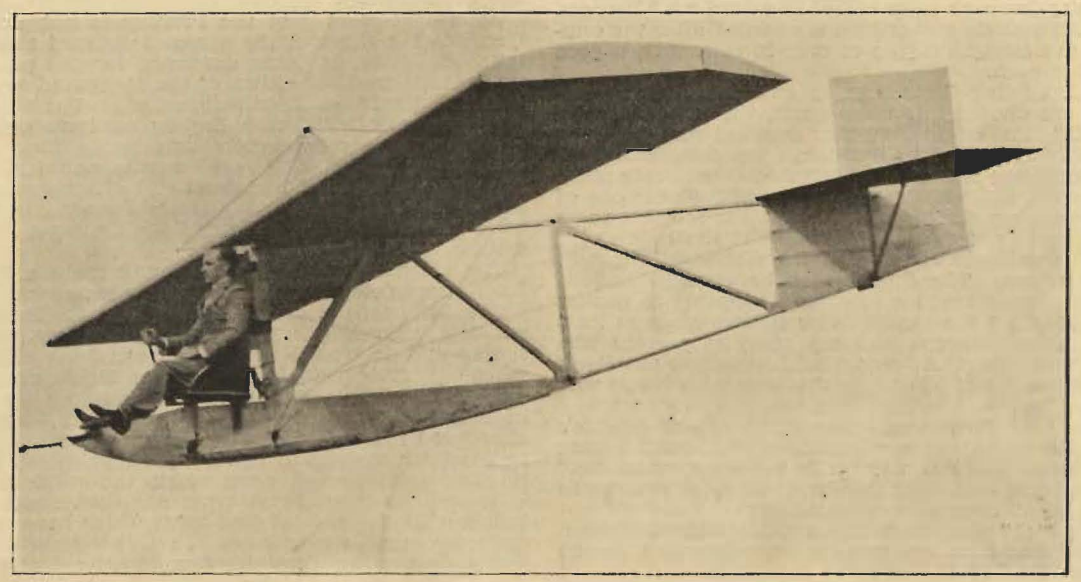
John Anderson Leslie

Nov. 7, 1930. Vol. 1. No. 10.

THE SAILPLANE AND GLIDER

Price 3d.

A PRIMARY TRAINING TYPE.



A WAY OF RAISING MONEY.

Perhaps the outstanding feature of the Gliding Movement, and especially with reference to the Clubs themselves, is the way which it has forged ahead and acquired machines with practically no money. One of the great features of enthusiasm is that it will force a way through the most difficult conditions and that without the aid of what is generally considered necessary to achievement.

But there comes a time when the need for money becomes imperative. That time has arrived and the Movement is faced with the absolute necessity of getting more funds. These funds are required for an extension of activities and not merely their continuation. Careful budgetting has made possible the routine work of the Movement.

When suggestions are made to *The British Gliding Association* as to ways in which their increased activities could greatly further the cause they reply that lack of funds makes such action impossible and there is justification for such reply.

Now supposing The Association, which after all is the mouthpiece of the Clubs and their executive in matters of national import, was to draw up a scheme, or rather schemes, for the increase of its activities. With such schemes a budget must be got out to show how much money such schemes will cost. If the Clubs through their representatives confirm that such activities are wanted then the Clubs can make them themselves responsible for each raising a share of the total amount required.

How this share is raised is a matter for the Clubs. Some will do it one way and some another, some by giving a dance and others by raffling a glider. The great point is that the beneficiaries will provide a share of the expenses.

The money must not be raised by increasing the affiliation fees or capitation fees or whatever they may be called. These fees have been arranged to provide the regular income for routine work. What are now needed are funds for increased activities and we have no doubt that if the Clubs approve of such activities they will provide the funds.

"Titanine" Glider Dopes

TRANSPARENT & COLOURS, FOR FABRIC OR PLYWOOD

CABLES:— "TETRAFREE," LONDON.
CODES:— A. B. C. 5th EDITION & BENTLEYS.

Manufacturers and Sole Proprietors
TITANINE-EMAILLITE LTD
HEAD OFFICE:—
Empire House, 175, Piccadilly, London, W.1

WORKS:— HENDON - LONDON, N.W.
and also at:
NEW JERSEY - - - U.S.A.
MILAN - - - - - ITALY
BREMEN - - - GERMANY

THE THREE CERTIFICATES.

Although the majority of people in the Gliding Movement know all about the Gliding Certificates, there are quite a number of new readers who are not so well-informed. There is no question of a Gliding Certificate being a "Licence," as at the moment the Movement appears to come under no Act and therefore anybody can fly any sort of glider.

In America the position is different and one cannot fly a glider without a licence, for which one has to pass certain tests.

The Certificates which are issued over here by the Royal Aero Club on the recommendation of *The British Gliding Association*, are those approved by the Fédération Aéronautique Internationale, which controls all international questions dealing with the sporting side of Aviation and also homologates the World's Records.

These F.A.I. Gliding Certificates are based on the German practice and in this connection it is interesting to note that the Germans have ceased to award "A" licences. A badge with a single gull or bird is awarded after the completion of five straight flights of over 30 secs. with a good landing after each.

The F.A.I. Gliding Certificates as awarded by the Royal Aero Club are divided into three parts, the "A," the "B," and the "C." The original number awarded with the "A" is the number of the "C" Certificate when obtained. Thus although there are only five "C" R.Ae.C. Certificate pilots in the Country, Col. The Master of Sempill, who is one of these sailflyers, has Certificate No. 9. At the moment there are something like 40 "A" licence pilots in the country.

The "A" Certificate is awarded for a straight flight of 30 secs.' duration. The flight must be straight and be followed by a good landing. Before attempting to qualify for Certificate "A" the candidate must have made at least 12 glides. This, however, does not apply to persons who hold the Air Ministry "A" and "B" Licences or to officers and non-commissioned officers in the Royal Air Force who are qualified pilots.

Certificate "B" is granted for a flight of one minute's duration followed by a normal landing. The pilot during this flight must make two turns in the form of an "S." Before attempting this flight the candidate must have made two flights of at least 45 secs.' duration.

To gain a "C" Certificate the candidate must make a flight of not less than five minutes' duration at a height greater than that of the point of departure.

Candidates must be alone in the glider for each test. Tests for the three Certificates are to be made consecutively. The fee payable for each Certificate is 5s.

The British Gliding Association have made a rule that Gliding Certificates can only be obtained on machines with B.G.A. or Air Ministry Certificates of Airworthiness.

THE THREE TYPES OF GLIDERS.

