September 23, 1932. Vol. 3, No. 17.

THE SAILPLANE & GLIDER

Official Organ of the
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THE SAILPLANE & GLIDER

(Founded in September, 1930, by THURSTAN JAMES*).*

The only Journal in the World devoted solely to Motorless Flight.

OFFICIAL ORGAN OF THE BRITISH GLIDING ASSOCIATION.

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SOME REFLECTIONS ON THE 1932 COMPETITIONS.

SUFFICIENT time has now elapsed to review, rather more fully than was possible in the last issue of THE SAILPLANE, the B.G.A. Competitions which were held at Askam, near Barrow-in-Furness, from August 27th to September 4th.

It will be recalled that the meeting was arranged somewhat hurriedly when the Contest Committee of the B.G.A. sought and obtained the decision of Council not to hold an international meeting during the present year. For the fact that a meeting of any sort was arranged and actually held, we have to thank one or two individuals, and particularly the Furness Club. The short time available for making the necessary preparations may be taken very largely as an excuse for any lack of organisation which may have been in evidence throughout the meeting. It has to be remembered, however, that the B.G.A. assumed responsibility for the meeting and actually ran it.

The primary object of the meeting was to get together the members of the active gliding clubs, both in the North and South, and to have a week of interesting flying during which the various clubs would demonstrate the progress which they had made during the past year. In addition to the Wakefield Trophy and the two Cups which were offered for special performances, there were several prizes available for the different events, and an attractive programme was arranged. From this point of view, those who made an effort to attend the meeting were well rewarded, for, as described in our last issue, some excellent performances were put up.

Had these features been all that mattered, the meeting could have been voted an unqualified success. The same results could have been obtained, however, had the Furness Club merely invited other clubs to visit them and enjoy a week's flying on their excellent site. The B.G.A. need not have come into the meeting at all, and there would probably have been quite as good an attendance of people who really mattered. It is true that there would not have been any cups or prizes, but these, after all, form a secondary consideration.

But the meeting was intended to be more than this. Some good performances were expected, and it was hoped that new records would be established. This is where the B.G.A. should have come in. What was the nett result? When the first flight was made it was found that the two barographs which were available would not function satisfactorily and, had a new height record been set up, it would have been impossible for it to have been verified and subsequently recognised. Similarly it was found that in other respects there was no real organisation such as might be expected at a meeting of this character. The various officials did their best in the circumstances, and certainly no blame can be attached to them.

Then there was the point of view of the general public. The meeting had been widely advertised and it was expected that, particularly at the two week-ends, there would be a large crowd gathered to witness the flying. One shilling per head was charged for admission to the enclosure and it was hoped that the gate money would not only defray the cost of the meeting but that it would also contribute to the funds of the B.G.A. and the participating clubs. From this point of view the meeting was a dismal failure. One felt sorry for the people who came on the first Sunday, many having walked at least two miles from Askam station, for there was no flying worth mentioning, most of the competitors being engaged in adjusting or repairing their machines. Nor did there appear to be any serious attempt to organise demonstration flights. Certainly the uninitiated visitor cannot have left the meeting with a very good impression of British Gliding.

Looking back, it is doubtful whether any attempt should have been made to advertise the meeting or to charge for admission. The burning question of finance is, of course, ever present with us, and every opportunity has to be taken to raise funds. If it was intended to use the meeting for this end, then there ought, definitely, to have been a more successful attempt to secure an adequate organisation, and more regard should have been paid to the point of view of the public. To stage a successful demonstration it is necessary to be certain in advance that there will be sufficient machines available for a reasonable amount of flying. The weather, of course, may upset the best organisation in the world, but the public knows this and makes the necessary allowance.

The real point is that it is useless to attempt to arrange a public demonstration until we have sufficient machines and pilots for the purpose. It is unfair to expect pilots who have come to the meeting for a definite purpose to spend their time, and possibly risk their own machines, giving mere demonstrations. When we have the machines

(Continued at foot of page 197. Col. 1.)

8,000 FEET UP IN A GLIDER

By MARTIN H. SCHEMPP (Chief Instructor, Haller School of Soaring Flight).

The 4th of July. A big day also for the airport. The demonstration of an airplane tow of the Haller Hawk Sailplane was advertised. A Waco motorplane stood ready, the engine humming and warming up.

But the sky was black in the west and a thunderstorm was rapidly approaching. Which way is it going to take? Will it pass by or is it going to hit right here? Let's wait awhile and find out. It's no fun getting caught in a storm especially while being towed behind a motorplane.

The storm seems to go north of us, the black front of rolling clouds has already passed by. Let's go then.

The 500ft. steel cable is attached to the glider and motorplane and the flag signal is given for the take-off. We are rolling over the field, just a few feet, and the sailplane lifts off. I have to dive to slacken the tow cable and to allow the motorplane to take the air. There she goes up and we are flying at the same level, circling the field and steadily gaining altitude.

It is not easy flying to-day; the air is full of gusts and bad pockets. My friend in the Waco has his hands full too. The air is getting rougher every minute and the tow cable has to stand bad jerks. The middle mark at the cable, a white flag, is dancing up and down; it is almost impossible to keep the cable tight for any length of time. No wonder—that storm seems to grow sideways or has changed its direction entirely?

The altimeter shows 1000ft. I still may be able to make the airport. A sharp jerk at the release handle and the cable drops away. Immediately the Waco plane goes into a steep dive and a few minutes later I can see it skim low over the airport, drop the cable and land in.

It feels good to fly at normal speed again. Such an airplane tow at a speed of around 60 m.p.h. is quite a strain. The usual flying speed of my sailplane is 30 m.p.h. therefore, under double its normal speed, the slow motorless craft is getting as nervous and sensitive as a a racing plane.

I am still diving to keep away from the approaching clouds, but in vain; they are faster and the sky above is soon black. An invisible hand is pulling my ship up. Still in a nose dive, we are gaining altitude—1,000 feet, 2,000 feet, and up to the base of the cloud. I do not have the instruments for blind flying and do not care a bit for flying in storm clouds.

Another attempt to escape, to force the plane down and out. The air speed indicator shows 85 m.p.h.—she has never travelled at such a speed before and gives a strange high whistle as a warning sound. The wing tips are bending up. It won't do. If I want to break off a wing, I may just as well do it higher up and bail out with the parachute.

Altitude is a precious thing under such circumstances. I take the stick back—an express elevator is slow compared with the free lift I am getting from the cloud. 20 ft./sec. climbing speed, 25, 30 and now the hand hits the dial stop.

The ground has disappeared long ago. I am flying in a white mass of mist. Visibility zero. Not even the wing tips can be seen. Terrific forces are shaking the plane, up, down and up again.

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Please note that the address of the Editorial Offices of the "*Sailplane and Glider*" is now:

43, CHANCERY LANE, LONDON, W.C.2.

All communications for the Editor should be sent, in future, to this address. Attention to this will save time, trouble and delay.

The address of the BRITISH GLIDING ASSOCIATION is still 19, BERKELEY STREET, LONDON, W.1. Renewals of subscriptions should be sent to the Secretary at this address, and *not* to the Editor.

I am hanging on to the seat and stick, but my head is thrown fore and back in sharp jerks. The ship sounds like a big drum in a heavy rain. I am soaking wet in the open cockpit and shivering with cold, for it is still going up.

One feels lonesome on such a wild ride. I start talking to my plane just as if it were a horse. "You won't fail me this time, we've got to get through."

Hail is hitting my face. No wonder—the altimeter shows 8,000 feet; the hail pricks like needles, and I am crawling inside for there is nothing to see, anyway. There is no way to tell what position the ship is in. What's the difference, if it only stands up?

And it does. What is happening? I hold my breath. The whistle has suddenly stopped. There is a strange calm, as if the ship is hanging by a string from the sky, floating in a huge bowl of milk.

The plane must be stalling. The instruments are hard to see with the hail and rain pounding on my goggles.

I push the stick forward and I am tangling in my safety-belt, caught in a strong down-draught. Still, I am happy for this means the near end of the storm. We are falling and falling. It is half an hour since we got swallowed by the clouds; it seemed more like two hours to me. And still no ground in sight.

In what position are we going to be dumped out? It is high time that I should see something of the ground. There are only 300 feet more to go down. Should I have been carried into the mountains? There—a dark wall at the left side, it is getting lighter, it is the ground. I am sliding down fast, falling in a beautiful vertical bank. The goggles are torn off in a hurry, the ship rightened up and I am the happiest man on earth. We are gliding in an air as clear and smooth as glass, floating happily over large fields with plenty of space to set a glider down. A few curves and turns and the ship glides into an oatfield to a safe landing.

