. Smith's flight.

## FLIGHT RECORD.

B.G.A. Research.

DATE:	7th April 1946.	PILOT:	J.S. Armstrong
T. O. TIME:	10.50 a.m.	SAILPLANE:	Kirby Kite..
LANDING TIME:	11.15 a.m.	TYPE OF FLIGHT:	Local.
STARTING PLACE:	Camphill, Derbyshire.	GENERAL WEATHER INFORMATION. Fine clear anti-cyclonic weather with a few wisps of cirrus. Small isolated cumulus beginning to form here and there but no development. Lapse rate not known.	
TYPE OF LAUNCH:	Winch.		
RELEASE HEIGHT:	700 ft.		
WAS HILL LIFT AVAILABLE?	Yes.		
LANDING PLACE:	Camphill.		
STRONGEST LIFT:	7 f.p.s.	STRONGEST DISCURT:	10 f.p.s.
MAXIMUM HEIGHT:	4,400 ft.	INVERSION LEVEL:	? VISIBILITY: 15 miles.
		CUMULUS BASE:	- CUMULUS TOPS: -
		WIND SPEED:	20/25mph. W. DIRECTION: WNW
		STRONGEST LIFT:	7 f.p.s.
		STRONGEST DISCURT:	10 f.p.s.
		INVERSION LEVEL:	? VISIBILITY: 15 miles.

## ANY NOTICEABLE THERMAL OR NON-THERMAL AREAS, AND TYPES OF GROUND SURFACE BENEATH.

**T**HERMAL activity scarcely noticeable except for a few slight bumps. The flight was in the vicinity of the Derby and Lincs. Club site at Camphill the country being hilly and typical of the Peak District.

## GENERAL ACCOUNT (Route,

## details of Lift, Flight Technique etc.).

At take-off conditions were ideal for hill-soaring and no other activity was contemplated. After hill-soaring for some time at 900 feet above the hill-top in fairly smooth conditions, an excursion was made about a mile upwind from the hill, some turbulence being encountered followed by an area of fairly rough lift about 5 f.p.s., obviously independent of the hill. This area, was explored in all directions and extended for about 2 miles up and

down wind, and about  $1\frac{1}{2}$  miles across wind. The lift was constant, and above 2,000 feet absolutely smooth and accelerated slightly to 7 f.p.s.

The ceiling of lift was 4,400 feet and there was no cloud present at this height. Some 8 or 10 miles downwind however, a bar of lenticular cloud formed at some 8,000 to 10,000 feet and remained in varying degrees most of the day.

The ground upwind of the lift area was very broken with 800 foot ridges and valleys for about 16 miles until the 2,000 foot mass of Kinder Scout stretched for two or three miles across wind, beyond this the ground was again very hilly and broken. The impression gained was that the lift was caused by a standing wave, probably one of a series, in the lee of Kinder Scout, and this impression was strengthened by the fact that upwind of the lift area the sink was a little above normal and downwind of it was over 10 f.p.s. in places down to about 1,500 feet at which point it became turbulent, possibly due to the soaring ridge almost immediately below.

Signed: J. S. ARMSTRONG.



## Standing Wave Research

FEW subjects are so interesting or so important to Sailflyers as what may be described as "Cloud habits", since if it can be established that in similar recurring meteorological conditions in certain places similar phenomena occur and vice versa, this may be of use in both distance and height attempts.

It has long been known that "lenticular" clouds—long bar-like clouds usually not of massive thickness but of long duration—indicate the consistent diversion upwards of a current of moist air to a constant condensation level. These "waves" of air seem to fall to the earth and rebound again, and sometimes again, with the result that there is often more than one lenticular cloud. There may be a small succession of them.

Something like this seems to have occurred on the site of the Derby and Lincs Club. Herewith are the official reports and a diagram from which students may make their own observations. The British Height Record was once held by a pilot who made 11,000 ft. in the Helm Wave in Northumberland. Last year Scheidauer told the Editor at Gottingen that during the war the Germans had risen to 42,000 ft. in the so-called Alpine Wall—a standing wave caused by the Alps and a N.W. wind. This has not been confirmed and may be a "line shoot" but the idea has possibilities.

		B.G.A. Research.	
<u>DATE:</u>	7th April, 1946	<u>PILOT:</u>	G. O. Smith
<u>TAKE-OFF TIME</u>	1600 hours	<u>SAILPLANE:</u>	Golden Wren
<u>LANDING TIME:</u>	1645 hrs.	<u>TYPE OF FLIGHT:</u>	Local
<u>STARTING PLACE:</u>	Camphill, Derbyshire.	<u>GENERAL WEATHER INFORMATION.</u>	
<u>TYPE OF LAUNCH:</u>	Winch	Fine clear anti-cyclonic weather with a few wisps of cirrus. Small isolated cumulus Later development - pronounced wave formation.	
<u>RELEASE HEIGHT:</u>	600 ft.	<u>WIND SPEED:</u>	20 m.p.h. <u>W. DIRECTION:</u> WNW
<u>WAS HILL LIFT AVAILABLE?</u>	Yes	<u>STRONGEST LIFT:</u>	10 f.p.s.
<u>LANDING PLACE:</u>	Camphill	<u>STRONGEST SINK:</u>	10 f.p.s.
<u>STRAIGHT LINE DISTANCE:</u>	Nil	<u>CUMULUS BASE:</u> Average 3500 ft. Lowest 2700	<u>CUMULUS TOPS:</u> 4000 ft.
<u>MAXIMUM HEIGHT:</u>	4500 ft. (above Take-off point) (above sea level 5550 ft.)	<u>INVERSION LEVEL:</u>	? <u>VISIBILITY:</u> 15 miles

### ANY NOTICEABLE THERMAL OR NON-THERMAL AREAS, AND TYPES OF GROUND SURFACE BENEATH.

Small thermal activity. Typical peak district country. Mixture of limestone and sandstone ridges.

### GENERAL ACCOUNT (Route, details of Lift, Flight Technique, etc.).

The following account should be read in conjunction with the opposite diagram.

The section has been drawn through the Northern end of Bradwell Edge (2 miles North of Camphill) because it was here that the phenomenon was at its strongest. The actual take-off and landing were made at Camphill, which is 1,250 feet above sea level, but they have been shown diagrammatically at the slightly lower altitude of the Northern end of the ridge. The maximum height, by Altimeter, was 4,300 feet above Camphill, making 5,550

feet above sea level, as shown.

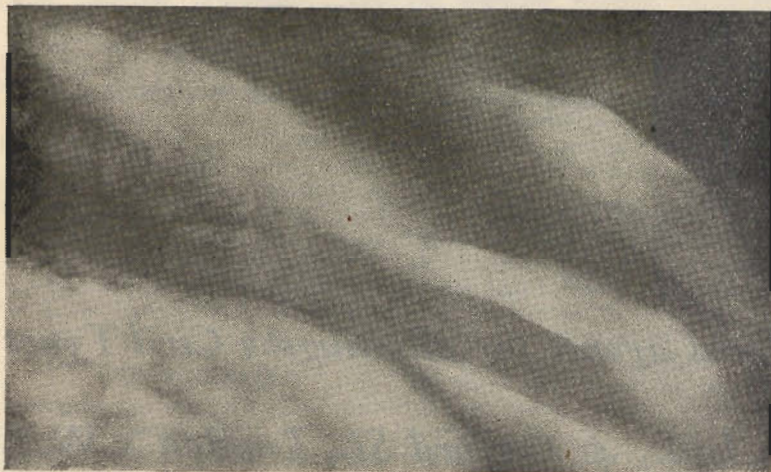
The area of lift extended across wind approx. 2 miles North and 2 miles South of the line through which the section is drawn, but was strongest in the middle. (Note here two facts: 1. Camphill was at the extreme South end of the wave and 2. the Northern limit of the wave was some 2 miles beyond the end of Bradwell Edge). The extent to which it was explored up and down wind is shown in the diagram. There may have been stronger lift further down wind, but I always had one eye on the cloud gap, which appeared alarmingly small from the maximum height. The clouds had by this time thickened considerably and no other ground was visible.

The phenomenon was present on and off all day; Two Sailplanes had been more than 4,000 feet above Camphill at 1030 hours; but as Camphill was on the very edge of it, it was not always easy or even possible, to connect with the main wave formation. I think the cloud formation shown in the diagram and present during my particular flight, was quite incidental to the wave itself and merely helped to demonstrate the wave formation. Certainly some of the other Sailplanes which reached a similar height, both before and after me, were accompanied by considerably less cloud than I was. Signed, G. O. SMITH.

### EVENING THERMAL

### ANY NOTICEABLE THERMAL OR NON-THERMAL AREAS, AND TYPES OF GROUND SURFACE BENEATH

The whole of the Bradwell Valley at the foot of the soaring ridge provided gentle lift. This valley is about 3 miles long and the

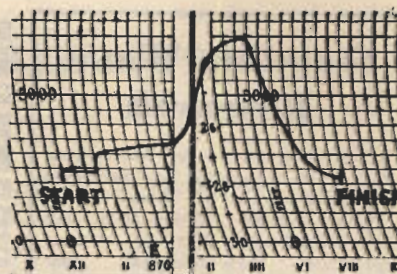


Cloud Formation on "Wave" Day, April 7th.



