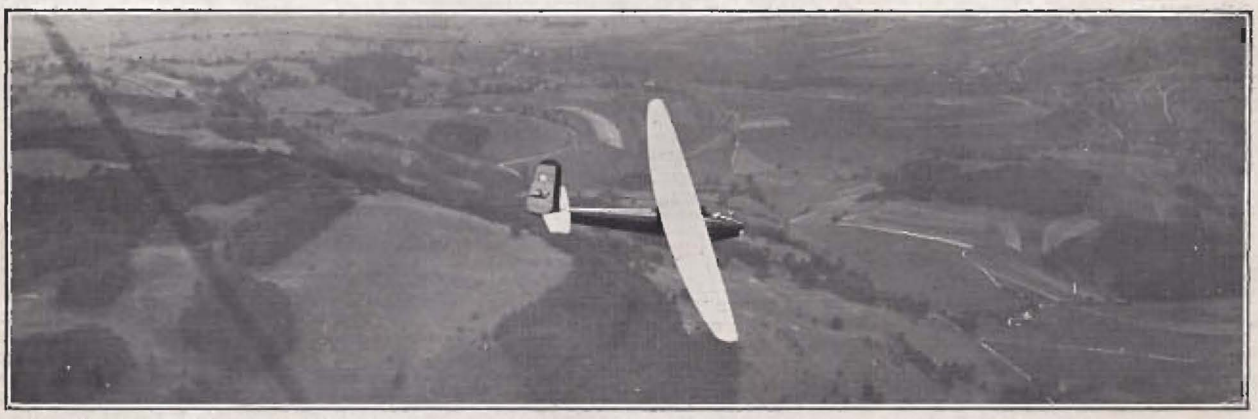
Oct 3, 1930. Vol. 1. No. 5.

THE SAILPLANE AND GLIDER

Price 3d.

THE WAY TO TURN.



This picture of a sailplane making a turn near the Wasserkuppe was taken from an aeroplane. The attitude of the sailplane should be noted.

THE AIRWORTHINESS REGULATIONS.

The object of Regulations for Airworthiness is to ensure safety for the pilot of the machine and to obviate any likelihood of damage to a third party. A fatal accident either to the pilot, or to someone on the ground, as a result of structural failure of a glider will so set back the Movement, that the *British Gliding Association* have rightly spent much time in framing rules which shall as far as possible prevent such catastrophes.

Elsewhere the Regulations which have been issued by the B.G.A. to govern Airworthiness of Gliders are set out in full. These have been based on the Air Ministry Regulations for power-machines as may be gathered from the statement that the regulations laid down in the Air Ministry Handbook of Strength Calculations A.P.970 shall be followed as far as applicable.

The designer is then given a list of Load Factors. These figures mean that the parts of the machine have to be designed to carry a load which is the product of the factor and the weight the part carries under certain conditions. The value of these figures will probably surprise some people, but when Dr. Georgii was over here last February he told us that a safety factor of six was used by the Germans for the Prufling type.

The proper attitude to such calculations, and one that is justified by the history of aeronautics, is that all intricate calculations are subject to error. Such errors can come about by a misplaced decimal point. Mistakes can only be discovered and prevented by a completely independent set of calculations. Mr. Howard Flanders, who is well-known as one of the early pioneers in aircraft design, avers that in 1910-13, when there was no machinery for the approval of designs, the designers of rival concerns used to check each other's stress diagrams and countersign them.

If we consider dispassionately the amount of work needed to do this, and the high standard of technical training one must reach before one can do such work, we must agree that the fees charged by the Association are not too high. We feel that those who are doing the work must be doing much of it for nothing, especially as these fees include travelling expenses.

Much criticism has been made of these Regulations on the grounds that members of the Technical Committee were

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also connected with the commercial production of machines and that as a result new firms were averse to having their designs exposed to a member of a competing concern. We can understand their feelings. Happily the Association has realised this difficulty, which was unavoidable in its early stages, and is forming a sub-committee which shall be composed of persons in no way connected with the manufacture or selling of gliders.

We see some difficulty in the renewal of a Certificate of Airworthiness which according to the Regulations must be done every year. Perhaps the difficulty can be most easily demonstrated by the fact that we have already heard in conversation of a machine in which the only original part is the disc with the Airworthiness Certificate Number on it. This may, or may not, be true, but illustrates a possible happening.

Training machines lead a very hard life, and if clubs are to keep going, must be frequently patched. Here is a difficulty, how are the Approvers of Designs to the B.G.A. to take notice of this in renewing the C. of A.? The only machinery which could take care of these repairs would have to be comparable to that evolved by the Air Ministry, and the Gliding Movement could not afford the cost of this.

Inspection.

This aspect of our subject brings us close to another problem. How is the Association going to insure adequate inspection of machines? This seems to be a much more important point than checking the original design. The best design is useless if carelessly put together or wrongly rigged. All this is left to the discretion of clubs. Week after week gliders are bumped and banged about. They are crashed and repaired, but so far as we know there is not a glider in this country which has been regularly inspected.

With training types this does not matter much; they get their worst loads being landed when they are more likely to fall to pieces than in the air. But with the coming of the intermediate types and the increase in number of "B" licence pilots who hope to soar, adequate machinery must be evolved to deal with this question.

Imagine what will happen when a glider does fail! What will be the position of an Association which issues Certificates of Airworthiness and cannot enforce proper inspection? Popular feeling will demand that such powers be transferred to a body which will be capable of enforcing inspection and which has the necessary machinery. Such an event would be likely to force the Air Ministry to take over the issuing of Certificates of Airworthiness to gliders and to evolve a system of rigorous inspection.