I have to rest in the cockpit, to rest from the strain of the past hour. Nobody can have seen us land. We dropped out of the clouds, too noiselessly and too unexpectedly, and had to sit down in a hurry.

Stiff-legged, I climb out of the seat and stroll over the swampy field. What does it matter if I am sinking in, way over my ankles? The sun is breaking through! There is a farmhouse and some people in front. They are astonished to see such a water-dripping wanderer coming across their fields. Their voices seem to be so far away. That fast drop from the sky must have affected my ears. What does it all matter? I rode through a thunderstorm in a glider, 8,000 feet up!

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BIRDS, CLOUDS AND THERMALS.

By CAPTAIN C. H. LATIMER NEEDHAM.

During the summer months one noticeable feature of the Swiss and Italian lakes is the number of large birds that can be seen in soaring flight during the hours of sunshine. These birds are known locally as "Fish Eagles," the name being self-explanatory, although they appear remarkably similar to the Buzzards that inhabit the mountainous parts of Europe.

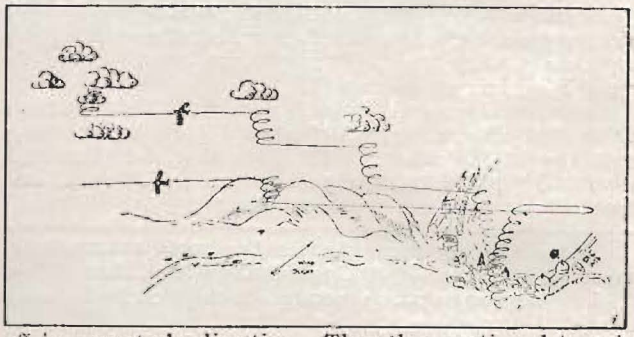
Occasionally one may be seen in slow, flapping flight at 8 or 9 o'clock in the morning, but they are not visible in numbers until 10 a.m. or even later, when the earth's surface has warmed up. They then spend most of their time in graceful soaring flight, at a height of between about 30 and 200 feet above the ground or water, and every now and then a dive is made to the surface for catching fish. Flapping is then resorted to, and it can be noticed that their wing-tips, which are slightly reflexed upwards, just touch the water. From observation it appears probable that their aim is to soar at the lowest possible height, since it is seen that when at 30 or 40 feet above the water occasional wing flaps are necessary whereas at greater heights continuous soaring flight is more easily accomplished.

Flight is not limited to the heights mentioned, as from the tops of the surrounding hills, between three and six thousand feet in height, the sea-eagles are sometimes seen just a little higher. Swallows may also be seen in soaring flight, just skimming the hill-tops in search of insects.

It is noticeable that at Lake Lucerne soaring flight generally takes place over the land, and especially above towns, but at Lugano most of the time is spent over the lake, or at least just away from the shore. It would seem that this is accounted for by the fact that the water at Lucerne is quite cold, coming from the glaciers and flowing swiftly, whereas at Lugano the water is very warm and slow moving. The steepness of the mountain sides surrounding Lake Lugano, together with the fact that large stretches are often in the shade, whereas the lake gets the sun during the whole day, evidently contributes towards the formation of up-currents over the water. The lake is often crossed in gliding flight with no apparent loss in altitude.

On days when the sun is obscured only occasionally may a bird be seen—and then in flapping flight—and after the sun goes down behind the hills the sea-eagles may be seen flapping lazily towards their roosting places in the forests.

On one occasion, from the hills behind Lucerne, I watched two of these large birds circling up over the town. It was then about 4 o'clock in the afternoon and the sun had been shining throughout the day. For some time they circled together until a height of perhaps 500 feet had been reached, when one of the birds went



off in a westerly direction. The other continued to gain height for some seconds, and then turned N.E., above the valley of the River Reuss, and glided very rapidly in a straight line. After about half a mile or so the bird recommenced circling, and I then noticed for the first time that a small thermo-cumulus cloud was immediately above.

After a further gain in height a long straight glide was made, in the same direction as before, until after about a mile circling flight was again resorted to beneath another cloud, followed by another long glide to a spot where a number of clouds could be seen. Here it was noticed that the bird often disappeared from view by flying either through or, more probably, behind the smaller clouds. It was then possible to pick out a number of other birds in the same group of clouds, all in circling, soaring flight. The distance must have been some miles, and it was impossible to trace the flight beyond this point.

The bird that had flown to the west was seen to be losing height, and after a short while turned round to follow his more successful comrade. Except, however, for one slight gain in altitude it appeared to be losing height the whole way until it disappeared from sight. I do not know whether progressive cloud sailing flights by birds have been recorded previously. Also, is it feasible that the ears of soaring birds are sufficiently sensitive to detect changes of altitude?

CORRECTIONS.

The following corrections should be made in the previous issue of THE SAILPLANE (No. 16, Vol. III.):

P. 188. Photograph to left at bottom of page. For "Kassel 20" read "Furness Club's B.A.C."

P. 189. Photograph. Substitute for title: "Left: Wolf Hirth in the Musterle." Right: "The Askania."

P. 192. News from the Clubs. The headings "Dorset Gliding Club" and "Channel Gliding Club" should be interchanged.

P. 192. Under "Official Notices" for "Commander Craig" read "Commander Craven."

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WHAT NEXT?

PRIVATE OWNERSHIP OR—NOTHING.

By "C-PILOT."

[*In the following article "C-Pilot" paints a somewhat gloomy picture of the fate which awaits the glider pilot who has reached the "C" stage, but cannot afford to embark on private ownership.*

While not necessarily endorsing all "C-Pilot's" views, we publish the article, which should prove stimulating and thought-provoking, in the hope that it will induce other "C" pilots to state their views on what is, undoubtedly, a very real problem.—ED.]

Under existing circumstances the most entertaining phase in the career of an English ab-initio glider-pilot is the long step from pure ignorance to the first flight from a height. Every launch is an adventure, each full day in a smoothly-run club contains ten or a dozen of these adventures, and expense is at a minimum.

Subsequently there are other peaks of attainment, i.e., of entertainment, but *they become progressively more scarce*. There is the first attempt at an about-turn, at a spot-landing, at a soaring-flight. Then there is the first successful soaring-flight on the club site, the first landing at the launching point, and, with luck, the first soaring-flight on a strange site.

What next? Increasing altitudes, machines of greater efficiency, flights of greater duration, return flights of greater distances along a ridge, flights in stronger winds, and possibly flights influenced by cloud-currents and thermal currents.

But these greater achievements are behind an almost insuperable barrier which has defeated far too many C-pilots.

Up to a healthy C-standard all the flying has been done on club-machines of comparatively low degree, or, at best, on borrowed privately-owned machines, or upon a machine owned by a team of which the pilot is only one of many members. In any of these cases the pilot's style is completely cramped by the prime consideration, the returning of the machine intact to the launching point so that other pilots may use it without delay. This form of enforced altruism is as binding as a yard-dog's steel chain.

All that is left to the pilot, so long as he plays the game, is the improvement of his flying style, which he can bring about by everlasting safety-first cruises in local waters. The best that he can hope for is the day when, having become utterly reliable, he is deputed to show off the paces of a privately-owned machine, regardless of the machine's fate at the end of the flight. Such opportunities come once in a lifetime at the most. Only exceptional people can withstand such a fate indefinitely, especially when they have once tasted the possibilities of real aerial yachting as distinct from the first faltering steps of soaring. Looking in vain for fresh fields to conquer, they gradually retire into obscurity, merely retaining their membership on many councils and committees, at which they wear reminiscently, like old soldiers airing their medals, their C-badge.

Compare this with other sports. The pupil in rock-climbing buys an adequate pair of boots and then finds the whole world at his feet, his horizon being bordered only by the Himalayas. The pupil in sailing, even though he be practically penniless, can render himself so efficient that he is invited to become a working member of a deep-sea crew. The ski-er hires his skis and takes a cheap ticket to a Swiss Alp, the skater has a hundred rinks open to him, the swimmer can even dispense with a bathing costume provided that he embarks upon his Channel swim after dark.

Only private ownership can overcome the inherent trouble in motorless flying, and only the playing of a lone hand can bring the pilot into the promised land. But the cost is terrifying.

MACHINE. In Germany the price at works and at par of a KASSEL 20 is £49, and of a RHÖNADLER £78. To this must be added the disadvantage of our rate of exchange, the cost of the enormous packing-case and of transport, and the shocking tax—said to be either 50 per cent. or else 100 per cent. The net figure, delivered in England, is thus rendered so exorbitant that the would-be owner can only gibber impotently. The cost of reproducing single copies of these two machines in an English factory seems to range from £150 to £250. The demand for first-class machines in England is so microscopic that no manufacturer in his wits could venture to lay down half a dozen at a time and thus cut his expenses to a reasonable figure.

