June 26, 1931. Vol. 1. No. 42

THE SAILPLANE AND GLIDER

Price 3d.

FINIS CORONAT OPUS.



Herr Kronfeld behind his "Wien" being congratulated by Messrs. Needham and Waplington at St. Inglevert after winning "The Daily Mail" prize. Mlle. Lippens is in the front of the picture and her father, the Belgian Minister for Transport, is immediately behind Mr. Waplington.

THE END OF A PHASE.

This is the forty-second number of THE SAILPLANE, and with it the weekly publication of the paper stops. The Publishers of this paper, and even its Editor, at the inception of their efforts, hoped that the Gliding Movement would exert itself to support a paper of its own. We knew that we were not launching a commercial proposition and that we could not expect the bread launched upon the uneasy currents of the Motorless Flight Movement, to return even after many days. We did hope that readers would see that all their friends subscribed to it and that every Club Secretary would chase up his members solely for selfish reasons in that by reading THE SAILPLANE members of Clubs

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are induced to emulate the notable achievements of other Clubs.

But all these hopes have been rendered nugatory, chiefly by the action of those thrifty persons who always borrowed someone else's copy and so saved their pennies. What those saved pennies bought we do not know but such saving has lost the Movement its only paper and individual survey of its activities.

We have tried to make available through the pages of The Sailplane information which would be really helpful and would enlarge the technical equipment of all engaged in the sport. We have always tried to lead by indicating where the next line of progress lay and by occasionally publishing articles a little beyond the scope of the ordinary reader in the belief that such would be stimulated into educating themselves so that they could help to carry the Movement forward.

We have been fortunate in our correspondents beyond the seas and through all those perspicacious individuals we have been enabled to give more explicitly an account of the happenings abroad of Motorless Flight, the reports of which, in the ordinary press, are not always easy to apprehend.

We have always endeavoured to illustrate and describe new types of particular interest to the British Movement but in spite of many demands we have never made available designs of types for building in the back-garden. We believe that the distribution of plans is solely the job of *The British Gliding Association*, which has the proper facilities for ensuring adequate supervision and inspection during building. Only in the closest co-operation with such a body would we make available drawings. Generally speaking it is simpler for the Association to handle all plans than that we should set up in friendly competition.

We would thank the Clubs, and especially the very often anonymous writers of their bulletins, for the very able way those reports have frequently been written. Clubs which have made contributions of a technical or semi-technical nature are to be especially thanked in that they have made definite contributions to the progress of the Movement and helped forward their weaker brethren.

Finally we would like to place on record our appreciation of every individual who has contributed an article, signed or unsigned, who has translated an article of interest from foreign sources, and ferreted out information of value from obscure places; with them must be coupled the host of photographers who have made possible those illustrations which have given the paper a standard and tone of its own. All these contributors have been unpaid, and a movement with members so strong in enterprise, so sustained in enthusiasm, as these our friends, cannot fail to go forward.

Of our own imperfections we are too painfully conscious. We have left undone much that we should have done, and many letters have been left unanswered, not in any spirit of "can't be bothered," but because the paper had to come out every week and that was our first consideration.

Nothing has irked us more than our inability to visit the Clubs and see them making the best of all sorts of difficulties. We have disliked having to allow our correspondents always to remain merely a signed name at the bottom of an informative letter and not a personality we had met,—and argued with.

We are proud to think that The Sailplane has been enabled to accomplish so much and to make known all over the World the activities of the British Gliding Movement which in a year has out-run the expectations of its founders and confounded its critics. This has been achieved in spite of the fact that The Sailplane was a spare-time and amateur effort. With the exception of the subscription and accounts department everything was done by ourselves with a portable typewriter.

Our own criticisms have not been infrequent but they have been those inspired by the knowledge that better could be done by those criticised and privileged by the fact that they came from within the Movement; fathers of families know that domesticity without occasional sound criticism from within would be resultant of much cabbage-like complacency.

But in spite of all this our subscribers have not increased in numbers sufficiently quickly. The two thousand we wanted to make the paper self-supporting are still a long way away though we have good reason to believe a greater number than this read the paper. Our losses per week are too large a burden to make as an individual contribution to the Movement and must cease. The time alone which The Aeroplane has allowed us to spend upon the production of the paper is too costly in the present time of increasing activity of powered flight and so a phase passes.

The Sailplane as a weekly publication will stop with this number not because its promotors or its Editor think that Motorless Flight is not worth a paper, but because the members of the Gliding Movement in this Country have failed to make the continuance of their own paper possible.

What of the Future?

Investigation has shown that if The Sailplane is produced as a fortnightly, which should considerably reduce the labour of its compilation, and if it is printed out of London which the increased time available for its production makes possible, and if everybody in the Movement makes a determined effort to back it up, then its continuance as a fortnightly is possible.

Therefore the Directors of Aeronautics Ltd., subject to certain safeguards, especially regarding their duty to their subscribers, have made a gift of the paper, its goodwill and all appurtenances to *The British Gliding Association*, a gift which properly valued ranks next to that of Lord Wakefield of Hythe as the greatest individual gift yet made to the British Gliding Movement.

The idea is to produce a fortnightly Sailplane double the present size and cost. The indulgence of subscribers and advertisers is asked while the necessary preparations go forward. If there are any persons who feel that such action is contrary to the ideas of the value they expected to get for their money an immediate application will ensure the return of the balance of their subscription.

We are prepared to continue our editorial surveillance of The Sailpane, but will not be able to give as much time as heretofore to the production of the paper. We appeal therefore for help. We would like to enrol contributors who



ANCIENT HISTORY.—Mr. C. L. Startup tries out the very first R.F.D. at Stoke Farm, Guildford, 18 months ago.

would be responsible for regular features, we want people to visit the meetings of importance and send us a good story with photographs. Every Club Secretary should see that we are sent a regular fortnightly report with photographs of his Club's activity. Further, as THE SAILPLANE will be printed earlier in the week it will arrive at its destination before the week-end so that the Club pages can quite adequately be used as a means of communicating with members, thereby saving the secretary time and money in that such notices have only to be written once and posted once.

All communications should henceforward be addressed to The Editor of THE SAILPLANE, *The British Gliding Association*, 44A, Dover Street, London, W.1.

Phase the second will depend on yourselves, if you want a paper you can have it, but you must pay for it, every one of you, and there must be no borrowing.

MR. BEARDMORE'S CHANNEL CROSSING.

On June 19 Mr. Lissant Beardmore was towed off Lympne aerodrome in his *Professor* sailplane in which, as already reported in THE SAILPLANE, he has been making experiments in towed flight. At the same time THE SAILPLANE reported the rumour that he was to attempt the Channel crossing.

