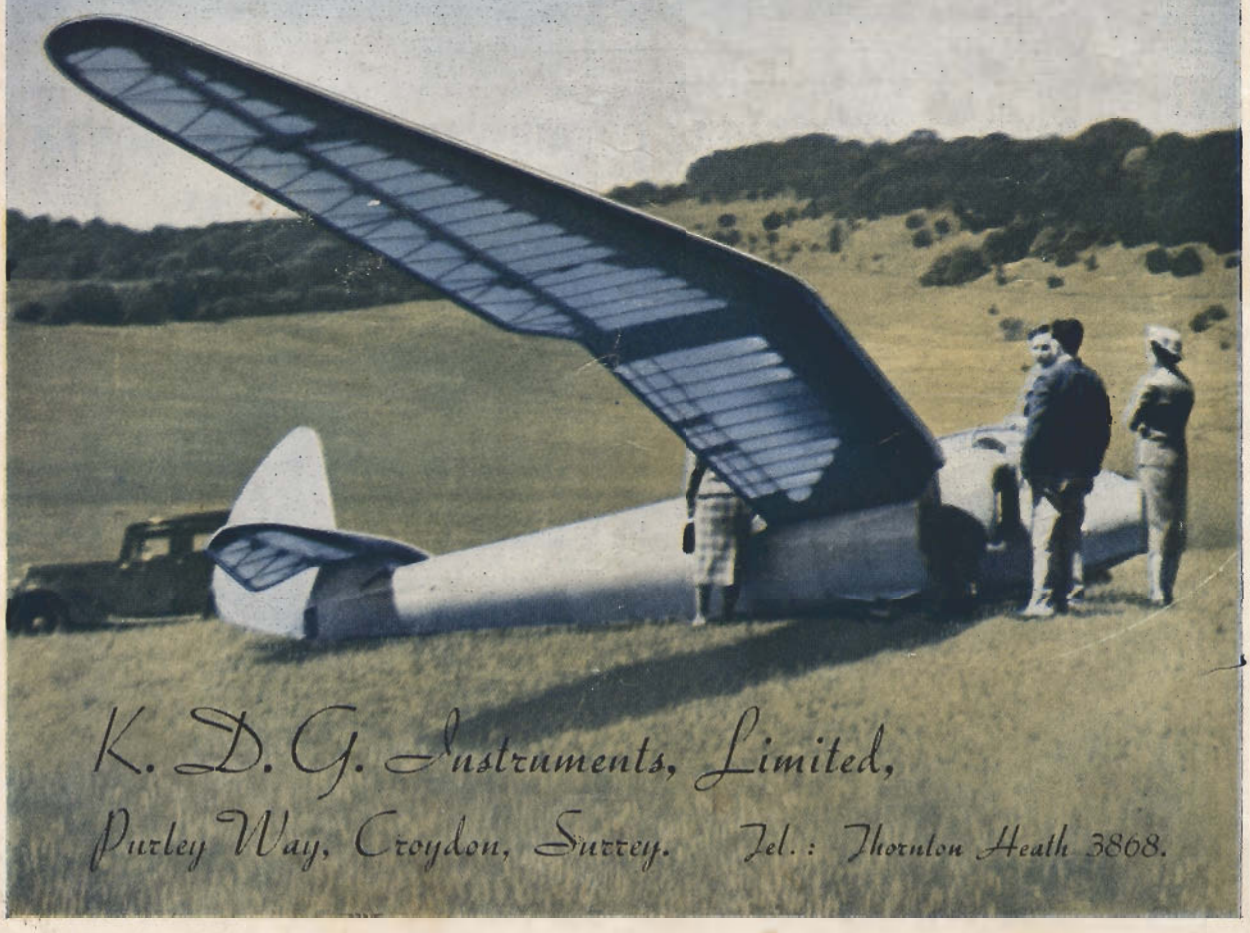
NOVEMBER, 1946

ONE SHILLING

Sailplane and Glider

The First Journal devoted to Soaring and Gliding



Sailplane and Glider

THE FIRST JOURNAL DEVOTED TO SOARING AND GLIDING

NOVEMBER 1946 ★ Vol XIV No 11

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MUSHROOMS

THERE is but little time between *Sailplane*'s being published and going to Press for the next issue. If, therefore, letters to the Editor arrive almost immediately after publication we can be sure that something has touched a chord somewhere. It was certainly true of last month's issue, which provoked a series of letters, of which a selection is printed elsewhere, all of which were in answer to the Editorial or commented on the letter by "Amor Borealis."

To the writer who abjures us to eschew politics on the ground that this is a Gliding Magazine and that political matters are adequately treated in the popular Press, we must offer the rejoinder that to-day Gliding *is* Politics and that we can none of us wash our hands of the affairs of our country. That policy of *Laissez Faire* landed us in two wars in a lifetime. And as for their being treated adequately in the popular Press—if we did not feel that they were not—with twenty-seven years journalistic experience to guide us—we should be content to leave it as our correspondent suggests.

As for the first point, unless we feel very keenly and act strongly, we shall not be heard nor heeded. It has not been said here before, but it is time it was said—that to limit Gliding to members of the A T C—either pupils or those who join the A T C in any other category because it is the only way of getting any Gliding—savours too much of Totalitarian methods to be acceptable to a free people. That was the German way. If you are content to accept your Gliding on these terms you can be subsidised to an amount variously estimated to be between £30,000 and £70,000 a year.

If you wish to be free to Glide or Soar with your friends in your spare time, it is necessary either to be rich or well-to-do. Even if you can afford the entrance and membership fees, and hope to have say two flights in a week-end—a circuit and twenty minutes soaring—the fees alone will cost you upwards of 10/-. If you stay the night it will cost you say 7/6 all in. If you have no car (and a car is essential to cross country flying) it may cost you say 2/6 to get there and back. Total cost say £1 and this is very conservative. Suppose you do this one week-end in three, the cost will be under £20 or 8/- per week over a year.

How many youngsters can afford 8/- per week ? Yet it is on the fifteens and sixteens that our hopes must chiefly rely, if the experience of the Movement in other countries is any guide.

Nor does the A T C cater for girls who wish to learn to glide. They are allowed to do the auxiliary things—rigging and assembling—dragging out into position, but with a very few exceptions are they allowed to fly—and then only as instructors under instruction.

Suppose you wish to build your own Cadet—plans, materials and metal fittings alone will cost about £50. How many youths and girls possess even a quarter of that sum which parental control would allow to be spent on making a glider ?

Clearly Gliding is not cheap. Nor will it be until its devotees are multiplied several times at least. Before the war the Germans sold "Grunau Babies" at about £85 each, but then they had 2,500 of them. The equivalent machine to-day costs about three times as much. If even 200 were needed at once the price might be reduced to about two-thirds that sum—say about £140-150, perhaps even less. But who is to order 200 at once ? At present only the Air Ministry. If an adequate subsidy were granted it would be many months before enough clubs would be formed to need 200 "Grunaus."

And now we come to the next point—who is going to form the clubs ? Is it to be expected that they will grow like mushrooms ? If so they will probably depart like mushrooms. But if there were a live plan now, with approved officers, instructors and pre-selected sites within easy reach of populous areas as the basis of clubs, each with its desirable establishment of Gliders, Sailplanes and equipment, at least it might be possible to show the Government that the Movement means business. Our "grandiose" plan may seem impracticable, but it is all a matter of Will and Faith plus hard work.

That there are people in the Movement who are willing to risk money as well as time for the benefit of the Gliding Community was shown by the promoter of Fforest Fawr—a gallant venture which foundered on the rocks of lack of machines. Now another enthusiast has come forward and proposes to begin in the Midlands to teach Gliding, a venture which will have all the goodwill of all other enthusiasts, and we hope in a practical form.

SOARING AT SCHARFOLDENDORF

By F/Lt. H. Neubroch.

THE soaring site at Scharfoldendendorf-Ith, near the ancient town of Hamlin, regarded by German gliding experts as second only to the Rhoen, has for more than a year been used by R.A.F. personnel stationed at the headquarters of British Air Force of Occupation. With the amalgamation of the B.A.F.O. Glider and Sailplane Club and the Air Division Gliding Club, its facilities have been placed at the disposal of a greater number of gliding enthusiasts—provided they are qualified to fly there, for the terrain of this beautiful spot is by no means ideal for those not familiar with the technique of uphill and cross-wind landings.

The main feature of the site is a twelve-mile ridge, facing slightly south of west, which rises steeply for almost 1,000 ft. from the valley. Most of the incline is covered by fir, although there is a series of tooth-shaped rocks where, with a westerly wind, one may expect to find the maximum amount of lift.

Launches are carried out by means of a Pfeiffer or Gefinal (movable) winch slightly to the east of the water-shed, from where pleasant fields roll down a gentle slope into another valley and towards an even steeper ridge facing northwards.

With the wind from the north or south, winch and take-off position are placed on a line parallel to the main ridge. With any luck at all, one can obtain a height of 1,500 ft. above the winch. The usual thing then is to hunt for thermals, and there are several excellent spots where periodic releases take place.

Just north of the main buildings, for instance, there is an omega-shaped clearing in the trees, with its mouth pointing towards the east. I once watched Air Commodore Lane circling this spot in a "Rhonsperber" for ten minutes, losing just a little with every turn. When he had almost reached tree-top level, his sink seemed arrested; perhaps he had

German Gliding School, now R. A. F. Rest Centre and Gliding Club. This photo, taken before the war, when the main building (left) had not been erected, shows hangars and workshops at Scharfoldendorf- Ith. Officers' hotel in background on the right. Note slope into valley on the left.

caused sufficient turbulence with the long " Sperber " wings to set off the bubble of warm air gathering there. Shortly afterwards he began to climb, reaching a height of 3,000 ft. with a steady rate of climb of 8 to 10 ft. a second. Using thermals up to cloud-base, his total time that afternoon was more than 3½ hours.

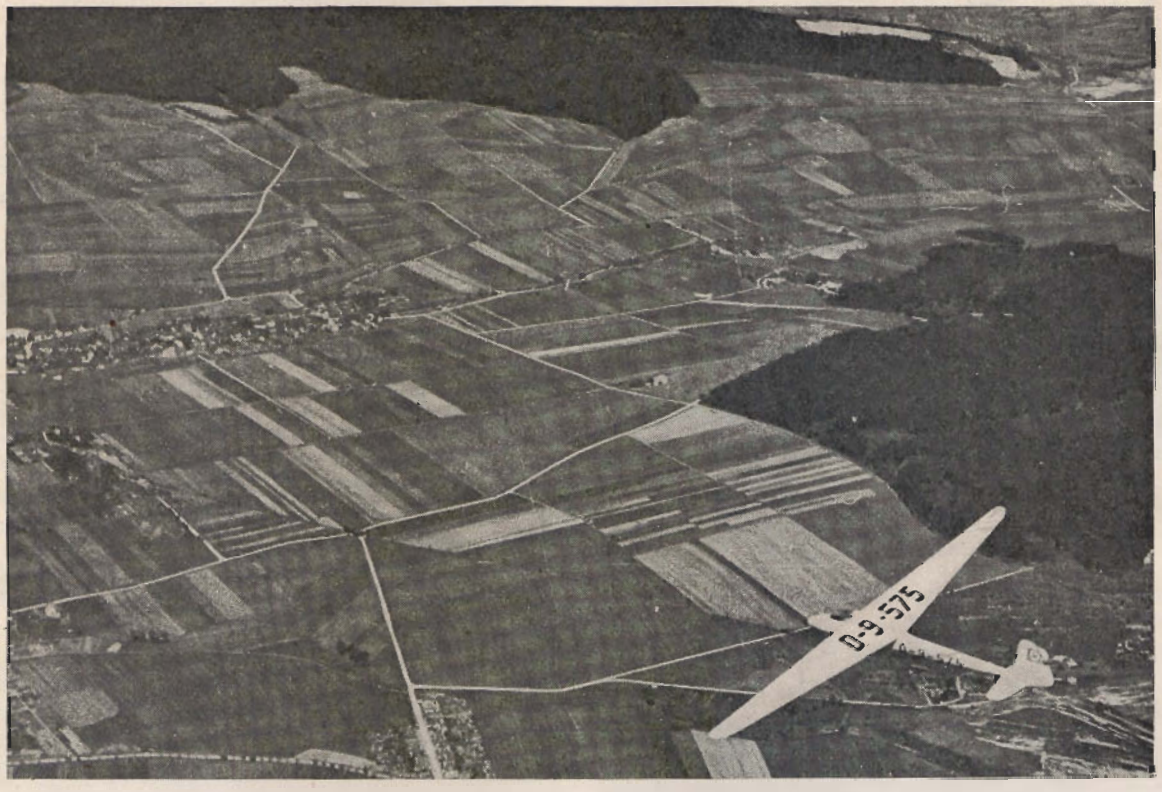
With a strong northerly wind it is possible to soar along the five mile ridge north-east of the launching point, but a southerly wind will rarely be strong enough to support a sailplane along the southern slopes of the main ridge.

When the wind comes from the west at more than 10 m.p.h., it is possible to soar all along the twelve-mile ridge. The winch is then placed at the brow of the ridge, with the glider roughly 100 yards to the east. A quick short take-off takes it to 100 or 150 ft. above the winch, but the glider will continue to rise after the cable has been released. A turn to the right, past the main buildings, will bring the glider over the cliffs where a height of perhaps 600 ft. may be obtained at a rate of 4 to 6 ft. a second. Marked instability will often raise this to as much as 2,000 ft.

From then on it's a piece of cake. The minutes pass quickly as one cruises just ahead of the ridge, enjoying the glorious view over the valley and, further to the west, the Weser. One complete flight along the ridge to its northern-most point and back may take an hour, and every minute, every yard of the ridge brings new experiences and sensations. It was in this manner that Air Commodore Lane established a local and club record by soaring the " Rhonsperber " for 6 hours 38 minutes.

The following sailplanes are at present in use at Scharfoldendorf :—4 " Grunau Baby," one with enclosed cockpit; 1 " Kranich " dual-seater; 1 " Mu 13 "; 1 " Rhonsperber "; 1 " Minimoa "; 1 " Meise Olympia."

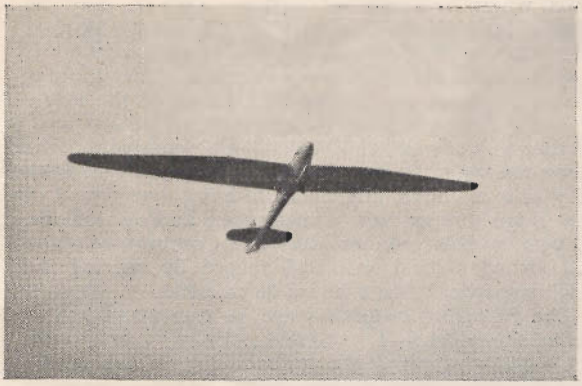
It is hoped soon to transfer a " Weihe " from Barntrup to Scharfoldendorf.



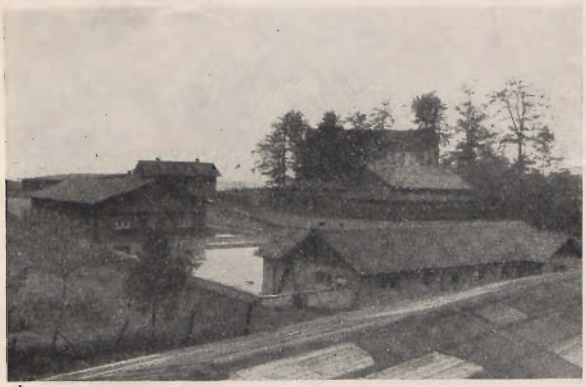
" Weihe " high-performance sailplane over the valley at Scharfoldendorf. Swastikas have long since been replaced by R.A.F. roundels.