# THE SAILPLANE

FLIGHT RECORD.		B.G.A. Research	
DATE:	7th April 1946.	PILOT:	J. S. Armstrong
T. O. TIME:	5.25 p.m.	SAILPLANE:	Kirby Kite.
LANDING TIME:	6.30 p.m.	TYPE OF FLIGHT:	LOCAL (Evening thermal)
STARTING PLACE:	Camphill, Derbyshire.	GENERAL WEATHER INFORMATION.	
TYPE OF LAUNCH:	Winch	The day had been fairly warm with continuous sunshine and a moderate WNW wind backing to West in the evening. Strato-cumulus forming in afternoon in patches.	
RELEASE HEIGHT:	650 ft.		
WAS HILL LIFT AVAILABLE?	Yes.	WIND SPEED:	25/30 m.p.h.
LANDING PLACE:	Camphill	W. DIRECTION:	W.
STRAIGHT LINE DISTANCE:	Nil	STRONGEST LIFT:	3-5 f.p.s.
MAXIMUM HEIGHT:	4200 ft. (above take-off point)	STRONGEST SINK:	None
		CUMULUS BASE:	-
		CUMULUS TOPS:	-
		INVERSION LEVEL:	-
		VISIBILITY:	5 miles



Copy of barograph chart, evening thermal at Camphill on 7th April. Height 4,200 ft.

downwind side provided the hill lift, the upwind side being a much more gentle slope and not as high. The average depth of the valley is about 700 feet.

## GENERAL ACCOUNT (Route, details of Lift, Flight Technique, etc.).

From previous experience it was thought that an evening thermal might be present, i.e., the day

had been fairly warm and cloudless and a fairly strong WNW to W wind had been blowing. As the sun sank a line of cloud formed along the western horizon and low strato-cumulus began to form downwind of the site. After take-off, hill soaring was the only method possible for some time, until a very gradual gain to about 1,000 feet above the hill was achieved. On striking out into the valley slight lift was found almost

immediately and improved to a very steady 3 feet per sec. It was absolutely smooth and covered nearly the whole length and breadth of the valley. The lift was steady up to 4,000 feet and then petered out. The wind strength at this height was more than at ground level. Some difficulty was experienced in losing height near the site. At one period stratus cloud closed in all round the valley but the valley remained clear. Later this cloud receded again.

Signed. J. S. ARMSTRONG.

## Slingsby Sailplanes and Gliders for 1946

The re-designed Slingsby machines are "the goods." We know it, but then we ought to, having produced them after Slingsby Sailplanes had designed and perfected them. Throughout the range, from the Cadet to the Tutor intermediate to the higher performance Kite II and the super cantilever Gull IV, masterly design, workmanship, detail and finish is obvious. This range, plus the new Falcon IV Tandem two-seater, provides a machine for every stage from 'ab initio' to expert. A new handbook containing full data and G.A. drawings of all models is now available free on application.



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*Bishop Hill—South-West ridge, seen from South Shore of Loch Leven*

**T**HE story of the S.G.U. presents a picture of early enthusiasm, smothered by lack of experience, bad sites, and the usual struggle with financial problems. This period in the wilderness suddenly ended, with the discovery of a good soaring site, and the S.G.U. burst forth into a highly active and growing club. But late—too late to overtake fully the long established English Clubs, before trouble in Europe brought all British Gliding Club activities to a stop. Now, with all clubs ready to make a new start, we find ourselves well set to development on an equal footing with our friends further South.

#### THE BEGINNING

Magersuppe started the ball rolling with a short flight of twenty minutes near Stirling, in 1930. Clubs appeared like a rash up and down Scotland, from Dumfries to

Inverness, Dunbar to Dumbarton. Primaries were built and broken and soon the rash passed away but left persistent traces at places like Glasgow, Stirling, Edinburgh and Perth.

The dourest of the gliding enthusiasts, led by Graham, and Crawford of Glasgow, Gardiner of Stirling, McKelvie of Perth, Oliver of Inverness, met in 1930 with the intention of forming a Gliding Union.

A Committee was formed, and this body spent the next five years searching for sites, and invariably finding that the landowners' grouse, were preferable to him, than a bunch of crazy aviators.

Finty in the Campsie hills was the eventual settling point of the remaining gliders, and the Scottish Gliding Union, with Gardiner as Secretary, started operations in 1937 with a metal hanger, tow cars, and primary type gliders.

#### OTHER CLUBS

Two clubs remained in operation outside the Union at this time—Inverness under Oliver, and Dumbarton under J. Campbell.

In 1937, A. J. Thorburn, a member of the Yorkshire Gliding Club, keen to try out the soaring possibilities of the hills near Kirkcaldy, purchased through Slingsby a nacelled "Primary" and a "Falcon 1".

With these machines the FIFE GLIDING CLUB was formed and training started near Kirkcaldy. During the winter of 1937-38 a search of the local hills brought the Lomond Hills to notice as most likely places for good hill soaring, and without much trouble permission to use the ground was obtained. As will be seen from the sketch map, all winds from S. West to N. East were catered for by the long ridges.



# THE SAIL PLANE

## FIFE GLIDING CLUB— SOARING

In April 1938, Wordsworth of the Yorkshire Gliding Club and Thorburn took the "Falcon 1" to the Lomonds and during Easter weekend Wordsworth had the first soaring flight over the North facing ridge.

In May, Thorburn soared over the West facing ridges looking down on Loch Leven. The Fife Club thereupon moved to the Bishop Hill site.

The newspaper publicity of the Easter soaring, attracted the attention of the S.G.U. at Fintry and this group on seeing the "Falcon 1" soaring at Bishop decided that the Fintry site was not suitable for further use, and moved to the Bishop in July of that year.

## S.G.U. AT BISHOP HILL

Shelter for the various bits of gliding gear, was found in the steading of the West Feal Farm where Dave Nicol, a local shepherd and his wife proceeded to look after

the "flying madmen". Never was hospitality better displayed. Fed on the finest of farm produce, and meeting in the best room of West Feal, new plans were laid for the future. At this point the long unsuccessful years were left behind for good. The Scottish Gliding Union and the Fife Gliding Club amalgamated, registered as a Limited Liability Company, and joined the B.G.A. under the title of the former.

The Falcon continued to soar, and primary training was carried out, when conditions suited. During the soaring flights the Westerly ridge of Bishop was found to give exceptionally widespread, smooth, and vigorous lift. At the South Western corner of the ridge, thermal conditions were contacted regularly, emanating from a large sheltered outcrop of limestone rock. Even the old "Falcon" found easy lift to 3,000 feet above hill top in this, and so 4,450 feet above sea level.

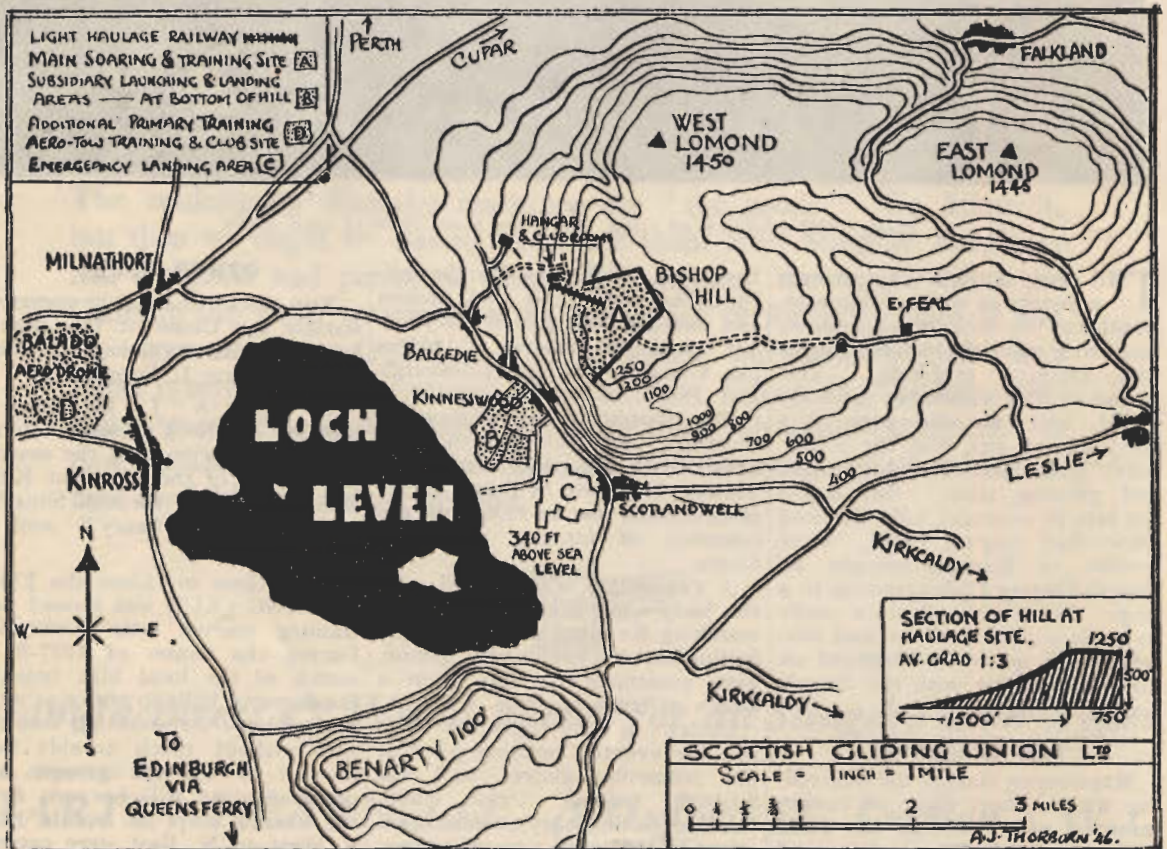
The site has great possibilities for high performance machines.

From the soaring training point of view, the large mass of smooth rising air given by the fine and unbroken profile of the hill slope, is a great asset.

## VISITORS AND DISPLAY

In August, 1938, a winch was bought from the Sunderland Club, and Slingsby lent us a "Falcon III" two-seater. W. B. Murray, and Shaw of the Yorkshire Club came along, and Ann Edmonds (as she was then) brought her Grunau. With great fanfares in the local press we invited the public to come along, marvel, and join us.

The Automobile Association kindly arranged cards bearing the legend — "TO THE GLIDING" — at all main road junctions, but some misguided comedian kindly reversed most of these on the evening prior to our great display. We did quite well however, and the visiting pilots gave us a good start at the Bishop Hill. Many soaring hours were put in, and new members enlisted.