Somebody writing to The Sailplane has suggested that the three classes of glider should be known as Lawn-loppers, Tree-toppers and Heaven-hoppers. These, though lacking in dignity, do have the advantage of providing the unitiated with some idea of what all this gliding business is about, but these names have not caught on so we will try to explain the meanings of the names generally in use.

Before we go any further we had better state that the approved distinction between a glider and a sailplane is that all sailplanes are gliders, but any glider which has a sinking-speed of less than .8 metres per second (2.63 ft. per sec.) is a sailplane. This sinking speed depends on the gliding angle of the machine or its ratio of lift to drag and its forward speed. Thus it is possible for a fast high-efficiency type like the *Wien* with a very flat gliding angle (or high ratio of lift to drag) to sink more slowly than a machine with a very slow forward speed.

The primary training type of Zogling, which is the German word for "pupil," has been evolved as a machine which is primarily safe. It is stable in the air and if left to itself, with controls centralised, will parachute to earth on a level keel. This type has also been developed for cheapness and ease of repair for obvious reasons. The pupil sits out in the wind so that the Instructor can follow his every movement and so that in a crash the pupil is thrown clear.

The intermediate type or "Prufling," as it is generally called from the German name for a "proving" machine, is for novices to gain soaring practice and is used for getting "B" and "C" Certificates. Sailplanes have such a flat angle of glide that the novice would never be able to land one satisfactorily.

As a matter of fact the Prufling is not now used in Germany for either of the purposes outlined above. A new type, the Falke, is being developed for the purpose. The types there used are either of the Hangwind type like the Hols der Teufel or Leichtwindseglers. The first type are machines essentially like a Zogling, but have their drag reduced, with a consequently improved gliding angle and therefore slower sinking speed by the addition of a small streamline nacelle. The lateral and directional control are also improved. These are purposely made not too strong on a Zogling so that the pupil shall not get himself into trouble.

The Leichtwindseglers are also built round a Zogling, but have a complete fuselage of fabric over formers.

The third type is often referred to as the Professor type, which is misleading . The Professor is a very nice machine indeed and is typical of the German high efficiency fast machine. It is suitable for distance flights across country and cloud-sailing. But it is not necessarily the only type of sailplane. It is possible to have a very lightly-loaded slow-speed machine with large control surfaces that would be ideal for soaring in light winds and would, because of its slow sinking speed, come within the sailplane class.

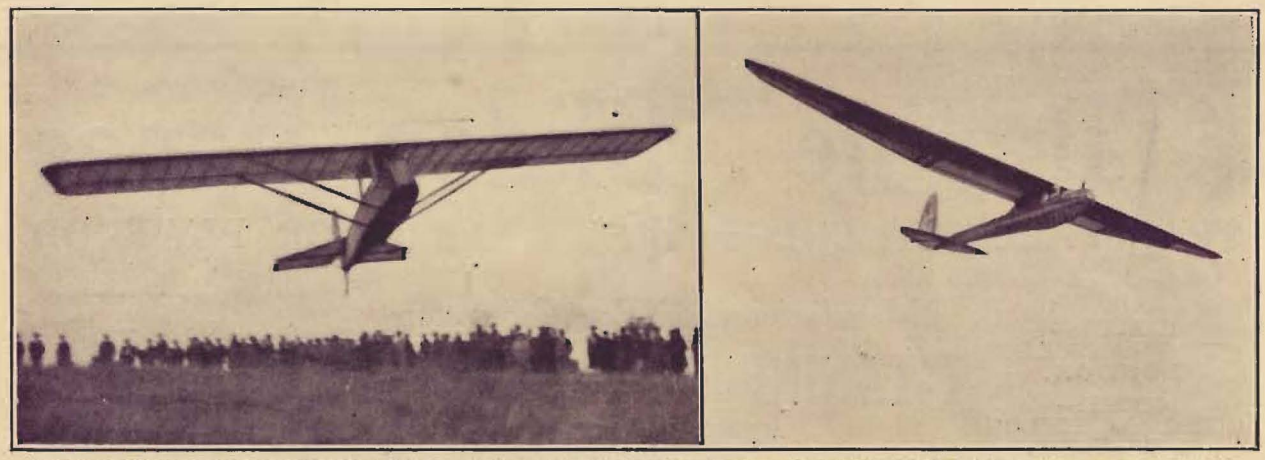
As well as these three types are double-seat machines, tailless varieties and tail-first types which have yet to make their appearance over here. In this connection it is as well to remember that the famous Pterodactyl made its first appearance as a glider.

THE PROFITS FROM DITCHLING.

About £80 was taken at Ditchling and of this nearly £40 is net profit. This will be divided among the competing Clubs after a certain proportion has been paid to the B.G.A. The expenses for the Meeting were guaranteed by the Southdown Club, who are thus absolved from any further financial burden.

AN APOLOGY.

We wish to apologise to Mlle. Susi Lippens for having said she was disappointed with the Ditchling site. What we meant to convey was that she was disappointed to find that the wind was not blowing in the direction which made soaring possible. If she had gone to Folkestone soaring should have been possible in that wind. Naturally as a guest Mlle. Lippens would have been the last person to hurt her host's feeling by saying she wished she had gone elsewhere.



INTERMEDIATE AND SAILPLANE.—The left-hand picture shows Herr Kronfeld taking off in Mr. Lander's Prufling at Ditchling. On the right can be seen the Kassel "Elida" soaring at the Wasserkuppe.

AN IMPORTANT SERIES OF LECTURES.

We make no excuse for printing in this portion of the paper a list of the Lectures which have been organised by the London Gliding Club. They are all on subjects of extreme interest to members of the Gliding Movement, and they are being given by people who are acknowledged authorities in their own particular subject. We recommend all our readers to attend.

Wednesday, Nov. 19, "The Theory of Flight," by Captain F. T. Hill, F.R.Ae.S., M.I.Ae.E., B.Sc.

Wednesday, Dec. 17, "Soaring Bird Flight," by Sir Gilbert Walker, F.R.A., F.R.A.S., M.A.

Wednesday, Jan. 7, 1931, "Early Aviation," by E. C. Gordon England, Esq., A.F.R.Ae.S., M.I.M.T.

Wednesday, Jan. 28, "Glider Construction," by C. H. Lowe-Wylde, Esq., A.R.Ae.S.

All the above lectures will begin at 6.30 p.m., in the Library of the Royal Aeronautical Society, 7, Albemarle Street, W.1. As far as accommodation permits, members of all clubs affiliated to *The British Gliding Association* will be welcome. No tickets will be issued.