To give some idea of the potentialities of Scharfoldendorf as a soaring site, here are some extracts from my log-book :

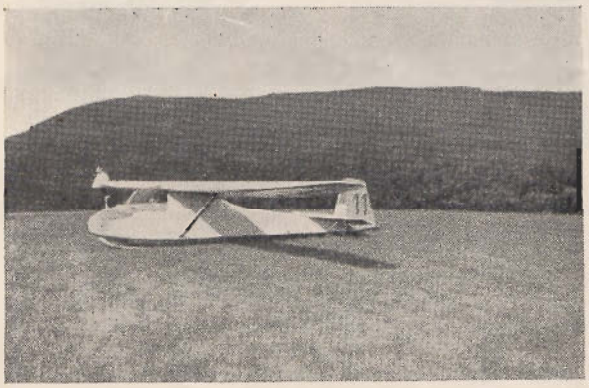
Date		Time	Sailplane	Hrs.	Mins.	Remarks
July	20	1700 hrs.	" Grunau " (encl. cockpit)	–	25	Cold frontal thunderstorm. In cloud at 2,500 ft.
July	21	1400 hrs.	,, ,, ,,	2	22	Thermals.
July	21	1700 hrs.	,, ,, ,,	–	17	,,
July	21	1730 hrs.	,, ,, ,,	–	30	,,
August	4	1500 hrs.	,, ,, ,,	1	24	,,
Sept.	7	1500 hrs.	,, (open)	2	36	West Ridge.
Sept.	9	1040 hrs.	" Minimoa	4	12	West Ridge 4–6/10 St., E.St. at 600 ft.
Sept.	10	1045 hrs.	,,	6	33	West Ridge. First hour 6–8/10 St, F.St. at 500 ft., clearing later. Last hour in rising air pushed up by slowly advancing cold front—very smooth soaring.



" Kranich " Two-seater on the ridge. Service visitors to the rest centre are able to take guest-flights at the B.A.F.O. Gliding Club's advanced site at the Ith.



View from the Officers' Hotel, showing workshop (left) and swimming pool (centre).



Enclosed Cockpit " Grunau Baby." F./Lt. Neubroch ready for take-off.

During a week's leave spent at Scharfoldendorf at the beginning of September, I managed to log more than 16 hours' thermal and ridge soaring.

The Reich Gliding School at Scharfoldendorf-Ith, which was completed by the Germans in 1943, has now been taken over by No. 1 B.A.F.O. Rest Centre, under the command of F./Lt. Waddington. Apart from the lavishly furnished main building, W.A.A.F. quarters and officers' hotel, there are, on the grounds, a well-equipped workshop, two hangars, a swimming pool, a small but delightfully cosy pub, and other sports facilities.

Australian News Letter

THERE are sixteen gliding clubs in Australia with a total membership of approximately 379. Types of imported gliders now in use include :—

" *Grunau Baby II,*" intermediate Sailplane, imported by the Gliding Club of Victoria from Germany in 1937.

Slingsby " *Gull* " Sailplane, imported by Doctor G. A. M. Heydon, lecturer on Tropical Diseases at the Sydney University, in 1939. It is of English design and mnaufacture.

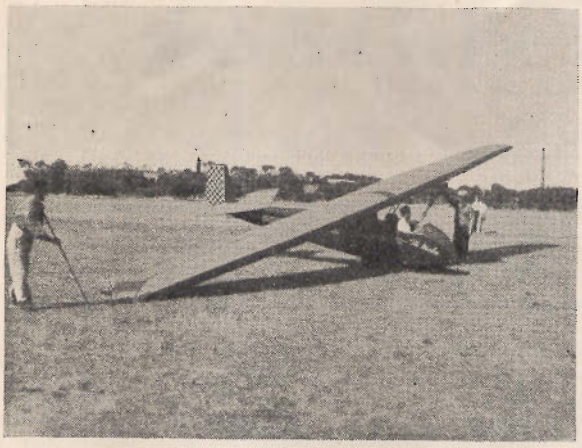
Kirby " *Kadet,*" Secondary Glider, owned by the Gliding Club of Victoria, was imported from England in 1940 in " kit " form, and was built by Club. It is a standard English type.

Locally Built Gliders

" *Grunau Baby II* " *Type.* The first one was built by Arthur Farmer, of Fremantle, in 1939, and it is now owned by a member of the Perth Gliding Club. The other one was built by R. Dowling, of Fawkner, Victoria, and was completed early in 1946. It is at present stored in Sydney.

" *Kestrel,*" English design. There are three of these. One is owned by its builder, Rie New, of Perth. First flown 1939. Another is owned by W. and J. Iggulden, of Victoria. It is known as the " White Kestrel." It was built by R. Balsillie, of Horsham, Victoria, in 1939. Another is owned by P. J. Pratt, of Geelong, Victoria ; it is known as the " Red Kestrel." It was built by Pratt in 1939. There was one other " Kestrel "—it was really the first sailplane in Australia. It was built by F. Hamilton, of Sydney, and was flown a lot at Kiama, in N.S.W., until 5th December, 1937, when it was badly damaged after " spinning in "—the pilot, S. Newbigin, was seriously injured.

" *H.17* " *Sailplane Type.* Austrian design by Hutter. Grey " H.17 " built by K. Davies and H. Bartram, of the Gliding Club of Victoria ; first flown 23rd April, 1943. It is now owned by a group of private owners in the Sydney Metropolitan Gliding Club. Red " H.17," built by N. Hyde, of the



Merlin two-seater.

Utility. Merlin Grunau. Grey H.17. Kestrel. Golden Eagle.

Gliding Club of Victoria ; first flown at Yea, Victoria, on 22nd September, 1945. It is now owned by N. Wickens, of the Sydney Metropolitan Gliding Club.

" *Kite II* " *Sailplane.* The " Kite " design was introduced by M. Warner, H. Ryan and Alan Campbell, of the Sydney Soaring Club about 1935. The original " Kite I " was sold to Dr. J. B. Thiersch, of Adelaide Hospital, in 1940, and later used by the Waikerie Gliding Club in making some amazing flights. It broke up in the air on 28th October, 1944. (See Circular 32.) The " Kite II " was built in 1938 and has proved itself a very useful machine.

" *Golden Eagle* " *Sailplane.* Designed and built by H. G. Richardson, of Melbourne. First flown in 1937.

" *Coogee.*" Designed by T. Proctor, of Melbourne, on " H.17 " and " G.B. II " lines. First flown 1943. Owned by V. M. F. G.

" *Falcon* " 2-*Seater.* Designed by Jack Munn and built at Wagga, N.S.W., about 1942. The machine is owned by Jack Munn, of Matraville, N.S.W., and is operated by the Sydney Metropolitan Gliding Club.

" *Merlin* " 2-*Seater* was built by a syndicate of nine members of the Gliding Club of Victoria under leadership of N. Hyde. It was first flown on 23rd April, 1943, and is operated by the Club.

" *Pelican* " 2-*Seater* was evolved by the Waikerie Gliding Club from parts of another machine ; originally a single-seater with a defective fuselage. First flown 1940.

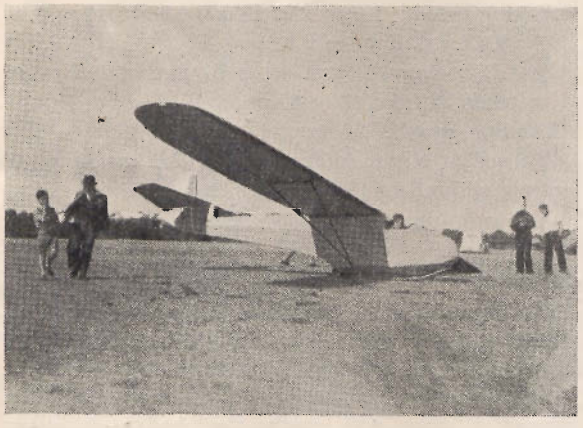
Primary 2-*Seater,* evolved by the Technical Gliding Club of Sydney. First flown 1945 ; being modified.

Utility Trainer Glider No. 1, designed by N. Hyde and built by the Gliding Club of Victoria and first flown on 17/9/44. It is owned by the Club.

Pratt " *Utility* " *Glider.* There are two of these—one is owned by Waikerie Gliding Club and the other by P. J. Pratt, of Geelong, Victoria. Both were built by Pratt.

Other Gliders. There are other amateur designed machines, some of sub-standard type. This list is, however, about 90 per cent. of the total number of gliders operated in Australia. There are about a dozen or more gliders projected or actually being constructed by enthusiasts. Included in these are at least two " Olympia " sailplanes—a most modern type of German design.

(*Concluded on page* 25)



Australian " Utility."

WINTER LECTURES

Invitations are being sent to all Gliding and Flying Clubs to attend a series of lectures in the canteen of the Fairey Aviation Co., Ltd., Station Road, Hayes, Middx.

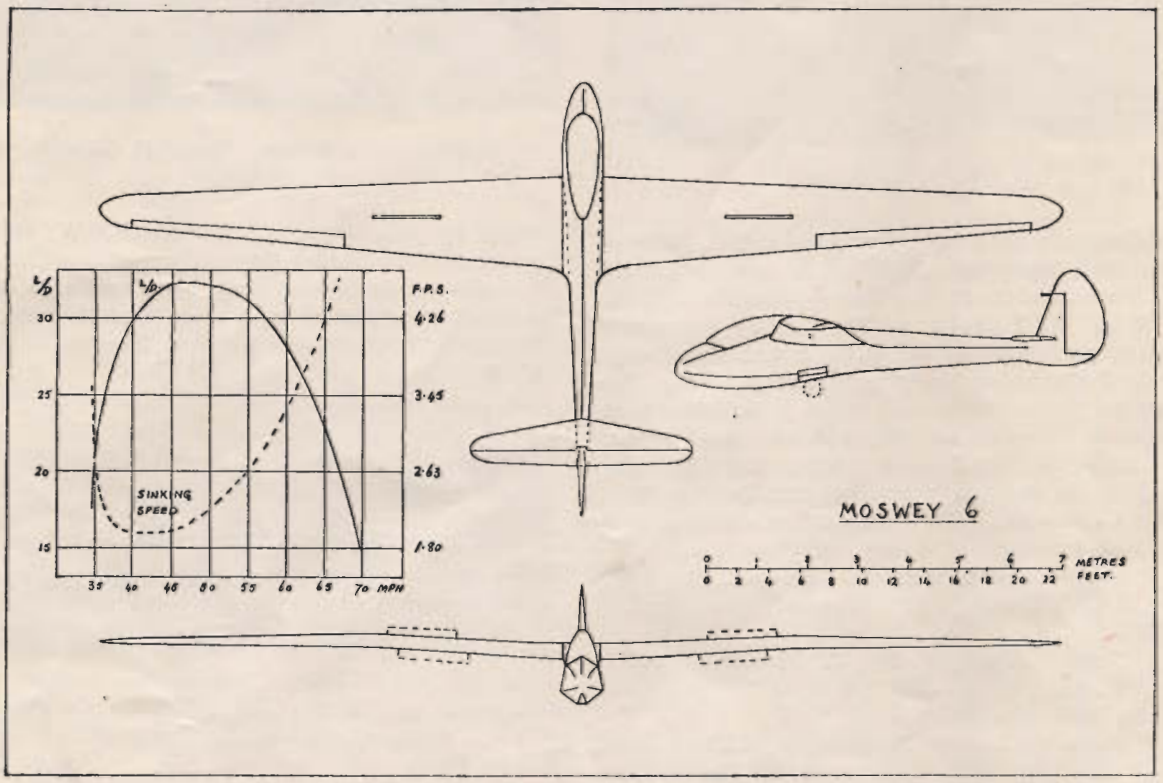
The second lecture entitled " Rotating Wings," will be given at 8 p.m., by R. G. Robertson, B.A. (Eng.), Fairey Aviation Co., Ltd.

A NEW SWISS SAILPLANE

THE "Moswey 6," a new two-seater sailplane, is the most recent of a successful series designed by Gunter Muller and built by the firm of Moswey-Technich at Zurich.

Construction follows broadly the lines of the "Moswey 3," the wing being of wooden construction

Span	62.4 ft.
Length	22.6 ft.
Height	4.5 ft.
Wing Area	245 sq. ft.
Aspect ratio	16
Empty weight	462 lb.



with a torsion resisting ply nose. Dive brakes of the DFS type are fitted and are operated from the rudder pedals in conjunction with a hand lever.

An unusual feature is the retractable wheel, which when retracted is completely faired in by hinged doors. A large, transparent detachable hood is fitted over the cockpit, giving adequate upward and backward view.

A comprehensive instrument layout includes warning lamps for the quick release and dive brake mechanism. Other points of interest are the comparatively small aileron and elevator areas.

This machine, which has been designed for the particular soaring conditions prevailing in Switzerland, has a remarkable performance, and on the basis of published figures indicates that the "Moswey 6" is in the same class as the "Darmstadt D.30."

Loaded weight 881 lb.

Sinking speed: 1.9 to 1.97 f.p.s. at 36 to 44 m.p.h.
3.6 f.p.s. at 62 m.p.h.

Best L/D over 30 from 40 to 57 m.p.h. and more than 32 from 43 to 51 m.p.h.

Landing speed: 31 m.p.h.

A Swedish report indicates that this machine, *ex* factory, will sell at 18,000 Swiss francs.

F.L.

CZECH NATIONAL AERO CLUB.

The Czech National Aero Club has kindly suggested that the Leicestershire Gliding Club might like to adopt their gliding badge as a fraternal gesture.

The Leicestershire Club have welcomed the suggestion and will wear the badge—a silver rectangle with sailplane within.

IT COULD HAPPEN TO ANYONE

By Major A. R. H. VAN BAERLE (B.A.O.R.)

WHILE it is still fresh in my memory I wish to commit to paper a most interesting and not a little exciting experience.

On the late afternoon of 17th September I arrived at Barntrup gliding site, just as the clear sky was slipping away with one or two hasty, ragged clouds. The field is situated on the top of a slope, the lower side of which faces west-south-west, the highest point being 395 metres above sea-level.

The wind sock swung obediently from the south-south-east, while a thunder front was building up to the south-west, the top-heavy head of which was tottering towards me. An occasional, solitary drop of rain drummed on the surface of the aircraft.

I decided that I would have time to fly the " Kranich " before making an attempt at my Silver " C " distance flight in the " Meise Olympia." I particularly wanted to fit in the " Kranich " trip, as a friend who was with me had not yet been in this, a new aircraft.

We buckled on our 'chutes and clambered into our respective seats. I told him that I would fly all the time as the sky looked rough. At 1800 hours we jolted forward behind 900 metres of singing steel cable into the exhilarating lift-like a scent of a centre-of-gravity take-off. From the back it is difficult to estimate direction—the nose points to the sky and the great spread of the wings blots out the horizon—but by dipping the port wing into the slight cross-wind and by keeping the compass on the bearing to the winch, we cast off above it at 380 metres. The ascent had been somewhat hectic, as the A.S.I. had registered 120 km. per hour at times.