This flight was not observed by the B.G.A. nor was a barograph carried. At the time of going to press the recognition of the B.G.A. has not been asked for. Mr. Beardmore was officially cleared from Lympne at 5.30 p.m. and reported from St. Inglevert at 6.03 p.m.

We understand that he was towed by an Avro 504K machine with a pilot and passenger abroad plus a cable-drum. The official time to climb 10,000 ft. in one of these machines in wartime trim was about 16 min. One would imagine that considerably longer time would be required to reach this height with a glider in tow, especially in view of the interesting figures made available by Mr. Needham. Further, Sq. Ldr. Probyn took 45 min. to reach 10,000 ft. in his Widgeon with a B.A.C. IV in tow, yet Mr. Beardmore is reported to have reached 12,000 ft. So that he would appear to have reached that height and then made the Channel crossing in 33 minutes. We have not been able to discover the actual time or place of release from the towing cable.

IN "THE TIMES."

The following letter appeared in *The Times* for June 24:—

Sir,—The gliding movement throughout Great Britain is encouraged by your leading article in *The Times* to-day on the subject of the double crossing of the Channel. Such recognition and encouragement are a matter of great moment, and help us to go forward in a movement which we believe is of inestimable potential value to the future of British aviation. Herr Kronfeld has made by his great achievement a substantial contribution to the gliding cause in this country, and we of *The British Gliding Association* are deeply grateful to him for his help. Mr. Lissant Beardmore is young in spirit, no doubt, but, to his lasting credit when considering his achievement, it has to be admitted that he is in his fifties and only took up gliding and subsequently power flying after being inspired by Herr Kronfeld's exhibitions at Ilford, Sussex, last summer.

The British Gliding Association, being the governing body of gliding in this country, is impartial in all matters, and it has not refused recognition of Mr. Beardmore's feat, because the matter has not been submitted to it. If Mr. Beardmore submits unchallengeable proof of his accomplishment, due recognition will be given to him for his enterprise. It is regrettable that, knowing as he did that his achievement could not receive acknowledgment under international rules without being properly observed, he omitted to take this precaution.

Finally, Herr Kronfeld is an Austrian, born in Vienna, and it is of interest, no doubt, to your readers to know that the Wien machine in which he made his magnificent flight was presented to him by the citizens of Vienna in recognition of his splendid achievements in soaring flight.

E. C. GORDON ENGLAND
(*Chairman, British Gliding Association*).

44A, Dover Street, W.1, June 22.

This letter makes clear in an admirable fashion the official position with regard to Mr. Beardmore's crossing of the Channel.

AN AUSTRALIAN INTERMEDIATE.

The Lasco *Lark* which has been built by the Larkin Aircraft Supply Company, of Melbourne, to the designs of Mr. W. S. Shackleton has passed its trials successfully and been soared for various short durations. This machine is a high-wing cantilever monoplane with the rectangular wing attached to a neck on top of the square section fuselage. Cantilever control surfaces are used at the tail without any fixed area. Skids are placed under the fuselage, under the wing tops, and the tail, to prevent damage in rough landings made by pupils.

GLIDING IN HUNGARY.

Interest in Gliding is rapidly increasing in Hungary. The two gliding schools are doing much useful work. Only a few days ago at one of these schools a young Hungarian girl, Miss Abaffy, succeeded in getting a "B" Certificate, and now she is working for her "C." The Hungarian Boy Scouts have just started a gliding section. It is found that the life of a primary machine at the schools is about 800 starts.

At a Gliding Demonstration recently Vitéz Hefty, holder of several Hungarian gliding records, made a flight on a primary machine, taking his 8-year-old son with him.—P. A.

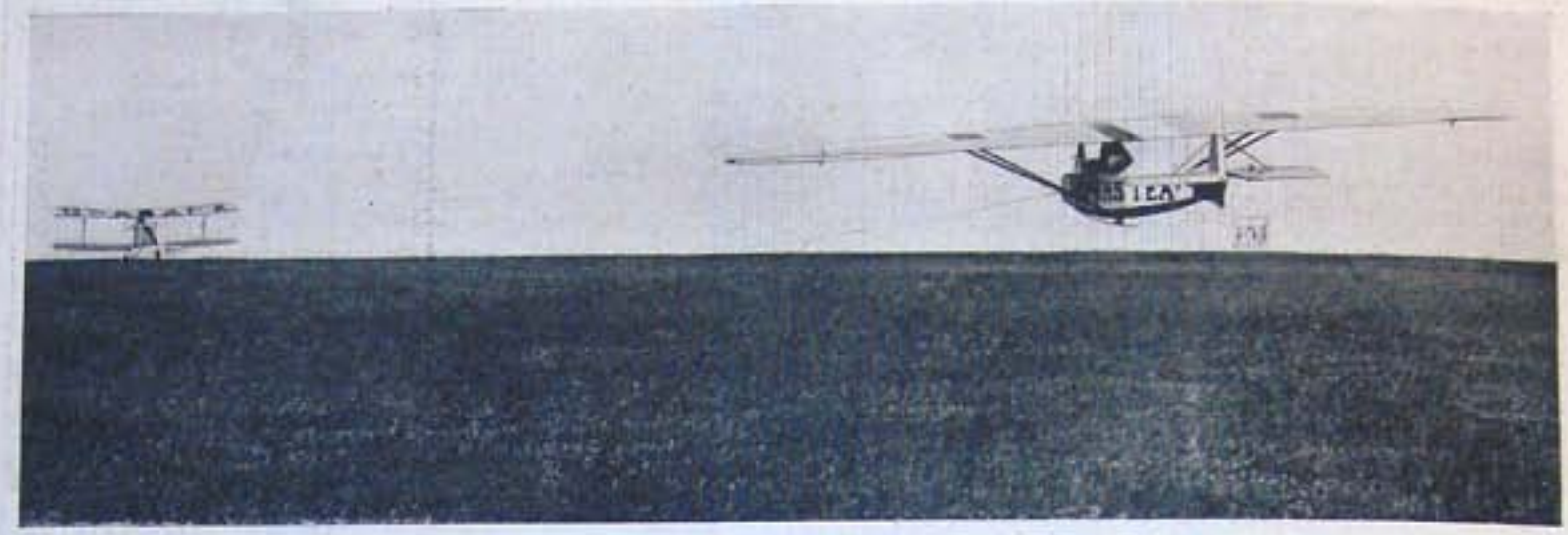
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THE CROSS-CHANNEL COMPETITION FOR "THE DAILY MAIL" PRIZE OF £1,000.

By C. H. Latimer Needham, M.Sc. (Eng.) Lond., F.R.Ae.S.



Mr. Max Findlay tows Herr Krause off in the Lyons Tea Falke, christened "Teany."

[*The rules for this competition and the entries have been already announced in the two previous issues of* The Sailplane.—Ed.]