MR. LANDER'S PRIVATE SOARING SITE.

In an endeavour to help the private-owner aspect of the Gliding Movement THE SAILPLANE for Oct. 24 contained a picture and account of a private soaring site which Mr. Landar was anxious to acquire.

This site, of some 150 acres, can be acquired for a yearly rental of about £100, and part of it could be sub-let for agricultural pursuits such as would not interfere with gliding. Mr. Lander has already got together the nucleus of a small group, but has room for one or two more.

The idea is not to form a separate Club but to form a group of existing Club members, who will thereby obtain the advantages of advanced tuition on a suitable site. This arrangement will also have the advantage of offering a practice ground for competition work. Mr. Lander's Prufling will be available for practice by the members of the group. His address is Mr. T. E. Lander, 114, Baker Street. W.1.

Some members of the Bedford Club recently visited the site, and one of them made the following remarks:—

We visited the gliding site near Streatley, yesterday morning, having had some difficulty in finding the place, due to the extraordinary storm we encountered in the district, which almost blotted out everything. However, when the storm cleared we finally discovered the field, wherein you have the stakes for the launching tackle.

What a wonderful site! We congratulate you on having discovered a miniature Wasserkuppe of England.

THE LATEST BRITISH SAILPLANE.

THE SAILPLANE learns that Mr. H. J. Penrose, who will be remembered in connection with demonstrations of the Westland "Widgeon" at flying meetings during the past few years, is now engaged upon the construction of a sailplane of his own design.

The new machine, which it is hoped to flight-test early in the new year, is a high-efficiency, high-wing, strut-braced, semi-cantilever affair of comparatively small dimensions.

The preliminary figures are:—

Span: 42 ft.
Length: 19 ft. 6 in.
Chord: 3 ft. 6 in.
Sinking Speed: 2 ft. per second.
Gliding Angle: 1 in 20.
Weight: 350 lbs. (including pilot).

THE CHARGE OF THE GLIDE BRIGADE.

WITH APOLOGIES.

Currents to right of him!
Currents to left of him!
Down from the top of the hill
Glid the Club Glider!

Shot from its trolley,—
Zoom! ! Mid a volley,
Of shouts of applause
(or cautionary roars),
On came the glider.

"Pilot, the rudder-bar!"
"Look where you jolly well are."
"Yours not to follow a star,"
As into the meadow afar
Glode on the Glider.

Landed with gentle swish,
Like some fair flying fish.
Then down the grassy glade
Charged the stout rope brigade,
With our four-wheeler.

Then up they charge again.
Bearing the Zogleplane,
All ready to zog again.
Long live our glider!

—MARGARET CHATTERTON.

HENLEY'S
A. B. C.
OF
Gliding and Sailflying
9/6
FROM THE :—
AEROPLANE BOOK DEPT.,
Cannon House, Pilgrim Street, E.C.4

THE SOUTHDOWNS
The Mecca of English Gliding Enthusiasts. With Brighton as a most attractive centre.
Special accommodation and terms accorded to Gliding Visitors at the
NEW YORKE HOTEL, Ltd.,
BEDFORD SQUARE,
the Governing Director of which is an old "flying wallah" and founder of a gliding club.
Terms on application. 'Phone and 'Grams: Hove 5116

E. T. W. ADDYMAN,
THE WHITE HOUSE, STARBECK, HARROGATE,
is prepared to help those constructing Gliders, Sailplanes and Aircraft, by consultation, designs, making of parts and supply of materials. He is of the opinion that charges must be reasonable if gliding and soaring is to be popular.

For an
"A," "B," or "C"
Use a
B.A.C.
The British Aircraft Co.,
LOWER STONE STREET.
MAIDSTONE.
General Manager:
C. H. LOWE WYLDE.

CORRESPONDENCE.

Towed-Tuition at Yeovil.

Sir,—On Saturday, Nov. 1, the Oxford Club's towing scheme was carried out with our R.F.D. and proved altogether successful.

We had at the meeting (at Yeovil) many *ab initios* who had made some dozens of 6-second hops. Members had read of the Oxford idea in THE SAILPLANE and were keen to test it, so a rope was purchased and a car was borrowed—this being advisable!

Playing for safety our 200-lbs. member first tried. Although the wind sock at the aerodrome was hanging vertical we managed at 28 m.p.h. to get the machine into the air with this pilot, who reported "easy."

Lighter and less experienced members were tried, and many were able to rise three or four feet. The conclusions drawn from these short experiments were:—

(a) That although the machine made many landings and take-offs in the course of a flight these were so light that no damage could ensue.

(b) Ample time is given to study the effects of one's activities.

(c) Most important, rudder control is taught to an extent impossible in short shock-cord launches.

We consider that when a pupil has gained lateral control by the shock-cord method he should have a sufficient number of towed flights to enable him to master rudder control. Unless he has lateral control, towed flight is liable to damage wing tips.

Unfortunately, the aerodrome we used has not been "Hunterised"—and if the Oxford Club can tell us how to repair car springs quickly we shall be obliged!

The effect of these "long" flights is very stimulating; so much so that when one of our absent-minded pupils finished one of them he asked if he had reached Lympne or Stag Lane.

(Signed) NORMAN W. WRIGHT
(Chairman, Dorset Gliding Club).

A Word for the Ditchling Meeting.

Sir,—May we add our humble endorsement of Mr. Manton's views upon the necessity for immediate action by the appropriate body for the taking of steps to secure conditional use of the few really good sites available. The necessity for controlling crowds at meetings, too, is accepted as a *sine qua non*. But as Mr. Manton is raising these points in criticism, in particular, of the Ditchling Meeting just held, it is felt that the other side of the case should be stated.

The meeting was arranged in the brief space of a few days only at the Ditchling site, and by purely voluntary and hard work of the Local Club, on behalf of the very body of which Mr. Manton is, we understand, not only a member, but a director, inasmuch as he is a member of the Council. It is not generally known that the Local Club were discouraged in spending anything at all in connection with the organisation of the meeting, and that they actually undertook to guarantee such expenses as they had to incur in so doing.

The meeting was finally held as the result of unceasing hard work by some four or five volunteer workers, and the ground organisation for the "gate" and officials, such as it may have been, must be regarded as local hospitality pure and simple. One thing is definite, the local volunteers were NOT responsible for the ground organisation for the competition events,—that was the business of the Body of whom Mr. Manton is a member! Neither were they responsible for the fact that the winds on the site over the week-end were distinctly "light" as compared with even the average strength of wind blowing there.