I held her into wind at minimum sink speed (between 65 and 70 km. per hour—as indicated on this particular aircraft) waiting for the frontal lift or clouds to approach. At this speed the " Kranich " hung like a great gull before a cliff top and would make no advance into the wind. At times there were violent kicks as we lurched from 1 metre/sec. ascent to 1 metre/sec. descent. Forks of lightning were now visible, and realising that it was time for the " Meise " I turned with still 150 metres on the " clock," heading in to a bumpy cross-wind approach. The landing was to be uphill, and just before the touch down we would be in the lee of a shoulder, caused by a fold in the ground. Although the normal approach speed of the " Kranich " is between 70 and 80 km. per hour, I thought of velocity gradients and drift. The A.S.I. showed 100 km./hr., to make good the track the nose of the aircraft was headed about 30 deg. into wind. Without using the lift spoilers a satisfactory landing was achieved as the aircraft settled down at a shade under 60 km./hr., a dozen yards from the start point.

I exchanged my seat 'chute for one of the back rest type, and after a quick check round the aircraft prepared for the take-off in the " Olympia." The special centre of gravity cable fork had either broken or fallen off during the previous start, and until another could be made ready I would have to use a nose launch. But time was precious as the storm was almost upon us—a fact confirmed by the conference of sound in the tree-tops. Little did we realise then just how close it was.

The normal signals were exchanged with the winch, the cable echoed tunnel-like rumblings through the aircraft as it drew taut, and then, away ! Airborne at 1830 hours, air speed normal, that is between 80 and 90 km./hr. The take-off was going well, as I seemed to be climbing without moving appreciably nearer to the winch. I noted how much easier it was to keep direction into a strong wind with a nose launch.

Everything seemed grand, the altimeter had just passed the 300 metre mark, a height which would give me ample time to explore those magical up-currents. I eased the nose forward before slipping the cable, and the nit happened.

It was rather like the moment when an electric welder has banged his rod through the oxide crust on a steel plate—there were showers of sparks and bright blue flashes rocketing in all directions from down below my feet. There were sizzling crackles and a loud crash reminiscent of a huge gas-filled electric light bulb striking a concrete floor. Out of the corner of my eye I became aware of a rainbow display of colour, which could not fail to attract my attention. Playing up and down the right wing were orange and violet flames and flashes.

When all this had started, the aircraft began to shudder like an ancient motor cycle going into a " speed-wobble," and after I had released the cable by jerking the nob twice I discovered that the motion was caused by a vertical oscillation of the starboard wing, which was by now either on fire or giving a very good imitation of being so. I eased the lift spoilers out and dipped the nose, the flames vanished and the brakes were pushed in again. On pulling the control column back I observed that the shuddering grew worse. How long could I afford to experiment ? Would the wing hold in this weather ? Height was already down to 250 metres. Under such conditions one can only make up one's mind once. Rather selfishly, I feel, I decided that the machine and myself would have to reach the ground independently.

I jettisoned the hood, unfastened the quick release of the safety straps, placed my right hand on the ring which would open the parachute, and as I dived under the right wing (incidentally the down-wind side of the aircraft), I pulled the stick back a shade. I realised that without me the immediate reaction would be for it to climb, and so the trimming tab lever had already been pulled back (in actual fact I doubt if it makes all that difference), for it would be necessary to open the 'chute as soon as possible, and I wanted to be well clear of the aircraft when that happened.

After counting " two " I pulled the ring steadily and firmly. Travelling head first at the time gave me a splendid view beyond my feet of the white flashing silk shooting out like a jet of water. The ground had now obliged by presenting itself at my

feet, and after a few seconds of impatience came towards me at a more amiable speed. Like many an Me 109 and FW 190 pilot, I blessed the makers of that " Fallschirm." According to eye-witness accounts it opened a bare 50 metres or so above the ground.

The wind was drifting me rapidly, judging by my experience in the " Kranich " the parachute must have been moving at approximately 25-30 m.p.h. at the time it opened. The ground on which I was about to descend was falling in the same direction as the drift. Unfortunately I lacked experience in approach and landing of this type, although I had managed to avoid falling backwards. I had weakened my right knee playing rugby football, and so I am not so very surprised that plaster now encases a torn ligament.

On examination of the wreckage of the " Meise," which had climbed into a stall after diving towards me as I released the 'chute harness, and had crashed not 200 yards away, the rudder pedals, starboard lift spoilers and numerous places on that wing were charred. It would seem that after striking the aircraft in the neighbourhood of the right wing lift spoilers, the discharge had made its way through the aircraft down the cable (4.5 mm.) to the unfortunate winch driver, who was left in a cloud of smoke with a burnt-out telephone. Luckily he escaped with only a shaking.

When the plaster is off I hope there will be another chance to make my final leg for the Silver " C."

My excuse for writing this is to bring out the fact that certain simple rules are well worth following, viz. :—

1. A well packed parachute should always be WORN when the weather is rough, cloud flying is contemplated or aerobatics are performed.
2. Unless it is known to be safe, steel winch cable launches should not be attempted when lightning is about.
3. The shape of a field should always be studied with regard to its effect on wind velocity gradient.
4. Always have a plan for an emergency—having made up your mind stick to it.

SOUTH AFRICAN GLIDING ASSOCIATION

MACHINES FOR CLUB USE

IT was recently recommended that until such time as machines which are proved to be more suitable become available, clubs should adhere to the types which were adopted and maintained during the war period by the Gliding Wing at Quaggapoort. They are :—

Primary Trainer	..	" Grunau 9."
Secondary	.. ..	" Kirby Kadet."
Sailplane	.. ..	" Grunau Baby IIa."

Sufficient of these types are available to meet immediate needs, and furthermore no information has since reached this country to warrant any immediate departure from the above recommendations.

However, in England and America efforts are being made to dispense with primary machines altogether, and to train *ab-initio* pupils using secondary or utility types, with or without a certain amount of dual on two-seater machines.

In Switzerland it is claimed that a dual control machine has been developed with which it is feasible to teach *ab-initio* pupils to fly well enough to graduate direct to the " Grunau Baby " type.

The Germans, who did a vast amount of *ab-initio* training during the war period, seem to have adhered to the primary type for this purpose. The machine used known as the " S.G.38," appears to be developed from the " Grunau 9." They made some use of two-seaters, foremost of which was probably the " Kranich." From available information it appears that no single-seater type was used to bridge the gap between the primary and " Grunau Baby."

Now that winch launches to the order of 1,000 ft. are commonplace, and flights without lift, of five minutes' duration possible, the employment of dual control machines becomes particularly interesting.

It is believed that the more recent two-seater productions are sufficiently sensitive on controls to be of considerable value, during *ab-initio* training.

The S.A. Gliding Association will continue to publish from time to time, information received.

British Machines

The following information has been collected relative to types and prices *ex* factory. Prevailing shipping rates are not known, but in the case of complete machines they are likely to bring landed costs to considerably more than double pre-war prices.

Primaries.		
" Open Dagling "	.. ..	£140
" Nacelled Dagling "	.. ..	£155
Secondaries.		
" Kirby Kadet "	.. ..	£245
" Kirby Tutor "	.. ..	£260
Intermediate Sailplanes.		
" Grunau Baby II "	.. about	£300
" Kirby Kite "	.. ..	£340
Olympia Class.		
" Olympia " (Meise)	.. ..	£500
" Kirby Gull IV "	.. ..	£385
Two-Seaters.		
" Kirby Falcon IV " (tandem)	..	£450
" Venture II " (side by side)	..	£480

British manufacturers are prepared to supply machines in kit form at about half of the above prices. The Association are making endeavours to have machines assembled in South Africa. A company has been registered with a view to undertaking

this work on a low profit basis, and clubs will be invited to become financially interested, should they so desire.

The Cost of Gliding

In spite of Government subsidies, assistance from Sir Abe Bailey's Aviation Fund, and in the case of certain clubs gifts of machines from the Aero Club, Germany, pre-war gliding did not pay, and clubs were generally speaking barely solvent when flying ceased in 1940.

The story is long and distressing, and it is not proposed to go into details at present. The following notes are based largely on experience gained by the war-time Gliding Wing at Quaggapoort, and apply to winch launching for all instructional purposes.

As opposed to small groups, the minimum requirements of a club are considered to require that at least one winch may be kept fully occupied on two days per week, and that members be provided with facilities for training from *ab-initio* to Silver " C " Standard. For this purpose a minimum of four machines are required, and furthermore a small hangar and retrieving car must be available.

It is estimated that 50 launches per day or 100 per week should be obtained from a single winch, and that allowing for attendances of the order of 50 per cent. such a club could cope with 100 flying members.

In order to meet all expenses involved under present conditions, it is considered that a revenue of nearly 5/- per launch is necessary from flying fees alone. This could be met by charging 2/6 per launch up to the " A " certificate, 5/- for all full launches and £1 per hour for soaring flights.

Thus under good conditions a weekly revenue of from £20 to £25 could be expected, or say £1,000 per annum. Subscriptions from 100 flying members plus all possible associate members, should produce a further £500, making a total yearly income of £1,500.

It is considered that such an income would permit major repairs being performed by professional ground engineers, although the employment of such a person on a full time basis would not be warranted unless two winches were employed and an annual income of say £3,000 forthcoming. It is assumed that all other necessary work be performed by members on a strictly honorary basis. Should members effect their own major repairs, then, of course, flying fees could be somewhat reduced provided that revenue was not lost owing to machines being out of commission, for abnormally long periods.

At some later date it is hoped to provide detailed statistics to show how the above costs are made up. In the meantime it must be remembered that the replacement cost of equipping a one winch—four machines and hangar club, will amount to between £2,000 and £3,000.

It is admitted that these figures make gliding appear far more costly than was believed to be the case in 1935 to 1940. However, little doubt remains that such are the facts, and it is necessary for clubs to face them, and to do so before old mistakes are repeated by the re-organised post-war clubs.

As yet there is no indication that any outside assistance can be expected, and club members will, it seems, have to meet the entire annual expenditure.

However, war-time training methods at Quaggapoort, where adopted, will largely offset the increased cost of flying.

It should now be possible for *ab-initio* pupils to obtain the " A " certificate in 20 launches or for a cost in flying fees of £2 10s. at 2/6 per launch. An additional 10 launches at 5/- each or £2 10s., should cover the " B " certificate. Even should a further 20 launches at 5/- each be necessary to obtain a " C " certificate, the total amount involved in flying fees to this stage would be £10. A charge of £1 per hour for soaring in a " Grunau Baby " type is not excessive when compared with present costs generally.

REGISTRATION OF GLIDERS

The Civil Air Council have asked the S.A. Gliding Association to again accept the responsibility for the registration of all gliders in the Union.

Markings for machines will consist of the nationality letters ZS followed by a numeral. It is expected that numbers for all machines which have been purchased from the War Stores Disposal Board will be available at an early date.

Defence Gliding Club

This Club was the first to start post-war flying. The first meeting was held on 26th May. Since that date, flying has taken place at every week-end. The two " Kirby Kites " and " Grunau 9's " formed the initial equipment to be made serviceable. Up to date all launches have been made by winch. On most week ends the " Kites " have found thermals off the winch and altitudes of from 3,000 to 4,000 feet have been attained on a number of occasions.

Durban Gliding Club

The equipment made available by the War Stores Disposal Board has been collected from Quaggaport, and is at present being made serviceable by club members in Durban.

A club member, A. Southam, has built a short-wave inter-communication set for use on the field.

The Honorary Secretary is H. Reibstein, P.O. Box 2192, Durban.

Border Flying Club

All equipment which was allocated to the Club by the War Stores Disposal Board has been collected from Quaggaport, and club members are busy making it serviceable. The Honorary Secretary's address is P.O. Box 45, Kingwilliamstown.

Rand Gliding Club

This Club is a branch of the Rand Flying Club, Rand Airport, Germiston.

A site on flat ground has been obtained 10 miles south of Johannesburg, where the Club's first post-war flying took place on July 14th.

AUSTRALIAN GLIDING

GOVERNMENT STATEMENT

THE following letter has been received from Mr. Norman Makin, Acting Minister for Air, in reply to a questionnaire from the Editor of *Eagle* (gliding and light plane magazine of Australia), regarding the Government's policy towards Gliding Clubs, Aero Clubs and the future prospects of the Air Training Corps.

DEAR SIR,

Adverting to your letter of 21st March, 1946, on Gliding Clubs and Air Training Corps, I now furnish hereunder advice on the various questions you raised in your communication :—

The Government has not yet given consideration to the question of assisting Gliding Clubs and I am therefore unable to advise you what policy is likely to be adopted regarding the payment of Subsidy, the provision of landing grounds for Clubs, or the matter of financial assistance in obtaining equipment.

Sales of surplus R.A.A.F. material is the responsibility of the Commonwealth Disposals Commission, and provision is made for the sale of certain material to Aero Clubs at a concession price of 50 per cent. of the normal prices. The Department of Civil Aviation is concerned in the matter to the extent that it recommends that this concession be granted to certain Clubs, but its recommendations only apply to subsidised Aero Clubs. Under these circumstances, the Gliding Clubs should communicate direct with the Commonwealth Disposals Commission authorities in relation to any surplus equipment, etc., they may desire to acquire.

The Airstrip at Wallgrove, N.S. Wales, was made available to the N.S. Wales Gliding Association *vide* the terms of my Department's letter of 19th July, 1945, No. 194,634.

In the review of airfields, following cessation of hostilities it was decided that that emergency landing ground was no longer required for R.A.A.F. purposes, in consequence of which fact my department terminated the hiring as from November, 1945.

The question of lease of suitable Crown Lands at a nominal price for gliding clubs is a matter for decision by the respective State Governmental Authorities, and it is suggested you might take that matter up with the State Government of N.S. Wales.

See remarks above.

For your information, I attach a Press Release issued by Mr. Drakeford in October last which provides details of the policy in regard to Air Training Corps syllabus.

It is not proposed at this stage to make Glider Training a part of the Air Training Corps syllabus.

I hope that the foregoing information adequately covers the questions raised by you and meets your requirements.

Yours sincerely,
(Signed) NORMAN MAKIN.
Acting Minister for Air.

B.G.A Delegation to Czechoslovakia

8th—22nd September, 1946.

A DELEGATION of eight members, representing six active British Clubs, visited Czechoslovakia during September in response to an invitation sent to the B.G.A. by the National Aero Club of Czechoslovakia.

The visiting pilots included Miss Zita Paddon and Bernard Thomas (Derby & Lancs.), Rex Young and W. L. Jennings (Bristol), P. R. Wijewardene (Cambridge), Jack Rice (Leicester), P. G. Tovey (London), and Charles Wingfield (Midland).

The objects of the visit, as outlined in the invitation, were to show members of the B.G.A. the gliding and soaring sites used by Czechoslovakian soaring pilots; to give British pilots the opportunity of flying high-performance sailplanes; to demonstrate the training methods used in Czechoslovakia; and to make personal contacts with representatives of the B.G.A. in order to promote good relations between the British Association and the Czechoslovakian aero clubs. That there objects wese achieved in full measure can be attested by all members of the visiting party.

Arriving at Prague on Sunday, the 8th of September, members of the delegation were received by representatives of the Czech National Aero Club and by Brigadier G. L. Prendergast, D.S.O., of the British Military Mission in Prague, who gave invaluable help during the tour. The main party arrived by airline; Rice and Wingfield in the former's "Whitney Straight"; Jennings and Young in the latter's "Hornet Moth." Considerable interest was shown in the two light aircraft (first owner-piloted aeroplanes to be flown to Prague from England since the war), and both were subsequently used, with Czech co-pilots, on a journey to Brno and a visit to the Medlanky site.