We should like to see by next Summer in every Club one person who is personally responsible for the airworthy condition of every glider flown by that Club. Such persons to be directly answerable to Authority. This seems to be the only way. There are a number of aircraft ground-engineers about and we think that such trained personnel would be ideal for the purpose. They should have to pass each machine as airworthy before any gliding is done on it and anybody who flies a machine which has not been so passed should be suspended from the Club.

During the Winter months numbers of Clubs and individuals are likely to build machines of their own design or modifications of well-known types. Such useful endeavour must be encouraged and we think that the present Airworthiness Regulations will not do this. If every machine that is going to be built, and most people or Clubs who build machines will want to use them for getting Certificates, is submitted to the B.G.A. for approval, we feel that pressure of work alone will hold things up. An ingenious way out would be for the B.G.A. to issue plans at a suitable fee of an Approved Type to affiliated Clubs. The B.G.A. would then have only to make occasional inspection of the constructional work.

Why Not a Proof-Loading Test?

We think that a method could be worked out for a proof-loading test as a substitute for checking by calculation. This seems to promise much as it should be cheaper, if one assumes that the present checking work is done at a loss, and also offers a means of finding out whether the glider is fit to have its Airworthiness Certificate renewed at the end of the year. The method might be confined to training and intermediate types. If anyone builds a sailplane this could be checked by calculation.

By confining the test to training and intermediate types, in which types machines are all much alike, the Association should be able to evolve a routine test which could be applied generally. The test would only be applied when the machine was completed and would be an excellent way of proving to enthusiasts that their constructional work was not sound. Although the present regulations do provide for visits of inspection, such inspection may not find out a concealed structural fault. A loading test would.

The objection to this scheme is that a sand-loading test might distort, or break, part of the structure without this becoming apparent. This objection can be met for the greater part by keeping the load within the elastic limit. One would take the proper load and see that the part did not deflect more than a previously determined amount. The objection is not entirely countered thereby, but what remains seems no more serious to us than the fact that faulty constructional work will render quite null and void all the efforts of the stress-merchant.

Such tests might not be possible for the alighting gear, but this does not seem to matter. Anybody who has spent a large sum of money in producing a machine is not going to risk breaking his machine up on landing by skimping the undercarriage, skid or what-not. If he does, the danger is more likely to be material than personal and the only reason for the Regulations is to ensure personal safety. Moreover, Clubs have gained so much training experience that they are likely to be the first to see that their training machines have adequate skids.

The Necessity For Test-Flights.

Lastly, we should like to see all manufactured gliders, which are sold, test-flown before they are handed over to their purchasers. There is always the chance that something may be wrong and the liability for finding this out rests with the manufacturer. We notice that the British Aircraft Company of Maidstone apnear to be making this a part of their policy, as Mr. Lowe Wylde has been demonstrating all his machines before handing them over. This is an excellent idea and one we hope to see become a convention.

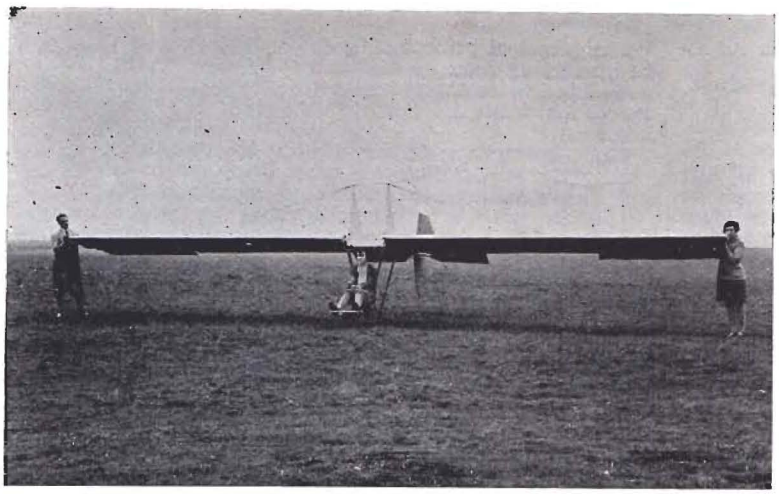
THE B.G.A. REGULATIONS FOR AIRWORTHINESS.

On Sept. 23 in a circular letter to the Clubs *The British Gliding Association* announced that no glider may be used for test flights for Glider Pilot Certificates unless it has received a Certificate of Airworthiness from the Association. Clubs who are anxious for their members to get such licences will therefore be interested to learn what these regulations are, though the question of getting a C. of A. does not arise unless they are building their own machine or have bought one which is not of an approved type.

The B.G.A. announces that the Regulations laid down in the Air Ministry Handbook of Strength Calculations A.P. 970



AS DONE IN AMERICA.—A primary-type glider being towed off a runway. One school of thought in the United States advocates towed gliding for training purposes. We do not.



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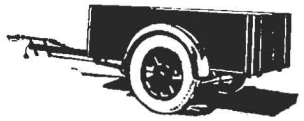


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published by H.M. Stationery Office, will be followed as far as applicable.

The Load Factors for Glider design which should be observed throughout are:—

Main Planes	(a)	Centre of pressure forward—5
	(b)	Centre of pressure back—3.75
	(c)	Nose dive—1
	(d)	Inverted flight—3
Tail Planes	(a)	To be designed to withstand the loading imposed in pulling out of a steep dive so that the tail plane will collapse simultaneously with the main planes.
	(b)	Nose dive—1
Rudder		To withstand maximum loading with factor—2
Fuselage	(a)	As in case (a) for Tail Plane
	(b)	Landing—4
Landing gear		4

For a Glider Design to be an "Approved Type" application for a Certificate of Airworthiness must be made to the *British Gliding Association*. This must be accompanied by the requisite fee and sufficient drawings from which all strength calculations can be made. The drawings should include a general arrangement together with the layout of the main planes, fuselage and tail unit. Sections of spars, longerons, ribs, struts, etc., should be shown and dimensions of all fittings included. The materials that it is proposed to use must be stated in each case.