By Friday, June 19, four sailplanes had arrived at St. Inglevert for the Cross-Channel Competition. These were: the *Austria* and the *Wien*, both of which belong to Herr Kronfeld; the Falke belonging to the Lyons Tea people with Herr Krause as pilot; and Mr. Turner with his B.A.C. IV.

The *Wien* had been towed from Germany behind a Klemm, but the *Austria* had been brought by road. The latter machine was illustrated and described in The Sailplane, Vol. I, No. 21, p. 164 and Vol. I, No. 22, p. 172. Both machines had arrived two or three days previously. The Falke had been shipped over from England and was to be towed behind an N.F.S. Moth. Mr. Turner was the last to arrive, and as described in the Channel Club's report he made a fine towed glide behind Sq. Ldr. Probyn's Widgeon.

Attempts were made to get the *Austria* into the air for some test flights by using a car as well as the Klemm, but owing to the snapping of the cable these attempts were abandoned when it became dark.

The following morning, Saturday, found the teams making their final preparations and by 11.30 hrs. both the *Wien* and the Falke were ready for the official start of the Competition. Herr Kronfeld intended to use the *Austria* in the event of too high a head-wind for the *Wien*, as the former is capable of high speeds.

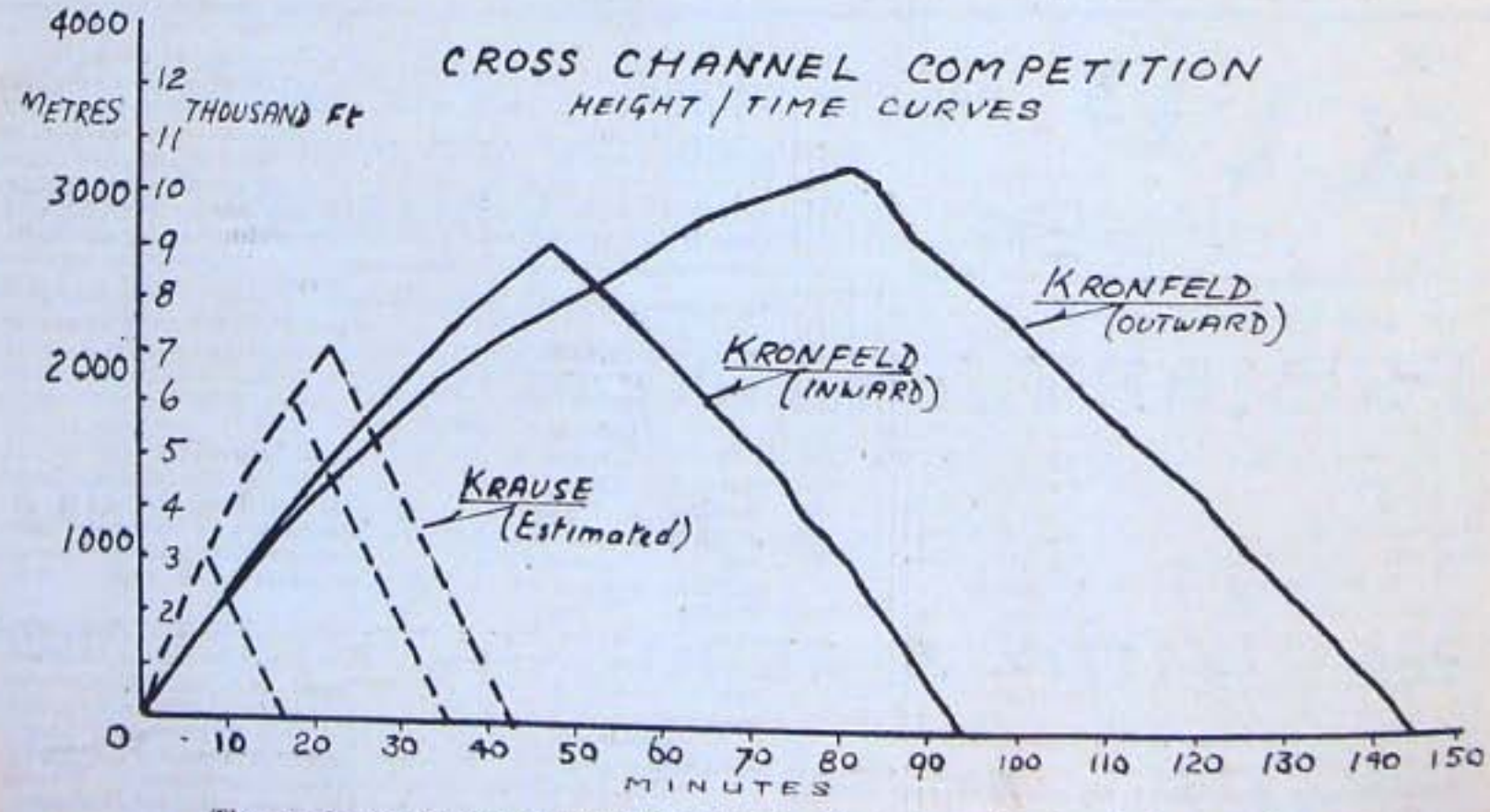
The sky was completely overcast, with a moderate N.N.W wind and conditions were becoming worse. Noon had been fixed as Zero hour and by that time both the *Wien* and the Falke had been passed as complying with all the necessary regulations.

At 14.00 hrs. the rain started and within an hour it had become heavy enough to prevent a start being made until its intensity decreased. By 17.00 hrs. there was still no improvement and it was decided to go to a nearby estaminet for some lunch! But hardly had the famished officials and others started to alleviate their pangs when the news came through that a start was imminent.