Scottish Gliding Union site.



T H E   S A I L P L A N E



*Morning—" Primary Squad " on the move, August 1939.*



Davies of the Cambridge Club, spent several weekends at the site with his "H.17" but conditions failed him and he left for the south without having sampled the lift we bragged about.

## PROGRESS

To meet the Club's needs, the ensuing winter saw the erection of a new hanger of large size on the training site, and the arrival of several new gliders from Slingsby. These included the inevitable open and nacelled "Primaries", and a "Kirby Tutor". Crawford and Graham continued with the construction of the "H.17" and "Graham Special". J. Campbell also a keen constructor brought the Dumbarton Club into the Union.

1939 saw the "Falcon", "Tutor", and "Nacelle", soaring and "Primaries" at work. Our first "C" Certificate was taken by Alex Aitken in the "Nacelle".

In August we had our first venture into Training Camp organisation. We got to work on a small scale with seven "ab initios", and in fourteen days of concentrated gliding, built up experience in this kind of activity. Four of the pupils gained "B" Certificates one a "C", and the other was taken off the course, on the second day as an old injury of some years standing, reacted badly to the inevitable bumping on the primary.

## NEW QUARTERS

By this time we had moved into the Farm House of EAST FEAL and so gave our hosts the Nicols a welcome break. We bought a hut some 40 feet by 17 feet and erected it outside East Feal, so completing a club site with Hanger, Clubhouse, and Dormitory, with accommodation for thirty members. Lady members had sleeping quarters at West Feal with the Nichols.

East Feal Farmhouse was in a pretty raw state when taken over, but lots of hacking reduced the interior of the building to a bare stone shell, and from this state, under the able direction of Mr. and Mrs. Rogerson, and J. W. Gardiner, with a gradual rebuilding of floors, ceilings, walls and windows, we soon had a happy though homely atmosphere inside. Calor gas

lighting and cooking was installed, fire-places rebuilt, furnishings and draperies bought or made, to add to the week-end comforts.

One of the early sights on Sunday mornings was the "sausage queue", composed of cookers, frying pans, and sausages awaiting to be cooked by their respective owners. The situation was eased however when a cook and stewardess were imported from a local village. Rough shooting and excellent trout fishing on the site, induced members to add to the variety of our diet. Babington-Smith, lecturer at St. Andrew's University was our most successful angler.

The diet sheet went astray on one memorable occasion. Three members, A, B, and C, bought tickets for a Xmas Raffle at their works. A and B drew blanks, but C, an inveterate teetotaler, won a bottle of very fine port which he deposited in his locker. Deciding that such an allocation of good liquor, was an injustice, A and B secretly consumed the port, and replaced the bottle nicely sealed, but containing a mixture of red ink and ammonia. C, in all his innocence, unknown to A and B, presented the bottle to the Gliding Club.

On the 25th January of that year, the S.G.U. held a Burns Supper in honour of the Bard. A, B and C were prominent members of the gathering. The first course—hare soup—passed and A and B were cheerfully telling the appreciative audience about their prank played on C. But as Rabbie so deftly phrased it—"the schemes o' mice an' men gang aft agley". The jokers learned at that moment from the cook, that they had just consumed their own port substitute as an ingredient of the hare soup! Never did salt tatties, herring and haggis disappear at such a rate, in an effort to stem any bad effects of the previous course. In spite of this however friendships were strengthened between the club, and guests, who were local farmers and residents.

## HIBERNATION

Plans for Resident Ground Engineer, Steward, Stewardess, a second hanger, were well on the way, when the European trouble put paid to the lot.

Members scattered to the various Services and our gliders were taken by the A.T.C. The site at EAST FEAL soon became a training ground for Home Guard, so that those still able to overcome the difficulty of petrol rationing, could call only at long intervals, at West Feal to enjoy the cheerful spirit and hospitality of the Nichols.

Rogerson kept things in existence at the home end, and from time to time members on leave got and gave the latest news of others—some good, some not so good.

During these five years, individual members had lots of time to look back, and take stock. The general picture of past activities was one of an extremely slow start, but good progress made during the year and a half at the Bishop site. Training and flying hours were low in comparison to the London and Yorkshire clubs, but what was done showed continual progress. The chief hindrance had been the financial one. On the whole the S.G.U. on the Bishop Hill site, was a healthy and growing young club.

## FINANCE

Although the financial side of affairs was a grim fight bolstered by loans on a debenture basis, we did see actual progress, under the chairmanship of the Hon. Alan Boyle, and the patronage of Lord Weir. Rogerson our Hon. Secretary did an able job in this respect and we found, that although we had made our rapid expansion during '38-39, on borrowed capital, when the Government took over our equipment in 1941, the Union was solvent, but with only the proverbial Scottish "saxpence" left in the kitty. We had too in 1939 a nibble at the Government Gliding Subsidy and were preparing to claim a much bigger share in the following season.

## FUTURE

As to the future—many club members, now have five and a half years of experience in subjects liable to be of great help in the growth of the post war club. A Reformation Committee has been set up and plans are in existence for Financing, Training, Messing, etc., on the old soaring site, but this time operating from the Loch Leven side of the hill.



## T H E   S A I L P L A N E

The policy and plan for training at the moment tends to be in favour of two-seater training, in an effort to curb the crashery involved with the older systems of solo hopping and wire flying. The curriculum prepared, caters for courses, consisting of Lectures, Ground operating and Flying Training in two-seater and solo gliders. A point to be noted is that winch driving training will be part of the course, as good winch drivers are a real asset and often so few in number, that the existing ones remain on the job too long.

From the sketch map the location of the club's future can be picked out as follows :—

(1) At Balado Aerodrome, courses of training for new members covering flying up to High Hops—dual then solo have been arranged.

(2) Aero towed launches by Auster, for "C" pilots will also be available at Balado.

(3) Pupils on completion of preparatory course at Balado will then operate at the site proper—Bishop Hill (Area A on map) where all first attempts at turns will be practiced in two-seaters, while soaring over the hill. When satisfied that the pupil is up to standard, one or two circuits in solo gliders will be given, during which he will qualify for "A" and "B" Gliding Certificates, and then he will be launched in suitable conditions for the "C" test.

From this it will be seen that straight and level hops and turns will be done dual, before the pupil is allowed to go solo, at the respective stages of training.

The hold up at the moment is,

as with other clubs, lack of gliders. One of the biggest difficulties in the past was that of transport to the hill top. We now have provisions for bottom launches, and if necessary hill-top launches. Access to the hill top will be improved by the laying of a colliery type light haulage railway up the slope of Bishop at A. Permission and details of materials to carry this out, have already been acquired.

In conclusion, our appetites for flight have been greatly whetted, by the articles of Terence Horsley on Standing Wave conditions experienced in the Sidlaw area, which is only 15-20 miles from Bishop. The cloud formations he experienced are fairly common throughout Scotland under certain conditions, so we expect to find numerous other sources of Standing Wave lift on our own doorstep.

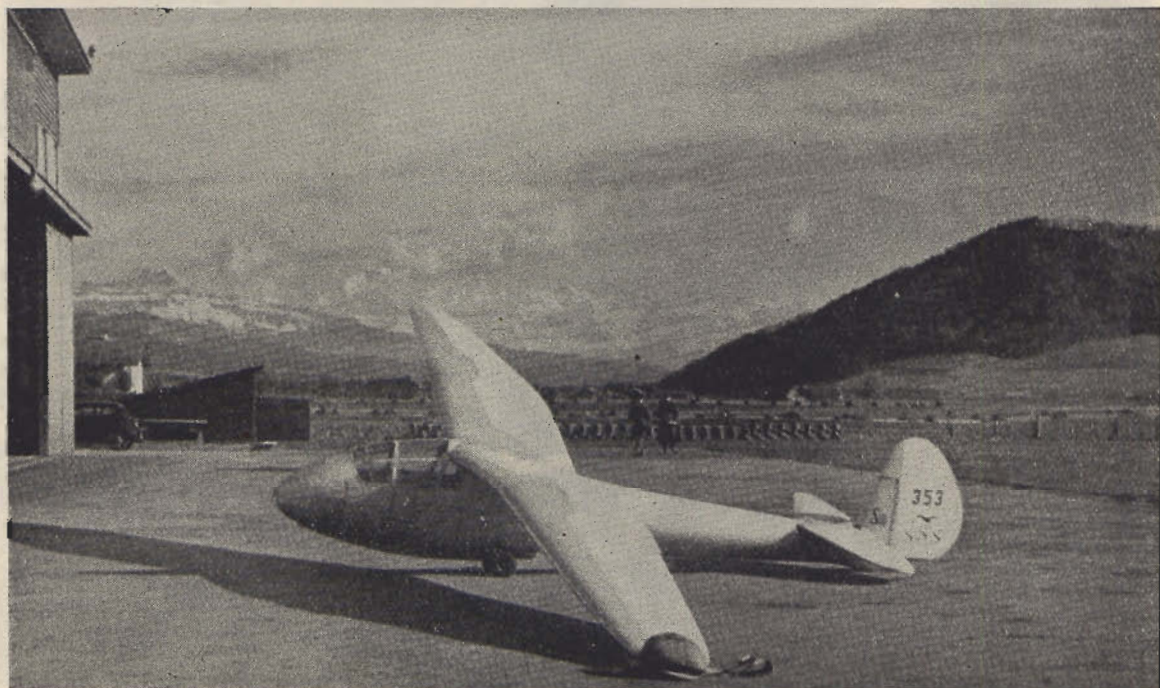


*The spirit of Gliding on the primary slopes.*



# SOARING IN THE SWISS ALPS

by  
J.C. RICE



"Spahlinger 18111" on the tarmac at Berne Airport. The distant mountain over the wing tip is Jung Frau, with Mönch and Eiger on the left. The hill on the right is Belpberg which provides much hill soaring for the sports-flying ground.