We have no less an authority than Herr Kronfeld himself for stating that a site like Ditchling, comprising (1) Gliding, (2) Intermediary, (3) Soaring, (4) Power-craft landing, areas, as it does, has not been seen elsewhere. This, too, without taking account of the accessibility and availability of the site, which actually comprises five different glider-operating areas.

As to the availability of the Itford site, the writer was witness to a statement by the farmers to the effect that they definitely do NOT desire gliding operations over their land there. It is a very open question whether, but for the hospitality of the Local Club as to the Ditchling site, this, the first and only B.G.A. Inter-Club Meeting yet held, would have taken place at all, during the current year.

It would be interesting, nay, perhaps instructing, to know just in what ways "the whole meeting was most disappointing and quite the worst affair," as Mr. Manton says, that he has ever attended. Competitively and financially it appears to have been a success!

(Signed) METEORITE

Herr Magersuppe Replies to Mr. Bullivant.

Sir,—In reply to your correspondent, Mr. Bullivant, writing in the issue of THE SAILPLANE for the week ending Oct. 31, I would like to say a few words with reference to the case he mentions. I do not know the particular circumstances of the case referred to, but in this connection would like to point out some general facts which apply.

The Zogling is so designed that all controls are purposely small, and therefore operate slowly. This is done in order that the pupil may have plenty of opportunity to consider which direction to go, and again, should he make a mistake, the result will not be so rapid or disastrous as if the controls were more responsive.

At any rate this benefit makes flying for the novice comparatively simple, but on the other hand some difficulty may be found when flying in a strong and bumpy wind, as under these conditions quick response from the controls is necessary, and therefore this type of machine is obviously unsuitable for such weather conditions. In one word a Zogling is, throughout its whole construction, built for an even wind of not more than 15 miles an hour, and with these conditions is found to be ideal. Therefore it is much better when the wind is too strong for this type of machine, for the pupils to retrain themselves from flying rather than run the risk of a smashed machine and broken bones.

Such currents as you have described in your article, as regards obstacles such as a house, or a hedge, etc., is in no way connected with the strength of the wind. When flying over such obstacles and their surrounding eddies one can fly more safely by putting the stick slightly forward, in order to speed up whilst flying through the eddy. You will in this case only feel a small bump and your machine will be under better control owing to the quicker rate of your flight.

Before the Take-Off I would advise that you make a mental plan of your flight, making special note of the intended landing place, and also of any obstacles which may be in the line of your flight, and then follow the directions with regard to the speeding up as above mentioned.

I would mention that throughout my five years of practical flying I have never under normal conditions encountered an eddy so strong that the machine has been diverted from its usual position.

I hope that these few remarks will help you to over-ride the difficulties which you have found, and you may be sure that if I can still further help you on this subject I shall be only too pleased to do so.

(Signed) CARLI MAGERSUPPE
(Flight Instructor, Scarborough Gliding Club).

In Answer to Mr. Bullivant.

Sir,—With reference to the letter "Eddies Again" in THE SAILPLANE, page 72, I think THE SAILPLANE, Sept. 26, page 8, col. 2, line 9, deals with the case.

The wind direction in the ditch of Fig. 3 was found (by handkerchief) to be along the ditch. The wind was not in that case blowing quite square up the hill.

I think that this sort of eddy-formation is confined to ditches or similar cuttings, like a sunk road, but am not too sure. (Signed) KENTIGERN.

A Way Out.

Sir,—I note in your issue of Oct. 21 the remarks with regard to the possible difficulties of licensing multiple-seated machines for the purpose of joy-riding.

I would like to immediately point out to your readers who may meet this difficulty that it was in our case overcome by prospective passengers applying on our usual application forms, for temporary membership in the club, binding themselves thereby to all rules of the club and absolving the club from all responsibility, and the subscription that they paid was indeed a subscription to the club funds.

I send you this information in the hope that it may be of help to any other club who may later adopt this form of income.

(Signed) S. C. HOWARD
(Chairman, The Scarborough Gliding Club).

THE SAILPLANE
IS PUBLISHED EVERY FRIDAY

TRACING THE AIR CURRENTS AT THE BROADWAY GLIDING GROUND.

BY

HORACE C. WRIGHT.

(Instructor to the North Cotswold Gliding Club).

The ideal Gliding Site is often referred to as being of a certain height and shape as well as offering a correct face to whatever wind that blows. The desirable features in regard to height and shape are not available to us in England [we do not subscribe to our contributor's opinions—ED.], and so long as "the wind bloweth where it listeth" so long shall we find that it is usually directed upon some point that does not quite suit the "ideal" site.

Therefore the job which promoters of gliding clubs have to set themselves is to find the site which offers reasonable facilities for primary work within handy distance of headquarters and then tackle the job of finding all that can be found by means of kites, hydrogen balloons and smoke about the behaviour of the wind over the site. The use of kites is particularly recommended.

It is important to discover the behaviour of the wind, not only for one set of conditions, but at varying velocities, and when the wind is blowing from different directions. The flow at every point must be discovered. One must obtain in fact a complete idea of how the air is moving over the whole of the proposed area. Obviously in some places the flow will be uniform and there is therefore no need to explore that particular area minutely.

THE NORTH COTSWOLD GROUND.

In formation the site used by the North Cotswold Gliding Club resembles an oval-shaped dish, two-thirds of a mile in length and a third of a mile broad. None of the slopes give anything like the height prescribed by the dreamer of an "ideal" site. But it is not the slightest use making elaborate calculations involving "effective height" or "gliding angle of machines." The latter in practice seldom, if ever, come up to specification.

The best estimate which could be given by an "expert" who viewed this prospective site was that a glide of not more than 15 secs. could be done on the South-west slope, that is the one which faces the South-west, and that there would be a down-draught on this slope from a ridge which has since been measured to be approximately two-thirds of a mile away.

As I stood on the top of that slope and recalled the glides which used to be done on the 50 h.p. Gnome Avro a few years before the War 1914-18 I felt convinced that it would have to be a pretty bad glider to sink down that slope, in a dead calm, in much less than half a minute. Up till now the best time which I have made from that point is 34½ secs. and I have timed one of my pupils to do 28 secs. in a very slight breeze. This glide was started from a less advantageous position.

Of course there is a down-draught on the lee side of the ridge but the effect of this is only felt within a few hundred yards of the ridge.

Mr. Alan Butler, the President of the Club, has flown various types of de Havilland aeroplanes over this area and his experience as to the points at which variations in atmospheric pressure occur coincide with the results which I have obtained through experiments with kites.

EXPLORING WITH KITES.