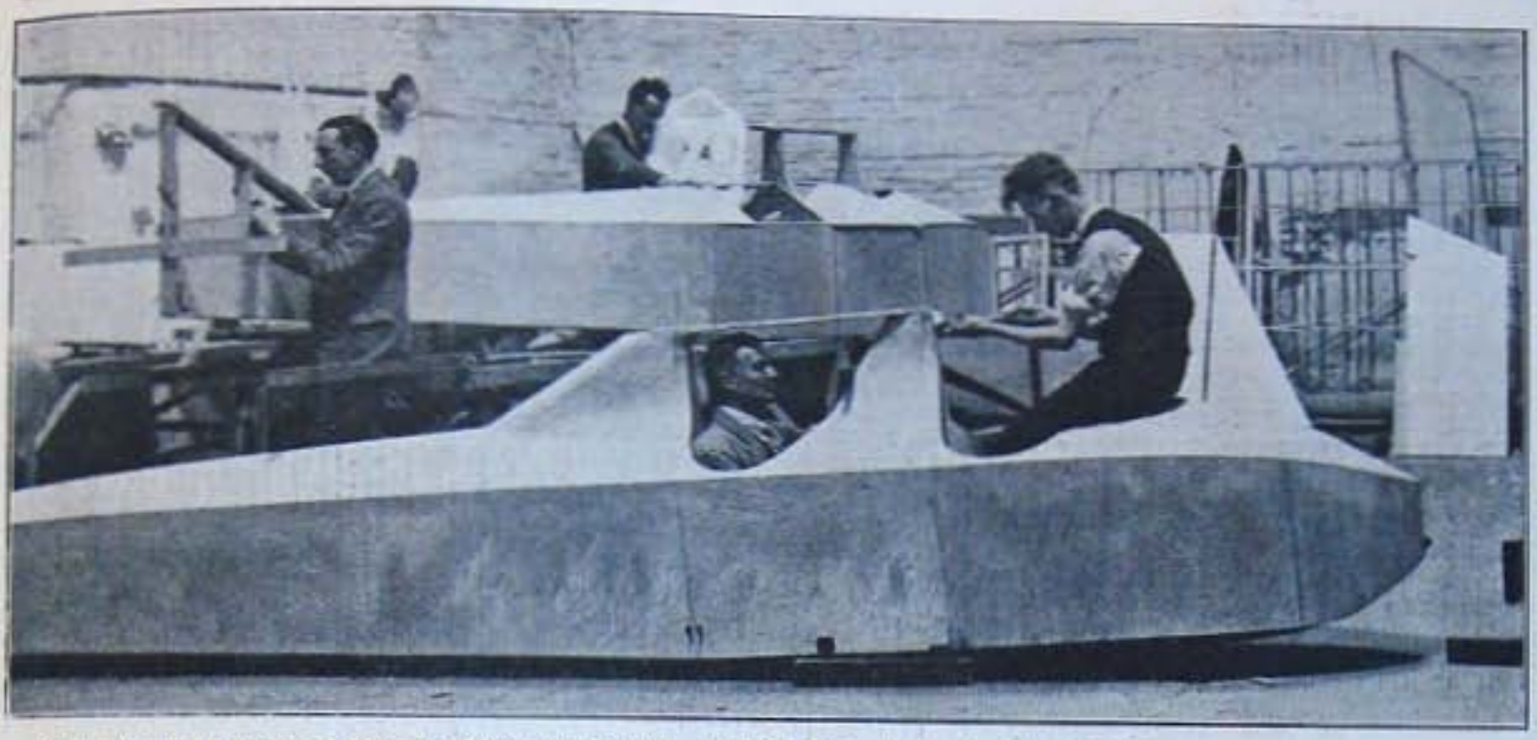
When a return had been made to the aerodrome both the *Wien* and the Falke were being wheeled out and the engines of the towing aeroplanes were warming up. The rain had stopped and the clouds were breaking up so that small patches of sky became visible.

At 17.45 hrs. Herr Kronfeld had taken off in the *Wien* and was followed three minutes later by Herr Krause. The *Wien* climbed slowly in large circles of several miles diameter, at times being lost to sight in the clouds. The Falke, towed by Mr. Max Findlay in a Moth, soon out-climbed the *Wien*.

At a height of 7,000 ft. Herr Krause released his machine, but instead of turning out towards the sea he continued to



The graph which shows quite clearly that the Channel crossing involved no soaring.



A TYPE THAT COULD HAVE WON THE £1,000.—B.A.C. VIIs being built at Maidstone. It was universally regretted that a last minute mishap to the towing Kle mm prevented Mr. Lowe-Wylde from starting on the Saturday. The damage was not repaired until Sunday, when it was too late.—(*" Wide World " photo.*)

circle round and landed on the aerodrome. He explained that the Moth had climbed so steeply that he was unable to keep above it and once he had dropped through the slip-stream he was unable to climb above it.

A second start was made, but after reaching 3,000 ft. he again released. He had forgotten to take his barograph with him. Without the record provided by this instrument no attempt could be officially recognised.

At 19.08 hrs. Herr Kronfeld was seen to have released, his height was then about 10,000 ft., and to be headed towards England. Once again Herr Krause started off but at 6,000 ft. he lost position again and found himself being dragged upwards in a dangerous attitude, during which time the glider was subjected to very heavy loading so that he was again forced to abandon the attempt.

In view of the strong head-wind Mr. Turner had decided against starting as the gliding angle and speed of his machine were not sufficient to ensure his reaching England. Both he and Sq. Ldr. Probyn are to be congratulated on their sporting attempt and the record time in which they made their preparations.

The first news to come through was that Herr Kronfeld had landed near Dover about 20.00 hrs. and had restarted an hour later. By this time the excitement had become intense and was growing every minute as everybody searched the fading sky for the first signs of the returning victor.

But the moments passed and the light faded with still no sign of the *Wien*, though all who knew Herr Kronfeld were confident of his return. Suddenly right over the heads of the watchers appeared the *Wien*, circling like a huge, silent bird and silhouetted against the faintly moonlit sky.

A loud cheer rang out but many minutes passed before the pilot could bring his machine into land. There is little need to relate the welcome that awaited him as the press has done full justice to that stirring scene.

What the Barograph Shows.

The graph has been prepared from the barograph sheets. It shows the times and heights during the out and return flights plotted against the same base for the purpose of comparison. It will be noticed that 81 minutes were needed to reach 10,000 ft. for the outward crossing and only 47 for the 9,000 ft. from which the return trip was started. A fairly strong head-wind made the outward crossing difficult and assisted the return, although the strength of the wind had fallen considerably during the evening. The drop in wind speed allowed a shorter towing cable to be used and in consequence the height was gained more rapidly.

The curves indicate that the maximum ceiling would have been in the neighbourhood of 11,500 ft. for the conditions prevailing for the first flight and about 12,000 ft. for the return. Calmer conditions and freedom from clouds would have allowed the use of a shorter cable which would have improved the climb and raised the ceiling.

Shortly after the release on the outward journey the loss of height became accelerated for some minutes. This may have been caused by the dispersion of a large bank of cloud just below the path of flight.

The initial climb was at the rate of 246 ft./min., but had decreased to only 100 ft./min. at the end of the first climb and on the return trip the similar decrease was to 136 ft./min.

The rate of descent after release in the first half of both flights was 164 ft./min. (2.73 ft./sec.), but near the English coast increased to 182 ft./min. and to 226 ft./min. in the latter half of the return flight. This considerable increase, no doubt, was due to Herr Kronfeld's desire to effect a landing at St. Inglevert as speedily as possible in order to qualify for the prize.

The similarity in the rates of climb and descent is noticeable, as also is the lack of vertically moving air currents.

The estimated curves of the three flights of Herr Krause are added for the sake of interest. The much higher rate of climb, 410 ft./min., is clearly shown and there appears to be little doubt that the rapid rate of climb was the sole cause of his unfortunate failure.