**T**HE article in last month's *SAILPLANE* about *Soaring in Switzerland* aroused a good deal of interest. We are glad to print a further account by another member of the party which was organised by "*SAILPLANE*".

THE WRITER had the good fortune to spend ten days recently in search of information for the "*Sailplane*" and can give the details of a visit to one well organised Swiss gliding club.

First, let us get the right perspective. Switzerland is roughly the same size as Yorkshire with a similar population (just over four millions). So in making direct comparisons one should think of Yorkshire, not Britain as a whole. We will not dwell on the present number of first-class sailplanes in Yorkshire, nor the number of Clubs. But you will appreciate our surprise to find this small nation with over twenty Gliding Clubs and 360 Motorless Aircraft with current certificates of airworthiness. Clubs thrive at Basle, Berne, Zurich, Lucerne, Lausanne, Arosa, Grenchen Schaffhausen, Geneva and places too numerous to mention.

The country's fleet of machines

ranges from pioneer types such as the "Falcon I", "Hols der Teufel", "Professor", Kassell 12", "20", and "25" up to modern types, all in first-class condition and supervised by the Government. Of the whole fleet the following are worthy of special mention.

- 5 "Rhonbussards"
- 16 "H.17"
- 30 "Grunau" and "Karpf Babies"
- 9 "Kranich"
- 2 "D.F.S. Weihe"
- 15 "D.F.S. Meise" (Olympia)
- 51 "Spahlinger 18"

The "Karpf Baby" appears to be a direct copy of the "Grunau" made in Switzerland. The "S. 18", shown on the previous page is a highly prized type for general use and is counted equivalent to the "Meise" in performance with possibly less complication in construction. Every machine we viewed at Basle and Berne were in immaculate condition and that appears to be the standard throughout. The "H. 28" in the illustration herewith is rather an orphan in the country.

There have been issued nearly 700 gliding licences (we note that

licences as compared with certificates will shortly be the rule in this country also). Such licences are graded to cover the varying skill and needs of the holders for passenger flights, dual-instruction, instructor and assistant instructor, aerobatics, etc.

By odious comparison with Great Britain as a whole on a population basis, we should have here about 12 times the fleet, clubs and pilots. That would give say 4,320 machines, some 240 clubs and 8,000 certificates. Even with A.T.C. certificates we have not exceeded the 5,000 mark yet in this country. So while the Swiss may not be counted a sea-faring people they are certainly keen on sporting aviation. It may be hoped that the powers here will realise the difference Government aid can make. The Swiss Gliding/Soaring community is controlled by the Confederal Aerial Office (Eigdt. Luftamt) with Capt. W. Ledermann as the Inspector General for motorless flight. Here indeed one finds a round peg in a round hole for Capt. Ledermann is a "Silver C", out to do his best for the sport. Having contacted the Swiss



Left to right: Max Kramer, Jack Rice, Captain W. Ledermann.



## T H E   S A I L P L A N E

Aero Club we went to the government offices at Berne for endorsement of power flying and glider licences to permit flying in Switzerland. This was arranged without delay, on production of our British brevets and logbooks.

From there Ledermann graciously entertained the writer to lunch and borrowed his wife's bicycle (cars are very much scarcer than in England) for a trip to the local airport. Here Max Kramer, chief instructor to the Sports Flying School proved most helpful, patient and efficient. The language problem was easy as Ledermann and Kramer, like so many other Swiss spoke English, and had been to the London Gliding Club about 1936.

They are both very experienced, holding brevets Nos. 15 and 11 respectively.

We found the Bern Club highly organised with 18 machines, namely:

- 4 "Zoglings"
- 1 "Spahlinger 16" and
- 4 "Grunau Babies"
- 2 "Meises"

2 "Spahlinger 18"

1 "Moswey IIa"

2 "Spahlinger 21" Two-seaters

1 "Kranich" Two-seater.

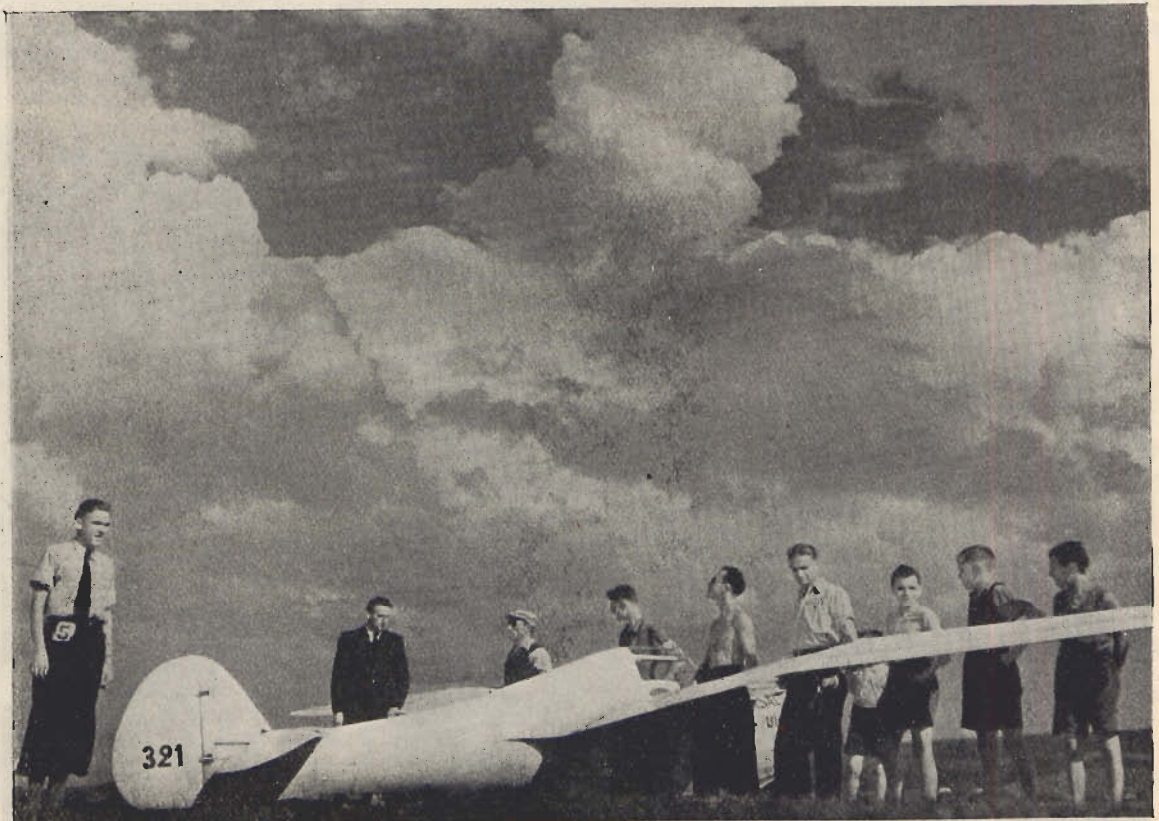
The "Zoglings" are new but now disused in favour of dual-instruction (anybody can buy them for about £35). The aerotowing is done by two Bucher "Jungman" Bi-planes and a "Gipsy I Moth" (85 h.p.) with an "Alfred Comte" 3-seater Cabin Machine for training and charter work. A comic "Taupin" single seater in the Drone class but with tandem wings completes the range. We were to fly the "Taupin" but a valve burnt out. Ground equipment includes two electric and one petrol winches, with a Harley-Davidson combination for retrieving (all the gliders have wheels and are easy to tow) one wood-burning car licensed for road work and four trailers.

Flying is available every day of the week but we found it difficult to get a tow before four o'clock each day as there was a shortage

of pilots with the necessary endorsement. This is now rectified and before any organised English visit was settled, adequate towing facilities would be ensured. We moved into the local hostelry where for a matter of ten shillings per day one is housed in comfort and regaled with a quantity of food that was positively embarrassing. However, one lives down the embarrassment and enjoys items like genuine veal cutlets and meringes with lashing of whipped cream. Next day we were taken up for a test in the "Spahlinger 21" in towed flight by the C.I. This machine was sweet to fly. On a second flight we had to do turns with almost vertical bank, this being part of the normal test. Then we were permitted to fly a "G.B." solo and thence on to the "Meise" and "S. 18"

This club operated throughout the war when conditions were most difficult. There was not a pint of petrol for the purpose.

*(Continued on page 23)*



"H. 28."





## NEW ARGENTINE DISTANCE RECORD

CANUELAS to PARANA—  
*262½ miles*

By

Juan B. Chourrout

FOR a long time I had been cherishing the idea of a sailplane flight between Merlo and Parana, capital of the Province of Entre Rios. I had been grounded for a year, but just as soon as my licence was renewed I decided to stay firmly at Merlo with my long-tried Bussard "Juan Chiesa" until I had broken some record or other. So in the last few days I had done several distance flights—to Rosario (278 km.), to Arroyo Seco (250 km.) to Norberto la Riestra (130 km.) and finally to Saladillo, my birthplace (150 km.). It was while there that I resolved to have a shot at Parana. It was the 6th January—Reyes—and the atmospheric conditions looked ideal. In my flight of the day before the weather had changed considerably. Towards the end of the afternoon it had clouded over and had even rained a short distance away, but during the night it had cleared up and also cooled off (always a sign of good flying conditions the next day).

### THE PLAN

As soon as I landed I had telephoned to Merlo for an aeroplane to tow me back next day, and in the early hours of the morning "Salesito" appeared in the old Pelican, hunting for me over the city, which was already all of a dither about the arrival of the

first glider they had seen there. After all the how-do-you-dos and goodbyes we made ready to take off, but in the meantime I had talked over with Salesito the flight I had in mind. We decided that instead of going straight back to Merlo we should slide off well to the South East, so that I could cast off the tow over the Gliding Club of Canuelas and set off in the right direction with the advantage of a South wind.