A complete strength calculation will then be made out by the Approver of Designs to the *British Gliding Association*. In cases where the drawings are not proper working drawings, these will be drawn up by the Association at the expense of the applicant.

The fees chargable for the issue of Certificates of Airworthiness are:—

	Non-Members.	Members.	
	£ s. d.	£ s. d.	
(a)	7 17 6	5 5 0	New type.
(b)	3 3 0	2 2 0	Subsequent machines of the same type built by the same manufacturer.
(c)	4 14 6	3 3 0	The first machine of the same type built by another manufacturer.
(d)		2 12 6	The first machine built by any manufacturer to drawings supplied by the *British Gliding Association*.
(e)		1 1 0	Subsequent machines built by the same manufacturer to drawings supplied by the *British Gliding Association*.
(f)	1 11 6	1 1 0	Renewal fee for subsequent years.

The Certificate of Airworthiness is valid for one year. The Council is empowered to issue "Experimental" Certificates of Airworthiness without charge for gliders built for research purposes. The issue of a Certificate of Airworthiness will include two visits for inspection in the case of (a), (c) and (d), one visit in the case of (b), (e) and (f). In all cases a visit will be made prior to covering and in cases of (a), (c) and (d) a visit will be made when the major components are made ready for erecting.

Foreign-built machines will be subject to the same procedure unless holding Certificates recognised by the *British Gliding Association*. These Certificates will be validated at the fee stated above at (f). Distinguishing numbers will be allotted to all gliders for which Certificates of Airworthiness are obtained. A register of gliders will be kept by the Association.

AN AUTUMN MEETING.

The British Gliding Association has arranged a series of Inter-club Competitions to take place at Itford Hill, near Lewes, by the very kind permission of Lord Gage, on Oct. 18 and 19.

Among the clubs competing are the London Gliding Club, the Surrey Gliding Club, the Kent Gliding Club, the Portsmouth and Southsea Gliding Club, the Oxford Gliding Club and the Lancashire Gliding Club. There may even be one or two more.

The principal prize will be the Volk Cup, and there will be a series of other smaller prizes, very generously given by one or two firms interested in the Gliding Movement. The events for which the prizes will be given will be announced later.

The events are as follows, subject to alterations:—

1. Individual duration contest on Zoglings.
2. Individual duration contest on Soaring machines.
3. Interclub team match on Zoglings.
4. Interclub team match on intermediate type soaring machines.
5. Individual duration contest, regardless of machines, but flown by a British pilot.

As we have often said in The Sailplane, we think duration contests on a Zogling are unsound. We should much prefer to see a landing-on-a-mark competition substituted. This calls for both skill and judgment, with no inducement to stall the machine.

A NORTH-COUNTRY GLIDER.

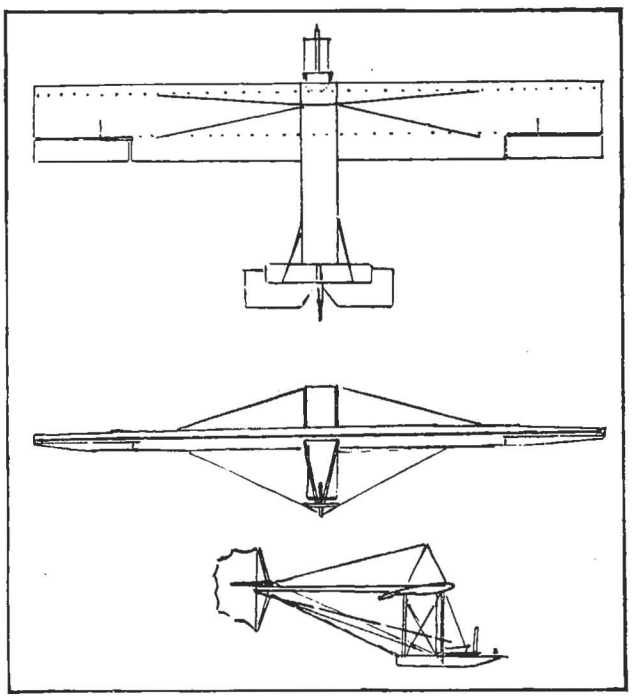
A few details are to hand of the machine which has been built by Cramlington Aircraft Ltd. at Cramlington Aerodrome, Northumberland. This is the Cramcraft I. This machine was produced in the early part of the year, and pictures of it appeared then in The Aeroplane. It is particularly interesting as being the first attempt in this country to break away from the conventional lattice tail, for the Dagnall tubular bracing is an adaptation of an American scheme.

The wings of the Cramcraft have a span of 33 ft. 6 in. and a chord of 4 ft. 6 in. The box spars have spruce flanges and plywood webs. The ribs are made of spruce and have gusset plates of plywood

The overall length of the machine is 17 ft. The flat tail-boom is really two booms rigidly braced and the whole covered with fabric. The booms are built like the spars and are braced with cross-members and diagonal struts built-up in the same way.

The controls and tail unit are conventional.

The weight empty is 140 lbs.



A general arrangement drawing of the Cramcraft I.

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CORRESPONDENCE.

The Site Question.

Sir,—It is such a change to have constructive criticism in writing that I am delighted to have the pleasure of replying to the points you raise on the subject of sites in the current issue of THE SAILPLANE. In your leader you have challenged the *British Gliding Association* to take "swift and effective" action in getting options on the few available sites in this country suitable for Soaring Flight.