With a couple of 40-inch box-kites, flying at about a hundred feet, I traversed up to the ridge from every angle. By pulling the kites down at regular intervals I was able to ascertain more or less accurately the heights at which the up-currents which came over the ridge separated from the boundary layer. This rolled over and clung more or less to the surface of the ground. The boundary layer turned upwards and joined with the up-current which was super-imposed upon it, at a distance of a few hundred yards from the ridge, although the surface of the field sloped away from the ridge.

The kites were then traversed away from the ridge and back towards the slope which faces South-west. The pressure was found to increase as the top of the slope was approached. There is a line of trees at right angles to the slope which mark the boundary of the gliding area at that extremity. With a fair breeze from the South-west there is a strong vertical draught above these trees which should be extremely useful when we get on to soaring machines.

"PUTTING PUPILS AT THEIR FENCES."

During the course of the exploration with the kites, we were favoured with a heavy snow-storm. This was of sufficient duration to enable me to view the eddying and surging of the currents as they travelled up the slopes. In the scene which Nature had obligingly provided, I saw that in the air there is never a moment's pause, that it is always whirling and swirling. I saw that its ceaseless motion and unstable character provide a source of energy which is capable of occupying our wills and our craftsmen if we are to succeed in the task of harnessing it and turning it to our own use.

In the bottom of the dish, at the junction of the South-west slope and the slope which runs down from the ridge to which I have previously referred, is an area of fairly still air. Here a primary training machine sinks at about its maximum sinking-speed but there is no down-draught. This has lent itself to the provision of what I consider to be an ideal state of affairs for beginners. They can start on the slight slope in the calm of the valley. As they become more proficient they progress up the slope, out of the calm air and into the breeze. This breeze increases in velocity and usefulness at a rate which is proportional to the skill of the pilot.

On this slope in one place a small ridge causes a slight down-draught, but I do not regard the difficulty which is encountered here as a drawback. This serves to teach novices that it is not all plain-sailing. When the cause and effect of this phenomenon has been explained to pupils they take an intelligent interest in a state of affairs which they are certain to encounter sooner or later.

I do not aim at taking the line of least resistance and getting "A" Certificates for pilots who have never had to deal with anything but the "winds that blow from the South, sighing so soft and low." I make it a definite part of my system of training "to put pupils at their fences." If possible I arrange for them to takes their Certificates in a good breeze. Hence I have no qualms in offering to pit my team of lady pilots against all comers.

EARLY TROUBLE AMPLY REPAID.

The foregoing describes the results which I obtained before we actually started to use gliders at Broadway, but the knowledge so gained has repaid us manyfold for the trouble which we took in acquiring it. The proof lies in the fact that we have made considerably over a thousand glides with our primary training machine, which is now probably more airworthy than when new.

The few strengthening plates and braces which we have fitted to it to remedy and repair certain minor weaknesses and breakages inseparable from the work of primary training, serve to stiffen it and enable it to resist the playful efforts of my novices to write it off.

Our first few months of operation have proved that we have a good all-round training area within which we can always exercise one or other of the classes of our pupils in various stages of their training, no matter in what direction the wind is blowing. We can do the qualifying tests for an "A" Certificate over a gradient which is approximately that of the gliding angle of our machine and this is as near the ideal as one can get. I think it will also be possible to take "B" Certificates within this area. I do not doubt that "C" tests can also be accomplished.

Our training ground is a part of a range of country which offers, to my mind, unlimited possibilities to the sailflyer; but a description of such possibilities is rather outside the scope of this article, which is intended to illustrate the value of a careful survey of the site selected for tuitional purposes.

YOU CAN ONLY GET IT REGULARLY BY

SUBSCRIPTION

3/- FOR THREE MONTHS. Order from "THE SAILPLANE," 175, PICCADILLY, W.1.

THE ASSOCIATION OF NORTHERN GLIDING CLUBS.

A meeting of the Association of Northern Gliding Clubs was held on Oct. 25 at the Hotel Metropole, Leeds. Mr. Gosling was in the chair and those present included representatives from the Bradford, Leeds, Sheffield, Harrogate, Ilkley, Cononley, Newcastle, and Bolton Gliding Clubs, and the Chairman and Secretary of *The British Gliding Association.*

After a good deal of discussion, the following resolution was unanimously carried:—

That this conference recommends all the British Gliding Clubs to affiliate to *The British Gliding Association.*

A MEETING IN FRANCE.

A National Fortnight of Motorless Flight was recently organised in France by Avia, which is a society interested in Motorless Flight. The meeting was held at Sens, and some thirteen clubs sent teams. About 450 flights, or, as the French more accurately describe them, launchings, were made. Apparently 26 "A" licences were granted, but only three of these were to *ab initio* glider-pilots.

No details of the machines are available except that the licences were gained on a French version of the Zogling. M. Auger, on a machine known as the *Rapace*, flew for 28 min. During this time the pilot flew about 30 km. (18.6 miles), in a closed circuit, and reached a height of about 100 m. (328 ft.) above his starting point.

A SAILPLANE SCHOOL IN THE UNITED STATES.

The Chicago School of Gliding, where our American correspondent who wrote the interesting article on Auto-Towing for The Sailplane of Oct. 31 was trained, is to operate a sailplane school.

The site for this will be among the sand-dunes of Indiana, where thirty years ago Dr. Chanute made his gliding experiments, on which the Wright Brothers based all their work.

In connection with auto-towing, The Sailplane is interested to learn that with a 300-ft. rope a primary glider has made a flight of 1 min. 58 secs. at the Chicago School of Gliding—presumably from the time when the glider was released.

SPREADING THEIR ORGANISATION.

The R.F.D. Co. have been well to the fore ever since the Gliding Movement started, and at the first meeting of the London Gliding Club a Dagnall-built machine was the first to leave the ground. The latest R.F.D. machine, the Dagling, carried off the honours at Ditchling in the competitions for primary training types.

Now, to cope with the ever-increasing glider market, the firm has appointed agents in Scotland. These are Messrs. Cameron and Campbell, North Street, Glasgow, N.B., who are sole Scottish agents for all makes of R.F.D. gliders.

HOW TO IMPROVE THE SPANISH METHOD.

We hear that a new system for launching gliders has been tried out with success by the Gliding Section of the Royal Aero Club of Catalonia. The old method of catapulting the engineless aircraft with a rope of elastic, drawn taut by a large party of ground-hands, has been dispensed with. The rubber rope is now stretched by motor-cars, so that only the two drivers are needed to launch the glider, instead of twenty men on foot. The Gliding Club has held several most successful meetings, and there is every sign of this sport becoming as popular in Spain as it has proved in Germany and England

From the above it appears that the great aim and object of Gliding in Spain is to make the fun even more fast and furious. Imagine the excitement of having two cars and two drivers both driving away from each other and the glider. Think of the pilot's feelings as one car starts to go faster than the other.