### OFF

After a little more than an hour and a half in tow we arrived over Canuelas. Beautiful cumulus had begun to form half an hour earlier and the wind was excellent. It was 11.45 when I cast off at a height of 1500 feet over the Club. They were flying, but stopped to look at us when we came overhead. The Pelican dropped the rope and landed for petrol, greeting old friends. Sales arranged to wait there twenty minutes to see if I had started out alright. But all went well and I immediately began to calculate the possibilities.

Parana lay at about 400 kilometres distance, and I should be able to fly till about 7 p.m., that is to say I had seven hours in hand. In previous flights the Bussard had given me an average speed of 50 kms., so at that rate I should still be 50 kms. short

of my goal. For this reason I determined to hurry from the beginning, for I should need an average speed of at least 60 kms. (37½ miles per hour).

### DISTRACTIONS

45 minutes later the cloud base was at 4,000 feet, so that I was very comfortable. Each time I reached it I would enter for about 1200 feet, steer due North, and glide to the next cloud, reaching it with a height of from 2000 to 2500 feet in hand. It all worked out beautifully and I was already flying above Marcos Paz, 19 miles from our Club at Merlo. I could not easily distinguish details from that distance, so I climbed good and high again and sailed along with a side wind till I could see what they were doing. There were the primaries and the car launched "Grunau Baby", the "Pelikan" and two more "Babies" on the field, but no "Viking", no "Spahlinger", and no "Bussards". Of course I thought at once that they must all be in flight and ahead of me, so without losing another minute I put on full steam ahead to try and catch them up. This almost lost me the flight....

### DOWN CURRENTS

In a little over the hour I had arrived at Zarate, 100 kms. on my way. At 2,500 feet I was already past the town and near



the banks of the River Parana when I noticed to my horror that there were no more clouds. I was flying in a wide area of down-currents below a film of cirro-stratus! I realised the situation was urgent so hurriedly retraced my steps. With a head wind I arrived back in the thermals with only 1200 feet to spare, the lowest I reached in all the flight. My variometer marked zero, then half a meter, and soon I was high up again.

## ACROSS THE DELTA

By now I was sure that no other sailplane was around, and later discovered that none of the "aces" were flying and nothing else of any importance had been achieved that day. I carried on, always using the thermals to good advantage to gain great heights. It was a grand day for soaring and there were cumulus stretching away over the Delta, so I felt I could cross it without too great risk. I followed the Coast for some time, zigzagging a little to touch San Pedro, which I estimated to be on the line I ought to take for Parana, and then, gaining the maximum height inside a cumulus I abandoned it at about 6000 feet when I was already over the Delta. I travelled slowly till I reached a dry islet with 2,500 feet in hand. There I rose again and knew that at least that crossing was safe. By now, too, I was having to navigate very carefully, for I could not afford to go much astray. Visibility was getting steadily worse—I passed the big town of Rosario at about 28 miles distance without seeing it.

## STRONG THERMALS

I flew for over 100 kilometres alongside rivers and streams. Rather far away on my right I could see the dry land of Entre Rios. But I was quite happy; there were plenty of clouds and all I wanted to do was pick up the town of Victoria which ought to lie in front of me. At last I saw it just where it should be, almost below me. From then on the flight went wonderfully. The thermals were intensely strong, always 9 feet or more per second, and I was above 6,000 feet. The ground below was terribly dry and devastated by clouds of locusts which covered all the province. I was beginning to worry a little

because the sky was getting so overcast towards the river and the Coast of Santa Fe that it looked like breaking up into rain. Finally it clouded over entirely but the thermals were as strong as ever.

## FATIGUE

Hours passed and I wondered if I would ever get to Parana. From time to time I flew over little villages which I could recognise from the map and each time I asked myself "Can I get there? Yes, I'll do it!". But I was getting terribly tired. The night before in my home town I had had only three hours sleep, and I had had nothing to eat except a small coffee and milk at 6.30 a.m. At that height I was beginning to feel very cold, although I was well wrapped up. Something else that worried me was the revolting smell of dead animals that rose with the thermals. I thought it must be because of the drought and the lack of grass, but afterwards I discovered that the smell came from the hordes of dead locusts trapped in ditches or killed by poison dust sprayed from aeroplanes. And besides all this there was something else to upset me. On leaving Saladillo I had asked for some small birds for our park at Merlo and a little before I took off a child had brought me two redshanks. I put them in the barograph box and the poor birds had done all the trip like that. Accustomed as they are to live at water level they were most unhappy with the cold and the height, so that when I was flying in the silence of the cold damp clouds they began to complain. The cry of these birds is not strong but very sharp and it can be heard for a great distance. When I came out of the clouds and lost height they calmed down, only to begin again each time I climbed.

## SMELL OF LOCUSTS

It was evening, the sun set, the thermals became weaker, and the smell of dead locusts worse than ever. The ceiling was lower. Only my weariness and the cold increased. The squeak of the birds was getting weaker and more pitiful, and I could not see Parana. At last where the mist looked thickest I picked out the cupola of a cathedral and near that the

white tower of a church. Then I saw a group of white buildings which could only be the air base of Parana. The city itself was not visible, although it lay only 19 miles away. I circled in my last thermal, first with less than a foot rise, then zero, letting myself be displaced by the wind till I calculated I could reach the military aerodrome. To avoid complications about permission to land I touched down in a field alongside and the "glorious Chiesa" came to rest. I landed at 7.5 p.m. having flown for 7 hours 20 minutes, plus the hour and a half aero-tow—that is to say, for 9 hours altogether. I opened up the cabin and with some difficulty clambered on to tierra firma. Then I took the two birds out of the barograph chamber. The poor things could no longer stand up.

## UNBELIEF

A countrywoman came along accompanied by a small girl. I told them something of the flight, but said that what most interested me at the moment was to see whether we could save the birds, and I left them in her care. I anchored the "Bussard" and went on foot to the aerodrome, from whence I rang up the Albatros Club. The Secretary, Estevez, answered. He asked me where I was calling from. In Campana, I answered, and as he could hear very clearly and I sounded quite near he believed me. He began to take notes. "Can the aeroplane take off from the field or must we send the trailer? Are you before or after the town?" I answered that I was a little beyond it (Campana lies about 37 miles from Merlo!). Whereupon Sales took over at the other end and I went on kidding him along about the disappointing flight. I then had quite a job convincing him that I was really in Parana, for he answered soothingly "Yes, I understand—in a field on the bank of the Parana." But suddenly he understood what I meant and in a second the whole Club was around the telephone burling congratulations and insults! Then "the Chief" took over and officially conveyed the ritual congratulations and the joy of all the Albatros.

## THE RECORD

I fixed up the necessary details with the officer of the guard so that



# AUSTRALIAN NEWS

## THE GLIDING CLUB OF VICTORIA

*President:* NORMAN HYDE.  
*Vice-President:* LEO DOWLING.  
*Hon. Secretary:* R. DUCKWORTH.  
*Hon. Treasurer:* J. KELLCHER.

### SUBSCRIPTIONS

*Entrance Fee:* £1. 1s. 0d. (Both ordinary and Flying Members).  
*Ordinary Members:* 5s. a year.  
*Flying Members:* £3. 3s. 0d. a year, plus 10s. a quarter for advanced flying beyond primary or two-seater training.

### FLIGHT CHARGES

*Primary:* winch or car tow, 9d. per launch. Shock cord, no charge.  
*Secondary:* 1s. per launch, up to, and including 5 minutes, after that 5s. per hour.  
*Sailplane:* 1s. 6d. per launch up to, and including, 5 minutes, after that, 7s. 6d. per hour.

The "Kadet" and "Utility" have been classed as secondary machines and the "Grunau" as a sailplane, for the above charges.

### SELECTION OF FLYING MEMBERS

From time to time a new batch of flying trainees is called for from list of Ordinary Members and a limited number is selected according to the position of the training programme. Applicants for flying membership must be at least 17 years of age and if under 21 years must have written consent of parent or guardian. Membership application forms are obtainable from the Honorary Secretary.

### LOCATION OF FLYING GROUNDS

*Mordialloc Gliding Field* is located about 2½ miles east of Mordialloc and is bounded by Governor Road, Springvale Road and the Mordialloc Creek. Take electric train from Flinders Street to Mordialloc Station and proceed along Governor Road.

*Fawkner Gliding Field:* is adjacent to Dowlin's workshop on the North side of Major Road Fawkner. It is reached by electric train from either Flinders or Spencer Street Stations to Fawkner Station. Proceed North along Sydney Road, Major Road being the third road on the right. There is a yellow Dunlop 90 sign on the corner.

*Beveridge Gliding Field:* is situated at Mount Fraser, Beveridge, 25 miles North of Melbourne. It lies between Sydney Road and the Beveridge Railway Station. It may be reached by train from Spencer Street or by road, the turn-off being to the right in a cutting just after passing the 24 mile post on Sydney Road. The Club's Hangar is on the South East side of the hill on Mr. Chas. Smith's property.

*Somerton Flying Ground:* is situated, approximately ½ mile North West of Somerton Railway Station on Mr. T. E. Silvester's property, "Roxburgh Park." Proceed by road along the Hume Highway—North and turn left along the Somerton Greenvale Road (between the 13 and 14 mile posts)—cross railway line and the flying ground is approximately ½ mile further on, on the right.

*Club Maintenance and Construction Work.* Members are expected to co-operate in this matter and details of work in hand may be had by contacting members of the Committee.

### FLYING REPORT

Flying was carried out on 55 days during 1945. Total time in the air being 84 hours 20½ minutes for 1641 launchings being 78 hours 48½ minutes for 1582 launchings in Club machines and 4 hours 32 minutes for 59 flights in private machines flown with the Club.

### BEST FLIGHTS

"Utility". At Geelong on 28/12/45, Mr. Keith Chamberlin made a flight of 11½ minutes, gaining 450 feet above point of release.