THE FIRST LONG GLIDE.

On June 18, Mr. C. M. C. Turner made what seems to be the first distance glide ever made by an Englishman in a British machine. He was towed to 10,000 ft., by Sq. Ldr. Probyn in the latter's Widgeon and released some 25 miles from Hawkinge. The time to reach 10,000 ft. was 45 min. The time between release and landing (free flight) was 30 minutes.

As we have been informed that Mr. Turner has never had any solo power-flying experience and that he learnt to soar at the Wasserkuppe, his towed flight exploits seem rather an achievement. In the future, if such towed flights are really to benefit the Gliding Movement, a barograph must be carried so that we may have some chance of learning how best to make aeroplane towing the prelude to soaring flight.

A LONG TOW.

A B.A.C. VII built to the order of Mrs. McCorquodale, and, as reported in last week's SAILPLANE, originally intended for crossing the Channel, made on June 20 what is probably to date the longest towed flight yet made in this Country in a glider.

The "Barbara Cartland," as this machine is called, was piloted by Mr. E. L. Mole and towed by Mr. Wanliss from Maidstone (Detling) to Reading in a little over an hour. A letter was then delivered to the Mayor of Reading. Mr. Mole and his aerial slip-coach were next towed triumphantly to Hanworth, escorted by five aeroplanes with Colonel The Master of Sempill at the head.

The idea was apparently to demonstrate the possibility of utilising gliders as slip-coaches. There has been so much talk of this kind lately that we must have an authoritative examination of the question as to whether you can increase the power-loading of an aeroplane this way without sacrificing speed and climb. If you cannot it would be better to build a large lightly-loaded slow-speed aeroplane. We do not see that by towing gliders you are going to get round the limitations of wing- and power-loading.

AUTO-LAUNCHING.

It is evident that in this Country if Gliding is going to stay it must be mechanised. At present we have auto-towing and auto-launching. Mr. Lowe-Wylde has proved the worth of the former for flat country, but how about those glorious soaring terrains with no level fields large enough for auto-towing?

It has been proved by more than one club that by using the average car most manual work can be dispensed with. Firstly, the glider can be returned to the hilltop by means of a long rope attached to a car, if necessary through a suitable pulley, and the car running in a different direction than that of the glider. The glider can also be launched by means of a car, but there are many pitfalls. Although according to the B.G.A. regulations it is permissible to launch the glider from a car running in the same direction it is far from advisable chiefly because should something happen during the launch the pilot may not clear the car. The better way is to run the car at an angle away from the glider's ultimate path.

A method which has been used with great success is to fasten some easily operated release to the rear of the machine, anchor this by means of a short rope and ring to a tree in the hedge or a peg in the ground, measure twice the length of the shock cord plus twenty feet from front of machine, and insert another peg to which is fixed the pulley, put the elastic in double in the ordinary way to the machine. The launching crew is replaced by a suitable length of rope reeved through the pulley to the car which is free to run in any direction given. It is, of course, necessary to put a stick at which point the car must stop, when the driver raises his hand the pilot pulls the release and there you are!

The disadvantage is, suppose the rope breaks? The pilot gets the "Bungy" all over his face rather quickly, and a better way would seem to be to have the elastic on the car and a rope on the glider. It is certainly better from that point of view, but unless a suitable block is obtainable, results might be even worse as there are few blocks that will take a rope from varying angles without jambing, and what is worse than a half launch? If this method is used the block must have ball-bearings, the sides of the sheath must extend at least half the diameter of the rope above the edge of the wheel and must circumscribe it.

Here are a few recommendations which, if overlooked, might mean trouble.

Anchorage. An iron peg at least 3 ft. long and 1¼ in. diameter should be used at each point and driven 2 ft. 6 in. into the ground. The pulley fixing must be on ground level or even below, otherwise your peg will pull out. Remember a peg holds best in dry ground, therefore when wet use two and don't forget to slope your pegs in the opposite direction to the pull. Knots on pegs should be clove hitches, not two half-hitches, and for preference use double ropes tied separately. To fasten elastic see THE SAILPLANE (Apr. 17, 1931).

Pulley should for safety have a working capacity of 15 cwts. and run on ball bearings. The type has been dealt with.

Rope. This must be constantly renewed and should not be used if any sign of fraying is seen. Be sure it is flexible and have it tested to a breaking strain of at least 1,000 lbs. Don't let it get wet.

Release. It is essential that this should work with a touch and the control be near the pilot's left hand. It is a good thing for beginners to make them put their left hand on their knee until the car driver passes the signal. There is a great temptation to "just try" too early.

The Pilot should remember that the opposite end of the elastic is nearly four feet lower than usual and he has no crew to look out for. Therefore to get the best out of it he should take off as quickly as possible and keep only four or five feet high until the rope has dropped, by this means he will have far more speed than with a hand launch with six men.

Those readers who attempt auto-launching will be well advised to try at least 20 launches on the level before trying any hills and let the most experienced men try it first. There is no real danger is properly carried out, but it is tricky.

It is possible in place of a car to use a portable winch both for launching and retrieving, and the writer has been launched by this means; but it takes a 6 or 7 h.p. engine if things are to have any speed. It is also well to remember the strains imposed, and it may startle some readers to know that it takes between 6 and 7 h.p. to return an average glider on wheels up an average hill at 3 m.p.h., and loads up to 800 or 900 lbs. are often imposed on the rope and up to 600 or 700 lbs. when launching.

To give some idea of the benefits, the writer was one of the crew of three who successfully twice launched and retrieved a primary glider to the top of a 300-ft. hill in one hour—a thing which would kill a crew of 12.—N. C. W.

MAKE YOUR FRIENDS READ IT.

I have just received for review SAILING THE SKIES—*Gliding and Soaring*, by Malcolm Ross, late Editor of that extremely well got-up publication, *The Sportsman Pilot*. The book is published at 10s. 6d. by Macmillan and Co. Ltd., and can be obtained from THE AEROPLANE Book Dept., Cannon House, Pilgrim Street, London, E.C.4.

This week has been such a hectic sequence of events that I have not had a chance to do justice to the book. The illustrations are quite good, most of the best German ones have already appeared in THE SAILPLANE, and no doubt The London Gliding Club will feel pleased to see a picture of one of their members being launched on page 26.

There are various inaccuracies that strike one immediately, such as plentiful references to *Mount* Wasserkuppe and its height as 2,000 ft., whereas this is 3,580 (more or less) ft. Such points suggest that there may be more and so I mention them as a warning.

At the end of the book are three appendices, two of which, "B" and "C," have appeared already in THE SAILPLANE. "A" is a manual of Instruction which I have not had time to analyse.