By a process of ignoring the enormous wages costs, the BRITISH FALCON was produced in a furniture factory at a price which compared reasonably with the German list-price. If out-of-work aircraft carpenters had built the machine in a disused barn, the price would probably have been increased by £50 or more. If ordinary amateur gliding-club carpenters had attempted the work, the machine would either be still incomplete or else it would have killed its pilot without delay.

The average would-be owner is checkmated. He can only wait, like Dickens's character, for something to turn up—either for heaven-sent assistance in the home-construction of a good machine, or else for a manufacturer who will be so reckless as to put on to the market a handy machine, with a sinking-speed of less than 3 feet per second, at a price on a level with German terms. The writer has grown to despair of meeting either of these alternatives, and has now fallen back morosely upon Irish Sweepstakes and upon phantom rich uncles from the Antipodes.

The fact seems to emerge that a sum approaching £250 is at present needed to obtain in England a navigable machine, of foreign or British origin, complete with air-speed indicator, altimeter, statoscope, a spare skid and a tin of glue-powder.

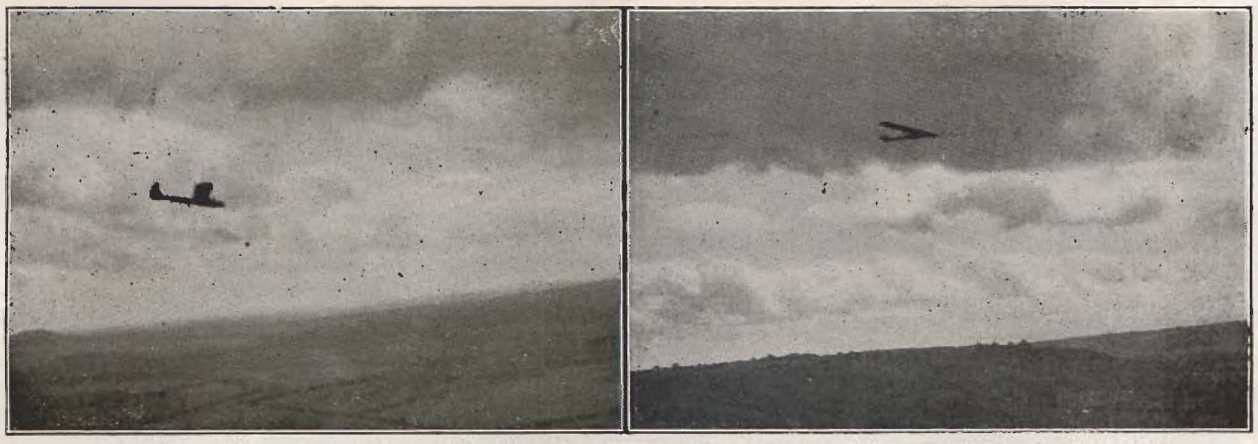
Remember that we are considering sailplanes and not primary and secondary machines. We are looking for a machine with which the pilot will always be content, no matter how proficient or ambitious he may become.

TRAILER. No pilot can ever remain content with the local site. Half the attraction of soaring flight is the trying-out of new sites: here one speaks from the heart. Not only is some kind of a trailer an absolute necessity, but it must be durable and absolutely weather-proof so that, in the worst deluge on some northern height, those awful things are avoided, the filling of the wings with gallons of glue-dissolving rain-water, and the rendering-to-pudding of bulkheads in the body. One night of neglect causes weeks of work, and never again will the machine be the same. From every point of view the trailer must be as sound as a bell.

TOWAGE. Such a trailer can indubitably be towed on level roads by a light car, provided that no regard be paid to big-ends, tyres and clutch. But an ancient Bentley is infinitely to be preferred and is far more likely to complete the journeys. Here, as in the case of the trailer, one makes no attempt to price the job. A process of hiring is conceivable in each case, but is hardly probable.

REPAIRS. One of the morals of the meeting at Barrow-in-Furness is that every machine must be attended by a vast quantity of tools and of pieces of wood, by sheets of ply-wood, and by a reasonably skilled and courageous amateur or professional mechanic. Otherwise all hope of steady flying must be abandoned. Makeshift repairs lead from grief to grief, until the rain-soaked grass becomes boggy with ineffectual tears. But most of the tools may be bought from Woolworth's stores, and the mechanic for special occasions obtained from an unemployment bureau near an aircraft works.

HOUSING. However sound the trailer may be, the sailplane wants a permanent home in a dry place, such as a floored aeroplane-hangar, where it can be left in all weathers and temperatures without warping and rotting. Club-hangars, already congested, and farm buildings, always damp, must be ruled out. Car garages of sufficient size are expensive. A benevolent aerodrome is indicated,



The "Kassel" 2-seater at Dunstable photographed by F. B. Thomas while soaring in "Dagnall II."

especially since any necessary skilled attention will always be at hand. And, in passing, it should be noted that skilled attention becomes more and more attractive, the higher, the further and the longer the machine is taken into the air. It may also be noted that, both at sea and in the air, the most self-confident constructors are those who habitually keep both feet on the ground.

The situation, therefore, seems to boil down to this. Having passed thoroughly through your elementary training with a view to indefinite progress, you must harden your heart and prepare to carry on *alone, if at all.*

You must buy a machine which you can never outgrow, though always remembering that such a modest machine as a FALCON *can* be flown to a height of 1,700 feet, and from Barrow to Coniston. And then you must *look after it*, for this purpose obtaining the use of winter-quarters, a caravan-cum-trailer, a large car, skilled help, many tools, many spare pieces, and many such oddments as a starting rope and a supply of beer for emergency launching crews.

At the present time the capital required seems to be about £300, and the annual expenditure at least £100. There may be means of short-circuiting these figures, but fundamentally they are true.

But the dividend on your investment is assuredly infinite, depending entirely upon your powers of endurance and ingenuity. Remember the KASSEL 20 which in Germany was towed by aeroplane to 4,000 ft., rose to more than 10,000 feet, and descended safely with its wings shot full of holes by hailstones. Remember the TERN which had to dive steadily at 55 miles an hour to keep *below* the clouds. Watch the BRITISH FALCON, and see the welcome that it receives wherever it goes. Look at your map of England and see the trips that you can make in the North and in Wales, where landowners get up late in the mornings, long enough after you have gone off into space.

For goodness sake let us have some courage, and a little vision. And don't condemn this line of thought until you have seen the Lake District at your feet and have then felt compelled to turn back prematurely in order to deliver your communal machine to your brother-owners!

And when you have set up your sailplaning outfit, all on your own, you can still give a thought, or more than a thought, to your old skilled friends who are tied to the ground by hard times.

[We are told that "'C' Pilot" has now solved the problem for himself.—ED.]

(*Continued from page 193*)

there will be sufficient in properly organised meetings to interest the public without catering specially for them. Until that time comes it would be better to concentrate on inter-club meetings where pilots can foregather, and gain experience without being worried by the considerations which govern a special meeting of the type contemplated at Askam.

A WARNING FROM THE UNITED STATES.

The trans-Atlantic counterpart of the British Gliding Association is the Soaring Society of America, Inc. This society was formed in February of this year, but it appears to be an advisory rather than a controlling body.

It was responsible for the organisation of the third Annual Soaring Meeting at Elmira, which was held recently. The President is Warren E. Eaton and the Vice-President A. C. Haller.

"Gliding and Soaring Bulletin," No. 6, issued by the Soaring Society, contains the following warning to glider pilots under the heading "Watch Your Step—A Bit of a Warning."

"You all know that in 1929-30 there was a boom in gliding. You know that it failed largely because it was commercialised. You all know that a number of organisations since have attempted to capitalise the interest in this struggling movement. The Soaring Society wishes to point out that organisations have sprung up, or are likely to arise, which have personal interests at heart rather than the good of the movement. The project may be another "racket," even though it may be boldly advanced by experienced promoters under the guise of a sporting proposition.

"The Soaring Society takes this opportunity to warn you against any high pressure promotions in this field which may come along. The Soaring Society from the start has been interested in the development of soaring from the sporting angle, and its good faith is attested by the Elmira meet. Everything was done at cost, there was no thought of even promoting personal publicity, and whatever the society does in the future will be dictated by the same motives. A great deal of out-of-pocket money was spent by members of the board of directors without any thought of recompense.