I am in full agreement with your point of view in this matter, at the same time, you will readily appreciate the fact that enormous capital expenditure would be involved, and frankly the *British Gliding Association* has not that capital available, at present. I don't think I am usurping my authority by stating that the Council of the *British Gliding Association* would lose no time in carrying out your suggestions if the money was available. There are many suitable localities in this country where Soaring can be practised, but in many instances landlords, and/or tenants refuse to negotiate, and it is to be hoped that they will lift their embargoes and do all they possibly can to grant facilities to Clubs.

The *British Gliding Association* realises the importance of Clubs having good Soaring terrain, and in its Objectives it is clearly pointed out that a representative will go anywhere to help a Club choose a site, provided only expenses are paid. Furthermore, a request has been made to Clubs asking them to send to me any information and experiences which they have found useful in this connection. The pooling of such information is of the greatest assistance to the Technical Committee of the Association in compiling the data on which they have to work, and I shall, therefore, be glad to have any information which the Clubs or private individuals can contribute.

(Signed) J. L. R. WAPLINGTON,
Secretary, B.G.A.

We are glad to see that the B.G.A. is making a start with the work of providing sites. We suggest they locate every suitable site in the Country. When they have found how much money they will require to rent such sites, they must launch a public fund to raise the money.

Of course, they must keep the exact locality of the sites secret, or they will find prices are more apt to soar than sailplanes.—ED.

Eddies.

Sir,—Re "Eddies" on page 28 of THE SAILPLANE, Fig. 1a, it is very improbable that three such eddies will be found at the base of the hill. All eddies run as if geared together; it will be noticed that the three eddies would tend to destroy each other's motion because the boundary layers are depicted as turning in opposite directions. If three such eddies could have formed they would speedily come to rest and form one large eddy. Fig. 1b is open to the same objection, all six eddies in this diagram will really only be two.

In Fig. 4 there will be one eddy only which will fluctuate considerably. The figure is a good explanation of the cause of local destructive winds which sometimes occur in these Islands. I actually experienced one in 1903. There was a very strong S.W. gale blowing at the tops of the hills with a quiet breeze, say 20 m.p.h., in the reverse direction, in the valley. These conditions lasted all day with a barometer reading of about 29; in the evening the glass fell so rapidly that the needle could be seen to be moving. There was a drop of about 1½ ins. in 10 minutes. Suddenly the wind in the valley changed to S.W. and blew with great violence, uprooting all trees in a small area of perhaps ¼ mile by 300 yds. The barometer rose ½ in. when the wind came, and for the rest of the night there was a S.W. gale in the valley just the same as on top of the hills.

The obvious explanation was that a single eddy which filled the valley gave the reverse wind direction. When the gale increased somewhat and exceeded the velocity at which the conditions were stable, the first result was to cause a lowering of pressure in the valley until the local depression was sufficient to cause the main stream of air to enter the valley with added violence.

All the damage was done within 5 minutes, probably less. The area of damage was small, all trees young and old were uprooted, but a short distance away, comparatively rotten trees, known to be unsafe, were not destroyed.

When considering any air-flow it is well to remember that if the air was 800 times more dense, it would be as viscous as treacle, not fluid like water; second, that air is elastic and will temporarily maintain an unstable condition then break down suddenly. Many of the misconceptions of air-flow are due to thinking of air as behaving like water, it is much more like the behaviour of the strands of rubber in a rubber cord. These, it will be noted, slide on each other in jerks as the cord is stretched, the tension being taken in an irregular manner with sudden changes in the tension on individual strands. Although air is not being stretched in a casing like the rubber cord yet its constitution gives the same irregular discontinuity which is generally termed "gusts of wind."

To gain any idea of what the wind is really like when meeting obstructions it is necessary to abandon any idea of a perfect fluid and think of a stream of soft rubber air-balloons jostling and bumping each other as they rush against the obstacles or meet warmer or colder currents of air. It is ordered confusion rather than a streamline flow. A useful analogy would be the electron flow in a slightly soft valve with the grid maintained at a slightly irregular small positive potential.

(Signed) L. HOWARD FLANDERS.

Presence of Mind.

Sir,—It is most interesting to me to find you publishing a journal solely in the interest of the grand sport of Gliding. A course of Gliding is certainly the quickest method of learning to fly, especially as we have such airworthy machines as the R.F.D. of which the Nottingham Club is a proud owner.

I would like to emphasise that this Primary Glider has been shot off no less than three hundred times at the hands of various members, both male and female, without putting the Glider out of action more than three occasions (excepting the first unfortunate day) and then not necessarily for more than an hour before it has been in the air again.

The lay-out of this machine is proved particularly interesting by what happened on Sept. 21. Finding it a very gusty day I decided on my second flip to keep as close to the grass as possible. I gave the order to "walk-run-and-release," and went up like an arrow to fifty feet, for my elevator did not answer, so with my belt loose, which is my custom, I thrust my body forward and brought her level.

I then noticed my elevator control-wire had got off the front pulley and jammed tightly in the bracket. I remained aloft, keeping her at a hovering angle by supporting my body with one hand on the nose for a period of not less than twenty seconds, then gradually bringing her down by this method and side-slipping a little each way until the ground was touched lightly and on an even keel, only fifteen yards from where I started.

I am confident that only a Glider that had been built to correct aerodynamic details would have answered to bodily movements so sensitively.

May I offer my congratulations to the R.F.D. Co. through your columns.

(Signed) H. A. SEARBY.

We Are Amused.

Sir,—Congratulations and best success to THE SAILPLANE AND GLIDER.