We venture to suggest that as twenty men are used, part of the fun is provided by the sudden acceleration. Even greater fun could be obtained by pegging the ropes down and attaching the car to the back of the glider. The driver would then apply full-steam-ahead and draw the glider rapidly backwards. When the rope broke, or the glider was otherwise released at some previously determined tension, the glider with its pilot would shoot surprisingly forward. This should please everybody.

GLIDERS

Balloons R.F.D. COMPANY Airships

17, STOKE ROAD, GUILDFORD, SURREY.

REYNARD GLIDERS

Aylestone, Leicester,

SUPPLY ANYTHING for GLIDING

SETS OF PARTS, FITTINGS, ETC.

LISTS.

SEND US YOUR REQUIREMENTS

TRAINING TYPE, £45, DELIVERED FREE

CRAMCRAFT GLIDER

Details of Simplified Model with many unusual features will be announced shortly.

CRAMLINGTON AIRCRAFT LIMITED, Cramlington, Northumberland.

"ADJAC"

ANFANGER, £56:10. HOLS DER TEUFEL, £67:10

POPPENHAUSEN, £97:10

All these prices ex quay. No duty.

17, HANOVER SQUARE, W.1.

MALLITE PLYWOOD

FOR SAILPLANES AND GLIDERS

Telephone: Bishopsgate 5641 (4 lines).

Manufactured by the AERONAUTICAL & PANEL PLYWOOD CO., LTD., 218-225 KINGSLAND ROAD, LONDON, E.2.

DORSET GLIDING CLUB

Affiliated to the B.G.A. and serving the South West.

Gliding Grounds: Weymouth, Maiden Newton, Cerne Abbas, Askerswell (Bridport) and Yeovil.

See THE SAILPLANE for current meetings.

PARTICULARS from Hon. Sec., 9, Commercial Rd., Weymouth.

NEWS FROM THE CLUBS.

WHERE GLIDING CAN BE SEEN.

Beds.—The Bedford Gliding and Flying Club. Week-ends at Wilstead Hill, 5 miles from Bedford on Bedford—Luton road.

Bucks.—The London Gliding Club. Meeting place, the Inn, at Tottenhoe, on Sundays.

Dorset.—The Dorset Gliding Club, at Maiden Newton.

Glam.—Merthyr and District Gliding Club. Sundays, 10 a.m. to sunset. ¼-mile-left Dynevor Arms, Merthyr Tydfil—Swansea Road.

Herts.—Herts. and Essex Gliding Club. Sunday afternoons, Eastern Roadways Garage, one mile north of Stortford.

I.O.W.—The Isle of Wight Gliding Club, at Freshwater.

Kent.—Channel Gliding Club. Week-ends above Folkestone, close to Dover road, at the Valiant Sailor.

Kent.—Kent Gliding Club. Week-ends above Lenham, on the Maidstone—Ashford road.

Lancs.—The Furness Gliding Club, at Gleaston Park Farm, Gleaston, near Ulverston (midway between Gleaston and the Coast Road), every week-end.

Oxon.—Oxford and County Gliding Club. Week-ends at Ibstone, near Stokenchurch.

Staffs.—The North Staffs. Gliding Club. Week-ends at Wetley Common, near Cheadle.

Surrey.—Surrey Gliding Club. Every Sunday, if weather permits, at Lockner Farm, Chilworth, near Guildford. 10 a.m. to sunset.

Sussex.—Sailplane Club of T.M.A.C. Horton Farm, Smalldole, near Steyning.

Warwick.—Rugby District Gliding Club. Cote Hill Aerodrome, Husbands Bosworth, Rugby.

Wilts.—The Wiltshire Light Aeroplane and Glider Club at Easton Hill, Alton Priors Range, Bishops Cannings, near Devizes.

Worcs.—North Cotswold Gliding Club. Every Sunday at Fish Hill, above Broadway Village, from 10 a.m. to sunset.

Clubs are invited to send in full details as to where and when they can be seen at work. This feature should help Clubs considerably as readers who are not members can go to look at the nearest local clubs and see which they like best.

THE FALKIRK AND DISTRICT AVIATION CLUB.

On Oct. 20 a meeting was held in Falkirk, and as a result of the enthusiasm there displayed it was decided to form a Gliding Club. There are now over 50 members, and a strong Council has been elected, which includes experienced airmen.

A Constitution, Rules and Flying Regulations have been adopted. A draft arrangement for a winter programme of lectures has been discussed.

The President of the Council is Major R. N. Salvesen, R. of O. The Provost of Falkirk has consented to act as Hon. President of the Club.

Negotiations are proceeding with a view to securing permanent Club premises, and it is expected that at least one glider will be in operation shortly.

A glider is in course of construction, but as it is expected that this will not be completed for some time, arrangements are in hand for the purchase of a primary machine.

Local interest is very keen in view of the likelihood that Falkirk and District will soon play a very prominent part in aero development. The Club expects by the end of its first year to have a membership of 200

There are three grades of membership. Flying members pay an annual subscription of one guinea, with half-a-guinea entrance fee. Associate members pay no entrance fee and an annual subscription of half-a-guinea. Junior members pay no entrance fee and an annual subscription of five shillings.

THE SAILPLANE considers that such figures are much too low. Clubs are generally beginning to realise that you have to have money for other things than the purchase of a glider.

Mr. A. L. Tomison, of 122, High Street, Falkirk, is the Secretary.

THE ACCRINGTON AND DISTRICT GLIDING CLUB.

There are now 26 members in the Accrington Gliding Club. A Hanseat glider has been ordered and delivery is expected in about five weeks.

The Accrington Club is finding the same difficulty as many other Clubs in completing negotiations for the use of a suitable soaring site. Although the Club is a new one the matter is urgent as they are anxious to organise a demonstration by Herr Magersuppe.

Apparently when they do find a good site difficulty arises in coming to terms with the owner.

The Hon. Sec. is Mr. John Nolan, 67, Eagle Street, Accrington.

THE NORTH COTSWOLD GLIDING CLUB.

The North Cotswold Gliding Club feel that its activities compare so unfavourably with what is being achieved in Germany and elsewhere that they refuse to rush into print about their weekly meetings, which seems a pity as it is only by inter-change of gossip that we can learn how things are progressing.