"Grunau". *Best Duration.* At Beveridge on 2/9/45, in Force 4, North Wind. Mr. R. Roberts, 2 hours 58 minutes slope soaring.

*Thermal flights:* At Geelong on 28/12/45, Mr. R. Roberts, 56 minutes to 3,200 feet altitude. On 31/12/45, Mr. E. Ehrenberg, 53 minutes to 3,000 feet. On 28/12/45 Mr. H. Bartram 41 minutes to 3,700 feet, this being the best climb of the year—2,750 feet above point of release.

"Kadet".—On 14/10/45 at Beveridge Mr. A. Hardinge made a flight of 1 hour 4 minutes, slope soaring in a Force 6, North Wind.

*Launchings* were made by winches and car-tow as follows during 1945:—

Winch, No. 1a ..	541
" " 2 ..	631
" " 3 ..	331
Car-tow ..	136

Total 1639

(2 launches were made by shock-cord).

*Winch Hire.* On 3/7/45 the Committee decided that approved persons could hire Club winches (supplying their own petrol) at the rate of 6d. per tow.

A total of 17 hours 59 minutes dual instruction was given to trainees and 90 passenger flights were made in the "Merlin" during 1945.

*Training Report.* Special efforts were made during the year to accelerate the training programme. Group No. 2 consisting of 8 trainees was accepted on 29/5/45, and after this group had made considerable progress Group

No. 3 consisting of 5 trainees was started on 20/11/45. The policy of calling for applications for trainees as training facilities permit has proved sound and has resulted in steady progress and satisfaction to the trainees. The training has been under the direction of Mr. R. Duckworth as Instructor and Messrs. N. Hyde and K. Hearn as assistants.

### CRASHERY

Is considered to be reasonably light in view of the amount of flying done. All machines were in airworthy condition at the close of the year.

### WESTERN AUSTRALIA PERTH GLIDING CLUB

*Gliding Display* at the Caversham Air Strip. Sunday, 24/2/46.

There was an attendance of over 2,000 people as a result of an intensive advertising campaign conducted through the local Press, Radio and distribution of 7,500 handbills supplied by business firms in Perth. A public address system was used to describe the flying. The Buick tow car did all the launching, with the assistance of motor-cycles retrieving the tow lines.

Loops, spins and stall turns were turned on by the "Grunau Baby II" piloted by Arthur Farmer, who also made a 56 minute flight to an altitude of 4,500 feet. The "Kestrel" piloted by Ric New had the crowd impressed by spot landings close to where they were gathered.

Approximately £33 was taken during the day.

### CHOURROUT DISTANCE FLIGHT

(Continued from page 18).

the plane could land the next day, and thinking over the excitement in the Club went off to sleep so that I could be back bright and early next morning.

My first visit was to my sailplane, and as I got out of the car the little girl came sadly up with a bird in either hand, saying "Señor, your birds have died". I was about to say "Never mind!" but there was a lump in my throat.

But I suppose what really mattered most to me was that I had beaten the previous Argentine distance record (held by my great friend Roberto Laplace) by a comfortable margin of 100 kilometres, and that I could offer this new record as a Reyes present to the Argentine Albatros Club, alma mater of silent flight in the Latin American continent.



## London Gliding Club

ON Sunday, April 14th, a light North-Easterly wind under a clear sky set people's minds thinking of wind-shadow thermals off the Bowl. In the morning Ruffle had noticed regular gusts about every 10 minutes, and in one of the earliest "Tutor" launches he managed to stay up 3½ minutes by circling near the hill. About 4 p.m. Stephenson made the best thermal flight of the day, catching some weak lift from the Bowl in his "Blue Gull." While circling in this he drifted slowly over the Clubhouse, losing height until just to leeward of it, not more than 180 feet up; whereupon he threw several tight circles and slowly rose again to 400 feet. above Turvey's field. He left the thermal South of the field and glided up-wind, but found nothing more and landed after about 10 minutes in the air. Over the Clubhouse the air was going up in all parts of his circle, but he could only gain height in one part of it. At 6.30 p.m. the writer still found a small area of zero lift over the South-East corner of the Club buildings, equal to the "Tutor's" sink.

On Saturday, April 20th, the only thermal was artificial, due to the two haystacks in the middle of the Club ground catching fire (sabotage is not suspected by the Police). There was slight and variable slope-lift, and Latto reports that the haystack thermal reinforced it to 10 feet per sec. He performed S-turns in the thermal up to 500 feet and then circled to 950 feet with an average lift of 8 feet per sec. He found lift only in the smoke. Ruffle found it too narrow to circle in at low altitudes.

On Easter Sunday, April 21st, there was hill lift to 200 feet and plenty of thermals as well. Cole climbed in the "Tutor" to 4,500 feet, and Bell, who has not flown for 9 years except for a ground-hop, came second with 3,000 feet. So the old hand has not lost its cunning. Needless to say, there was a large turn-out of flying members.

On Easter Monday Cole again took the "Tutor" to 4,500 feet. This machine was not the only one seen in action over the Easter holidays, for Hiscox arrived from Leicester by air on Sunday in his "Gull", and on Monday Stephenson did the same trip in the "Blue Gull".

## THE CAMBRIDGE UNIVERSITY GLIDING CLUB

Flying continues to take place regularly although rather hampered by lack of retrieving cars and other ground equipment. Mr. J. E. Simpson who has recently returned from China is a full time instructor. Private owners and other country members are welcomed.—F. J. CRIPWELL, Hon. Sec. Address: Pembroke College, Cambridge.

## NEWS FROM CANADA

The following is an extract from a letter received by the Editor from A. N. LeCheminant, Sec. Treasurer of the Soaring Association of Canada:

*"We are shockingly busy, but the Soaring Association of Canada is making steady forward progress. Our Department of Transport, who control Civil Aviation, have tentatively agreed to pass over practically all the control of gliding activities to this Association, including licensing of pilots and the registration and airworthiness of gliders used in sporting activities."*

## 'Grunau Baby II' in Kit Form

The firm of WILMOT, MANSOUR & Co., LTD., of No. 2 Site, R.A.F. Station, Beaulieu, Hants., has recently decided to undertake the manufacture of an intermediate type of Sailplane. They have chosen the "Grunau IIB", a very popular and well-tried type, as a basis for their first model and are at present in the process of anglicising it and re-stressing it to our own standards. This preliminary work will be completed shortly and the firm hopes to be able to produce a useful quantity of Sailplanes by the end of the year.

In addition to the production of complete Sailplanes the firm proposes to offer the same aircraft in kit form, a complete set of parts with drawings and assembly instructions. Though the kit is primarily intended for the export market it is thought that many Clubs and individuals in this country will wish to take advantage of the scheme to obtain a really good Sailplane at a very low price. Another useful aspect is that the building up of the kit into a complete aircraft will provide excellent technical training particularly for the younger members of Clubs and other organisations.

This firm has been engaged on development work for the Ministry of Aircraft Production and Ministry of Supply for the past 18 months in the field of winged targets and target-towing gear. These targets are gliders of up to 32 feet span which are towed behind aircraft at speeds as high as 350 m.p.h. on a long length of steel cable. They are used for both A.A. and fighter attack practice. The firm has also designed a two-seater trainer to a recent M.A.P. specification for a glider for the A.T.C.

Prices for the two forms of the Sailplane have not yet been fixed but if the demand comes up to expectations the completed aircraft will cost £350—£400 and the kit about £150.

## LETTERS TO THE EDITOR

DEAR SIR,

Regarding the article on the Sydney Soaring Club in your April Number I notice on Page 17 under "Turn and Bank required" that the author says "We need a sensitive electric turn indicator, using very little current so that its sensitivity does not fall too rapidly unless an unreasonably large set of dry batteries is carried; such as used to be advertised by a German firm."

We thought it only fair to point out to you that British manufacturers produce an instrument to the exact specification laid down in the article as per our advertisement on the back page of your Journal, which has now been appearing for some months, i.e., Turn and Bank Indicator, 9v., electrical, operated by dry cell batteries.

Yours sincerely,

R. HARVEY JONES.

K.D.G. Instruments Ltd.

The Rowans, Pine Glade,  
Farnborough, Kent.

11th April, 1946.

DEAR SIR,

I think Mr. Furlong is a little unkind in excluding from intelligent discussion on training methods anyone who has not had experience of A.T.C. gliding during the war. It might be said on the contrary that those who have shared in the fine achievement of teaching great numbers of boys to do high hops, for which no doubt the methods developed by the Corps are the most efficient, find it difficult to re-focus on the rather different problem of introducing a comparatively small number of recruits to the sport of soaring.

The "high hop" or 'A' Certificate stage of solo training marks the pupil's ability to fly straight and, incongruously but necessarily combined therewith, to make a safe landing. Under dual instruction the pupil learns to fly straight and level in the first few minutes of free flight, and landing comes with the practice obtained during further training in turning, stalling, etc., before he goes solo.

Mr. Furlong advocates dual instruction for initial air experience and after the 'A' Certificate stage. I am aware that there are many arguments in favour of solo training, but is not the special provision of solo training for high hops making a virtue out of what has now, with the arrival of good two-seater trainers, ceased to be a necessity?

Yours sincerely,

R. E. PEARS.



## The Portsmouth Gliding Club

THE club members have been very busy since the revival of this old established club and flying has been carried out on every available opportunity.

A few months ago, the exact date escapes us, two days of aero-towing were "laid on". Using the "Grunau" and "Scud III" and a "Tiger Moth" tug, Sanderson, Clear, Fripp and an American visitor had a number of tows and all reached altitudes of between 4,000 and 5,000 feet. Apart from Ron Clear who has been testing "Horsas" during the war, it was the first aero-towing by the other pilots and they gained much useful experience. The wind was very strong and above 3,000 feet an airspeed of 50 to 55 m.p.h. was needed to make any progress up wind.