Herewith a further selection of alternative English terms for the German-named Primary, Intermediate and Advanced types of gliders:—Lawn-Loppers, Tree-Toppers, Heaven-Hoppers.

(Signed) "KUMIN-KROPPERS."

ANOTHER GERMAN COMPETITION.

Gliding Clubs from all parts of Germany have been taking part in the Bavarian gliding competitions, which have been held at Bayreuth, under the auspices of the Bavarian Ministry of Communications and of the German Flying League.

We hope to collect some information about this meeting and publish it in THE SAILPLANE.

GLIDING IN SOUTH AFRICA.

A correspondent in Germiston, South Africa, says that in spite of the fact that most local airmen predicted that no glider would rise from the Rand, altitude 6,000 feet, the trials of the locally built "Dickson" type training machine of the Germiston Flying Club were a distinct success.

Mr. E. Wylie made several flights of about 150 yards from level ground during these trials, when it was hot and there was little or no wind.

Flying conditions were so bad that a well-known airman, who went up to amuse the crowd with some low flying had to give up on account of the thin air.

A *South African Gliding Association* has recently been formed to control the sport there. This, together with the fact that South Africa is essentially an open-air country, should give Gliding a great future, particularly as power-flying facilities are few and far between.

A DINNER TO HERR KRONFELD.

The Secretary of the *British Gliding Association* is making preliminary arrangements for the visit of Herr Kronfeld, who was the winner of the prize put up by the Association in the recent International Competitions at the Wasserkuppe (for the pilot who flew the longest distance, but at least 60 km.), the prize taking the form of a week's visit to England.

It is suggested that Herr Kronfeld be invited to come over for the period Oct. 11 to Oct. 18, and that a little dinner at the Trocadero to welcome him might be arranged to take place after the Council Meeting on Oct. 14, at 8.30 p.m.

The tickets are 10s. 6d. each, and people who want them should write to the Secretary of the B.G.A., at 44a, Dover Street, W.1.

A NEW INFORMATION BUREAU.

The Secretary of the *British Gliding Association* announces that he will welcome from any member of a gliding club, or from any individual interested in gliding, any Technical, Meteorological, or other information which may be used for the benefit of the Gliding Movement.

Permission must be given by the subscriber that the information submitted may, if approved, be used, and classified, by the Technical Committee of the Association. It will be readily appreciated that this will help to build up a fund of valuable information which will always be at the disposal of all affiliated clubs and individual members of the Association.

Any information should be marked "Information" and sent to the Secretary, *The British Gliding Association,* 44A, Dover Street, W.1.

THE SECOND MEETING OF THE A.N.G.C.

On Sept. 20 The Association of Northern Gliding Clubs held their second meeting. The Bradford Club, the Halifax Club, the Leeds Club, the Bolton Club, and the Aircraft Club of Harrogate were all represented. A deputy was present for the Newcastle Mechanical Club and letters were received from the Malton Club and from the Scarborough Club.

The proceedings were opened with a show of films, one of which was of Herren Kronfeld and Magersuppe soaring over Beamsley Beacon.

After the minutes of the previous meeting had been read and signed, letters were read from various members. The question of a site and hangar for a combination of Clubs was then discussed, but nothing was settled. Members were asked to look round for sites and prices for hangars are being got by a member. Pennyghent, Ingleborough, Whernside and Greenhow were suggested as possible sites. The question of buying a sailplane was postponed.

The meeting decided after much discussion that hangars and sailplanes should be bought out of specially subscribed funds, to which wealthy persons and organisations should be asked to subscribe as well as individuals. The question of getting a Government Subsidy was raised, but was turned down as being more trouble than it was worth. [Such irresponsible remarks in an official report are not calculated to enhance the authority and dignity of the A.N.G.C. with those who may read it. Does the A.N.G.C. really think that the Government would subsidise a combination of local Clubs ?—Ed.]

The report then states that a representative of the B.G.A. is to be invited to the next meeting. A suggestion was also made that the expense of sending a representative to a meeting of the B.G.A. should be shared among all the Clubs so represented.

There was a general feeling at the conference, however, that the constitution of the B.G.A. was not satisfactory; apparently the A.N.G.C. consider that private individuals should not be eligible for membership of the B.G.A., which should be limited to Gliding Clubs, or Flying Clubs with Gliding Sections, and representatives of the Royal Aero Club, Meteorological Office, and Royal Aeronautical Society.

SOLD OUT AGAIN !

We have but recently announced that the first number of The Sailplane was sold out. A similar fate has befallen Nos. 2, 3, and 4. Will people please note that we are unable to supply any more of these numbers from this office. As one or two people are very anxious to obtain copies of the first and second issues we shall be glad to hear from anybody who is willing to hand over, or to sell, their early numbers.

TO ADVERTISERS

Will Advertisers please note that all copy and/or instructions must be sent to 175 Piccadilly by Wednesday of each week. Otherwise we cannot guarantee insertion in the forthcoming issue.

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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.

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. Saturdays and Sundays from 3 p.m. at Whiteley Bank.

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.

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

Somerset.—Dorset Gliding Club. Week-ends at Westland Aircraft Works, Yeovil.

Staffs.—The North Staffs Gliding Club. Week-ends at The Cloud, Congleton.

Surrey.—Surrey Gliding Club. Every week-end, if weather permits, at Lockner Farm, Chilworth, near Guildford. Saturday 3 p.m. to sunset, Sunday 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.

Worcs.—North Cotswold Gliding Club. Fish Hill, above Broadway Village.

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 SURREY GLIDING CLUB.