"The Society has sought to point the soaring movement in the right direction; it has accomplished something for its pains, and having done that is extremely anxious that progress continue along the same non-commercial lines. The Society since its inception in February has automatically considered every soaring and gliding pilot in this country an informal member without any formalities, dues, etc. The present set-up of the Soaring Society, with an incorporated board of directors, has appeared to us to be the most efficient for effective work at this stage of the game. It is hoped that gliding and soaring pilots in all parts of the country will continue to use this organisation as they see fit in the advancement of their own activities and of the general movement.

"Included in the board of directors are the officers mentioned above, R. E. Franklin of Ypsilanti, Mich.; Lieut.-Commander Ralph S. Barnaby, Washington, D.C.; Sherman P. Voorhees and Franklin Iszard, of Elmira; Earl Southee, referee of the meet; Edward P. Warner, chairman, and others."

THE "SCUD II." HIGH EFFICIENCY "C" CLASS SAILPLANE.



Two years ago it was becoming clear that a gliding club contained too many pilots to operate sailplanes of the high efficiency type economically, because the expenses were mostly due to crashes which could only be avoided by the most rigid selection of pilots. But, as an example of what can be done with a good pilot, we believe that the MUSTERLE in Germany, belonging to Wolf Hirth, is now six years old and has never been crashed. Its maintenance cost must have been negligible and its capital value has probably increased.

There is now a tendency for pilots when they have gained sufficient experience on club machines—and there is a healthy increase in their numbers in the country—to form themselves into private owner groups or private owners, and acquire machines of the high efficiency class.

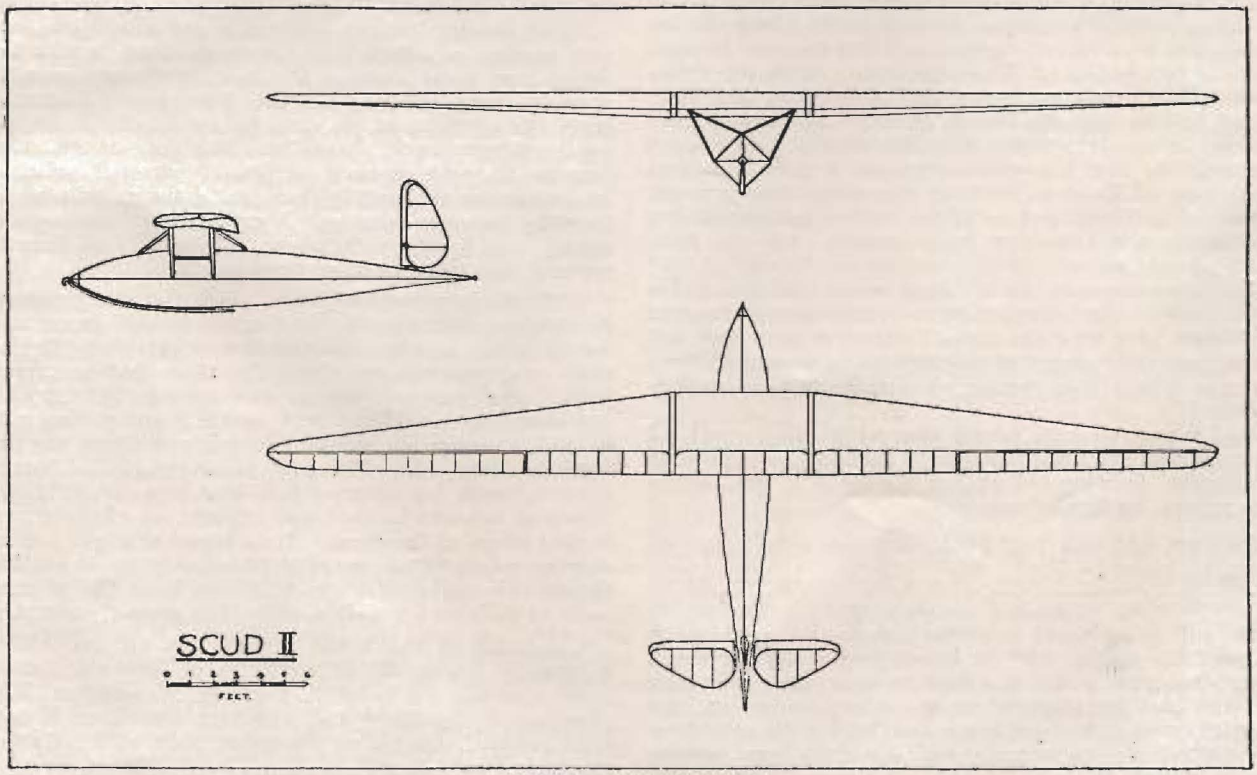
The SCUD II. has been designed by Mr. Baynes as a high efficiency sailplane for private owners, and is a development of the well-known SCUD intermediate machine.

The first SCUD II., the construction of which has just been completed by Messrs. E. D. Abbott, Ltd., of Farnham, has been built to the order of Mr. G. M. Buxton of the London Gliding Club, who thus becomes the latest addition to the number of sailplane private owners in this country.

Mr. Buxton says that he was fortunate in having flown the original type SCUD, being impressed both by its stability and sensitiveness. Mr. Baynes' proposal to build a high efficiency development of the little SCUD as a private owner's sailplane, was received, therefore, with great pleasure, and remembering Messrs. E. D. Abbott, Ltd.'s, excellent workmanship on the original SCUDS, an order was duly placed.

The new design was for a machine of 40ft. span and 100 sq. ft. wing area, and the weight empty 150lbs. These dimensions were of great interest when it was heard that the Darmstadt Academic Group was going to build a machine—intended to be of high efficiency—of very similar dimensions.

There is a notable tendency towards smaller machines, as the improved manœuvrability that results is to-day considered essential for thermal soaring flights. The original SCUD first showed the way, being less than half



GENERAL ARRANGEMENT.

the weight and size of contemporary machines in its class, and apparently no less efficient. The SCUD II. is, as might be expected, again half the weight of the conventional sailplane. This is obviously not at the expense of strength, as the general construction is very robust and the design has been passed, as up to the necessary load factors, by the B. G. A. who, now, by the way, require a factor C.P. forward of 6. The estimated gliding angle is 23—1 and the sinking speed 2.2 ft./sec.

If these figures are attained the SCUD II. should prove an excellent private owner's sailplane, as, apart from the manœuvrability, small size and light weight are a great advantage from the storage and transport point of view.

The little SCUD was original in its layout, and many novel features were incorporated in its design. These features have mostly been retained in the new machine, and include the extremely simple and light type fuselage, which is a square section turned on edge in the form of a diamond. The length has, of course, been increased, but the cross-sectional area remains the same.

The wing is, as before, carried above the fuselage by a system of struts, which also serve to carry the loads over the space for the pilot's cockpit, and thus save considerable fuselage weight. The neat type of tail unit, with the interchangeable swivel type rudder and elevators have also been retained.

The biggest departure has been made in the wing design which is now a single spar tapered and twisted wing with a pronounced sweep back of the leading edge, and is of much larger span and aspect ratio, namely, 16—1.

The aileron controls have been redesigned, and now incorporate an automatic release at the wing joints, and a chain and sprocket type differential gear.

A feature of the original *Scud* was the very much higher wing loading than is conventional practice; this has been slightly increased on the new machine, and is now as high as 3.5 lbs./sq. feet. The span loading is, however, owing to the light all-up weight, comparatively low.

The new machine is of a very pleasing appearance and finish, and is a great credit to the constructors.

The price of the new SCUD II. is £150, which we believe, to be lower than that of any high performance machine available in this country.

For convenience of reference, the following table giving the figures for the SCUD II. is appended:—

Span	40 ft.
Wing area	100 sq. ft.
Weight empty	150 lbs.
Gliding angle	23—1
Sinking speed	2.2 ft./sec.
Aspect ratio	16—1
Wing loading	3.5 lbs./sq ft.
"Schwingungzahl" (wing beats) ..	250 per min.

THE "SAILPLANE" FUND

This fund has been established to provide financial assistance for the British Gliding Movement at the present juncture, not only to enable it to continue its activities, but, also if the fund reaches a sufficiently large sum, to endow the Movement so that its future is assured. We reproduce below the President's appeal which, we are sure, will not fall on barren ground.

THE PRESIDENT'S APPEAL.

I appeal to all who have the interests of the Gliding Movement at heart to come forward at this time and support the Fund for the British Gliding Association.

The Association has been in existence for two and a half years. During this period it has demonstrated its value to the Movement, particularly in securing for the various clubs throughout the country the assistance which they require to enable them to carry out their activities in safety and without unnecessary restrictions and irksome regulations.