### SUNDAY, JANUARY 6th.

The "Scuds II" and "III" were taken to Portsdown Hill and Costin and Clear were launched from the top by bungy.

The sight of two sailplanes flying high along the hills brought droves of spectators, who became a bit difficult to control at times. The two machines were still in the air when Ruck arrived with his "Kirby Kite" about mid-day, and shortly after Clear and Costin landed on top beside the trailers. Flying time two hours.

By the time the "Kite" had been rigged the wind had dropped somewhat and Ruck was unable to maintain height and landed down below.

After lunch Clear was launched in the "Scud II" to test the conditions, but the lift was still insufficient and after a short flight he managed to pull off a landing on the road running along the top of the hill.

Since then a considerable amount of slope soaring has been put in on our various sites, but no details are available.

A four day meeting was arranged for Easter which proved successful.

### GOOD FRIDAY, APRIL 19th.

Owing to a variable wind a start was made at the Airport, auto-towing with our newly acquired Buick. Heights averaged around the 650 mark, and although clouds were seen forming inland there wasn't a scrap of thermal activity in our vicinity.

### SATURDAY, APRIL 20th.

The day started similarly to Friday until Parslow picked up a thermal at 400 feet on the western side of the airport and by much sweating worked it up to 750 feet. This "C" flight of 11½ minutes was a very fine show,

particularly as the "Scud II" carried no variometer.

Whilst Parslow was still in the air Clear was launched in the "Lancia" and making contact in the same thermal quickly climbed to 2,000 feet. After cruising around for 25 minutes at various heights he caught a beauty and finally disappeared, on the club's first post-war cross-country at a great height. After going downwind for some time he decided, in view of our petrol position, to turn back and made for his home at Purbrook where he arrived with 1,500 feet still in hand. He chose a small field, with tall trees round it, nearest his house, and with the aid of the "Lancia's" massive flaps touched down only half way across the field, fifty-five minutes after take off.

This machine, built by Dunning, the veteran constructor and pilot, has been recently completed and this flight was the first time it has been soared. It is a cabin machine possessing clean, straight forward lines, a great weight and a performance better than the most optimistic of us thought possible. Its stability and general handling are of a very high order and with this flight it has proved itself in no uncertain manner.

The "Scud II" and "Kite" were circuted for the rest of the day but no further thermal activity was encountered.

### SUNDAY, APRIL 21st.

As the wind had freshened and gone round to North the machines were taken to our North site at Kithurst Hill, and Clear in "Scud III," Ruck in the "Kite" and Parslow in the "Scud II" were hurled off in quick succession.

The "Scud III" quickly left the hill lift and disappeared, a minute speck, going westward along a cloud street. From then on Clear reported that "with the speed right off the clock the green ball was trying hard to get out of the top of the tube." After an hour he was seen about six miles up wind, having been on a circular tour. His maximum height was 4,500 feet just below cloud base and not having dressed for altitude he suffered from the intense cold.

Ruck enjoyed himself for 1 hour 5 minutes and managed 1,600 feet in cloud lift.

Costin and Clear later flew in formation to try and make cloud contact but the clouds had begun to dissipate and 900 feet seemed to be the limit. Total flying time 4½ hours.

### MONDAY, APRIL 22nd.

Conditions looked even more promising than yesterday and "Kirby Kite", "Scud II," "Lancia" and "Scud III" were rigged once more on Kithurst Hill. As the machines

were being given a final check over the wind began to drop and Clear in the "Scud III" was given a sticky launch in a lull and sank below the hill top. After a struggle he climbed laboriously to 700 feet, making several excursions out from the hill, but yesterday's fine performance couldn't be repeated and he landed back on top after 20 minutes. It was decided to wait for the wind which Air Met. kept promising us, but we finally derigged in the evening with the wind howling down the hill in complete defiance of the weather experts.

We are now looking forward to our Whitsun meeting when our ranks will be swelled by an "H 17" and a "Viking".

The club is in the enviable position of having soaring sites for every wind direction. Portsdown Hill is used for South winds, Kithurst Hill which lies to the South of Storrington is our North wind slope with a beat of six miles, while Old Winchester Hill provides soaring slopes facing E, NW, W and SW. Good roads run to the top of all our sites which is a blessing in these days of tyre scarcity. An auto-towing run of almost a mile in length exists at Old Winchester Hill and it is easily possible to reach any of the site's slopes from a launch of 600 feet.

We have entered into an agreement with the Southdown Country Club, a comfortable licenced road-house on the Portsmouth-Petersfield road and all the usual club facilities will be provided and our social activities will be carried on there.

The club's headquarters consisting of a large, well equipped workshop, stores and office are situated at 28a, London Road, Purbrook, Hants., to which all inquiries should be sent. Private owners in particular who wish to visit us are assured of a warm welcome and full co-operation.

The building programme at the moment consists of a dual control two-seater, for instruction work, which is nearly completed, the "Kassel 20" which is being spring cleaned and a "Kite" that requires a bit of work done on its rear end. Peter Davis is constructing a "Primary", Dick Bray has a complete set of parts for a "Kestrel" and Ken Fripp is turning out a "Grunau Baby" with a few modifications added.

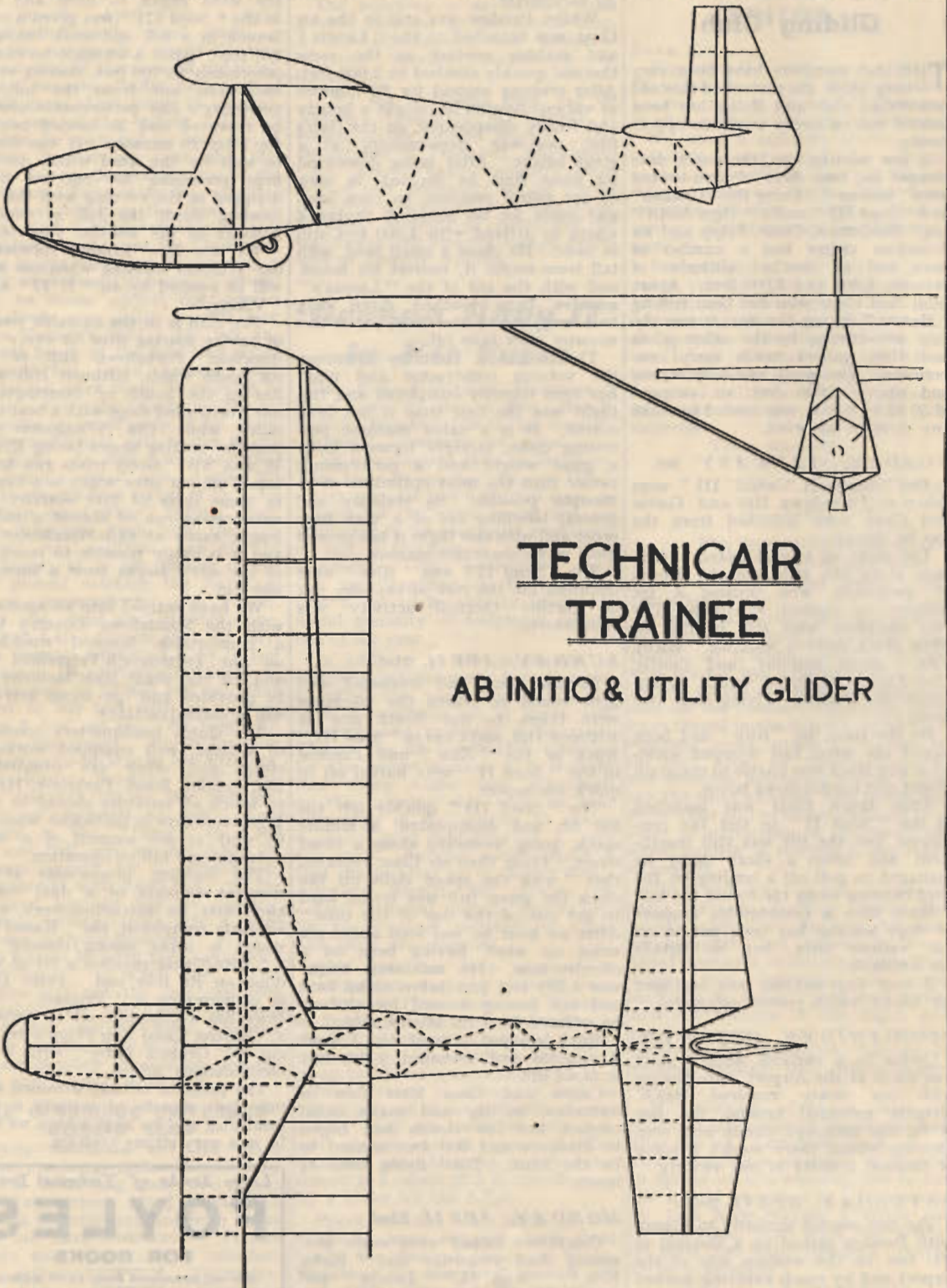
The progress already attained after only four months of activity is very gratifying and by next season we shall be in a very strong position.

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# THE TECHNICAIR "TRAINEE"

## Ab Initio and Utility Glider

THIS Utility glider is designed to provide a post-war preliminary trainer which may be used for *ab initio* and elementary soaring training. Particular attention is being paid in the design to produce an aircraft that will be simple to construct and maintain.

It is anticipated that the "Trainee" will be built by amateur constructors and clubs, therefore all structural members are being kept as simple as possible. There are no machined components and welding is being kept to a minimum. In order to simplify construction many of the metal fittings are similar.

Standard construction is to be of wood, but an alternative steel tube fuselage will be available in order to minimise difficulties due to shortage of material. In this case the covering will be of fabric in place of plywood.

A landing wheel is placed aft of the C.G. and main bulkhead in order to lessen landing shocks and skid wear and tear.