Since writing to THE SAILPLANE previously, another member has qualified for his Certificate, so that we now have Capt. A. N. Stratton, Dr. A. McGlashan, and Mr. A. H. Reffell whose tickets are being applied for. It is only on account of the restricted nature of our gliding ground that a number of *ab initio* members have been unable to qualify for "A" Certificates. However, we have to be content with glides of 20-25 seconds' duration, and being held up for further duration, at the moment, members practise turns and good landings.

The membership is weekly increasing with new members joining within a radius of fifty miles, and these members seem to be very satisfied with the fact that the moment they join their tuition and flights commence without any further expense.

We have now got to the position where the Committee are considering a secondary-type machine, and while finance will permit the purchase of such a machine, it will not leave us with a very large reserve. Therefore the Club would be glad of any new members. From our last report in THE SAILPLANE we have had a number of inquiries regarding membership, etc., and are surprised to note there are very few other clubs sending in details of their activities.

Recently our R.F.D. type A.T. training machine was successfully soared for thirty-eight seconds, but, here again, confined space does not allow any liberties to be taken with the machine.

The Club has just purchased a secondary type machine and hopes soon to have this in the air. It has also made another purchase, this being from the R.F.D. Company of Guildford; the Committee were so taken with this firm's latest production of a training machine they decided to take delivery immediately.

The Club has entered for the B.G.A. competition to be held at Itford Hill on Oct. 18 and 19, and hopes that all members will endeavour to attend.

The Committee much regret there will be no flying this week-end at Chilworth.

The Secretary of the Surrey Club is Mr. G. H. Taylor, Woodbridge Hill Gardens, Guildford, Surrey.

THE CHANNEL GLIDING CLUB.

The Channel Gliding Club was formed in June of this year with headquarters at The Queen's Hotel, Folkestone. In July Herr Kronfeld and Herr Magersuppe gave a demonstration on a site immediately over Dover Hill at which over 6,000 persons were present and at this meeting the Club was brought into the immediate notice of the public and membership brought over the hundred mark.

The Club's gliding site was chosen by Herr Kronfeld and is on land kindly loaned by Mr. Broadley at the back of Dover Hill, on the main Dover Road, about 1½ miles from the town. The Club has purchased a Zogling primary glider and also has a Prufling Intermediate Type. A new R.F.D. AT1 is at present on order and delivery is promised for Sept. 6.

During the past month over 40 members have received instruction in the Zogling and considerable progress has been recorded. Flg. Off. Read recently made a 55 minute flight in the Prufling, which flight was unfortunately terminated by a crash into a chalk pit after being caught in a strong down current. The conformation of the hill is very peculiar at this spot and more definite data has now been collected on the existence of wind currents which should later prove to be of great assistance to the Club when members are proficient in sailplaning.

We have a very keen member in Cpl. Manuel, of the R.A.F., who has spent months on building a Zogling of his own design which is also intended to soar. This machine was completed only recently and it was unfortunate that there was no wind on Sunday, Sept. 1. Manuel, however, made two or three perfect glides and great hopes are held out for this craft, which really is a beautifully-built and streamlined machine.

Following the dual success which attended the Channel Club's appearance at the Lenham Rally, members of the Club were working hard in their spare time last week to remake the wing damaged on the R.F.D. at that meeting in order to carry on with gliding this week-end. Unfortunately the repairs were not completed in time, so Cpl. Manuel placed his glider, Manuel VI, at the disposal of members for Sunday's instruction.

During the morning the Club was honoured by the arrival of one of the Vice-Presidents, Col. the Master of Sempill, together with Sir Sefton Brancker, the President of the B.G.A., who flew down with Miss Winifred Spooner. Miss Susi Lippens, who has a German "C" licence, was also of the party. She is visiting this country with her Professor sailplane.

The Master of Sempill, Miss Spooner and Miss Lippens all made flights in the Manuel VI, as did many members. The conditions for gliding were poor, the little wind there was being in the N.E. quarter, which is the least useful wind for this particular ground.

The R.F.D. will be ready for service this week-end, when instruction will be continued on the site at "Valiant Sailor," Dover Hill, Folkestone.

Gliding takes place each week-end on the site mentioned above. The joint Hon. Secretaries are Flg. Off. F. Read, R.A.F., Hawkinge, nr. Folkestone, and Mr. D. J. Donald, c/o Barclays Bank, Folkestone.

BEDFORD GLIDING AND FLYING CLUB.

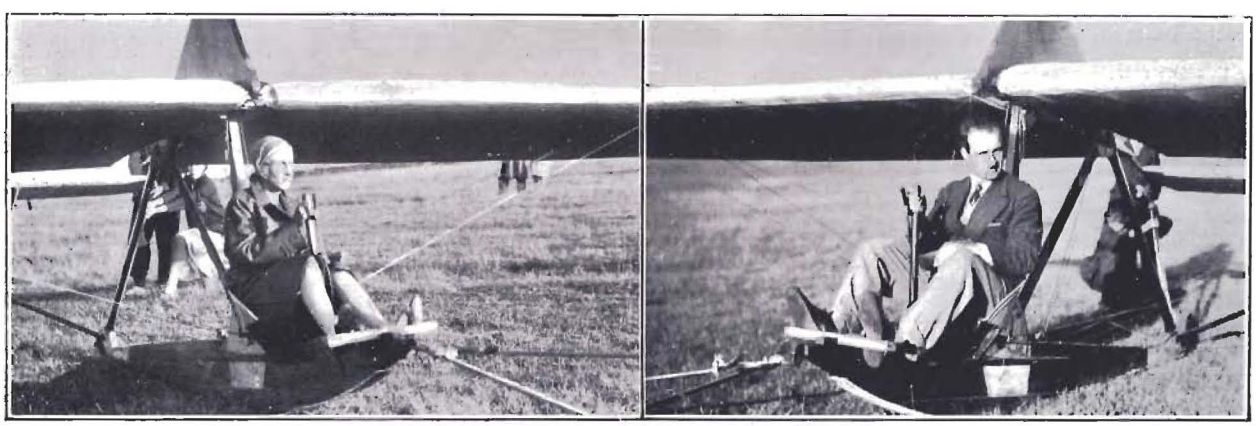
Owing to the rapid approach of Winter and the failing light, the Club has very reluctantly been forced to abandon outdoor work during the evenings, and now arrangements will be made to carry on classes in construction. In the meantime, however, busy workers are doing everything to strengthen and improve the hangar.