The first three days of the visit were spent at Kralupy, a flat airfield site 12 miles north of Prague. Aircraft available included "Kranich" (2-seater), "Olympia," "Grunau Baby," "Weihe," "M.U.17," and "Rheinland," and on the first day all the visitors were carefully checked on dual flights, by winch-launch, in the "Kranich" two-seaters. From the second day onwards, aero-tow solos were the rule, and "Olympias," "Grunaus," "Kranich," "Weihe," and "Rheinland" were all flown with enthusiasm by the visiting pilots. Average release-height on aero-tow was 800 metres, and thermal contacts were frequent. A "Heinkel-72 Kadet" was used for the aero-towing, flown by Ing. Porok, a fine pilot and the chief instructor at the Kralupy site.

Mr. Vahalla, Secretary of the Gliding Section of the Czech National Aero Club (left) with Mr. Ben Prochazca, the guide, philosopher and friend to the British Party.

On the third day at Kralupy a "Feisler Storch," towing two "Grunaus," arrived from another club, and the "Grunau" pilots gave a striking demonstration of aerobatics, including a series of loops, stall turns, and inverted flying. Charles Wingfield (Midland) flew the "Rheinland" on a thermal flight of about 1½ hours, and landed with an enthusiastic report of this sailplane's superb performance and fine handling qualities.

Kralupy is a most active and well-equipped school, with a fleet of 12 high-performance and 4 primary

Purok of the Kralupy sends greetings to all British gliding pilots.

Brigadier Prendergast (British Military Mission in Prague), keen pilot with both private and military experience, promoted the idea of the visit to the Czech gliding community.

The "Kranich" two-seater goes back to the launching point. All retrieving is done by man-power in Czecho-slovakia owing to the shortage of petrol.

Wejewardens (Cambridge G.C.) photographs the "Goviea" (Gottingen Four) Two-seater.

Wingfield of the (Midland G.C.) flies the record-making "Weihe" at Kralupy near Prague.

aircraft on daily strength, and the keenness of the Czech pupil-members was impressive. Flying went on all day from early morning until dusk, and at one time during the visit a " Storch " with two "Grunaus" on tow, a " Kranich " on tow behind a " Heinkel," an " S.K.38 Primary," and the " Rheinland," were all in the air together over the airfield, an inspiring sight for the British delegation.

During this period of the tour the party also visited the Aeronautical Group at the Technical College of Prague, and were shown the work of the students, which included much of great interest. The construction of a prototype high-performance sailplane, designed by students, was in progress in the workshops of the College, and their work was nearing completion.

The next location visited was a hill-site at Rana, 38 miles north-west of Prague, *en route* to which the party was taken to Lidice, scene of the terrible war-time atrocity which is now world history. Not a stone is left standing, and to hear the sad story again at first hand from our Czech friends was a moving and an unforgettable experience.

At Rana the hill-site is some 800 metres in length and 200 metres high. Primary training is carried out on a large scale with " S.K. 38's " (bunjy-launched towards a flat airfield at the foot of the hill), and hill-soaring is practised by winch-launch from the airfield. A smaller landing-ground is available for alternative wind-directions, on the other side of the hill. With a fleet of 8 primaries, 3 " Kranich," 4 " Olympia," 6 " Grunau," and 1 " Weihe," and with more than 100 keen pupils under the control of Zdenek Janout, chief instructor, this club is outstanding in its size and facilities.

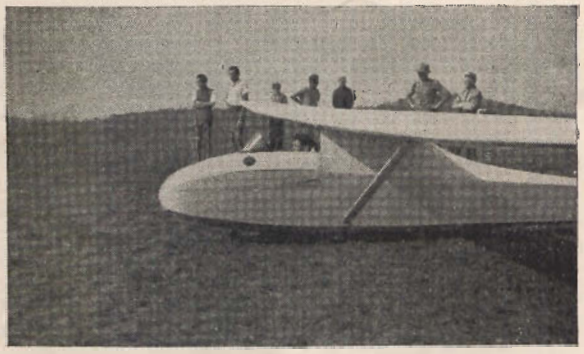
During flying activities at Rana, W. L. Jennings (Bristol) secured his " C " with a flight of 2 hour 24 minutes in the " Weihe," and Rex Young (Bristol) completed the Duration requirement for Silver " C " with 5 hours 01 minutes in an " Olympia." It was calculated that owing to the limited span of the hill, the latter had made some 300 turns during the flight.

At one period of the day five sailplanes were cruising up and down the very short hill-stretch, all flown by visiting pilots, each one of whom, by later confession, was concentrating fairly hard upon the rules of the air.

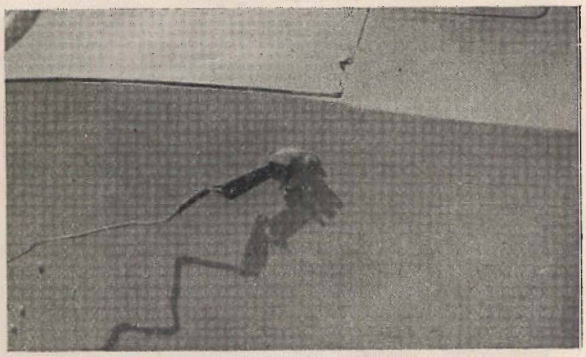
On Friday of the first week, the party was flown by " J.U. 52 " to Hodkovice, a high-performance school 50 miles north-east of Prague, with an airfield site on a high plateau, and with slope-soaring hills within easy reach by aero-tow. At this club the British pilots were passed out on the " Govier G 4 " (side-by-side 2-str.), the design and performance of which were greatly admired by all. Sailplanes at this site included " Kranich," " Olympia," " Weihe," " Minimoa," and " Grunau," with a " F.W. 44d." available for aero-tow. This aircraft, flown by Vladimir Silhan, the club's chief instructor, took all members on aero-tow flights to a height of some 800 metres, and free flights of 20/25 minutes were recorded by all pilots under non-thermal conditions. The equipment and facilities at Hodkovice again were first-rate, and the school was being most efficiently operated by Vladimir Silhan and his wife, also a qualified sailplane pilot.

Returning by air to Prague, the delegation attended

Mrs. Silhan of the Hodkovice Gliding School near Prague acts as ballast while handling the " Kranich " Two-seater Glider.



Czech " Grunau Baby " machines are mostly aerobatic. Note shoulder cable attachment to give high launches. (Below) " Close-up " of fitting.



Close-up of fitting for attachment of towing cable to shoulder position on " Grunau Baby." Release is both by hand and automatic.

a large air display at Ruzyn air port on Sunday the 15th September, at which it was estimated that more than 200,000 spectators were present, and which was outstanding in its smooth-running and the fine quality of the flying. Glider and sailplane flights were included in the display, which was tragically marred by a fatal accident resulting in the loss of a highly-esteemed Czech pilot and designer. Flying the " M.U. 17 " from Kralupy, and whilst in free flight over the airfield after release from aero-tow, alternate diving and zooming in rough air resulted in main-spar failure ; the port mainplane broke off at the root, and although at about 1,500 feet, the pilot failed to bale out, and the sailplane spun right in.

On Monday, the 16th of September, the " J.U. 52 " took the main party of Brno, capital of Moravia, Rice and Young following in the " Miles " and the " Hornet Moth," each with a Czech co-pilot at the controls. An enthusiastic reception by the Brno Aero Club, at which the delegation made many friends, preceded a visit to the Medlanky site on the day following. At Medlanky (also a hill-site with a good landing-ground at foot), the club fleet of sailplanes included 8 " Kranich," 3 " Olympia," 2 " Weihe," 1 " Rhonsperber," 1 " Buzzard," and 10 " Grunau," with 15 " S.K. 38 Primaries " for *ab initio* training, and a " Heinkel 77 " for aero-tow. Launching methods also included bunjy for primary training, and winch-launching from below the hill.

An unfavourable wind precluded slope-soaring at this site, but all members of the party did aero-tow flights on " Olympia," " Weihe," " Kranich," and " Grunau," one of the latter being aerobatted by W. L. Jennings (Bristol), to the obvious satisfaction of the club's chief instructor, Frant Kriz. Equipment and facilities at Medlanky were again of a very high order, enabling a very full training programme to be carried out.

The next two days were spent at Zlin, and included visits to Zlin aerodrome, to aircraft and Bata factories, and a meeting at the Zlin Zero Club. A well-organised factory in Zlin is engaged on production of

Ben, Jan Mach and Jan Skopal who all did so much to make the visit a success.

Cable Retrieving Winch.

" Kranich," " Honza " (Czech primary), and " Krajanek " (intermediate) sailplanes, the latter being an original Czech design of great merit. The prototype " Krajanek " was placed at the disposal of the delegation for trial flights off aero-tow, and all pilots were alike in their praise for the exceptionally good characteristics of this sailplane. Similar to the " Grunau 11-B," but with a superior performance and excellent handling qualities, the " Krajanek " is of very strong construction and is fully aerobatic. Several members of the party essayed aerobatics, including loops, during their trial flight in this aircraft.

Another factory at Zlin is in production with the " Sokol " light aeroplane, a low-wing monoplane of praiseworthy design and construction, and this aircraft, likewise flown by the visitors, evoked enthusiastic comment from all pilots.

On the second evening of their stay in Zlin, the delegation was entertained by the Zlin Aero Club and the British Institute, to members of which a talk on the work of A.T.A. in war-time was given by Miss Zita Paddon, and on flying training, by F./Lt. Jennings.

From Zlin the delegation went on to Zelina, where its members were due to visit the Stranik School, sited on a hill-range, and with an airfield nearby. Aircraft at Stranik included 5 " Kranich," 5 " Grunau," a " Minimoa," and 8 SK-38 " primaries, with a well-equipped repair-shop and adequate hangar accommodation. At this site a " Grunau " and a " Kranich " 2-seater were bunjy-launched from a 2,000-feet mountain-height after being pulled to the summit by two horses and thirty men, and flown to the airtield in the valley four miles distant in readiness for subsequent aero-tow by a " Feisler Storch." The " Grunau " was piloted by Philip

(*Continued on page 25*)

SAILPLANE DESIGN COMPETITION

2—SEATER HIGH PERFORMANCE SAILPLANE

The Duke of Sutherland, K.T., a Vice-President of the Royal Aero Club, has donated £125 to the British Gliding Association, through the Committee of the Club, to be used as a prize for a design competition for a high-performance two-seater sailplane. The specification printed below has been drawn up by the Technical Committee of the B.G.A. Closing date for entries has been fixed at 31st March, 1947.

General.

The machine should be suitable for club or private owner use. However, emphasis should be on cross-country flying characteristics rather than slope soaring ability.

It is desired to encourage the incorporation of the latest aerodynamic and structural ideas.

The machine should be capable of easy and quick rigging and easy ground handling.

Subject to these and the following requirements being met, the machine should be as small, light and cheap as possible.

Particular Requirements.

Layout.

Sufficient room shall be provided in the cockpit(s) to ensure reasonable comfort for two pilots 6 ft. tall wearing parachutes. Full dual control is to be provided.

Both pilots shall have easy access to all secondary controls and a good view of all instruments.

The cockpit(s) shall be closed. Clear visionpanels must be provided.

The view shall be such that either pilot can fly the aircraft with ease and safety in all circumstances.

Provision shall be made for all the usual forms of sailplane launching.

A built-in wheeled undercarriage is required.

Aerodynamics.

The minimum sinking speed shall not exceed 2.4 f.p.s. at a speed not greater than 40 m.p.h. The sinking speed at 80 m.p.h. shall not exceed 10 f.p.s.

Dive brakes shall be fitted, which, when extended, limit the terminal velocity to 90% of the Design Diving Speed. (4.5Vs.)

A tail trimmer shall be provided.

Structure.

The following requirements shall be met when carrying as disposable load :—

2 pilots with parachutes : not less than 331 lbs. (75 kg. each).

Normal flying instruments : 8 lbs.

Allowance for special equipment : 50 lbs.

(The last item need not be included in the performance estimates).

(*a*) The glider shall have proof and ultimate factors of 1 and 1.5 respectively under aerodynamic forces normal to the flight path of 5W at Climax ; and any value between 0 and 4W at a speed of 4.5Vs.

(*b*) The glider shall also have proof and ultimate factors of 1 and 1.5 respectively under up and down gusts normal to the flight path of 65F ft./sec. E.A.S. encountered when in straight level flight at a speed of 3Vs. F is the alleviating factor to convert the gust to an equivalent *sharp-edged* gust and can be taken as 0.3 4 wing-loading lb./sq. ft.

General Recommendations.

Controls.

The machine should be easy to fly " blind." Attention should be paid to the provision of high directional and longitudinal stability, also to the question of " feel " and harmony of the controls.

The aircraft should have viceless stall characteristics. It should not spin from a stall with rudder central.

Miscellaneous.

It is desirable that the span should not exceed 60 ft. When dismantled no part should exceed approx. 30 ft. in length.

The possibility of extensive operation from runways should be borne in mind.

Competition Rules.

(1) All entries for the contest, which is open only to British nationals, must be received by the Secretary of the British Gliding Association, 119, Piccadilly, W.1, not later than 31st March, 1949.

(2) Intending entrants, who may be individuals or a group, should apply immediately to the Secretary of the British Gliding Association for a competition number. Every drawing or paper submitted shall bear this number, which shall be the only form of identification appearing on the entry.

(3) The decision of the adjudicating committee shall be final.

(4) The British Gliding Association reserves the right to have aircraft built to any of the designs submitted, for research or record-breaking purposes without fee. Any aircraft which may be built commercially for sale shall be the subject of financial agreement between, and to the satisfaction of both the designer and the constructor.

Form of Design Submission.

In order to facilitate the work of judging the designs, some uniformity between all the entries is desirable.

In general, the material should be such that it could be handed over to a Draughting Office for detailing with a minimum of subsequentsupervision on the part of the designer.

As a rough guide, the following is suggested :—

(1) *Designer's Remarks.*

The designer should describe special or unusual features of the design, together with their construction, function and purpose.

(2) *Deawings.*
- (*a*) 3-view G.A. drawing showing principal dimensions.
- (*b*) G.A. of wing showing location and dimensions of major dtructural components.
- (*c*) G.A. ot fuselage showing location and dimensions of major structural components.
- (*d*) Drawing(s) or layout(s) showing location of controls, control runs, and installation of equipment. (These need not be dimensioned.)
- (*e*) Drawing(s) or sketch(es) of wing-fuselage fix.
- (*f*) Drawing(s) and/or sketch(es) of special or unusual features, together with such detailed description as may be necessary.

N.N.—Original drawings and documents should not be submitted, as no guarantee can be given as to their safe return.

(3) *Type Record.*

This should contain the following :—
- (*a*) Aerodynamic Data Sheet (Loading, Wing Sections, etc.).
- (*b*) Detailed weight and C. of G. estimate.
- (*c*) Detailed performance estimate, including polar curve and curves of sink and L/D against speed.
- (*d*) An estimate of longitudinal stability.
- (*e*) Preliminary stress calculations, showing loads on main members and their reserve factors.
- (*f*) An estimate of wing torsional stiffness.

N.B.—Referebces to sources of information should be quoted.

BRITISH GLIDING ASSOCIATION

Memo of General Meeting held at 3.30 p.m. on Friday, 4th October, 1946, at the Royal Aeronautical Society, 4, Hamilton Place, London, W.1.

Present : Professor D. Brunt, M.A., Sc.D., F.R.S. (Chairman).