Constructional drawings available for sale, and the prototype should be flying in the summer. As and when materials are available constructional kits of materials and components will be marketed.

Span ..	38' 0"
Length ..	21' 6"
Chord of Wing ..	5' 0"
Area of Wing ..	180 sq. ft.
Aspect Ratio ..	8
Wing Loading ..	2.42 lb. sq. ft.
Stalling Speed ..	24.5 m.p.h.
Min. Sinking Speed	3.15 f.p.s.

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### Gliding Club

APRIL has been a fairly good month both from a flying aspect and from the point of view of Club-house repairs. Four Manchester members complete with travelling workshop, spent a busy Sunday fitting an underground electric supply to the new kitchens and working parties are gradually getting the dining room and large dormitory fit for habitation. The House Secretary Stan Armstrong, is kept very busy painting and renovating and fitting people up with sleeping and feeding accommodation, but this has not prevented him from getting in some fine soaring, including his "Silver C" height (on the third attempt in one day) and a very fine 5 hours 5 minutes "Silver C" duration, under very difficult conditions.

The demand on our fleet of four machines is very great and from nine flying days, a total flying time of 53 hours 43 minutes resulted.

Sunday, April 7th, was the outstanding day of the month when we had the wave phenomena reported elsewhere in this issue. Members who enjoyed this gift from the Gods were: C. W. Verity (5,100 feet); B. Thomas, (4,400 feet); Jerry Smith (4,300 feet); E. H. Taylor (2,800 feet); Zita Paddon—our star lady flyer—(2,800 feet), and Stan Armstrong who made three flights above 4,000 feet finally qualifying for his "Silver C" height with 4,400 feet recorded by barograph, which eventually decided to ink.

Many members spent Easter Weekend at the Club and the following Certificates were obtained: John Radford "A"; Colvin "B" and "C"; Murray "C". The younger members Jefferson, Bond, Roger Dickson, Twigg and Dale, who had previously got their "C's" piled up useful time in the "Cadet".

Sunday the 21st was cold with a blustery NW wind. Nevertheless Stan Armstrong dressed for a Polar Expedition, set out to do 5 hours in the "G.B." He was successful only by magnificent flying. Several times the lift disappeared and he was hill scraping. At others he was 1,500 feet up but complained of extreme roughness. In the evening the wind died considerably and the lift improved (probably evening thermal) and we had Stanley Dickson (father) and Roger Dickson (son) competing for height in "G.B." and "Cadet" respectively.

Our Kite was sent to the Aero-towing Meeting at Leicester and different parties went there each day. 14 members took 22 Aero-tows totalling 9 hours 55 minutes flying time, Duncan Swale and Shepherd topping 4,500 feet.

## SOARING IN THE SWISS ALPS

(Continued from page 16).

The electric winch was evolved, power being plentiful in this land of mountain torrents. All retrieving was done by hand. Even with gliders on wheels and spot landings at the launching point, the cable had still to be laid out by stooge-power. We are assured that after 50 launches the members went home weary. In a later article the writer proposes to detail the costs, but space being short we must limit this article now to an invitation to those readers who feel interested in a visit to Switzerland to write to the Editor.

For the fine photographs the writer is indebted to Thedi (pronounced Teddy) Heimgartner, of whom more anon.

(The cost for 14 days inclusive of flying fees and transport will be not less than £50. When we know what the reactions are, a scheme will be prepared to suit those concerned and the early comers will get the first places).

J.C.R.

## ANNOUNCEMENTS

The London Gliding Club, Dunstable, invites applications for position of full time Instructor Manager. Salary £500 p.a. Write, giving full particulars of experience to Secretary, 6, Rowland Gardens, London, S.W.7

### FOR SALE

H. 17 SAILPLANE. Full C. of A. Some Instruments. All enquiries to "Sailplane and Glider."

### B.G.A. GLIDING BADGES.

A supply of B.G.A. blue enamel lapel badges is now available. The cost is: "A" 2/6, "B" 3/6, "C" 5/-. They may be obtained either direct from the British Gliding Association (quoting the Royal Aero Club Certificate number). 1/- is allowed for each "A" and "B" blue enamel badge returned in good condition. Metal "A" badges (2/- war-time issue) are not returnable. The address of the British Gliding Association is 119, Piccadilly, London, W.1.

### AEROMODELLING SUPPLEMENT

Owing to the overbearing pressure of space, and the lack of paper, we regret we have had to hold over R. H. Warring's Aeromodelling Supplement, but it is hoped to continue it next month. —EDITOR.



## CLUB ANNOUNCEMENTS

### NEWCASTLE GLIDING CLUB, Ltd.



(founded Feb. 1930)

Applications for Membership now invited in Reorganised Post War Club.

Special Registration Fee 6/-

Ensures Membership when activities restart.

Further Particulars apply

HON. SEC., 25, HOLME AVENUE, NEWCASTLE 6

### THE MIDLAND GLIDING CLUB LIMITED

The Long Mynd, Church Stretton, Shropshire. Telephone: Linley 36.

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

### DERBYSHIRE & LANCASHIRE GLIDING CLUB,

#### GREAT HUCKLOW, TIDESWELL, DERBYSHIRE

The Club is now able to undertake *ab-initio* training conversion for service pilots. Full soaring facilities in club sailplanes on the famous Derbyshire Ridge.

Entrance fee, £2. 2s. 0d.; subscription, £4. 4s. 0d.; Associate Members, £1. 1s. 0d.

Full particulars from The Secretary, 87, Fargate, Sheffield 1.

### THE SURREY GLIDING CLUB

The Surrey Gliding Club intends to open with limited facilities on August 5th in the Redhill area.

To begin with, the only machine for club use will be a fully-equipped "Kite II," which will be restricted to qualified pilots for Silver "C" attempts. When not required by such pilots it will be available to Silver "C" members.

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.

### FFOREST FAWR SOARING

Everything from first lessons to high-performance soaring at our superb soaring site, Graig Fawr, Glamorgan-shire (near Ammanford).

Dual instruction by full-time qualified flying instructor; full range of Slingsby sailplanes; soaring holidays a speciality.

Address for enquiries: 6, Pine Glade, Farnborough, Kent.

## ROYAL AERO CLUB GLIDING CERTIFICATES

### "B" CERTIFICATES—12

No.	Name.	A.T.C. School or Gliding Club.	Date.
997	Harold Paris .. .. .	N.E. 22 G.S. Kirbymoorside ..	26. 3.44
2026	John Bryan Jefferson .. .. .	Derbys. & Lincs. G.C. Camphill ..	10. 3.46
3854	Colin Beaumont Golding .. .. .	S.E. 161 E.G.S. Shoreham ..	17.11.45
3950	Peter Swain .. .. .	M. 48 E.G.S., Castle Bromwich ..	31. 3.46
4089	John Venner Garnett .. .. .	E. 108 E.G.S., Desborough ..	17. 3.46
4366	Raymond Criswick Evans .. .. .	N.W. 190 E.G.S., Cranage ..	24. 2.46
4388	Thomas Bartley Hughes .. .. .	Cambridge University G.C. ..	17. 3.46
4396	Edward Neville Wilkinson .. .. .	Cambridge University G.C. ..	20. 3.46
4454	Eric Hugh Clemence .. .. .	Air Division G.C. ..	30. 9.45
4465	Gordon Allick Hookings .. .. .	Cambridge University G.C. ..	20. 3.46
4471	Frank Henry Roberts .. .. .	No. 2 Group, R.A.F., Germany ..	5.10.45
4485	Denis Michael Evans .. .. .	C. 124 E.G.S., Aldenham ..	7. 4.46

### "C" CERTIFICATES—8

997	Harold Paris .. .. .	N.E. 22 G.S., Kirbymoorside ..	24. 3.46
1736	Frederick Breeze .. .. .	Derbys & Lincs. G.C. ..	24. 3.46
2026	John Bryan Jefferson .. .. .	Derbys. & Lincs. G.C. ..	24. 3.46
3117	Laurence Frederic Ivim .. .. .	Midland Gliding Club ..	23. 3.46
4454	Eric Hugh Clemence .. .. .	Air Division G.C. ..	24.10.45
4471	Frank Henry Roberts .. .. .	N. 2 Group R.A.F., Germany ..	25.10.45

### 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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### EDITORIAL—(Continued from page 2).

I am putting the onus on the clubs, because they are the interested parties and the proper ones to initiate action. Only they can encourage the competition which will bring prices down and the new designs which will improve the breed. They should show independent judgment in buying machines, and they should consider whether amateur construction should be revived and fostered. Above all, they should so form and inform their representative body as to make clear that its function is to represent, protect, and assist—and to keep on doing it.

### THE BRISTOL GLIDING CLUB PTY. LTD.

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A General Meeting will be held in the near future. Meanwhile a new Register and Mailing List is being prepared, and prospective members are invited to write to the Hon. Secretary of the Organising Committee at the address below, mentioning any previous flying or gliding experience.

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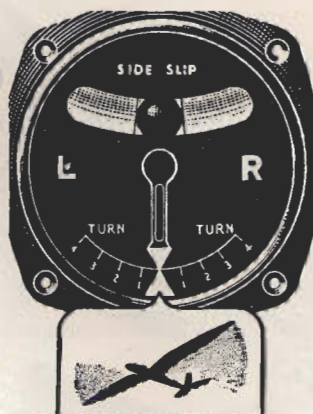
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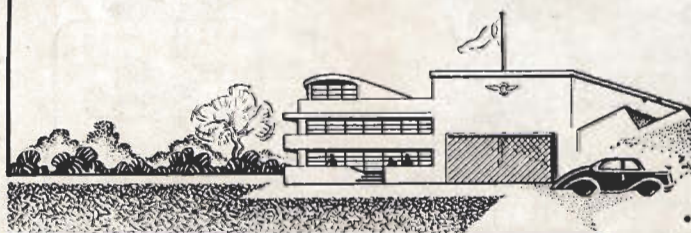
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