Of course, gliding will be in full swing during week-ends, on Saturday afternoon and Sundays, and for the benefit of visitors, who are always welcome, the Club ground, which is private, is on Wilstead Hill, 5 miles from Bedford, on the Luton Road. The ground is easily distinguished by the hangar and wind sock, which form a landmark for miles around.

Some excellent gliding was carried out in the recent heavy winds, but unhappily one of our lady members, who bravely held the machine into the gale, made a "stalled" landing, damaging the skid and king post, so members are now ensured of a thoroughly enjoyable week of evenings at repair work.

The sight of one of our lady members, Miss Chatterton, holding the machine in the face of the gale and making a perfect landing, was one that drew much praise and applause.

Recently "night operations" were made with the help of car headlights and successful ground hops by night caused great amusement.



Mrs. and Mr. Alan Butler, of the De Havilland Aircraft Co. Ltd., who are joint Presidents of the North Cotswold Club, ready to make their first glides in the Club's training machine.

The Club still needs more members and for the benefit of those anxious to join we would like to point out that the annual subscription is only 15s., with an entrance fee of £1 for the first year. There is no charge for tuition or use of machines and no liability for crashes, except to "lend a hand in repairs."

THE SOUTHDOWN SKYSAILING CLUB.

This Club was formed by Mr. A. Yorke Bramble (late R.F.C. and R.A.F.) and Flt. Lt. LeeRoy Brown in conjunction with Messrs. Leaney and Ely, of Brighton, on June 23 last. Our President is Earl Howe; and our Vice-Presidents include Viscount Gage, Commander Sir Cooper Rawson, and Mr. Gordon England. Our official organ is, of course, The Sailplane. Our flying ground has been described by Kronfeld as one of the best in Europe. It lies south-west of Ditchling Beacon, on the outskirts of Brighton. Our Hon. Treasurer is G. R. Paling, of Hove (better known in connection with the Office of the Public Prosecutor!).

Our aim is to make this Club serve the major portion of the interests of Gliding in the central southern counties. We look forward to the day (not far distant, we hope) when we shall have two or more machines of each of the chief types as Club property and accommodation for housing privately-owned sailplanes on the Club's launching ground.

Furthermore, we hope to work out in practical fashion the details of a simple scheme which is being got out for the complete launching of a glider by the pilot himself alone.

Our programme includes a big public Winter meeting with inter-club competitions, some of which will be of an entirely novel type.

The Hon. Secretary is Mr. Yorke Bramble, New Yorke Hotel, Bedford Square, Brighton.

THE NORTH STAFFORDSHIRE GLIDING CLUB.

The North Staffordshire Gliding Club claim to possess the best mobile British-made gliding outfit in the North-west Midlands. It consists of a Trainer and Secondary Glider, which have interchangeable wings. Both were built by Mr. Lowe-Wyldes' Company in Maidstone. The efficiency of the Trailer equipment was recently proved by the fact that it was brought from Maidstone to Stoke-on-Trent in eleven hours, which included a three-hour stop on the way.

The same day it was taken to Congleton, where Mr. Lowe-Wylde demonstrated both types of machine to a very large crowd, his usual style being rather cramped by the nature of the site, which he described as the most dangerous he had ever ventured from. It was chosen by the writer, who in his ignorance over-estimated the performance of such machines, fortunately with no serious results; the crowd were, however, somewhat disappointed.

The Wrexham Gliding Club have intimated their desire to join us in the very near future, when we hope to have an enjoyable meeting together; it will be several months yet, however, before we venture into Competitions.

Mr. Lowe Wylde, of the British Aircraft Company, gave a very interesting and instructive demonstration at The Cloud, Congleton, on Sunday, Sept. 14, under the auspices of the North Staffs Gliding Club, and several thousands of spectators were present. Both the primary and secondary types of B.A.C. gliders, acquired recently by the Club, were in use and a very successful demonstration was given in spite of the difficulties of the site.

On the following Sunday the Club had a further meeting, and these have now been arranged for each week-end.

The Hon. Sec. is Mr. C. Teeton, 3, Havelock Place, Shelton, Stoke-on-Trent.

A GLIDER CLUB FOR ACCRINGTON.

Accrington is to have a Gliding Club which has had the sense to authorise what is very nearly a sensible subscription. This is two guineas for gliding members; we think it ought to be three. A club subscription is practically all a member has to pay for gliding, so when one considers the subscriptions and incidental expenses in connection with other sports there seems no reason why gliding subscriptions should not be raised all round. If they were, it would probably result finally in much more work being done in the movement.

Anyway, to return to the new Club. At the second meeting Mr. Nolan, the secretary, reported on a visit paid by a number of members of the committee to Ilkley recently. He stated that the machine there was of the Zogling type and cost £62, with an extra £10 for gear. The machine was taken to and fro in a specially constructed trailer, which could be towed by a small car, and this dispensed with the need for a hangar.

The machine can be dismantled, stowed away and re-assembled in about half-an-hour.