The point about the book is that although it is written in American (albeit a very readable version of the language) for the American, it does include a survey of the work of the pioneers and this historical survey seems to have been excellently done.

The book makes good reading and I suggest you make your un-glider-minded friends buy it. It is certain to arouse their enthusiasm and then you can borrow it just to rub up your own knowledge about Octave Chanute who knew and explained much that we consider of modern acquisition. You will find this part of the book so interesting that you will read the rest as I am doing.—T. J.

THE "AUSTRIA" FLIES.

Herr Kronfeld's sailplane, the *Austria*, which has the largest span of any such machine in the World, and which was described in THE SAILPLANE, Vol. I. No. 21, p. 164, and Vol. I. No. 22, p. 172, has made its first flight. We are informed that the total flying time to date is about ½ hr. As this machine weighs loaded some 1,000 lbs. (a Moth loaded weighs 1,500 lbs.) there is some difficulty in launching it.

The first flight, of any moment, was made behind a Klemm with Herr Weichelt as pilot. Although the *Austria* was in the air fairly soon, the Klemm could not get off, and it was obvious that by the time the limiting hedge was reached the Klemm would still not be off the ground. If the Klemm stopped the *Austria* was likely to crash, if it went on there was the hedge. Herr Weichelt did not hesitate; he yoicked the Klemm over the hedge, rushed over the next field, jumped another obstruction and only then did the Klemm get off.

The only really apposite comment seems that of Herr Kronfeld himself who said regarding the action of his pilot that it was that of "a real comrade."

MORE TOWAGE AT HANWORTH.

On Sunday, June 28, Herr Kronfeld and others are to demonstrate towed glider flight from Hanworth Air-Park. If conditions warrant it Herr Kronfeld is to glide from the coast, perhaps Lympne, to Hanworth, crossing London on his way. Such a flight would afford enthusiasts an excellent opportunity of analysing the performance of the *Austria*.

People who live in, and around, London should go to Hanworth on Sunday as admission will only cost them 1s., and cars, for which there is ample space, can be parked for 1s. 6d.

THE FIRST WOMAN "B" PILOT.

We congratulate Miss M. D. Nichol, whose "A" Certificate is No. 49, on being the first woman to secure a "B" Certificate in this Country. A performance, which is not only a credit to her Club, The London, but to herself, in that she is an *ab initio*. We hear that the flight was made under extremely difficult conditions.

NEWS FROM THE UNITED STATES.

A correspondent writing from the United States informs us that the American National Soaring Contest is to be held this year during the last two weeks of August at Elmira. Prizes to the amount of $4,000 will be awarded.

He tells us that a new amphibian glider of the utility class with a wing span of 40 ft. which weighs 235 lbs. empty has been performing quite well. A large hull is used but wing-tip floats have proved to be unnecessary even in rough water.

During test the machine was towed by a Chris-Craft motor-boat and left the water at 16 m.p.h. By the time the motor-boat had got up to 20 m.p.h. the amphibian was 400 ft. in the air.

Further details of the machine can be obtained from the Amphi-Glider Co., P.O. Box 224, Greenwich, Conn., U.S.A.

NEWS FROM THE CLUBS.

WHERE GLIDING CAN BE SEEN.

Beds.—The Bedford Gliding and Flying Club. Week-ends at Woolley Hill, on the Huntingdon-Thrapston road, between Spaldwick and Ellington.
—The London Gliding Club. Meeting place, Turveys Farm, near Totternhoe, on Saturdays and Sundays.

Dorset.—The Dorset Gliding Club. Week-ends at Malden Newton.

Edinburgh.—The Edinburgh Gliding Club. Sundays, at West Craigs Farm, between Corstorphine and Turnhouse Aerodrome.

Essex.—The Essex Gliding Club. Havering Park Farm, Lodge Lane, Collier Row, near Romford. Week-ends, weather permitting.
—South Essex Aero Club. Week-ends, Wheaton's Farm, Laindon (L.M.S. Southend branch).

Glam.—Merthyr and District Gliding Club. Sundays, 10 a.m. to sunset. ½-mile left Dynevor Arms, Merthyr Tydfil—Swansea Road.

Hants.—The Southampton Gliding Club. Every week-end at Red Lodge Farm, Bassett.
—Surrey Gliding Club. Saturdays, 2.30 p.m. Sundays, 10 a.m., weather permitting, at Stocks Farm, Meonstoke (Old Winchester Hill).

Hereford.—The South Shropshire and North Herefordshire Gliding Club at Dinmore, ½-mile from main Hereford-Ludlow Rd. Every Sunday, and Thursday from 2 p.m.

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

Kent.—North Kent Gliding Club. Saturdays 1 p.m., Sundays 10 a.m. Joyce Green Aerodrome, near Dartford.
—Kent Gliding Club. Week-ends above Lenham, on the Maidstone—Ashford road.
—The Isle of Thanet Gliding Club. Saturdays and Sundays from 2 p.m. Manston Aerodrome, Thanet.

Lanark.—The Glasgow Gliding Club. Barrance Farm, Easter Whitecraigs, near Glasgow. Every Sunday from 11.15 a.m.

Lancs.—The Furness Gliding Club, at Raikes Moor Farm, Hawcoat, Barrow-in-Furness. Saturday, 2.30 p.m.; Sunday, 10.30 a.m., weather permitting.
—The Stockport Gliding Club. Every Sunday afternoon at Woodford Aerodrome, Manchester.
—The Preston and District Glider Club. Week-ends at Butler's Farm, Beacon Fell, 2 miles from Inglewhite and 7 miles from Preston.

Northumberland.—The Newcastle Gliding Club. Training Ground: Denton Bank, Newcastle. Saturdays 2.30 p.m., Sundays 10.30 a.m., Wednesdays 7.15 p.m. Weather permitting.

Notts.—The Nottingham Gliding Club, Mr. Ellis's Farm, Kneeton Road, East Bridgford, Notts. Every Sunday, weather permitting.

Staffs.—The North Staffs. Gliding Club. Week-ends at The Downs Banks, Barlaston Downs, near Stone, Staffs.

Surrey.—See under Hants.

Sussex.—Southern Soarers Club. Newmarket and Balsdean, between Lewes and Rottingdean, near Brighton. Week-ends by arrrngement, for Soaring. (Phone: Hove 5116.)
—Southdown Skysailing Club. Every Sunday, Ditchling Beacon.
—Sailplane Club. Every Sunday, at Smalldole. London office: City 2121.

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

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

Worcs.—North Cotswold Gliding Club. Every Sunday at Fish Hill, above Broadway Village, from 2.30 p.m.