Funds are needed urgently for three paramount reasons:

1. **To enable the Association to carry on its work for the Movement as a whole.**
2. **The establishment of a central technical, scientific research centre and instructional school.**
3. **Ability to provide loans to clubs so that they may start with the essential equipment.**

Any subscription, for whatever sum, will be gratefully received, for I know that those who give at all will be giving generously.

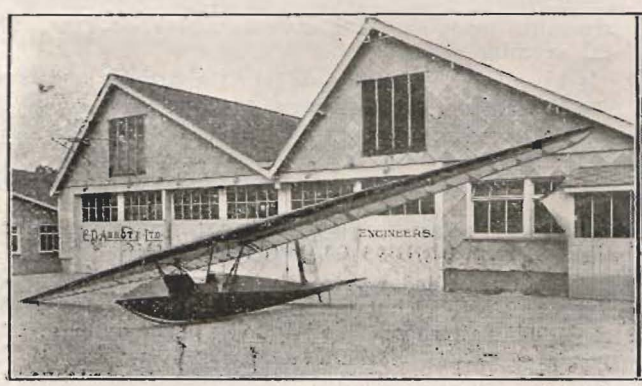
I hope that all subscribers to "The Sailplane" will bring this appeal to the notice of their friends, whether the latter are members of the Association or not.

F. C. SHELMERDINE, President,

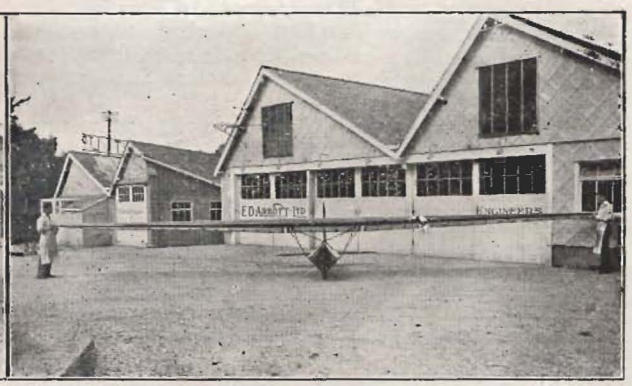
British Gliding Association.

Donations acknowledged to date, including Lord Wakefield's generous gift of £250, amount to £321 13s. 9d. The following additional donations are gratefully acknowledged:

	£	s.	d.
J. C. Neilan, Esq.	1	0	0
Jenner, Parsons and Co.		10	0



Three-quarter front and front views of the "Scud II."



The second photograph shows clearly the clean lines of this machine.

CORRESPONDENCE

THE PRIMARY v. THE TWO-SEATER AS A TRAINING MACHINE.

Sir,—At the last Council Meeting of the British Gliding Association, Capt. Stratton of the Southdown Club suggested that clubs had failed because they could not stand the expense of crashing on primary machines and accused the Association of having neglected to condemn the Primary. He appears to consider that the two-seater is the only satisfactory method of instruction, even to the extent of saying that it is not possible for clubs to instruct beginners by the Primary method.

The facts, of course, are totally opposed to his statements.

Early in 1930, the London Gliding Club commenced operations with two primary machines, a ZOGLING and R.F.D. (A.T.1). These two machines are the only Primaries that the L.G.C. has ever possessed (with the exception of a DIXON, which was scrapped after a fortnight's use), they have suffered many minor crashes, and the ZOGLING was once badly broken, but they have never been written off, and have never been out of action for more than two or three weeks at any time in their long history. The ZOGLING has at last faded away, not because it was beyond us, but because the B.G.A. inspector refused to grant a renewal of its C. of A. without complete overhaul and re-covering. The R.F.D. has been kept for certificate work and is in comparatively good condition still. Since the retirement of the ZOGLING it has been used for Primary work and is going strong at its new job. These two machines have trained literally scores of *Ab Initios* up to "B" standard (several "C's" were also obtained on the R.F.D. while she was fitted with a nacelle).

We now come to the secondary class, i.e., the class between the "B" and "C" certificates and, of course, after the "C" in preparation for the sailplanes. This class, of course, is the same, which ever elementary method is employed. It is in this class that the L.G.C. has suffered most expense and crashery; even so, taking into consideration the amount of flying that has been done, the secondaries have not done too badly. One PRÜFLING had been completely written off; also one nacelled R.F.D. One PRÜFLING has faded away from old age. (It is being rebuilt and should fly again soon.) Both the PRÜFLINGS have, however, been crashed more or less severely on several occasions and have often been out of action for many weeks on end; indeed, the budding "C's", and the "C's" who are trying to put in sufficient practice to fly the PROFESSORS have often been compelled to remain inactive while the other two classes have been merrily at work. This state of affairs would not have been altered in any way by the use of two-seaters for primary instruction.

Let us now look at the other side of the question. To operate two-seaters the Club must possess good safe pilots, capable of imparting their knowledge to pupils during the short period of an auto-towed flight. It is in this respect that, to my mind, the single-seater method scores. The L.G.C. has no less than 12 instructors, two of whom are on duty every Saturday and Sunday, one being in charge of primary work, and the other at the hill top. In this way no instructor is called upon more than twice in each month, which is really all that can be asked of voluntary workers. The system is only rendered possible by the fact that a good *Ab Initio* "C" pilot can and does make an excellent instructor for this kind of work, but could certainly not be permitted to give instruction by dual control methods. Should the time ever come when the L.G.C. is in a position to employ a full-time instructor in place of its amateur volunteers, we shall possibly turn over to auto-towing two-seaters, but until that time the biggest and most successful club in the country proposes to remain faithful to the very successful method of training that it has been using for two and a half years, during which time it has trained at least twice as many *Ab Initios* to "C" standard as all the rest of the clubs and other institutions in the country put together, whatever methods the others have employed. As to the quality of the pilots so trained, I am prepared to select a team of four *Ab Initio* L.G.C. pilots to compete with any four sailplane pilots from any other club or clubs whether *Ab Initio* or not, trained by any method available, for any contest on any site that Capt. Stratton cares to name. I have not consulted the members of the Committee of the L.G.C. on the matter, but I feel sure that there are four *Ab Initios* in the L.G.C. who would be prepared to back my offer.

DOUGLAS CULVER.

A QUERY RE CONSTRUCTION.

Sir,—A discussion in our workshop the other night made it evident that there is a good deal of dubiety as to the sizes of pilot holes that should be drilled for certain sizes of screws, and how deep they should go when fixing, say, ⅜in. spruce to 3-16in. plywood, and again when fixing two ⅜in. pieces of spruce together, or when running a screw right through ⅜in. spruce-3-16in. ply-⅜in. spruce as we do on the spars of the DICKSON.

In the case cited we were using ¾in. by No. 4 gauge brass screws, and a 1-64th difference in the drill diameter made all the difference between the screw being too tight and too loose.

I have personally had a good deal of experience in the drilling of railway carriage floors and such like. In this work a double diameter drill is utilised, the top diameter doing the "necking" and the bottom and smaller diameter the "pointing," as we used to call it. The screws are, of course, much larger than in glider work.

It would be interesting to know from some authoritative source if this double drilling is to be aimed at even in the smaller sizes of screws, down to ¾in., say, encountered in glider work, and, if not, to what depth of the screw a proper sized parallel drill should be put.

It would also be interesting to have some remarks in THE SAILPLANE about copper rivets, copper nails, roves, the difference between square and round nails or rivets, size of pilot holes, when they should be "crimped" over and when roved and rivetted.

We look forward to seeing an article or two in THE SAILPLANE on this subject.

E. T. H. GODFREY.

TAILLESS GLIDERS.

Sir,

I have heard it said that the elevators of non-swept-back tailless machines have exactly the opposite effect to ordinary elevators, i.e., when turned down they increase the lift of the wing and thus cause the machine to rise, and vice-versa. If this is so, I think it deserves a little explanation. Surely turning down the trailing edge of the wing must shift the C.P. backwards and so cause the machine to dive, not climb.

I have been very interested in the articles and correspondence re Mr. Nyborg's machine. It would be interesting to know how he manages to obtain such a high lift coefficient.

W. E. H.

LESSONS TO BE LEARNED FROM THE BARROW-IN-FURNESS GLIDING MEETING.

Sir,—I travelled up to Ulverston to see the B.G.A. Gliding Meeting, but unfortunately I only arrived late on Monday afternoon—too late to go to the flying ground. My first surprise was that, although the B.G.A. had specially recommended the Springfield Hotel, Ulverston, I did not find a single person there who was interested in gliding, and no one seemed to know where the meeting was held. Not even the 'bus drivers, going in the direc-

tion of the ground, were able to give any exact information.