Mr. Nolan said the committee were informed that German machines were the best, but the opinion was expressed by the members, and with this the secretary agreed, that if possible a machine of British type should be obtained, and it was decided to examine machines so constructed before doing anything definite.

The meeting decided to continue inquiries that have been begun into the purchase of British gliders. So far these seem to be built only by south country firms. One advantage in buying a British glider is that renewals or spare sparts could be more easily or promptly secured, and it was mentioned that the Bolton club had a German glider which had been held up quite a long time owing to have to send abroad for renewals.

Thirteen members paid subscriptions, and when the number reaches 25 it is intended to secure a training plane, and to bring down an expert of the *British Gliding Association* to advise on a flying ground, and to lecture to the members on the new sport.

THE SAILPLANE CLUB OF T.M.A.C.

Some of the best gliding that the Club has yet achieved was done on Sunday last at Horton Farm, Smalldole, Sussex. Owing to an adverse wind on the usual training site, operations were moved to the basin which is eventually to be used for soaring flight. Here the greater launching height and extra wind-lift enabled advanced members to enter record flights in the Club's log-book.

Owing to great pressure of private work, Mr. John Welding has resigned, but will, no doubt, continue to take an active part in the Club's functions. The Committee have elected, as Hon. Sec., Mr. E. G. Smettem, and applications for membership, together with other correspondence, should be addressed to him at 2, Wine Office Court, Fleet Street, E.C.4.

The Club's Winter programme includes the building of sailplanes, and negotiations are in hand to acquire a large London workshop. In connection with this side, a Constructional and Experimental Section is being considered. Active co-operation is expected from some of the most advanced model builders of The Model Aircraft Club in the construction of scale model sailplanes for experimental purposes, with a view to perfecting the design of the Club's own planes.

The subscription is £5 5s. per annum for flying members and £1 1s. for non-flying members. Inquiries should be made to the Hon. Sec., E. G. Smettem, 2, Wine Office Court, Fleet Street, London, E.C.4. Central 5773.

SOUTH ESSEX AERO CLUB GLIDING SECTION.

The South Essex Aero Club was formed in June, 1930, with a progressive policy embodying Gliding, Soaring and eventually Light Aeroplane flying.

A lecture by Mr. Gordon England, Chairman of the *British Gliding Association*, aroused considerable enthusiasm in the district and the Club started off with a good membership.

A training glider was obtained from the R.F.D., of Guildford, and a flying ground secured at Havering.

Several week-end meetings have been held and good progress made by the members. Operations were abruptly terminated by a crash, the glider striking a tree on landing; fortunately the pilot escaped unhurt, but the machine was damaged.

However, with the spirit that makes a successful club the members immediately started repairs and gliding will be resumed this coming week-end.

Members are requested to note change of flying ground. The new ground is at Skinners Farm, Theydon Mount, near Abridge.

Applications for membership should be addressed to the Secretary, South Essex Aero Club, Gliding Section, 19, The Pavement, Chadwell Heath.

THE SOUTH SHROPSHIRE AND NORTH HEREFORDSHIRE GLIDING CLUB.

The South Shropshire and North Herefordshire Gliding Club was formed in July of this year. The first General Meeting was held at Headquarters on Thursday, Aug. 14, when a large company was present. It was then decided to become affiliated to the *British Gliding Association*.

A Dickson (Zogling Type) Glider was placed on order and is expected any day.

The President is Sir James Croft, Bart. (who will take an active part), with Lt.-Col. G. Windsor Clive, M.P., Sir Ernest Shepperson, M.P., Mr. T. Owen, M.P., and others as Vice-Presidents.

The membership has already reached 130. Subscriptions as follows: Active members £1 1s., non-active members 10s. 6d., lady members 10s. 6d., with an entrance fee of £1 1s. for all members.

The Hon. Secretary is Mr. A. Handy, Bull Ring, Ludlow, Salop.

A GLIDING CLUB FOR LEEDS.

At an assembly of interested people on Sept. 26 it was decided to form a Leeds Gliding Club. Mr. A. Gomersall was elected Chairman and Mr. G. Jefferson as Hon. Sec.

The subscription has been fixed at £2 and the entrance fee at 5s., and the purchase of a machine will be discussed at the next meeting. The address of the Hon. Sec. is 32, Feernville Grove, Roundhay, Leeds.

A GLIDING CLUB FOR EDINBURGH.

A Gliding Club has been formed in Edinburgh and one hundred people are ready to join if the report of the Committee is satisfactory. Anyone in the neighbourhood who is interested should get in touch with the Hon. Sec., Mr. James D. M. Currie, 16, Bernard Street, Leith.

FORTHCOMING DATES.

A MEETING NEAR RUGBY.

On Oct. 4 Mr. Lowe Wylde is to give a demonstration at Cote Hill Aerodrome, Husbands Bosworth, Rugby.

A LECTURE AT BEXLEY HEATH.

On Oct. 6, at 8 p.m., Mr. Lowe Wylde, A.R.Ae.S., is to give a lecture before the North Kent Gliding Club. This will be given at the Constitutional Club and anyone who wants to go should get into touch with Mr. Walter T. Davis, Warren House, Bexley Heath.

A MEETING FOR WILTSHIRE.

On Oct. 11 and 13 the Wiltshire Light Aeroplane and Glider Club proposes to hold a meeting for gliders. There are about 65 acres of landing ground for visiting aircraft and a car-parking space of about the same area. Particulars can be obtained from Mr. C. J. Cuss, Church Place, Swindon, Wilts.

AN IMPORTANT MEETING IN THE NORTH.

On Oct. 21, at 3 p.m., the Association of Northern Gliding Clubs are holding a meeting at the Hotel Metropole at Leeds. A representative of the *British Gliding Association* has accepted an invitation to be present.

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