Member Clubs.	*Representatives.*
Bristol G.C. ..	.. Mr. T. Rex Young.
,, ,, ..	.. Mr. M. R. Chantrill.
,, ,, ..	.. Mr. John Kukucki.
Cambridge Univ. G.C.	Mr. J. W. S. Pringle.
Derby & Lancs. G.C.	Mr. B. A. G. Meads.
,, ,, ,,	Mr. A. L. Slater.
Handley Page G.C.	.. Mr. E. J. N. Archbold.
Leicester G.C. ..	.. Mr. J. C. Rice.
London G.C. ..	.. Mr. D. G. O. Hiscox.
,, ,, ..	.. Mr. A. Sweet.
Newcastle G.C.	.. Mr. P. A. Wills, C.B.E.
Royal Artillery Aero	Major R. H. Purvis, R.A.
Club (Gliding Sect.)	Major D. P. D. Oldman, R.A.
Southdown G.C.	.. Mr. R. F. Brigden.
,, ,,	Mr. S. G. Stevens.
Surrey G.C. ..	.. Mrs. A. C. Douglas.
Royal Aero Club	.. Maj. H. A. Petre, D.S.O.,M.C
Associate Clubs.	*Representatives.*
Aerotech Flying Club	
No. 1 ..	.. Mr. G. A. Chamberlain.
Crotdon G.C. ..	.. Mr. L. Martin.
North Somerset G.C. ..	Mr. B. A. Wheatley.
,, ,, ,, ..	Miss E. J. Farley.
R.A.E. Technical Col.	Mr. D. Treadgold.
G.C.	Mr. L. Welch.
Scottish G.U. ..	.. Mr. J. W. Gardner.
No. 13 O.T.U., R.A.F.	F./Lt. J. H. Davies.

In attendance : Squadron-Leader E. H. D. Spence (Secretary), Mr. A. Goodfellow (B.G.A. Solicitor), Mr. L. M. Hortin (Commissioner for Oaths).

Apologies for Absence.

Letters received from the Midland, Northern and Yorkshire Gliding Clubs regretted their inability to send representatives to this meeting.

Constitution.

The Secretary referred to letters which had been received from the Yorkshire Gliding Club, and circulated in the Agenda, detailing their objections to the Constitution and Bye-laws. The Northern Gliding Club had also expressed similar disapproval in a letter received in the morning, and supported the Yorkshire Gliding Club's views. Unfortunately neither of these Clubs had been able to send a representative to the meeting. The views of these two Clubs were not supported by the meeting, and after discussion over minor points the Chairman moved that the draft Constitution, as amended, should be accepted. The motion to adopt the draft Constitution was carried unanimously, and the necessary documents for dissolution of the B.G.A. under the Industrial and Provident Societies Acts, and the application for incorporation under the Companies' Acts were signed and witnessed by the Commissioner for Oaths, who then withdrew from the meeting.

Bye-laws.

The meeting considered the draft Bye-laws in detail, and the following decisions were made :—

Nos. 1, 2 and 3 were approved.

Nos. 4, 5 and 6 were deleted entirely.

Nos. 7, 8 and 9 were approved.

No. 10 was approved, subject to the addition of the following paragraph :—

" Pending the institution of licences for Glider Engineers, each Club will submit to the British Gliding Association for approval the name of the person undertaking responsibility for the air-worthiness of the Club aircraft."

Nos. 11, 12, 13, 14, 15 and 16 were approved.

No. 17 was amended to provide for the annual election of a President and Vice-Presidents.

The Chairman then moved that the Bye-laws, as amended, should be adopted, and this motion was carried unanimously.

Resignation of Chairman.

Professor Brunt explained that, owing to pressure of work, his attendance at meetings of the B.G.A.

was becoming increasingly difficult. He had held office for the past eleven years, and must now ask for a new Chairman to be appointed. The meeting accepted Professor Brunt's resignation with much regret. Mr. Sweet proposed that Mr. Hiscox should succeed Professor Brunt as Chairman, and Mr. Stevens seconded the proposal, which was carried unanimously.

Mr. Archbold asked whether the present Council should not now retire, but after some discussion it was decided that they should retain office until the next statutory General Meeting after incorporation. Mr. Rice proposed, and Mr. Archbold seconded, that Mr. T. Rex Young should represent the Bristol Gliding Club on the Council, and this was agreed. The interim Council therefore consists of the following :—

Mr. D. G. O. Hiscox (Chairman), London Gliding Club.
Wing-Commander J. R. Ashwell-Cooke (Honorary Treasurer), London Gliding Club.
Mr. E. J. N. Archbold, Handley Page Gliding Club.
Mrs. A. C. Douglas (Honorary Secretary), Surrey Gliding Club.
Mr. C. Espin Hardwick, Midland Gliding Club.
Mr. B. A. G. Meads, Derbyshire and Lancashire Gliding Club.
Major H. A. Petre, D.S.O., M.C., Royal Aero Club.
Mr. J. C. Rice, Leicester Gliding Club.
Mr. J. W. S. Pringle (Chairman, Research Committee), Cambridge University Gliding Club.
Mr. S. G. Stevens, Southdown Gliding Club.
Mr. P. A. Wills, C.B.E. (Chairman, Flying Committee), Newcastle Gliding Club.
Mr. K. G. Wilkinson (*ex-officio*, Chairman, Technical Committee).
Mr. T. Rex Young, Bristol Gliding Club.

Honorary Individual Members.

The Council recommended that Professor Brunt and Mr. W. O. Manning should be elected Honorary Individual Members of the B.G.A. as a mark of recognition of their services to the B.G.A. This recommenddation was adopted unanimously.

It was decided to limit the maximum number of Honorary Individual Members elected to two in any one year.

Financial Statement.

A cash statement, as attached, was submitted to the meeting for consideration and was approved. The Secretary reported that an audit was now in progress.

Royal Aero Club.

The Secretary requested the meeting to agree to an increase in the payment to the Royal Aero Club. The £5 per week at present paid for rent, lighting and secretaril services was totally inadequate. After discussion it was decided to increase the payment to the Royal Aero Club to the sum of £10 per week if funds permitted.

Reports of the B.G. A. Committees.

The meeting received reports from the Chairman of the Flying Committee and the Chairman of the Research Committee. it was decided to circulate his report, with the minutes of the meeting.

Appointment of Auditors.

The Secretary reported that the Council recommended the appointment of the pre-war B.G.A. auditors, Messrs. W. F. Smart, Son and Bloor. This was unanimously agreed.

Ex-German Aircraft.

The Secretary reported the present position on the six German aircraft ex-Farnborough. The Ministry of Supply had verbally afreed to sell them outright to the B.G.A. for a nominal sum, and the confirmation in writing was expected.

Equipment.

Mr. Rice reported that 600 yards of elastic rope, purchased by the B.G.A., had been delivered to him at Leicester and was ready for distribution as soon as the price had been determimed. The meeting decided to charge £4 for 50 yards, excluding carriage.

Mr. Rice informed the meeting that he had four Beaverettes, surpus to his requirements, available for disposal in good condition and free on rail at £80 each. Acting for the B.G.A., he had also put in a tender for 20 winches at £30 each, and if this tender is accepted they will be available for distribution at that price, plus the handling charges.

The Chairman thanked Mr. Rice on behalf of all the Clubs for his unselfish work in this connection.

Visit to Czechoslovakia.

It was reported that the Council had requested the B.G.A. party to furnish a report on their visit to Czechoslovakia, which would then be circulated to all Clubs. The Chairman did not think that any useful purpose would be served by discussing the visit until the report was available. It was agreed that a letter should be sent to the Czech Aero Club thanking them for their hospitality and conveying the greetings of the B.G.A.

Letters from Yorkshire Gliding Club.

The meeting decided to refer to the Council letters received from the Yorkshire Gliding Club dealing with the Research Programme and Instructors' categories.

Conclusion of Meeting.

In concluding the meeting, Professor Brunt expressed his appreciation of the attention and co-operation of the members of the B.G.A., and extended his good wishes for the future. In reply, Mr. Wills thanked Professor Brunt for his services during the past eleven years, which had left a considerable mark on the B.G.A., and had turned a collection of miscellaneous entities into a coherent body. Mr. Wills welcomed Mr. Hiscox as the new Chairman of the B.G.A., but hoped that Professor Brunt would continue to help them in the future.

The meeting terminated at 5.55 p.m.

Report by Chairman of Research Committee—October 1946

The Research Committee was set up at the General Meeting on 1st March, 1946. Terms of reference as follows have been approved by the Council :—

(*a*) To make arrangements for the carrying out of research programmes in aeronautics, meteorology and related subjects of interest to the gliding movement.

(*b*) To assist Government Departments and others to obtain information on the technical and scientific aspects of gliding and soaring.

(*c*) To make recommendations to the Council of the B.G.A. on the best means of applying the results of research to the benefit of the gliding movement as a whole.

The Committee at present consists of the following persons :—

Mr. J. W. S. Pringle (Chairman).
Mr. K. G. Wilkinson.
Mr. A. L. Slater.
Mrs. A. C. Douglas.
Mr. K. W. Turner.
Dr. W. E. Hick.
Mr. L. Welch.
Mr. G. H. Lee (Royal Aeronautical Society Observer).
Dr. A. E. Slater (Royal Meteorological Society).
Wing-Commander R. M. Poulter (Royal Meteorological Society).

The increase in the size of the Committee has been necessary in order to cover the various aspects of the research programme.

The Committee has held six meetings, and has concerned itself with the following matters :—

(1) A research programme has been prepared, incorporating the suggestions of Clubs. This has been circulated to various Government Departments who might be interested, with an appeal for the funds necessary to carry it out.

(2) A system of research groups, each led by a co-ordinator, has been set up to organise the detailed work in each section of the programme.

(3) The Research Committee has acted on behalf of the Council in the allocation of the ex-German sailplanes. Owing to the poor condition of the machines, this matter has taken much longer than was expected, but arrangements have now been made for the aircraft to be sold outright to the Clubs concerned for very little more than the cost of repairs. Unfortunately only three of the six sailplanes are capable of being repaired.

(4) With the assistance of a gift of £10 from Mr. J. C. Rice, a research library has been started in the care or Dr. A. E. Slater. When the B.G.A. Headquarters are transferred to Londonderry House, space will be available for housing this library, and a catalogue of journals and articles will be circulated to Clubs. Copies of scientific papers may be purchased from the library.

(5) Through the help of Wing-Commander Poulter, arrangements have been made with the Meteorological Office to broadcast special weather information for glider pilots daily at 08.25 hours in the "Airmet" programme. The Research Committee would be glad to have comments from Clubs on the value of this service, and suggestions as to how it could be improved.

The Research Committee has little to report in the way of results of original work, as the German sailplanes on which it was hoped to make a start with several branches of the programme have not come up to expectations. Work has, however, started at the Surrey Club on programme Item 1 (*c*), which is a study of the effect of the nature of the ground on the liberation of thermals, and some interesting correlations have been found. There is no doubt that much work of more than local interest to the gliding movement can be done as soon as facilities are available, and we are pressing the Ministries concerned for support to enable us to get on with the programme.

J. W. S. PRINGLE, *Chairman.*

Report by Chairman of Flying Committee—October, 1946

The Flying Committee has held four full meetings since it was instituted, and in addition a number of special Sub-Committees have considered details and prepared reports for the full Committee.

After receiving the terms of reference from the Council it was decided to ask all Clubs to assist and give their views on a number of subjects; for example—instructors, standards and qualifications, flying regulations and basic instructional syllabus. This was due to requests from a number of Clubs who wanted a lead and guidance. The instructors, standards and qualifications and flying regulations have been prepared and circulated to the Clubs. The basic instructional syllabus is still not quite ready.

Regulations for national gliding records were examined and prepared, following a request from the Royal Aero Club. The B.G.A. recommendations, based on the existing F.A.I. regulations, were passed by the Royal Aero Club for national gliding records.

For the F.A.I. meeting the Royal Aero Club and the B.G.A. nominated Mr. Wills, Mr. Pringle and Squadron-Leader Spence as representatives for the Gliding Association of the F.A.I. When it met, Mr. Wills was appointed Chairman of the Commission, which comprised representatives of eight nations, and Squadron-Leader Spence was appointed Secretary. The Commission examined regulations for international gliding records, and approved certain modifications of the pre-war regulations, mainly based on the British proposals. In addition the Commission examined regulations for Silver and Gold "C's," and recommended certain modifications which, after further examination, should come into force next year.

Olympic Games.

The British delegation to the F.A.I. Commission suggested certain standards for international competitions, which are now being examined by other countries. At the full meeting of the F.A.I. it was agreed that Olympic contests should not be held in 1948, but that international gliding contests under F.A.I. rules should be held instead. Gliding would, however, very probably be included in the 1952 Olympic Games, as a result of experience and to give time for the "amateur status" rules to be clearly defined.

Istus.

National Aero Clubs are being asked by the Gliding Commission of the F.A.I. to forward their views on the future functions and organisation of the success to the Istus.

P. A. WILLS, *Chairman.*

Letter from Mr. K. G. Wilkinson

5, Imperial Court,
North Harrow, Middlesex.
10th October, 1946.

REPORT ON TECHNICAL COMMITTEE

The Committee appointed at the General Meeting of March 1st invited Messrs. G. O. Manning, C. W. Prower and H. Kendall to become members. Manning's tragic death was a great misfortune for the Committee. The Air Registration Board have sent representatives to all meetings.

Five meetings have been held and a wide variety of problems have been dealt with. The most formidable items have been three in number :—

1. Discussion with the Air Registration Board on strength requirements for gliders of all categories. Data accumulated by the old committee was placed at the Air Registration Board's disposal and several meetings were devoted to the formulation of rationalised requirements which are now available as draft sections E1, E2 and E3 of British Civil Airworthiness Requirements.

Further work is in hand on special towed flight cases on the basis of R.A.E. work during the war on military gliders.

2. Drawing up (for the first time) of stability and control requirements for gliders.

The first draft of this was discussed and after some amendment handed over to the Air Registration Board as a basis for Civil Airworthiness Requirements. A good deal of work in small committees with the Air Registration Board has resulted in a second draft, which is now ready for discussion in full committee.

3. A sub-committee was appointed to draw up conditions for a two-seater design competition for the Duke of Sutherlands Prize. This work has been completed and submitted to the Council.

Other matters dealt with have included accidents to " Rhonadler," " H.17 " and " King Kite." The Committee has arranged for flight tests on an " H.17 " to study stall and spin behaviour. It is hoped that this may throw some light on the accident. Tests on structural components of the " King Kite " are going on at R.A.E. Farnborough.

Data required by the Air Registration Board for the completion of C. of A's. for German gliders has been supplied. A committee representative visited the Ministry of Supply and compiled a list of the German glider drawings held by them. Copies of these are being made available to aircraft firms by the Ministry of Supply.

BYE-LAWS

Passed at General Meeting 4/10/46

1. *Objects of Bye-laws and Regulations.*

Gliding and soaring clubs exist to provide local centres throughout the country for those interested in the sport, and to teach gliding and soaring.

In order to ensure that this aim is effectively carried out, to uphold the good name of the gliding movement and of the British Gliding Association, it is desirable that the Clubs should bind themselves together to adopt and maintain a high standard of administration, instruction and flying activities.

2. *Observance of Bye-laws, Regulations and Agreements.*

Every Club undertakes to observe the following Bye-laws and any other Bye-laws or Regulations from time to time issued by the Council. These may include Regulations transmitted by the Council on behalf of the Ministry of Civil Aviation, or other Government department, or agreements relating to financial or other assistance.