When I got to the flying ground on Tuesday morning, the first thing I saw was a placard stating that no flying would take place on Monday, the 29th, so I congratulated myself upon not coming before. Tuesday morning was foggy and raining and useful only for repairing the machines that had been put out of action during the first days of the meeting. In the afternoon the weather cleared up and the conditions for flying were very good. Five machines went up, but only two succeeded in landing without mishap. The flying of the different machines was very interesting and instructive to watch, and I may say that one machine put up a very creditable performance as regards duration of flight, distance and landing.

The Wednesday, Thursday and Friday were so foggy and wet that no flying was possible, and even the repairing of the machines was made difficult as the glue would not set properly. It was, indeed, surprising to me to find that the rain did not do more damage—I noticed on two machines that the glue had been softened to such an extent that it could be squeezed out with the fingers.

On the Saturday, the wind was too strong for flying, but Sunday proved the best day of all. Although the wind was rather high and several machines had been dismantled on the Saturday and packed on to their trailers ready to be taken back to the respective club hangars, the best flight of the meeting was done on the Sunday afternoon, and the most surprising flight was made after tea by a secondary machine, which remained in the air for more than half an hour before it was forced to land owing to the wind dropping to below 10 m.p.h.

From these few facts we may draw the following conclusions:

1. Do not expect too much from the weather, and if you come to the meeting stay till the very last, as the chances of seeing good flying are as bright on the last day as on the first.
2. Do not expect too much from the general public, since they cannot tolerate disappointments.
3. The number of crashes is far too big and is due to the common practice of making the sailplane as large as possible with the least possible weight, and consequently with very little mechanical strength in the landing gear, so that there is little wonder that it merely crumples up if the landing is not absolutely perfect.
4. Not sufficient consideration has been devoted to the question of making the planes weatherproof.

To a person interested in gliding the meeting was both interesting and enjoyable, and gave an opportunity of witnessing the reliability of gliding machines under varied conditions

T. G. NYBORG.

EXCHANGE for Sailplane or Secondary 12 b.h.p. Racing Johnson Sea Horse Outboard Engine and 16ft. Mahogany Hydroplane, Trailer, etc. D Hobson, "Rhos Neath," Birch Vale, via Stockport.

PATENTS.

A. P. THURSTON & CO., Patents, Trade Marks and designs.—Bank Chambers, 329, High Holborn, W.C.1. Holborn 2542.

TUITION.

LIVE AND LEARN AT PHILLIPS & POWIS SCHOOL OF FLYING, Reading Aerodrome. Comfortable residential accommodation at economical rates. The very highest standard of instruction by late instructors of the R.A.F. Take a 15s. trial lesson at the country's most up-to-date school.
Reading Aerodrome. Sonning 114.

PARACHUTES FOR SAILPLANE PILOTS.

Now that the soaring stage has been definitely reached in the Gliding Movement in this country, and there is every prospect of soaring flights becoming more and more frequent, advanced sailplane pilots will have to decide whether they should add a parachute to their equipment.

It is unnecessary to emphasise the value of parachutes in power-flying, particularly in military aeronautics. The number of lives saved annually in the Royal Air Force by means of parachutes is an eloquent testimony to their effectiveness. Straightforward civil flying does not involve so much risk as service aviation, but even in this branch of aeronautics, nobody acquainted with its history will fail to recall cases where lives would have been saved had the occupants of the machines been equipped with parachutes.

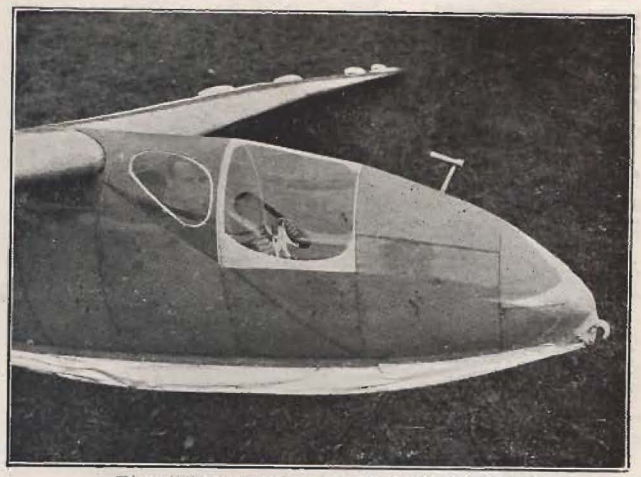
In some respects advanced sailplaning is similar to service power-flying, rather than to civil flying. The sailplane pilot must make deliberately for regions of the atmosphere where there are vertical air currents, and the whole time he is in the air he is engaged in manœuvres rather than in straightforward flying. Vertical air currents vary tremendously in their nature and speed. In a thunderstorm, in particular, they may attain very dangerous velocities, and a pilot who is seeking the best area for lift may find himself in a particularly turbulent region which threatens his machine and his own life. Unlike a power-pilot, he has no engine to help him to escape from the danger zone, and he may, therefore, in an extreme case, find himself at the mercy of the elements

Accidents in the air due to structural defects in sailplanes are, fortunately, rare, but the possibility of an accident due to this cause cannot be ruled out entirely. The existence of such a possibility is an additional reason why sailplane pilots should consider the advisability of adding parachutes to their equipment.

Reports have appeared in recent numbers of THE SAILPLANE of two accidents in Germany in which the lives of the pilots were saved solely because they were equipped with parachutes. The first was that in which Herr Rudi Pätz, flying in a CUMULUS, was drawn into a storm cloud above 7,000 ft. and thrown out through the right wall of the cockpit. He landed safely with nothing worse than a few cuts. The second accident occurred during the 1932 Rhön Competitions when Herr Kronfeld escaped by parachute from the AUSTRIA when the latter broke up in the air, landing without mishap.

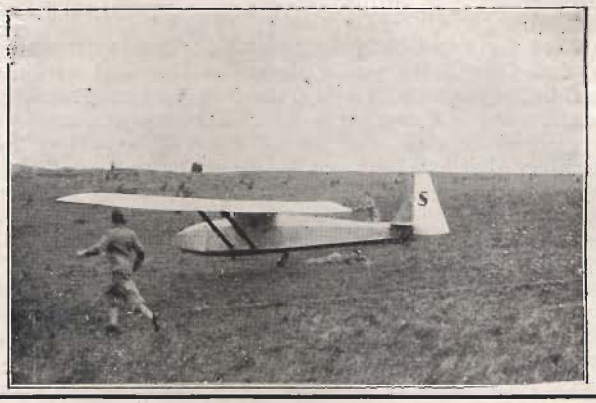
Realising that parachutes are an essential accessory to sailplanes, and actuated by a desire to help the Gliding Movement forward, Messrs. Selfridge and Co., Ltd., have offered to supply, as a gesture of goodwill, a second-hand Irving Airchute at a very special price to any well-known sailplane pilot nominated by the SAILPLANE AND GLIDER.

Any sailplane pilot who wishes to take advantage of Messrs. Selfridge and Co.'s generous offer should apply by letter to the Editor, the *Sailplane and Glider*, 43, Chancery Lane, London, W.C.2.



The "Benz-Meiningen B-4a" Sailplane.

NEWS FROM THE CLUBS



Dewsbury launching Collins single-handed in "Kassel 20" at Dunstable.

[*We wish to impress on Clubs that these columns are reserved solely for Club News. During the last few weeks we have read in local newspapers of recent performances put up by members of the Ilkley Club and also particulars of the North Kent Club's new ground, but no news has reached* THE SAILPLANE. *Remember that other Clubs are interested in your work and unless they read about it in their own journal they are not likely to hear of it at all.*—ED.]

PRESTON GLIDING CLUB.

Sunday, September 11th.

At Middleton again, following two week-ends spent in Askam during the B.G.A. Meeting, flying was out of the question as the wind at times reached a speed of 60 miles per hour. The day was profitably spent in overhauling the gear, especially the 28 h.p. Buick which we use for auto towing.

Sunday, September 18th.

Having left the R.F.D. secondary at Askam we arranged to collect same and, if possible, put in some time in the air before returning to Preston. Raining hard on Sunday morning, so consequently we did not get away very early. Our arrival at Barrow was too late to permit rigging our machine, so we assisted the Barrow Club with their nacelled DAGLING and helped to launch Mr. Stevens.

After the machine had been retrieved the wind was a few points north of west and blowing at about 20 m.p.h. At the invitation of Mr. Butterfield, L. E. Falla was then launched on a test flight to determine whether the modified primary would soar, and the subsequent flight proved that the Barrow Club have a very efficient secondary machine capable of a good performance.