Yorks.—The Accrington Gliding Club. Wednesdays, Saturdays, Sundays. Hambledon Hill. One mile along Burnley Road.
—The Bradford Gliding Club. Saturdays, 2.30 p.m., Baildon Moor. Sundays, various alternative sites are being tested with a view to permanent use.
—The Huddersfield Gliding Club. All day Sunday near the Plough Inn, 11 miles from Huddersfield, beyond Newmill, on main Sheffield Road.

[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.—Ed.]

THE CHANNEL GLIDING CLUB.

On Sunday, June 14, after gliding had finished for the day, the conversation turned on *The Daily Mail* £1,000 prize. The possible entrants were reviewed, together with their chance and methods. It was realised that the best method was aeroplane towing to a height. Then came the bright idea. Why should not Mr. C. M. C. Turner, our chief instructor, have a shot. He owns a B.A.C. IV. Sq. Ldr. Probyn owns a Westland Widgeon. Both could manage to spare the time. Could they do it? They thought they could. Anyway they were willing to try.

A great deal of ground had to be covered in the time available. The launching and towing gear had to be designed, made and tested. The two pilots had to get practice under the strange conditions, and above all, a tremendous amount of red tape had to be tied in a neat reef knot before we could say, "We have complied with every condition. We are in France. We are ready to take off."

On Tuesday night, the Construction Squad, under the direction of Mr. Samuels, was working feverishly in the C.G.C. workshop on the launching trolley, and bracing wires were being fitted from the foremost portion of the skid to the fore strut fitting on the wings, to prevent any tendency of the wings to fold back under the increased stress of aeroplane towing.

At the same time, Sq. Ldr. Probyn was perfecting the towing and releasing gear on his Widgeon.

By Wednesday evening everything was ready for the great experiment. The final touches were put to the launching trolley, which now assumed a considerably simplified form of the original conception. While this was being done we received a visit from Mr. Beardmore, and were glad to profit from his advice, gained during his previous experience of aeroplane towing.

At last everything was ready, the Widgeon warmed up, the B.A.C. on its trolley with a proved sprinter on each wing-tip. There was an increase of revs from the Widgeon and the two machines moved off. The glider was in the air some seconds in advance of the plane, but this got off smartly and towed the B.A.C. up to 1,000 feet in a wide turn. During this flight everything went well except that Mr. Turner was worried by the removable fairing which on the B.A.C. exists in front of the pilot. This was not properly secured, and tended to blow into the pilot's face. Mr. Turner made efforts to anchor it, but eventually, being unsuccessful, in a fit of desperation hurled it overboard. Mr. Turner released at 1,000 feet and glided down, making a perfect landing in Cox's field adjacent to the aerodrome.

On Thursday morning, at 7 a.m., further experiments were made. Sq. Ldr. Probyn towed Mr. Turner to 10,000 feet, at which height they were beyond Sittingbourne, some 24 miles from Hawkinge. Here the B.A.C. was released, and pursuing a circuitous course, over Canterbury and Dover, arrived over Hawkinge aerodrome with over 3,000 feet height to spare. We think that by this effort Mr. Turner has earned the distinction of being the first Englishman to make a really long-distance glide. During the day a new "lid" was made for the B.A.C. by Mr. Manuel, and in this a compass, an aneroid and an air speed indicator were mounted. The whole of the machine was rubbed down with fine sandpaper and given a coat of varnish to reduce skin friction.

On Friday evening the Widgeon took the B.A.C. in tow and successfully reached St. Inglevert.

All the world knows the history of Saturday. From noon onwards, members of the C.G.C. were watching the Channel from *The Valiant Sailor*. Here the 'phone was in constant use by the various pressmen present. We were glad to see there members of the Kent Club, particularly the Haines Bros., who provided a spot of free amusement for the boys during the weary hours of waiting. At intervals, wild rumours were broadcast. One coward stated that a German sailplane had landed at Hanworth.



THE YOUNGEST "A."—The anonymous 15½-year-old pilot of the Channel Club. Perhaps someone will recognise him and send along his name.

Eventually authentic news was received that Kronfeld had landed near Dover. A detachment of the Club raced over and were just in time to see the Wien take off on its long tow. We waited until Kronfeld had released and the Klemm had landed. At this moment we received news that Sq. Ldr. Probyn had arrived at Hawkinge with Mr. Turner in tow. They had considered it unwise to make an attempt under the conditions prevailing.

While we are sorry that our own man did not win the prize, we congratulate most heartily Herr Kronfeld, whom we are privileged to number among the best friends of our Club. We are nevertheless very proud of our pioneers, and are convinced that had weather conditions been more favourable to the R.A.C. IV Mr. Turner would have been very much in the running.

On Sunday, June 28, the R.F.D. was in use on Cox's field until someone stalled over a wire fence and landed heavily on a wing-tip, thus fracturing the main spar. This is the first time since last November that the R.F.D. has been in dock for anything other than the most minor repairs and we feel that we must really throw a large bouquet to Mr. Dagnall for turning out so robust a job. We have had long experience of three different primaries, and for general Club use the R.F.D. has proved itself by far the best.—E. C.

THE DORSET GLIDING CLUB.

Since our last report there have been three week-ends, on the first of which no flying took place due to heavy rain. On Saturday, June 13, a few flights were made and during one of these the pilot found himself approaching uncomfortably near to a fence so that he had to land cross wind, and this emergency resulted in a wheel being torn off the stub axle. Flying was, however, continued without the wheels, and the machine eventually put away for the night in an airworthy condition.

On Sunday we were not so fortunate. After a flight of over one minute in rather gusty weather conditions following a thunderstorm, a second pilot was launched from about half-way up the hillside, and in trying to turn for landing he left himself insufficient height to allow for a gust of wind which caught him at a critical moment and caused one wing-tip to touch the ground, so swinging the machine round severely enough for both spars of the starboard wing to be broken.

The repair of this damage occupied the whole of the week, but by the following Saturday the machine was again air-worthy and the wheel refitted. A few flights were made on that day, but the wind was in such a direction, and of such a strength, that the maximum duration possible was only 35 seconds.

The most interesting matter to report on during the operations of the last two week-ends is the bringing in to us of a further device for labour saving. As mentioned in our last report we have for some time contemplated the use of an engine-driven winch, and now, due to the kindness of Petters Ltd., we have been allowed to accomplish our object.

This winch has now been used for both launching and recovery. For launching purposes we have now mounted a quick release on the tail of the glider in accordance with the B.G.A.'s latest regulations for power launching. This release is, of course, operated by the pilot, and by its use the machine is anchored back to a suitable stake driven into the ground. A pulley is mounted on another stake sufficiently forward of the nose of the machine to allow for the elastic to be extended 100 per cent. A rope from the usual ring on the nose of the glider is then passed around the pulley and back at any convenient angle to suit the contour of the ground to the drum of the engine-driven winch. A flag, attached to the rope at such a point that when it approaches within 10 ft. of the winch the elastic is 100 per cent. extended, indicates to the operator that the time has come to give the signal for release, and to stop the winch.