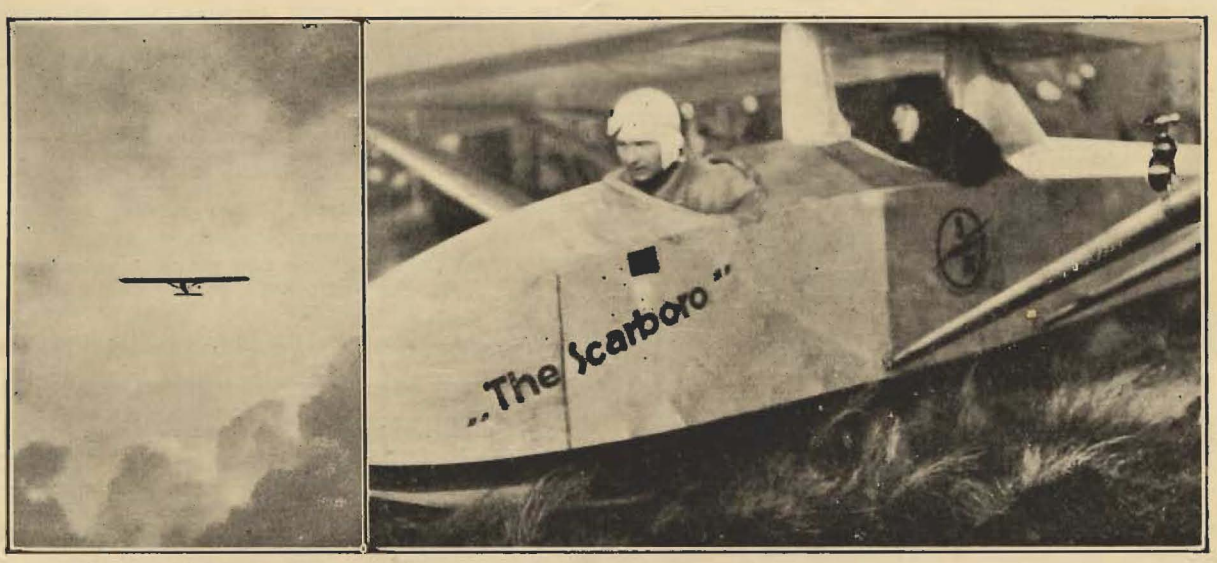
THE SCARBOROUGH CLUB.

The Scarborough Gliding Club, in conjunction with the Furness Gliding Club, ran what was undoubtedly the most successful sailplane meeting ever held in the North last week-end (Oct. 25 to 26), at Out Park, Soutergate, near Kirkby, when Herr Magersuppe, the young German pilot, who is instructor to the Scarborough Club, made over thirteen successful soaring flights with passengers, in the new double-seater sailplane, recently acquired by the Scarborough Club. One of these passengers was a lady, and it is believed that she has the distinction of being the first woman to make a soaring flight as a passenger in this country.

The meeting was very well attended, and the organisation exceedingly good. The weather and wind proved ideal, and taking off from the hills, which are over 1,000 ft. high and stretch for ten miles, Herr Magersuppe flew gracefully backwards and forwards, landing each time at his starting point. His final flight was particularly spectacular, taking off with Mr. R. Kelly, a member of the Scarborough Club, as a passenger, he flew along the hill to Ware, a distance of some six miles, where the inhabitants, who had never before seen a sailplane, were astonished by the graceful, silent machine as it hovered over their heads. Then turning, he flew back to his starting point, to glide skilfully down, to land in a field previously chosen in the valley below.

Mr. C. H. Lowe Wylde also demonstrated for the Furness Club's new primary glider, which he himself designed.

The demonstration is a first of a series which the Scarborough



RAISING THE WIND.—Herr Magersuppe in the two-seat sailplane of the Scarborough Gliding Club. Joy-rides were given to temporary members.

Club is organising in various parts of the country, and, undoubtedly, such a series will do considerable good to the British Gliding Movement.

The organisation is in the hands of Mr. W. R. Baynes, and any Clubs wishing to arrange a demonstration can get into touch with him at the Royal Hotel, the headquarters of the Scarborough Club.

It is hoped to hold a demonstration at Hudderfield on Nov. 6 and 7.

THE STOCKPORT GLIDING CLUB.

A small but enthusiastic meeting was held at Crossley's Café on Oct. 21, with a view to the formation of a gliding club in Stockport. It was an evening of interesting conversations, in which were discussed gliding sites, the types of gliders, the initial cost and maintenance of gliding.

During the evening it was proposed that a gliding club be formed in Stockport and that it be named The Stockport Gliding Club, with a subscription of £2 2s. for flying members, and that members joining before Dec. 31 be enrolled as founder members, all who join after this date to pay an entrance fee of 10s. 6d. It was proposed that Mr. J. T. L. Mallard, of The Radio House, Sandy Lane, be temporary hon. secretary.

Another proposition was that there be an associate membership of 10s. 6d. for those people who would like to take an interest in the Club but did not wish to fly. Another member put forward the suggestion that a room be got in Stockport to use as a clubroom and workroom for the repair and construction of gliders.

Another suggestion put forward was that they should buy one commercial training glider and construct another training type themselves; in this way experience would be gained for repair work on minor crashes and so keep the maintenance bill as low as possible.

THE BRADFORD GLIDING CLUB.

The Bradford Gliding Club held two successful meetings on Oct. 25 and 26, altogether over 70 flights being made. The ground at Apperley Bridge was used again as negotiations for the site on Baildon Moor have not yet been completed. Members of the Club had a very pleasant experience on Oct. 26, when Mr. Gordon England and Mr. Wapplington paid a surprise visit to the flying ground. They both expressed their approval with the glider and also the method of training in operation.

Members of the Committee took them to view the site on the moor and Mr. Gordon England stated that it was one of the finest sites he had seen, the site being suitable for both training and soaring and being easily accessible from the City.

The constructional section has been started, and on Monday evening members constructed the rib-jig on which they intend building a spare pair of wings for the Club glider (Dixon type).

THE SAIL-PLANE CLUB OF T.M.A.C.

Some useful practice was put in on Oct. 26, on the Club's training machine, when Mr. C. Compton-Paterson made a clean straight flight of 44 seconds and a perfect landing. As this flight was officially observed, Mr. Compton-Paterson thus qualifies for his "A" certificate.

The Club proposes to hold a General Meeting (open to members of the general public interested) on Sunday, Nov. 9th, starting at 11.30 a.m. at "Ye Olde Castle Hotel," Bramber, Sussex, where lunches may be obtained. It is proposed after the meeting to pay a visit to the Club's grounds at Smalldole, one-and-a-half miles distant, where gliding will take place, weather and time permitting.