3. *Information to be furnished to the Council*

(*a*) Upon joining the Association every Club shall supply to the Secretary of the Association a copy of its Memorandum and Articles of Association or other its Constitution, its Rules, Bye-laws, and Flying Regulations and shall thereafter supply to its Secretary copies of any amendments thereto. Any of its Bye-laws, Rules or Regulations which may be contrary to the Bye-laws, Rules or Regulations of the Association shall be amended to conform with such Regulations at the request of the Council.

(*b*) In addition each club shall supply annually to the Secretary on or before each day of , a copy of the club's audited revenue account and balance sheet, this balance sheet to be as at the date of the club's financial year.

(*c*) Each club shall also supply early in January a statement of its activities during the past calendar year in such form as may be required by the Council for the purpose of compiling proper records and statistics of the activities of the Association as a whole and of supplying to H.M. Government such particulars as may be lawfully and properly required.

4. *Aerodrome and Flying Regulations.*

A standard form of Aerodrome and Flying Regulations to supplement the official Air Navigation Regulations may be laid down by the Council for use by all clubs.

A copy of the above regulations with local deviations from the standard added in red is to be exhibited in a prominent place for the information of all pilots.

5. *Weather Conditions for Instruction*

It shall be the responsibility of the Chief Flying Instructor or his representative to decide what conditions are fit for any particular instructional flight or aircraft or any individual pupil.

6. *Flying Instructors.*

Minimum qualifications for Flying Instructors may be laid down by the Council, in default of any official requirement.

7. *Ground Staff.*

Each Club shall employ or have amongst its members at least one licensed aircraft or glider engineer, who shall be finally responsible for the airworthiness of the Club aircraft.

Pending the institution of licences for Glider Engineers, each Club will submit to the British Gliding Association for approval the name of the person undertaking responsibility for the airworthiness of the Club aircraft.

8. *Flying Instruction.*

Each Club shall supply to the Council a copy of the syllabus of instruction and training for each class of Club member under instruction. The Council may

request the Club to amend the syllabus in any respect in which it is considered inadequate.

9. *Logbooks, Records and other Documents.*

All clubs shall compile logbooks, records and other similar documents in the form which may be required by the Council.

10. *Identification. Marking of Aircraft.*

All aircraft are to carry identification markings in the manner required by the Air Navigation Regulations or in default of such Regulations in the manner required by the Council.

11. *Accidents.*

(*a*) A report of any accident involving death of or injury to any person shall be forwarded by the Club concerned without delay to the Secretary of the Association.

(*b*) This report is in addition to any report which may be required under the Air Navigation Regulations, and is not a substitution for it, though it may be a copy.

12. *Contests and Records.*

All contests and record attempts shall be carried out in accordance with the Code Sportif of the Federation Aeronautique Internationale and the Competition Rules of the Royal Aero Club.

13. *Patron and Vice-Patrons.*

A Patron and one or more Vice-Patrons may be appointed at any General Meetong of the Association on the recommendation of the Council.

14. *President and Vice-Presidents.*

A President and one or more Vice-Presidents may be appointed at any General Meeting of the Association on the recommendation of the Council. Each shall hold office for one year but shall be eligible for re-appointment.

LETTERS TO THE EDITOR

DEAR SIR,

I shall be grateful if you will allow me to send, through the medium of your correspondence columns, a word of greetings and thanks to our many friends of the Czechoslovakian National Aero Club, on behalf of the British Gliding Association's delegation which visited Czechoslovakia during September.

With such a splendid programme as was arranged and carried out for us, and with the great friendliness and lavish hospitality which we were privileged to enjoy as guests of the Czech Aero Clubs, it was difficult to convey our thanks, in adequate measure, when we left our many hosts to return to England.

During fifteen crowded and memorable days, the care and organisation which made up each day's flying activities were outstanding in every respect, and we learned much from the Czech gliding school instructors (each one of whom became a personal friend), at every Club and site which were visited during our tour, that will be of great interest and benefit to our Clubs in this country.

Valuable and interesting as were our flying experiences at all Clubs and schools in Czechoslovakia, we value also very greatly the many personal friendships that were made, which we feel will do much towards maintaining a happy association between the Czechoslovakian Aero Clubs and our own.

Once again, we would thank the Czechoslovakian National Clubs very sincerely for all that was done for the British delegation during a visit which was perfect both in conception and fulfilment, and which we hope has laid the foundation for the happiest possible association between the British Clubs and the great-hearted gliding and soaring fraternity in Czechoslovakia.

Yours faithfully,
T. REX YOUNG.
Chairman, Bristol Gliding Club.
For B.G.A. Delegation to Czechoslovakia.

DEAR SIR,

Last half year I had a subscription (*via* a bookseller) to SAILPLANE AND GLIDER and I enjoy it. Now I should like to have a pen-friend in England—or somewhere else in the world—whose hobby is soaring just like mine.

I am 25 and have made my first cross-country flight, unfortunately not enough for Silver " C " (30 km.), and the barograph failed. I started by winch and a thermal took me up from 300 to 1,650 m. I am also flying with a " Minimoa."

I hope that you can help me, and thanking in advance for the trouble I am causing you.

I am, yours etc.,
H. VRIELINK, JR.
Geert Grootestrhat Deventer.

DEAR SIR,

Mr. A. F. Hooper, in his article, T"raining in Thermal and Cloud Soaring " in the September issue of the SAILPLANE, fails to make a practical approach to the use of the Link trainer for this purpose.

Mr. Hooper assumes a sailplane equipped with an artificial horizon turn and bank, directional gyro, and A.S.I., but in practice there is little chance of sailplanes in this country having more than a turn and bank and an iced-up A.S.I., at any rate for several years. There are no horizons or directional gyros driven by D.C. on the market, and to drive them off a venturi means that they will ice up when most needed; any such fixture is therefore suicidal.

Blind flying by turn and bank and A.S.I. is a completely different proposition from using a full Sperry panel, and any practice on the Link should, therefore, be done with all other instruments masked.

I have never had the opportunity to use the Link for sailplane practice, but I see no reason why it should not be just as valuable as for aeroplane practice, provided that it is treated right. The Link has two great merits. It " feels " completely wrong and so compels the pilot to ignore his senses and fly by instruments; secondly, it has the uncanny power of producing complete panic. In these two respects it entirely resembles a sailplane in the middle of a Cu. nimb, and if only the appropriate noises off could be added the illusion would be complete.

I would suggest, therefore, that the Link's first and most valuable contribution to blind sailflying is to give practice on the turn and bank. Few have much experience of flying on this instrument alone, and since it does not give a direct indication of the aircraft's attitude, but requires interpretation, it takes

much practice to make perfect—or even safe.

When a pilot can do half an hour, going suddenly from calm air to full bumps, without finally climbing out a sweating wreck, the time has come to go on to more refined practices such as centering lift.

Yours etc., W. McD. MORISON.

DEAR SIR,

On page 6 of the July issue, the Technical Committee's report recommendation 3b requires some modification.

In the Aircraft Club it has been found advisable not to fix seats too securely, but in such a manner that in the event of a crash the seat will stick to the pilot and save him from injury by the control column and hinge.

The fact that the seat can break away easily, also saves a machine from some of the heavy structural damage, which might otherwise occur with more rigid attachment.

Yours etc., ERIK T. W. ADDYMAN.

SIR,

Being an annual subscriber to your journal, I read your leading articles with interest. That for the month of October provokes this letter. I feel that your statements will require a certain amount of support, after the Government's outspoken remarks regarding 'Tory invective.'

Having been brought up in—not overbearingly—Conservative surroundings, I am prejudiced in your favour, and agree with your accusations. However, I do not think such words can justifiably be used in what I consider to be a non-political publication.

By all means complain that the Government gives the gliding movement no aid or encouragement whatsoever, but leave the invective to the political newspaper combines. All those who need to see their views expressed in black and white can find them in the daily press and I am sure the press do so very adequately.

While I am about it I should like also to qualify your statements regarding enthusiasts. I claim to be one myself, and as a testimonial I offer two thousand hours spent on the gliding field in one year (all spare time). As an example of how these true enthusiasts can be wheedled out I take that of a seven—Winter—Sundays' A.T.C course which started off with thirty enthusiasts. Within four Sundays their number had dropped to twenty. At the end of the course of the ten that remained eight had agreed to come for a further two Sundays. As the weather had been so bad they had had very little chance. Of those each had done about nine ground slides; a truly devastating introduction to gliding, but in spite of or possibly because of their misfortunes three elected to remain permanently attached to the school and now have seventy take-offs to their credit.

Therefore working upon the claim of 100,000 gliding enthusiasts there would only be just over 1,000 true enthusiasts who could be split up among the thirty existing clubs at the rate of thirty-five to a club.

But then a further snag arises in the leadership of each individual club. They are adopting a defiant attitude against the Government saying in a childlike way, "If you don't give us a subsidy, we won't train pilots from the primary stage." In spite of all efforts the Government shows that it couldn't care less, so now it it up to the clubs.

To my knowledge, at least one club hasn't fallen in line with the others, therefore great honour is due to the Croydon Gliding Club which, in spite of the greatest difficulties upsetting their calculations from every side, keep their heads above water, and have started primary training in the "Dagling."

For all those like Amor Borealis (a correspondent in October number) living around London it offers training facilities intermingled with a lot of hard spade-work alleviated by good fellowship and camaraderie and high hopes for the future.

Onwards enthusiasts; to work!

Yours etc., CHARLES R. PIPER.

SIR,

I have just read the leading article and letter in the October number of your paper. Since the SAILPLANE is read by many members of the gliding movement, I think it would be a pity if these opinions were allowed to go unchallenged.

In your leading article, you call in somewhat grandiose language for "Leadership." Your correspondent, with less subtlety, asks openly to be spoon-fed. You both assume the existence in England of a great deal of enthusiasm for gliding, yet are surprised at the apparent lack of progress in the movement.

My own opinion is somewhat different. I do not doubt the mass enthusiasm, but it is largely of that lazy, ineffectual type which clamours loudly for help, but does nothing to achieve its ends. Gliding, as we all know who can compare the pre-war clubs to the present A.T.C., can be run in two ways. If a subsidised organisation is available, it can be "provided" at little cost in money or effort to those who fly; if the organisation is not ready-made, flying can also be got, but only by those who are prepared to make a considerable effort and will spend time and money on it. The amount of money needed goes down in proportion as the time goes up. One of the reasons why gliding clubs are so slow to get going now, is that the public has been unconsciously misled by the apparent ease of flying at A.T.C. schools. There is no more reason why the taxpayer should contribute to provide gliding for the lazy enthusiast than that he should subsidise horse racing. Both sports get people into the open air. The gliding clubs will have a good case for help in the form of subsidy when, and only when, they have shown that their members are a stage removed from the whining schoolboy.

One would not have thought that £25 was too high a charge for a fortnight's holiday with full gliding instruction. Yet a public camp planned this summer by the Cambridge University Club and advertised at this total cost, had to be cancelled for lack of support. Three serviceable "Kadets" and complete launching equipment have thus been idle for the month of September.

Needless to say, this does not apply to many members of existing clubs. They have the intelligence to spend their time in hard work on re-establishing club facilities, and to wait while the manufacturers overcome the difficulties of production. We all knew there would not be much reward this summer; next year we shall fly and doubtless "Amor Borealis" will still write letters to the SAILPLANE.

Yours etc., J. W. S. PRINGLE.

NEWS FROM THE CLUBS

84 GROUP GLIDING CLUB, SALZGITTER

SEPTEMBER on the whole was a very poor month for gliding, there being only three days in the month when thermals reached above 1,000 metres. On one of these days Hughes and Forbes took advantage of the thermals to carry out a formation goal flight to Wesendorf Aerodrome, a distance of 41 miles. This completed Hughes' Silver " C."

During the 19 days in the month when flying was possible, we carried out a total of 1,161 launches. This shows a smaller than usual daily average which was due to inclement weather interrupting the programme after flying had commenced. The flying times add up to 167 hours 7 minutes, which is just about average, but this total was built up by 6 days of hill soaring, in which 104 hours were flown.

Mr. Waugh, a recent member, completed his 5 hours, as did F./O. Sharpe and Private Wishart, the latter being an exceptional pilot considering his very few flying hours. As a matter of fact before he attempted his Silver " C " duration he had had just over an hour and a half in the air.

Eleven " A " and " B " certificates and nine " C " certificates and one Silver " C " were gained during the month.

THE YORKSHIRE GLIDING CLUB

The thousand and one snags snaring the feet of those who would reconstruct Gliding Clubs were joined by an enthusiastic ally in the shape of September's weather. The rainfall, and the winds that have blown from every conceivable direction except the right ones, have together quenched the flame of enthusiasm in some otherwise stout hearts ; but the spark burns on—or so we hope ! The four-by-two " log cabin " which by courtesy of No. 28, G.S. (A.T.C.), does duty as a club house, has kept the keener types dry (subject to avoiding the middle bit where the roof leaks)—as week-ends were whiled away, waiting for a wind, which, when we got it, usually turned out to be a devastating gale ! There is not a lot to put on record : only 63 launches for the whole month, with six hours and ten minutes flying time.

Flying Activity.—1st September : Light variable winds ; a busy day —27 launches, including 15 passenger flights, for a total of 60 minutes' flying. 7th September : Light S. to S.E. wind—10 launches and lots of wet feet. The 8th September : similar conditions to the day before, but a little thermal activity, and a few members managed to hold height for a while on the South Slope—over the White Horse. Total of 17 launches for one hour and 20 minutes' flying. 15th September : The only interesting day of the month. Rough, westerly wind with gusts to 40 m.p.h. and fit only for the more experienced types. About 1100 hours, Billy Sharpe gained 3,000 feet rapidly under a large cumulus and set off across country. The whole thing died on him and he had to land at Hovingham, where a couple of locals volunteered to hold the " Kite," failed to do so, and it suffered some damage. It doesn't seem wise to trust the well-meaning bystander too far, even in such simple things—an unfortunate sign of the times we fear. Brian Hartness had made an interesting thermal flight prior to Sharpe's trip. The wind died completely after mid-day. 21st September : A certain amount of hill-lift for an hour or so in the afternoon ; Hinchliffe and C. D. Hartness tried the new A.T.C. " Tutor," the wind dropping completely during the latter's trip, and letting him down in every sense of the words. (He has a caravan at the " bottom " !) The 22nd, 28th and 29th were all washed out by weather conditions —the " T.20 " two-seater went to Scotland for the week-end 22nd/23rd, and enough people turned up to rig it on the 29th. On the 11th, Brian Hartness came along with about 20 members of the 13th O.T.U. Gliding Club, with the object of giving dual, in prospect of their camp at Ingleby. A little too much North in the wind made his task difficult, and down to the bottom he went on his second trip ; alas!—both members of the Hartness family in one month !

General.—We regret to report the serious illness of the treasurer, Roy Watson ; his duties, which he has fulfilled with great enthusiasm and cheerfulness for quite thirteen years, have been taken over temporarily by Donald Sharpe. We hear that Watson is making good progress at the time of writing these notes. Norman Sharpe has undergone a serious surgical operation this month—his many friends will be glad to know that he is now making a good recovery. His illness prevented him from attending the B.G.A. meeting, and unfortunately Barker was prevented from attending also. Club activities on the social and domestic side have made little or no headway this month : we are badly in need of a Clubhouse building, but unwilling to plunge on anything below the standard of what we had before the war. Fortunately, one can afford to wait, but it is really necessary that something should be done in this direction before next summer, by which time we expect to have a reasonable fleet of machines in readiness for the excellent soaring conditions which are sure to come along, or (again), so we hope !

G.A.H.