As an additional precaution an observer is posted in line with the pulley to see that all was O.K. as the engine slowly stretched the elastic. The system worked satisfactorily with three men, although later it may be possible by this means to make use of two persons only—the man on the winch and the pilot of the machine.

For recovery, the contour of the ground did not always allow us to use the winch in a direct line and we had to manœuvre the machine a short distance by hand, and then the winch was brought into use and pulled the glider up at a speed of about one mile per hour, thus saving much labour. We can strongly recommend this method of launching and recovery and shall be glad to furnish further particulars to any inquirers.

The question of the power needed for a particular site depends so much on the actual surface conditions of the site, and the slope, etc., but as these engine-driven winch sets are available in various sizes from 1½ h.p. upwards, it should be possible to meet any requirements with the range available.

The set is mounted on a strong wheeled bogey, so that it is easily movable from one point of the site to another. When in position a stay cable is carried back to oppose the pull of the working rope. The engine is of the well-known Petters Paraffin or Petrol type, which is noted for its sturdy construction and for requiring the minimum of maintenance, and has a very low fuel consumption.

We note in The Sailplane for June 19 an illustration of a king-post bracing used by The Preston Club, and can recommend some such method as we have fitted a similar bracing many months ago when we first added wheels on the glider. In our case, however, we used a steel tubular king-post about 12 in. long and carried it just behind the front vertical strut and located thereto by clips. By the stretching of the wires used it is obvious that this method of stiffening has definitely saved the centre-section from breakages.—V. S. C.

THE IMPERIAL COLLEGE GLIDING CLUB.

Very little gliding was done during the Summer Term as most of the members were preparing for examinations and the others were handicapped by the bad weather.

After the ground that we were using at Preston (near Harrow) was used for building purposes we moved to a ground in Kingsbury. This ground was used for primary instruction for several weeks and it is suitable for flights up to about 20 seconds' duration in still air. It is proposed to continue gliding on this ground during October next.

Several members attended the camp at Balsdean during Whitsun, and on this occasion C. B. Moulder qualified for his "A" Certificate (31 secs.). Also J. B. E. Keeble made the two preliminary flights for his "B" Certificate (45 secs. and 54 secs.).

The Club will hold its annual Summer Camp during September at Coe Farm, Salisbury Plain.

The following officers were elected for the Session 1931-32:—President: H. T. Tizard, C.B., F.R.S.; Vice-Presidents: Sir G. T. Walker, C.S.I., F.R.S., Prof. C. L. Fortescue, O.B.E., F.R.S., E. H. Lewitt, B.Sc., Prof. L. Bairstow, C.B.E., F.R.S., and P. C. Bull, D.S.O.; Captain: P. Adorjan; Vice-Captain: J. B. E. Keeble; Hon. Secretary: R. W. Dean; Hon. Treasurer: C. H. Jackson.

Interesting experiments were made to investigate the acceleration produced by the starting rope, details of which will be given later.

The number of flights made by 29 members since January is 400. Only on one occasion was the machine damaged seriously and the total repair costs amount to about 30 per cent. of the price of the machine.

THE ISLE OF WIGHT GLIDING CLUB.

At a Committee meeting held on June 12 the resignation of our Captain, Capt. Merriam, as he is leaving the Island, was accepted with regret. The resignation of our Secretary, Mr. J. B. Smith, owing to pressure of other work, was also accepted with regret.

It was resolved that Mr. Thompson be appointed Captain of the Club and that Mr. Hurst be asked to act as Secretary; the latter office has been accepted *pro tem.*

A Gliding Meeting was arranged at "Somerton" aerodrome on Sunday last in glorious weather, members being particularly requested to put in some much needed practice, but five only attended and the meeting was abandoned.

It is suspected that the hard work inseparable from catapult launching does not find favour with the majority of our members and efforts are to be made with a view to using some form of power launching.

Work is steadily progressing with the "Thompson" all-metal machine, four or five enthusiasts working one or two evenings a week. The welding of the fuselage is almost complete and the wing spars commenced. It is not unlikely that the machine will be ready in time for the Lyons' Demonstration in August.—L. M.

SOME MORE NEWS FROM THE WASSERKUPPE.

The perfect flying weather continues, and, although the beginners' classes are extra large, almost all have made their "B" tickets. The Englishman in the beginners' class unfortunately restarted some old pains in his back, after his spectacular crash, and has now returned home.

The advanced class has already eight "Cs" in a class of eleven. Among these are Flg. Off. C. Kay, Mr. C. Paine, of the Auckland Aero Club, and Mr. P. S. Foss. Flg. Off. Kay has also qualified for his extra (Amplict) "C," and is almost certain to get it. When he does he will be first foreigner to hold this distinction. Certainly his flying was the best ever seen on the Wasserkuppe for a foreigner, and has impressed the Germans very greatly. On only one occasion was he forced to land before the signal rocket and had flights of over thirty minutes to his credit.

Both Mr. Paine (who also made some very fine flights) and Flg. Off. Kay have now returned to England.—P. S. F.

GLIDING IN JAMAICA.

We have recently had a letter from the General Secretary of The Manchester Aeronautical Association, news of which has already appeared in The Sailplane. This Association is the Gliding Club, as one might say, of Jamaica, in the British West Indies, and has now got its first machine (a B.A.C.II) which was tried out on Easter Sunday afternoon. Not being very expert the Club managed to land the machine in a tree-top, which was as they expected to do. No one was hurt nor was the machine badly damaged. It was repaired in two days with a pair of new struts, a new nose-piece and several large patches on the wings.

The Association has now decided that no pupil shall be permitted to hop until they have mastered the feel of the controls perfectly. This is managed by means of a universal joint apparatus, which consists of a rear wheel from a Ford Truck, with a Buick universal joint bolted on top. On to this is wedged the skid of the glider. The wings are attached to the ground by elastic cords, and the tail has a rope with a ring at the end running on an iron rod, slightly curved and pegged down at the ends.

By setting up the machine on this apparatus in a 20 to 25 m.p.h. wind, the pupil can have control and the machine answers to the operation of the controlling surfaces. The pupil not only learns to master the feel of the controls but also to synchronise stick and rudder, and to keep his nose down to the necessary gliding angle. The instructor stands in front and points out errors.

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

EDITORIAL AND ADVERTISEMENT OFFICES OF "THE SAILPLANE," 175, PICCADILLY, LONDON, W.1.
ACCOUNTS AND PUBLISHING OFFICES, CANNON HOUSE, PILGRIM STREET, LUDGATE CIRCUS, E.C.4.
Telephones: Editorial Regent 1916; Advertising: Regent 5373; Publishing: Central 5822.