The construction of the Club's new hangar on the gliding site is to begin the week following the General Meeting. Will members and non-members who intend to attend on the 9th please notify the Hon. Secretary and say whether they intend to travel in cars or require a seat in an all-weather motor-coach which it is proposed to run from London. Address, Hon. Sec., E. G. Smettem, 2, Wine Office Court, Fleet Street, E.C.4.

THE CONONLEY AND DISTRICT AERO CLUB.

A Club Meeting was held on Oct. 26 and proved a great success. Profiting by previous mistakes the Club pursued a "Ca Canny" policy and beginners were treated to a little practical "sliding" at first. About twenty members were pushed off, and all made successful slides followed by glides.

The Club's "Dixon" (Cloudcraft) glider was rigged with a slight dihedral, and proved much more stable. The Club passes this information on for the information of other Clubs.

Four lady members received their elementary training, and showed a remarkable good grasp of the principles.

It is hoped to support the Accrington Club in their effort, and plans are being made to attend the meeting of the Scarborough Club on Boxing Day.

THE BEDFORD GLIDING AND FLYING CLUB.

During the week-end, Nov. 1-2, rain and wind made outdoor work of any kind impossible; so all our members concentrated on overhauling the machine which was dismantled, thoroughly inspected and strengthened where necessary. The hangar bore a very businesslike appearance with woodworkers in one corner, mechanics in another, blow-lamps and primus stoves going hard while the ladies were busy washing up cups and saucers.

Everything is now ready for the coming week-end and weather permitting we hope to see a good party. Will members and intending visitors please note that we still continue gliding on Saturday afternoons, when early attendance is desired. On Sundays all members should bring their lunch and be on the ground by 10 a.m. so that a full day's work can be put in.

It has come to our notice that there are, in the county, some keen groups anxious to form Clubs, but held up for ground, etc. To these groups we extend a hearty invitation and offer them the use of our ground and any help we can give.

Very soon we hope to have in Bedford town Club rooms where members can congregate during the Winter evenings. It is also proposed to arrange lectures and social functions.

THE NORTH STAFFS. GLIDING CLUB.

Club members have recently been busy in carrying out repair work, but gliding was resumed at Wetley Common on Nov. 2, when a very successful meeting took place despite strong and variable wind and some rain. Proceedings terminated at about four o'clock owing to damage to the skid on landing, due to striking a large embedded stone which could not be seen by the pilot owing to the long grass.

Further meetings will be held each Sunday during the Winter months—at Wetley Common—until further notice. This site has been found not very suitable owing to the uneven surface and the prevalence of obstacles and it is hoped to be able to obtain a more suitable site near the Potteries. Any assistance which can be rendered in this matter will be very much appreciated.

Hon. Sec.—Mr. C. Teeton, 3, Havelock Place, Shilton, Stoke-on-Trent.

THE KENT GLIDING CLUB.

On Friday, Oct. 24, the Chairman and Hon. Secretary, with other members, represented the Club at the funeral in Canterbury Catehdral of their late President, Dr. Whitehead Reid. A wreath was sent by the Club in his memory

There was no Club gliding meeting held on Sunday, Oct. 26.

On Friday evening, Oct. 31, Flt. Lt. Charles Crawford, R.A.F., gave a highly interesting lecture on "The Principles of Flight." The lecturer, who was one of the original Council members of *The British Gliding Association*, and has for years taken a keen interest in gliding and soaring flight, explained in simple language the various components of the glider and their uses.

He then dealt with "the whys and hows" of elementary gliding. The thanks of the Club are due to Flt. Lt. Crawford, who is also one of the Club's honorary instructors, for a very interesting and useful evening. This lecture formed the first of a series which have been arranged during the Winter months.

Col. The Master of Sempill has done the Club the very great honour of becoming its new President, and on Sunday last, Nov. 2, he and Mlle. Susi Lippens attended the meeting. The meeting was held at a site at Harrietsham, Kent, by kind permission of the owner, Mr. Rea.

The Master of Sempill, who had recently been down and had helped the Club to find a more favourable site than the one at Lenham, tested this new site with the British Aircraft Co.'s Intermediate type machine. Although the weather made gliding in the morning impossible, and the afternoon was interspersed with violent thunder storms and showers, a very enjoyable afternoon's gliding was held, and both the Master of Sempill and Mlle. Lippens seemed to think the new site held distinct possibilities.

It is hoped that arrangements can be made to use the site permanently.

THE WILTSHIRE LIGHT AEROPLANE AND GLIDER CLUB.

The Wiltshire Light Aeroplane and Glider Club held a successful meeting on Nov. 1. A number of glides were made in spite of the pouring rain, which no member of the Club, as becomes a pioneer, deigned to notice.

The Club is lucky in having obtained the use of a site which should be ideal for soaring and once up in the air a distance flight should prove possible as the Wiltshire Downs stretch for miles.

A R.F.D. glider is owned by the Club, which now numbers 38 members. The Chairman is Mr. C. T. Cuss, Church Place, Swindon.

THE FURNESS GLIDING CLUB.

The Furness Club wish to correct some errors which appeared in the report they sent in last week. The President of the Club is Commander C. W. *Craven*, O.B.E., R.N., and not Commander C. W. *Cowen* as reported.

Secondly Herr Magersuppe did not fly the B.A.C.III, as there was not enough time for him to do this.

THE NORTH KENT GLIDING CLUB.

Weather spoilt the opening meet of the North Kent Gliding Club at Joyce Green Aerodrome, near Dartford, on Nov. 1. Only two or three hundred people braved the inclement weather and the organisers were rather hit.

The Club have, however, made arrangements for a display to be given by the Cierva Autogiro on Sunday, Nov. 9, at 2 p.m. if the weather permits. The Club are to do some gliding as well.

Printed for Aeronautics Ltd., by Bonner & Co. Ltd., The Chancery Lane Press, Rolls Passage, London, E.C.4; and Published by Aeronautics Ltd., at Cannon House, Pilgrim Street, Ludgate Circus, E.C.4.

EDITORIAL AND ADVERTISEMENT OFFICES OF "THE SAILPLANE," 175, PICCADILLY, LONDON, W.1.
ACCOUNTS AND PUBLISHING OFFICES, CANNON HOUSE, PILGRIM STREET, LUDGATE CIRCUS, E.C.4.
Telephones: Editorial, Gerrard 5407; Advertising, Gerrard 5407; Publishing, Central 5822.