NEWCASTLE GLIDING CLUB LTD.

Owing to the loss of our very able Recording Angel, Hemphill, who has left the area, there is a two-month accumulation of notes to cover in this issue. Hemphill had helped considerably in the post-war revival of the Club, and it was unfortunate he had to leave just as flying commenced.

The following are the main events of two fully active months :—

August 25th. We had hoped for better things this week after a doubtful start on the 17th, but there is still no winch. However, yesterday's rain had enabled us to prepare for an early start to-day with the sturdy " Beaverette " and our open " Dagling." Some 14 auto-towed slides were completed

when the Primary skid succumbed to a bounce in the hands of one Scott, whose is now immortalized as the first post-war " pranger " here.

September 1st. Allan and his " active apprentices " have stripped, repaired and assembled the damaged " Dagling " during the week, and we now have a winch, a strengthened Primary, Allan as instructor and a fine day. With these assets we carried on ground sliding until dusk.

September 7th. The hangar at Cramlington is beginning to really look like one now that it shelters our brand new " Tutor." Burningham and Allan have two circuits each in it in the evening with a total flying time of 6 mins. 11 secs.—no, it's not much, but it's the start of big things in this area.

September 8th. Further " Tutor " flying was prevented to-day by temporary unserviceability, unfortunate in that it was a fine warm morning with indications of thermal lift. Training commenced early under the guidance of Burningham, who got 4 of his *ab initio* pupils on to their first low hops before closing time. Allan fitted small double wheels to the skid of the " Dagling " during the lunch break, thereby smoothing its performance considerably according to those who should know !

September 14th. A gusty wind did not deter Allan from sliding and hopping his pupils during the afternoon until Ferguson came into rather violent contact with the field with consequent damage to landing wires and seat. The landing wires, of course, belonged to the " Primary."

September 15th. The " Dagling " was fit again, but a half gale prevented any flying activity until Burningham and Allan took the " Tutor " on circuits in the evening. The hangar road and flying field received some necessary repairs during the day.

September 21st. Uncertain weather but no uncertainty about the training which carried on under Maw and Robson until the winch became temperamental in the evening. Incidentally the " Dagling " is now a Mk. II (Short Nose) after further modification to the skid. No appreciable difference to trim was noticed (?).

September 22nd. As the wind was still too strong for Primary work in the afternoon the " Tutor " was flown by Robson, Allan, Maw, and Varley. Allan, usually quite definite about things, showed a distinct tendency to sitting on the tence on his circuit, but finally decided to use the much more suitable grass surface. Rain stopped play for an hour or so until after tea, when sliding was resumed in the reduced wind with Robson instructing.

September 28th. Burningham supervised training until the late evening, when he took the "Tutor" up for one circuit. Most of the *ab initios* are now on low hops, but are limited in their further progress by the fact that it is considered unsafe for the present machine to fly at any appreciable height. The nacelled " Primary " on order is eagerly awaited. Miss Dent, our first post-war lady learner, and Stelling will give you their views on the " Dagling's " flight characteristics on receipt of a 2d. stamp.

September 29th. A thick sea fret with visibility 100 yards or less, but O'Grady managed to start some training in slightly improved visibility during the late afternoon. Our two " L " winch drivers, Ferguson and Hendry, are gaining experience and managing splendidly the former combining this job with his airfield managing.

October 5th. The " Primary " struggled on bravely until dusk except for a short break for flying wire repairs during which, Allan, Burningham and Smart flew the " Tutor." Fidler, ex F.A.A., also high-hopped the " Tutor " for the first time. He has enjoyed previous trips in the " Primary," so maybe there is more than just apparent similarity between " Swordfish " and " Dagling." (?)

October 6th. Wind northerly, an awkward direction at Cramlington, as due to former Admiralty buildings still standing, the only long run is in an east-west direction. Abbreviated slides (Secretary Miller sees one obvious advantage in them as the launching fee is still the same) were guided by Allan, who adopted F.A.A. tactics, standing at the winch end with a couple of bats. Flying wire trouble on the " Primary " enabled him to get a couple of circuits in the " Tutor " before darkness came.

The period covered is not particularly startling in terms of flying time and number of launches, but it is outstanding in that we have made a start, practically from scratch, in spite of requisitioned land, the usual shortage of equipment and passive or at least non-violent resistance from many quarters. A start due to a large extent to the untiring effort, optimism and persuasive powers of our Hon. Secretary, as I think all here will agree.

News of the City H.Q. will have to wait except to mention that steady progress is being made redecorating No. II, Louvaine Place, Newcastle. Tea, sandwiches and reasonable comfort are also laid on at Cramlington field, and there is also a rumour of " hops " in another form there shortly, so we have even more than the Helm in which to place our hope !

DERBYSHIRE & LANCASHIRE CLUB

September 14th: Wind S.W., 50 m.p.h. No flying was possible so stone crushing and repair work were the order of the day. Later in the afternoon, Louis Slater and Gerry arrived with the new nacelled " Dagling " : we stopped work and got it rigged.

September 15th: Wind W.N.W. 35, moderating later. The wind was too strong at first, but about mid-day it moderated, and Gerry was hand-launched from the north-west slope in the " Kite." He was soon at over 2,000 feet. Eric Taylor was next away in the " Wren." He, too, found lift and made an out and return flight to Tideswell three miles across wind, arriving back with over three hundred feet in hand. Terence Horsley went off next in the " Kite," and reached Silver " C " height, but unfortunately his barograph ceased to function above 2,000 feet.

Roger Dickson in the " Grunau " was first off afterwards, closely followed by Bill Creese in the " Kite " and Chas. Faulkner in the " Wren." Chas. reached over 4,000 feet, but once again the same barograph failed to record this.

Jefferson, George Thompson, and Thacker flew the " Grunau " until late in the day, by which time the wind had dropped considerably and

was only just strong enough to hold the machines in the air.

September 21st: Wind W. to N.W., 5-10 m.p.h. There was just enough lift to keep the " Kite " and the " Grunau " in the air but not enough to enable the " Cadet " to do more than a beat or two.

Stan Armstrong entertained us with a circuit in the new nacelled " Dagling."

Pat Dickson (the third in the family) and Robin Dolan had a few hops before dusk brought the day's operations to a close.

September 22nd: No flying was possible.

September 28th: Wind E.S.E., 5 m.p.h. A very pleasant afternoon with sixteen launches. The two lady members in the primary squad became airborne for the first time, and Leech also had his first flights since he left the R.A.F.

September 29th: Little flying was done and most people spent the day working hard.

October 5th: Wind W.N.W., 25-30 m.p.h. Conditions were doubtful, but about four o'clock the cloud lifted and Bernard Thomas, Stan Armstrong, Zeta, and Gerry had short and rough rides. Zeta found herself in the cloud and had to land hurriedly, as the cloud base clamped down again.

October 6th: Wind North, 5 m.p.h The instructors were routed out by the primary squad soon after six. Flying began before seven. Each pupil had two hops until the seat was found to be damaged after a heavy landing. This brought things to a halt, but a repair gang was soon at work, and the machine was flying again at two o'clock.

After breakfast, the winch was moved to allow the maximum run. Shepherd was launched in the " Kite." He found weak lift and was able to maintain height. Roger Dickson joined him in the "Grunau" and soon afterwards the two machines were circling in the same thermal and were soon at about 1,200 feet. Shep. then went to the barrel to lose height, while the " Grunau " carried on circling and eventually reached 1,900 feet before losing the lift.

Jefferson, Breeze, George Thompson, Zeta Paddon, Creese, and Bernard Thomas were all winched to great heights by Eddy Swale, who put in a hard day on the winch.

But none of them had any luck until after lunch, when Roger Dickson and Bernard Thomas found a nice crop of small and rather erratic thermals which extended to about 1,500 feet and lasted for about half-an-hour.

Once again the others were unlucky and the day finished without anyone else finding lift.

In spite of the mishap in the morning the primary school had a good afternoon, during which every pupil had a go.

October 12th. The new " Tutor " was brought from Hooton Park, and those who went for it were shown over the works and saw an impressive production line which had just got into full swing.

October 13th: Wind E.N.E., 10-15 m.p.h. The day started badly when one of the winches broke loose from the tractor and damaged the wing of our most valuable machine, the nacelled " Dagling."

Training was the main part of the programme, and two pilots were converted to gliding. One " A " and two " B's " were flown during the day.

AIR DIVISION GLIDING CLUB.

The club celebrated its first anniversary during August. Up to then, 10,000 launches had been carried out, enabling some 250 members to remain airborne for more than 660 hours, to gain 78 " A," 66 " B," 30 " C " and two Silver " C " certificates. Several members had fulfilled one or two of the requirements for the Silver Badge.

On September 1st, the Air Division Gliding Club formally ceased to exist. Its membership, gliding site, equipment, and financial assets were taken over, together with those of the B.A.F.O. Glider and Sailplane Club, to form the new " B.A.F.O. Gliding Club." This fusion makes available to Air Division members a magnificent soaring site at Scharfoldendorf-Ith. It also enables them to fly types of sailplanes hitherto not in use at Barntrup, among them a " Rhonsperber," a " Mu 13," and a " Minimoa."

SCOTTISH GLIDING UNION, LTD.

The Anti Flying Grelims have been busy again this month, and among other things dissolved almost the entire electrical system of the " Guy " Truck into thin air, lifted the winch off its trailer and deposited in on the hangar floor, consigned the winch rollers to the tender mercies of the railway goods department, and lowered half England below sea-level just as Martin Hearn's trailer convoy was on its way to the display at Balado.

In spite of all this, however, the display which was organised by McDonald Aircrafts Ltd. at Balado on 21st September was an outstanding success. In addition to a very attractive power flying programme demonstrations of glider training methods were given by S.G.U. members in two " Cadets " and the " Tutor." We were very much impressed indeed by the beautiful handling qualities of the new " Tutor," which is definitely streets ahead of the pre-war models and has a performance superior to many pre-war " Grunau Babies."

The " Kirby Kite " was flown beautifully by S./L. Rollo, who had previously given a most impressive short up in his " Moth Minor." The Martin Hearn " Kite II " was circuited by their test pilots and aero-towed to 3,000 feet, performing a really snappy aerobatic descent. The aero-tow was by Kinross Flying Club " Anster." Winch launches throughout were by Stuart Henderson, of Perth, and were definitely in the wizard catagory.

The following day was to be devoted solely to gliding, and was to include joy rides in Slingsby's Tandem two-seater, but unfortunately a gale blew up and put paid to all flying.

Among our visitors from the South were J. V. Campbell, of Chilton Aircraft, Hal Thorburn, E. H. D. Spence, of B.G.A., and George Collett, of Martin Hearn, who had to abandon his car in the floods in Northern England, but was lucky enough to spot one of his firm's trailers passing shortly afterwards bound to Balado, so completed the journey to Scotland in this.

As as result of the display we had enquiries from many people, including several war-time glider pilots, who were keen to join the Club.

B.G.A. DELEGATION TO CZECH.—*Contd. from page 14*

Tovey (London), and the "Kranich" by Rex Young (Bristol), with Jack Rice (Leicester) as passenger.

Later flown by "JU-52" from Zelina to Svit, at the foot of the Tatra mountains, the party were entertained by Bata representatives, and the programme included an interesting journey by car and mountain-railway to various high points on the Tatra. From this scene, return was made, *via* Bratislava and Brno, to Prague, and at a final dinner at the Czech National Aero Club on the evening prior to departure, members gave some brief impressions of their experiences during the tour.

The British delegates were unanimous in their keen appreciation of the warm welcome, great friendliness, full co-operation, and splendid facilities made available to them on every hand during their visit. The number and variety of aircraft available at all clubs and schools, the employment of skilled instructors, the high quality of training, and the enviable standard of club accommodation, equipment, and facilities, impressed every member of the party, as likewise did the enthusiasm encountered in full measure at all sites visited during fourteen memorable days.

If Czechoslovakia is to be represented at future International contests, it can be taken as certain that her pilots will indeed give a good account of themselves on behalf of a country that has taken gliding and soaring enthusiastically to heart, and is providing the best possible facilities for the encouragement and training of her air-minded youth.

AUSTRALIAN GLIDING ASSOC.—*Contd. from page 5*

NEW SOUTH WALES

The Gliding Club of Broken Hill.

THE Club was visited by Leo Dowling, Vice-President of the Gliding Club of Victoria, on 21st and 22nd August, 1946. The Club's primary glider was damaged about a fortnight prior to his visit.

WESTERN AUSTRALIA

Perth Gliding Club.

Report from Neville Wynne :—Gliding commenced again after a long spell, on 8th September, 1946, at the Caversham Airstrip. The Rhon Ranger primary glider (fitted with new wings and skid) was test flown by H. A. Luckly and Ric New, and found to be nose heavy. After being ballasted with about 5 lbs. of lead at rear of outrigger, the performance of the machine was much improved.

The "Grunau Baby II" sailplane (now owned by Warren Major) was test flown by Arthur Farmer (following recovering with fabric).

Spins, loops and stall turns were executed and one flight to an altitude of 2,000 feet was made for a duration of 20 minutes.

W. Major made several long hops to altitudes of about 40 feet in the "Grunau" after a few ground skids and short hops in the primary. Total flying for the day: "Grunau"—7 launchings for 38 minutes 24 seconds. Primary: 8 launchings for 2 minutes 49 seconds (4 ground skids and hops). Wind was S.W.; Force, 1 to 3.

On 15th September, 1946, conditions were not of the best, the wind being across the Strip. Showers of rain also hampered activities.

The primary was circuited by H. A. Luckly (duration 1 minute), and a total of 10 ground skids were given to those on No. 1 flying list. One pupil took off to about 10 feet altitude when it was only intended by the Instructor that a ground skid was to be made.

Warren Major made 5 tows to altitudes of up to 100 feet in the "Grunau" (all straight flights).

W.O. Jack Munn, R.A.A.F. in his "Falcon."
(Sydney Metropolitan G.C.)

GOVERNMENT SURPLUS STORES

The Ministry of Supply has for immediate disposal the following Winches located as shown below.

Identification No. S. 1944/2/2 and 3 AR. 3174/6 and 7.

TWO TARGET TOWING WINCHES

By A.C.E. MACHINERY LTD.

1½ ton hauling capacity Diesel engines, driven—one by Lister engine, condition good, serviceable, and one by Ford V8 engine, condition unused.

LYING AT COMMAND R.E. PLANT DEPOT, KENTFORD, SUFFOLK

Inspection by appointment only. Application should be made in writing to the Disposals Officer at the location address.

Note.—It will be necessary for the tenderer or his authorised representative to produce a copy of this advertisement when attending for inspection at the depot and to be in possession of his National identity card.

No undertaking is given that facilities will be available for working tests.

Purchasers must take delivery as and where lying and accept responsibility for dismantling (if necessary) and removal from site within two weeks of the date of issue of Release Instructions.

Offers for these items are invited.

No forms of tender are necessary and letters should be addressed to :—

Ministry of Supply, Director of Contracts, Great Westminster House, Horseferry Road, London, S.W.1. to arrive not later than 10 a.m. on 9th December, 1946.

Envelopes must be marked " Tender No. 317601 returnable 10 a.m. 9th December, 1946." Failure to mark the evelope correctly may result in a Tender not being considered.

Any Contracts made as the result of this tendering will be subject to the Department's usual Conditions of Sale (Form C.C.C./Sales/1), a copy of which may be obtained, if desired, from the Ministry of Supply, Contracts Directorate (C.B.4), Great Westminster House, Horseferry Road, London, S.W.1. Reference 12/Sales (RE) 9999, Tender No. 317601 should be quoted when applying for this Form.