Although the height gained was not as great as with our own R.F.D. secondary during the B.G.A. Meeting, sufficient time was spent up and down the ridge to prove the control ability of the machine. Fairing the wing roots and aileron gaps will doubtless add the extra efficiency which makes for a better gliding angle, slower flight, and quicker response in the turn.

After a flight lasting 55 minutes further soaring became uncomfortable owing to the cold, the pilot's hands being almost numb, so a voluntary landing was made on top. The Barrow members were highly appreciative of the demonstration, which proved conclusively that the Club have in the nacelled DAGLING another machine which can be used for obtaining "C" tickets.

We left our own R.F.D. stored at Askam with the intention of visiting the site again at an early date for several of our members to essay for their "C" certificates.

FURNESS GLIDING CLUB.

The Committee and members of the Club take this opportunity of publicly expressing their keen appreciation of the attendance at the B.G.A. Competitions at Moorside of such an enthusiastic gathering of members of the Gliding Movement, representative as they were of the pioneers of the movement in this country, of the pick of British pilots, of designers and constructors of gliders, of the meteorological service and of some dozen clubs in this country.

It is hoped that German visitors will come to set the pace next year.

Although the Club's site at Moorside has been in use for close on 12 months, not until the arrival of the competitors on August 27th had any soaring been carried out there. And if any doubts were harboured as to the suitability of the site, these have no standing in face of the recent achievements, and the Club owes a great debt of gratitude to those members who so skilfully demonstrated the possibilities, and thus further enhanced the reputation of the Furness district as the scene of record-breaking sailplaning, established in October, 1930, by Herr Maeersuppe.

The Club feels highly honoured that many of the visitors went to such trouble (and inconvenience, no doubt) to bring their machines (in some cases 200 and 300 miles) to Askam, and hopes that the achievements attained have justified that trouble, and even a return visit at no distant date.

Visitors to our Club and site are most welcome. The Club anticipates holding a special meeting on October 22nd and 23rd, on the occasion of the Club dinner and General Meeting, and will be interested to hear of intending visitors at that time. Confirmation of these days will be given in a later issue of THE SAILPLANE.

LONDON GLIDING CLUB.

Excellent wind blowing directly up the hill; soaring in R.F.D. II. from 3.30 p.m. until dark. Thomas and Hedges totalled an hour each, Thomas reaching the White Lion cut in the chalk on Whipsnade hillside. At 8 o'clock the veteran Grice obtained his "C" with a steady flight of 8½ minutes.

Sunday, September 4th.

On this day at Barrow conditions were sufficient to send Buxton to Coniston. Equally striking events happened at Dunstable, the R.F.D. II. being soared by Brame, Grice, Hedges, Hamilton, Dr. Slater, and Thomas. Brame's first attempt at his "C" is reputed to have been unduly emotioning, but both he and the machine emerged intact. His second flight, being steady and continually above the launching-point for twelve minutes, was passed by the observer. This R.F.D. is an excellent training machine; it undoubtedly soars and its powers of survival are apparently unbounded.

After the butchery of machines at Barrow, where seven breakages occurred to five machines on landing, there seems to be a lot to be said for home waters, where there is good soaring, good training slopes, watertight hangars, a full-time mechanic, smooth landings free from rocks and bumps, and a clubhouse. Greater heroics are only for longer pockets!

Saturday, September 10th.

Moderate south-westerly wind which allowed Hamilton to soar the R.F.D. II., and which later faded away. Two 45-second flights were obtained, and then the machine was used for ground hops. The KASSEL two-seater descended once.

Sunday, September 11th.

Strong and exceptionally bumpy wind straight up the hill. Gigantic lift. Four machines soaring together.

KASSEL 20 soared delightfully at intervals all day, with Cornell, Hamilton, Thomas and Collins. She is one of

the best of our scratch fleet to fly on a rough day. She was once more launched by one man unaided.

KASSEL TWO-SEATER.—Dent and Robertson made one flight of 1¾ hours. Dewsbery filled in the rest of the day by carrying eight passengers for 20 to 40 minutes each, all to the Zoo and some to the Rifle Volunteer; all landings, except the last, on the hill-top. The machine reached huge heights, but even there the conditions were still tumultuous, canting the machine 30 deg. either way and occasionally lifting the occupants clean off their seats.

POPPENHAUSEN TWO-SEATER.—Morland made two soaring flights with a passenger. This machine is not too good in the rough stuff, the lateral control being faint yet pursuing.

R.F.D. II.—Miss Churchill and Richardson caused rejoicing by obtaining their "C." Several others soared. But the end was near. Barnard, trying to do the same, beat up and down successfully until he stalled on a steep turn, slipped into the ground, cartwheeled, and turned the machine over, virtually writing it off. He was flung out and rolled down the hill, but finished up with a few superficial cuts. Sic transit one of the best R.F.D.'s that was ever made.

Miss Lippens's PROFESSOR was flown high and serenely by Mole.

It would seem that gliding is a trouble-free, inexpensive pastime so long as it consists of gentle sliding down aerial slopes in a flat calm. But now that the main body of the club is interested in soaring, which means healthy winds, carpentry begins to come decidedly into the picture. Otherwise what can we do? Sit in the wreckages and pray for a gift of bullion that will purchase the skill of professional repairers? The time is rapidly coming when calm days will be used solely for elementary instruction and for constructional work, so that the sky on soaring days will be filled with home-repaired, or even home-built machines piloted by home-trained pupils. A club workshop in London is indicated more and more strongly. In fact, it *must* come.

Sunday, September 18th.

The conditions were curiously divided up into distinct stages. In the morning a fair west wind blew up the hill, making soaring simple but not spectacular. At mid-day the wind moderated, going into the south-west. Only the CRESTED WREN, already at a handsome height, continued to soar far and wide; other machines were helpless. By teatime the earlier conditions were restored, but a mass of thick weather was now approaching. Until the arrival of a deluge, which lasted for some hours, soaring was again easy.

PROFESSOR I.—Was used several times, but was unlucky and did not soar.

KASSEL 20.—Was twice soared for about half an hour, but otherwise was unable to hold up.

HOLS DER TEUFEL.—Was soared briefly by the owners, and used in the afternoon for low training-hops, together with R.F.D. I. and a machine from Oxford.

CRESTED WREN.—Corporal Manuel, always welcome, turned up with his machine and sold it to a small group of "C" pilots. She was soared by Major Petre, Buxton, Dewsbury and Humphries. At times she soared high above the other machines, and revelled in conditions that they found inadequate. Her controls are astonishingly effective. She gives the impression of rock-like strength or, rather, of absolute "firmness." Corporal Manuel seems to have found, unaided, a design and a method of construction which are absolutely first-class. He therefore is given permanent rank as a Great Man.

KASSEL TWO-SEATER.—Behaved thoroughly nicely with passengers, soaring freely. She is handy, solid and altogether devoid of those sluggish habits which one had come to associate with two-seaters. In the morning she soared with the CRESTED WREN immediately ahead of her, and the KASSEL 20 tight on her tail, until the pilot not too confident in the pilotage of the machine astern—cried "Hold! Enough!" and sought greater safety on the ground. Which was unkind of him. KASSEL and the WREN continued to sport about until the former quietly subsided in the failing wind, leaving the WREN to rise higher and higher and to go further and further afield in what appeared to be a very healthy upper wind, a layer quite distinct from the surface-wind where no machine was too happy.

EXTRACT FROM LETTER RECEIVED FROM CAPT. R. L. YATES (PALESTINE).

I have had some good *fun* gliding, but the most suitable area needs some preparation, yet I don't suppose I will be able to try it for a fortnight or so.

Our present place gets all the down draught coming over Carmel (1,800 ft.) as the wind is always the same just now and blows every day about 10—15 m.p.h.

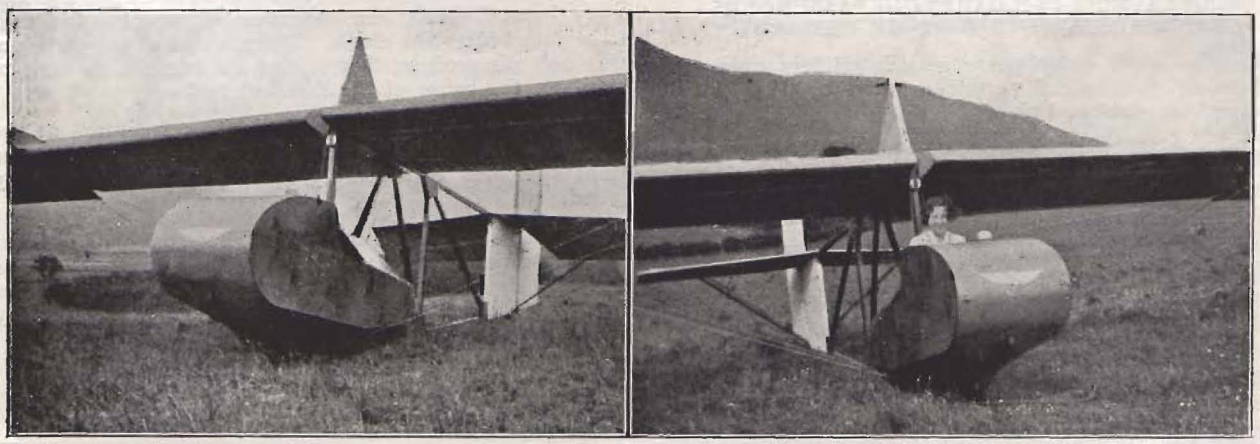
The air is definitely rare here, but thermals over ripe Indian cornfields are excellent.

I got a big up-current or gust that raised me 5 ft. at least when coming in to land, and when I was flying at a normal speed and only 10 ft. off the ground. Again I got a bit of a jolt, when just about to touch, which lifted one wing alarmingly but the controls are good on the VII., and I brought it off quite O.K. It is definitely sporting at some hours of the day.

I seemed to lose height badly in a big cloud shadow. Instead of doing two minutes as I had just done on that circuit when the shadow was not there, I only did 55 seconds!!

My cable is a bit short as I had to use some of it on my aileron controls.

Cheerio, best of luck to you all, and Mole in particular. If we get a north wind here he will have to stay up some time to beat *us!!*



Three-quarter front and front views of the "Dickson" Primary showing the nacelle built by the Central Scotland Air Yachting Club.

OFFICIAL NOTICES

EXTRACTS FROM PROCEEDINGS OF THE 40th MEETING OF THE COUNCIL OF THE BRITISH GLIDING ASSOCIATION. Held in the Library of The Royal Aeronautical Society, on Monday, 19th September, at 6.30 p.m.

Present: Mr. E. C. Gordon England (Chairman), Col. the Master of Sempill, Capt. C. H. Latimer Needham, Mr. D. E. Culver, Mr. J. M. Symmons, Mr. C. H. Lowe-Wylde, the Hon. Alan Boyle, Mr. S. Humphries, Capt. A. N. Stratton, Mr. A. F. Houlberg, Mr. E. G. Sanquinetti, Mr. L. O. Kekwick, Mr. S. Whidborne (Hon. Treasurer), Mr. A. I. Logette (Hon. Solicitor), and the Secretary.

Before the proceedings opened, Colonel Sempill, in introducing to the Council H. H. Prince Bibesco, President of the Fédération Aéronautique Internationale, said he was sure the Council would be very pleased to welcome so distinguished a visitor as the President of the F.A.I.

Mr. Gordon England (Chairman) in welcoming the Prince, said the Council were indeed honoured by his presence. He hoped that the time he so generously spent at the meeting would give him an insight into the serious way which the Council devoted itself to the affairs of the British Gliding Movement, and assured the Prince that he could count on the B.G.A. giving its moral and since support to the principles for which the F.A.I. stands.

Prince Bibesco, in acknowledging the enthusiastic reception, said he was indeed very hapy to be present, and assured the Council that he was always conscious of the valuable contribution the gliding movement made to aviation.

Date of next Meeting.—It was decided to hold the next meeting on 24th October at the same time and place.

Report of the Preston Accident.—The Council accepted and approved the report of the Technical Committee (published on this page).

New Members of Contest Committee.—The co-option of Mr. Little and Mr. Culver was confirmed, and Capt. Needham was elected a member.

Resignation of Vice-President.—The Chairman reported that Mr. Handley Page had written to say that he hoped the Council would accept his resignation, as he felt he could do more good from outside rather than as one of the Association's officers. The Council accepted Mr. Handley Page's resignation with regret.

Permits for Carrying Passengers (other than for hire or reward.—The regulations published below, governing the issue of a special permit to carry passengers other than for hire or reward, were approved and accepted.

THE BRITISH GLIDING ASSOCIATION, LTD.
REGULATIONS FOR CARRYING PASSENGERS (OTHER THAN FOR HIRE OR REWARD).

No pilot shall carry passengers in gliders unless in possession of a special permit granted by The British Gliding Association, Ltd.

Applications for the permit, which may be sent (a) in the case of private owners direct to the B.G.A., (b) in the case of club members, through their Club Committee, are to be made in writing on the proper form obtainable from the Secretary of the B.G.A., 19, Berkeley Street, W.1.

The fees chargeable in respect of the grant of permits shall be 5s. for the first application and 1s. in respect of annual renewal.

All applicants must be holders of "C" glider pilot's licence.

Applications from club members shall include an expression of opinion from their Club Committee as to the applicant's ability as a pilot, and any other views that the Committee desire to put forward.

On the acceptance by the British Gliding Association of the application, an endorsement will be affixed to the applicant's glider pilot's certificate, which should accompany the application.

All documents in regard to the application shall be treated by the B.G.A. as confidential.

If any passenger is carried in contravention of this regulation the owner of the aircraft, and/or hirer, and/or pilot shall be liable to penalties under Rule 23 of the Open Competitions Rules of the British Gliding Association.

The British Gliding Association reserves the right to revoke this licence for good cause.

REPORT ON FATAL GLIDER ACCIDENT AT MORECAMBE, MAY 15th, 1932.

The accident resulted in the death of Mr. A. W. Graham, of the Preston Gliding Club.

The Club was operating on the Middleton Sands, near Morecambe, by means of auto-towing. Several flights had been made on the day of the accident, during which heights of about 150 ft. were reached. The machine had been inspected before the commencement of flying, and was found to be in good order, and had flown well on all previous flights.

The glider was a B.A.C. III., and as such a C. of A. had been issued, but conversion for towing had been made by the addition of a wheel landing gear. The C. of A. had not been endorsed to cover towing and was therefore invalid for towed flight.

The launch into wind was quite normal, and the towing cable was cast loose at a height of roughly 150 ft., after which the machine continued in flight for a distance of from 100 to 150 yards. At this point the pilot appears to have lost flying speed and stalled, from which the machine went into an almost vertical dive. (Note: Demonstrations of stalling had been given by the Instructor, Mr. L. A. Falla, as part of the training, and it appears probable that the stall on this occasion was intentional.) It continued in this position without flattening out and crashed into the sands.

A visit to the scene of the accident was made by the Chairman of the Technical Committee on the following day, May 16th, and an inspection of the damaged machine. Statements were obtained from witnesses and the inquest proceedings were inspected at the Lancaster Police Station.

Eye-witnesses, members of the Preston Club, stated that at a height of about 12 ft. above the ground the nose commenced to rise, but this was followed almost immediately by the collapse of the port main plane. A police witness had stated that he saw something fall away from the tail, but inspection showed the tail unit to be intact after the crash. The position of the elevators was not observed so that it was impossible, at first, to attribute the cause of the accident to faulty pilotage.

The rear spar of the port plane was fractured at the spar joint, and the root fitting had pulled out, whilst the front spar was considerably split but had not actually failed.

It must be concluded that the primary cause of accident was coarse handling on the part of the pilot, as it seems apparent that the elevators were jerked up in an attempt to avoid collision with the ground, but that a contributory cause was the coarse angle of grain in the rear spar.

C. H. LATIMER NEEDHAM,
Chairman, B.G.A. Technical Committee.
September 14th, 1932.

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The following letter from the President of the Central Scotland Air Yachting Club indicates that readers appreciate this fact, and that they are acting in that spirit which places business dealings on the right plane—a level free from depressions and adverse conditions, economic and otherwise.

Glasgow,

September 12, 1932.

The Editor, "The Sailplane."

Dear Sir,

It has been on my mind for a couple of months to let you know that I was able to put some business of a friend of mine in Glasgow in the way of your Advertisers, Messrs. Austin, Reed & Co., purely because they support the "Sailplane."

I naturally propose to follow suit myself as soon as occasion arises.

Messrs. Reed might like to know that their advertisements have been worth at least £11 to them which otherwise would have gone elsewhere.

Yours faithfully,

(Signed) E. T. H. GODFREY.

The "Sailplane & Glider" circulates in every country in Europe (except Russia and Scandinavia), Canada, Australia, New Zealand, South Africa, British East Africa, Egypt, Palestine, the United States of America and South America.

The nature of its circulation is such that each issue has at least 5000 readers, all of whom are equipped with Purchasing Power and the desire to apply it in any direction that will help the Gliding Movement.

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