SITUATION VACANT

INSTRUCTOR/MANAGER is required for a newly formed Gliding Club. Good experience of A.T.C. type primary training essential. Candidates must be prepared to take full responsibility for the Club's operations including inspection of aircraft, under policy direction from the Club Committee. Apply : Welfare Officer, Handley Page Ltd., Cricklewood, N.W.2.

CLUB ANNOUNCEMENTS

THE YORKSHIRE GLIDING CLUB. SUTTON BANK, YORKSHIRE.

Full Flying facilities are offered to all *Soaring and Power Pilots.*

JOIN NOW and know Gliding at its BEST at Sutton Bank, Yorkshire.

For full particulars apply to : L. A. ALDERSON, " LYNDHURST," SINNINGTON, YORK. Hon. Secretary, Yorkshire Gliding Club.

KENT GLIDING CLUB.

Will all ex-members and others interested and living in the Maidstone or Chatham area, contact the Secretary :

MRS. R. H. HADDOCK, " LENHURST," HARRIETSHAM, KENT.

DERBYSHIRE & LANCASHIRE GLIDING CLUB, GREAT HUCKLOW, TIDESWELL,

Phone Tideswell 207 **DERBYSHIRE**

To people living in the North Midlands the Club offers full soaring facilities at 10/- per hour in the club fleet of Sailplanes.

Primary training has started and power conversions are a speciality.

The clubhouse is fully licenced and meals are available if booked in advance. Whether there is flying or not there is always something doing every week end.

Subscription, 6 gns.; Entrance fee, 2 gns.; Non-flying members, 1 gn. If you are interested please write to the Hon. Secretary, 87, Fargate, Sheffield 1, for further details.

SCOTTISH GLIDING UNION LTD.

We will commence operations next month at Bishophill, Kinross and Balado Airfield, Milnathort.

New members are now being enrolled. Entrance fee £2 2s. 0d. Subscription : Flying Member £6 6s. 0d. ; Non-Flying Member £3 3s. 0d.

Full particulars from Secretary, R. B. Rogerson, 59, Carmyle Ave., Glasgow, E.2. Shettleston 1328

THE MIDLAND GLIDING CLUB LIMITED

The Long Mynd, Church Stretton, Shropshire. Telephone : Linley 206.

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

SOARING CLUB OF GREAT BRITAIN

At a recent meeting of the Club the following officers were elected : President : Ralph Slazenger. Chairman : Dudley Hiscox. Hon. Sec. : H. O. Davies. Hon. Treasurer : Mrs. Slazenger. Messrs. P. Cooper ; R. W. Pears ; C. Nicholson ; H. Bolton and W. Hatcher are on the Drafting Committee to draw up the rules and constitution. A further announcement will be made later.

ROYAL AERO CLUB GLIDING CERTIFICATES

"A" CERTIFICATES: 257 (Nos. 5266—5522)

"B" CERTIFICATES: 113

No.	*Name*	*A.T.S. School or Gliding Club*	*Date taken*
1212	Kenneth Meredith Pritchett	B.A.F.O. G.C.	29. 5.46
2591	James Merchant Davidson	141 G.S., Gravesend	11. 8.46
2623	Michael Leslie Henney	31 G.S., Usworth	25. 8.46
2694	William Leyland Grey	186 G.S., Speke	11. 8.46
2960	Joseph Babb	23 G.S., Rufforth	31. 7.46
3589	Matthew George Green	27 G.S., Woolsington	11. 8.46
4308	John Frank Winterbottom	184 G.S., Woodford	1. 9.46
4397	Ian Ronald Harry Williams	95 G.S., St. Eval	25. 8.46
4659	John Nimmo Coffey	184 G.S., Woodford	1. 9.46
5058	Alan George Robertson	95 G.S., St. Eval	8. 9.46
5115	Joseph Simon Angel	161 G.S., Ford	11. 8.46
5187	Frederick Rickard Bert Lutey	95 G.S., St. Eval	1. 9.46
5266	Harold Mobbs	22nd Armoured Brigade	12. 6.46
5267	Olive Doreen Knight	Leicester G.C.	3. 8.46
5268	William Mark Douglas Tuck	84 Group G.C., Gitter Harz	11. 4.46
5269	Robert Cameron Forbes	Ditto	8. 5.46
5270	Henryk Trybulec	Ditto	17. 5.46
5271	Robert Smith	R.A.F. G.C., Salzgitter	6. 7.46
5272	Albert Owen Pilcher	84 Group G.C., Gitter Harz	18. 7.46
5273	Fred Leslie Dibben	Ditto	20. 7.46
5274	Leslie Frederick Butcher	Ditto	11. 4.46
5275	Ian Hugh Wilson	Ditto	3. 7.46
5276	Arthur Douglas Rutherford Jones	Ditto	20. 7.46
5277	Humphrey John Noonan	Ditto	10. 7.46
5278	Mark Twomey	Ditto	18. 5.46
5279	David Leonard Hughes	Ditto	26. 5.46
5280	Raymond Andrew Vere	Ditto	20. 4.46
5281	John George Bellamy	Ditto	11. 4.46
5282	Robert Theophile Techy	Ditto	10. 4.46
5283	Albert Eugene Fabry	Ditto	11. 4.46
5284	Edgar Francis Collins	Ditto	22. 4.46
5285	Pierre Marie Robert de Verneilh	Ditto	6.10.45
5286	Basil George Hewitt	Ditto	6. 5.46
5287	Albert Hyde	Ditto	18. 4.46
5288	Gordon Edward Boswell	Ditto	16. 5.46
5289	Keith Tiffany	Ditto	13. 7.46
5290	Jean Marie Rene Volckaert	Ditto	11. 6.46
5291	Norman Walter Kearon	Ditto	6.10.45
5292	Ernest Ball	Ditto	17. 4.46
5293	Maurice Lennard Crocker	Ditto	9. 5.46
5294	Jozef Witkowski	Ditto	16. 5.46
5295	Claude David Millington	Ditto	4. 5.46
5296	Bernard Easton	Ditto	12. 6.46
5297	Harcourt Harold James Skinner	Ditto	16.11.45
5298	Jozef Baranowski	Ditto	19. 7.46
5299	Juliar Walaski	Ditto	16. 5.46
5300	Edwin Malinowski	Ditto	16. 5.46
5301	Druce Walker Barlow	Ditto	10. 7.46
5302	Ian Cameron Macrae	Ditto	10. 7.46
5303	David Gordon Fisher	Ditto	13. 7.46
5304	Victor Thomas George Gardner	Ditto	13. 7.46
5305	Peter Frederick Morris	Ditto	13. 7.46
5306	Jerzy Gruszka	Ditto	10. 7.46
5307	Richard Stanford	Ditto	13. 7.46
5308	Cuthbert Colin Graham	Ditto	10. 7.46
5309	Antoni Glowacki	Ditto	10. 7.46
5310	John Murray Campbell	Ditto	13. 7.46
5311	Stanislaw Toloczko	Ditto	9. 5.46
5312	Brian Leslie Cooper	Ditto	26. 7.45
5313	Stanley Ernest Orchard	Ditto	31. 7.46
5314	Hans Roderick Tietze	Ditto	28. 7.46
5315	Richard Henry Lucias Carriugtou	Ditto	26. 7.46
5316	Cecil Drakes	Ditto	24. 7.46
5317	John Emerson Sowerby	Ditto	24. 7.46
5318	George Taylor Bain	Ditto	11. 5.46
5319	Donald Edward Neal	Ditto	11. 5.46
5320	George Furness	Ditto	11. 5.46
5322	Guy Lenox Prendergast	Tech. High School, Prague	Issued by Czech Aero Club
5323	Noel Patrick McDouald	22nd Arm'd B'de, Hungriger	7. 7.46
5331	Peter John Farr	Cambridge U. G.C.	11. 8.46
5333	Thomas Albert Browning	92 G.C., Charmy Down	5. 8.46
5334	John Adrian Price	2 Group G.C.	9. 6.46
5335	Robert MacDermott	Ulster G.C.	7. 7.46
5336	Alan Edward Hiscock	Air Div. G.C., Barntrup	9. 8.46
5337	Brian Frederick Goodger	Ditto	9. 8.46
5338	Francis Mellard Reade	2 Group G.C.	30. 3.46
5339	Louis Leith	85 Group G.C., Utersen	4. 7.46
5340	Anthony John Dolan	Derby and Lancs. G.C.	21. 7.46
5348	Richard Angus McMurtrie	London G.C.	20. 4.46
5349	Stanley Charles John Jeffery	2 Group G.C.	13. 7.46
5353	Frank Keiller McIntyre	26 G.S., Middleton St. George	18. 8.46
5359	Klaus Misch	Air Division, Barntrup	31. 5.46
5360	John Ivan Barton	Derby and Lancs.	28. 7.46
5361	Terence Beville Adair Boughton	Cambridge U. G.C.	21. 7.46
5364	Kenneth Robert Collins Harrill	85 Group G.C., Utersen	30. 5.46
5366	Philip Sidney Newton	B.A.F.O. G.C., Minderheide	12. 4.46
5369	Jack Waddell	25 G.S., Fairoaks	10. 7.46
5377	Anthony John Appleby	41 G.S., Hockley Heath	22. 4.46
5386	Ernest Augustus Holmes Bacon	B.A.F.O. G.C., Minderheide	20. 4.46
5389	William Alexander Kinkead	201 G.S., Newtownards	6. 8.44
5393	William George Motley	9 G.S., Errol	9.12.46
5397	Horace Declan Michael Seymour	85 Wing G.S., Utersen	13. 7.46
5410	Francis Michael Hegarty	Lubeck G.C.	3. 7.46
5416	Frank Darbyshire	Derby and Lancs. G.C.	18. 8.46

It will have been noticed by readers that a G.A. drawing of a model glider was included on page 6 of the October issue. We apologise for this unfortunate error.

No.	Name	A.T.C. School or Gliding Club	Date taken
5418	Victor Henry Latuskie	84 Group G.C., Gitter Harz	24. 7.46
5419	Eric Ronald Urin	Ditto	9. 8.46
5420	Antoni Flak	Ditto	8. 8.46
5421	Witold Winiarski	Ditto	8. 8.46
5422	Lyonel Harry Fitz Dowding	Ditto	20. 7.46
5423	Jan Maria Schuppler	Ditto	5. 6.46
5424	J. R. Polkowski	Ditto	19. 7.46
5425	Michael Arthur Loveridge	Ditto	19. 5.46
5426	Norman Crosby Kelley	Ditto	8. 8.46
5427	S. Turowski	Ditto	9. 7.46
5428	Karol Jaworski	Ditto	19. 7.46
5429	William Edward Vernon	Ditto	31. 3.46
5430	Robert Woodhouse	Ditto	19. 5.46
5438	Walter Waterfield	47 G.S., Hucknall	1. 9.46
5444	Cecil John Winser	R.A.F., Halton G.C.	25. 8.46
5445	Derek Ernest Edney	41 G.S., Hockley Heath	22. 4.46
5446	Norman Elliott Fawcett	Lubeck G.C.	28. 7.46
5454	John Ernest Bowles	107 G.S., Coleby Grange	18. 8.46
5465	Thomas William Phillips	104 G.S., Matel Martlesham	21. 7.46
5485	Douglas Henry Sherwood Rusher	B.A.F.O. G.C.	7. 4.46
5486	Marjorie Tyric Young	Leicester G.C.	4. 8.46
5499	William Owens	Lubeck G.C.	22. 7.46
5509	Donald Walker	Air Division G.C., Barntrup	18. 8.46
5510	Matthew Herbert Fawcett	Air Division G.C., Barntrup	17. 8.46
5511	Stuart Havelock-Walker	Ditto	18. 8.46
5512	James O'Neill Thomson	Ditto	31. 8.46
	"C" CERTIFICATES: 56		
1891	Arthur Waind Staples	26 G.S., Middleton St. George	21. 7.46
1932	Albert Charles Waterhouse	Derby and Lancs. G.C.	13. 6.46
2294	Leslie George Clarke	129 G.S., Waltham Cross	16. 7.45
2608	Jack Bertrand Jolliffe	25 G.S., Leconfield	28. 7.46
2405	Eric Cudini	23. G.S., Rufforth	31. 7.46
3360	Colin Harry Thomas Cables	84 Group G.C., Gitter Harz	3. 8 45
4569	Maurice Winstou Rolfe	126 G.S., Booker	1. 9.46
5219	Victor James Fenner	B.A.F.O. G.C.	7. 9.46
5220	Derek Leslie Barker	Ditto	1. 9.46
5268	William Mark Douglas	84 Group G.C., Gitter Harz	12. 4.46
5269	Robert Cameron Forbes	Ditto	10. 5.46
5270	Henryk Trybulec	Ditto	19. 5.46
5271	Robert Smith	R.A.F. G.C., Salzgitter	16. 7.46
5272	Albert Owen Pilcher	84 Group G.C., Gitter Harz	18. 7.46
5274	Leslie Frederick Butcher	Ditto	12. 4.46
5277	Humphrey John Noonan	Ditto	20. 7.46
5278	Mark Twomey	Ditto	23. 5.46
5279	David Leonard Hughes	Ditto	26. 5.46
5281	John George Bellamy	Ditto	11. 4.46
5282	Robert Theophile Techy	Ditto	12. 4.46
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5308	Cuthbert Colin Graham	Ditto	13. 7.46
5309	Antoni Glowacki	Ditto	13. 7.46
5311	Stanislaw Toloczko	Ditto	10. 3.46
5312	Brian Leslie Cooper	Ditto	27. 7.45
5322	Guy Lenox Prendergast	Tech. High School, Prague	30. 6.46
5334	John Adrian Price	2 Group G.C., Oerlinghausen	14. 7.46
5335	Robert MacDermott	Ulster G.C., Magilligan	14. 8.46
5338	Francis Mellard Reade	2 Group G.C., Oerlinghausen	20. 4.46
5340	Anthony John Dolan	Derby and Lancs. G.C.	21. 7.46
5348	Richard Angus McMurtrie	A.T.C. and London, Detling	18. 8.46
5349	Stanley Charles John Jeffery	2 Group G.C., Oerlinghausen	4. 8.46
5359	Klaus Misch	Air Div. G.C., Barntrup	8. 7.46
5360	John Ivan Barton	Derby and Lancs. G.C.	28. 7.46
5366	Philip Sidney Newton	B.A.F.O. G.C., Minderheide	31. 5.46
5386	Ernest Augustus Holmes Bacon	Ditto	20. 4.46
5389	William Alexander Kinkead	201 G.S., Newtownards	29. 4.46
5423	Jan Maria Schuppler	84 Group G.C., Gitter Harz	5. 6.46
5424	J. R. Polkowski	Ditto	29. 8.46
5425	Michael Arthur Loveridge	Ditto	25. 5.46
5426	Norman Crosby Kelley	Ditto	18. 8.46
5427	S. Turowski	Ditto	17. 7.46
5428	Karol Jaworski	Ditto	8. 8.46
5429	William Edward Vernon	Ditto	8. 4.46
5430	Robert Woodhouse	Ditto	16. 7.46
5465	Thomas William Phillips	104 G.S., Martlesham	22. 7.46
5485	Douglas Henry Sherwood Rusher	B.A.F.O. G.C.	5. 6.46
	SILVER BADGES: 2		
76	Francis Mellard Reade	(Cert. No. 5338)	28. 6.46
77	Ronald Cecil Reid	(Cert. No. 2972)	9. 9.46