Sailplane and Glider

The First Journal devoted to Soaring and Gliding

FEBRUARY 1951

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Sailplane and Glider

Sailflying Sailflyer

and ULTRA LIGHT AIRCRAFT

THE FIRST JOURNAL DEVOTED TO SOARING AND GLIDING

FEBRUARY 1951 ★ Vol XIX No 2

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COVER PHOTO:
"OLYMPIA" over other lanes! Picture shows Tagus River near Alverca Aerodrome.

Editorial

SOLVING OUR PROBLEMS

OUR revered Editor has gone gallivanting across the Atlantic again and left me, the Assistant Editor, to hold the fort and write the Editorial—both of which tasks I have managed to avoid up to now. So I have been reading up some past copies of *Sailplane* to see how it is done, and there are two points I should like to put to you.

The first is one arising from Mr. J. A. Allan's letter in the December issue. He says we should suggest a means of solving the financial problems of gliding, and that is what I want to do. I think that in the past five years there has been far too much optimism about Government help and far too many people content just to sit back and wait for something to turn up. If they had put half the energy into collecting cash that they have put into moaning about having none, they would by now all be triumphantly flying. This is a case where "Everything comes to him who waits" is a very inferior motto. I prefer and always have preferred "Heaven helps those who help themselves." And how, you ask, do they set about it? Not by arranging little dances and parties; pleasant though these are socially, they always cost more than one expects; not even by raffles and lotteries—which are probably illegal anyway: but by sheer hard work and a desperate keenness. How many members has your gliding club and how much money do you need? Are you thinking of investing in a high-performance sailplane, a primary, a new winch, or what? Probably, because it can be made to repay on passenger flights and instructor experience, the most useful and urgent purchase is a two-seater of some kind. What will it cost, delivered? Too much? Then see if it is possible to reduce the initial cost in some way, by buying a machine partly built or perhaps even secondhand. If that fails, the money must be found in full and it is not so difficult as you think. Divide the total needed by the number of Club members and see how much each must produce—an £800 job between forty people is only twenty pounds each. Go out and work for it, part time at so much an hour, cash down and paid direct into Club funds. It doesn't matter *how* you make it—baby-sitting or laying garden paths is just as effective as deep-sea fishing, and honest work for a cause makes nobody lose face. What *is* degrading is the attitude of mind that allows you to sit down, fold your hands, look wistful, and wait for a Government subsidy. That is what I would call the Maginot Line mentality—retreat to an impregnable fortress and hope for the best. And if the best fails to turn up—well, that's only what you expected—*and you still have no Sailplane or no Hangar or no Trailer or no Instruments* or whatever else it is you cannot afford. One trait that glider pilots share with artists in any other line is a desperate improvidence. That is why I like them. That is probably why I am also a glider pilot. But it is a characteristic that does not help the Club and we must try and curb our improvidence over little things to make that big thing—gliding—keep alive.

And when at last your money is safely in the Bank and the machine is ready for delivery, you will probably notice an odd coincidence. Some people have failed but some have done wonders and doubled or trebled their promised amount—and those are the same ones who have always been ready to help; the types who never leave the hangar till all is tidy, the types who turn up even if the day is hopelessly unflyable, the types who will lend or give all they possess if the Club needs it—the backbone of the soaring movement. They are the willing horses, and it is thanks to them that we fly—treasure them and help them all you can.

The second point comes from Lionel Alexander's plea for peace and goodwill. With this I most heartily agree. Surely all our troubles in this world today are caused by petty squabbling between nation and nation? But if we cannot keep the peace ourselves with our own people how can we expect to impose it on others? The will to be friendly and the real desire to understand another person's point of view—surely that is what matters? If we would strive for peace among individuals we might someday achieve peace through all the world.

At that point I switched on the radio to hear Alistair Cooke speaking from New York and found myself listening instead to Mr. Nehru. He said so beautifully and so exactly what I was lamely trying to write that I hope everyone in the world was listening, and that even my faint spark can go to help his fire. Peace on earth to men of goodwill. Must that be only a Christmas wish, to be forgotten or laid aside with the rest of our resolutions early in the New Year?

AUSTRALIA

ANTIPODEAN DIARY

by

VERONICA PLATT

" Can I have an interview for ' Sailplane ' please ? "

I am going to begin this article with an abject apology for any mistakes or muddles, for today—4th January—I have been belatedly piecing together undated, pencil-scrawled and travel-stained scraps of paper collected from various pockets and handbags. Most of them were illegible from the first, and those that weren't have since become overlaid with addresses, cake recipes, prescriptions for airsickness, receipts for Customs duty, and all the rest of the paper that one collects on a journey far too quickly made. When I was young and used to read Jules Verne, Round the World in Eighty Days seemed a peaceful, pleasant, and rather romantic idea. In actual fact it is a ridiculously exhausting performance ; it means that one never stays anywhere long enough to do a tenth of the things that one had hoped to do. It seemed that I was always rushing away from half-finished talks and cups of tea, to say nothing of being incurably short of sleep owing to journeying clockwise. But it was a wonderful trip and I had a wonderful time. Glider pilots really are the nicest and the kindest people in the world. May I end this prologue by sending my most sincere and affectionate New Year greetings to all those I have met and talked with so happily here, there, and everywhere during the past decade.

And so to the Diary . . . . .

2nd October. Depart London Airport 09.45.

3rd October. Depart London Airport again, having returned ignominiously the day before with a jammed undercarriage.

4th October. Eight hours' delay in Karachi with supercharger trouble.

5th October. Arrive Singapore 4 a.m. instead of 4 p.m. Waiting host somewhat unenthusiastic, having had erratic and erroneous information.

6th October. Early start. Lunch served at quarter to five—no, the clocks had not gone on. It grew dark as we ate our sweet.

7th October. Arrived Sydney very tired, very cross, and very airsick. Swore I'd never leave the ground again.

8th October. Was collected by Mervyn Waghorn at 8.30 a.m., and by half ten or thereabouts was aloft in a low-wing " Schweizer ", with Nancy Ellis, feeling much better in the temper but still buzzy in the head. And it was not only through being twelve hours out in time and half a world in space, for I had just been watching some quite impossible aerobatics. Fred Hoinville turned that " Schweizer " inside out and upside down, ending with a bunt—and all in a lapstrap and without a parachute. Oh dear! But the wings stayed firmly on and Nancy took me up without a qualm. It was a pleasant bumpy day and Grace Roberts had made a height

Berwick.
Nancy Iggulden paints the Hangar.

Victoria.
Filling up Mr. Casey's Tractor.

Sydney.
Fred Hoinville and Mervyn Waghorn.

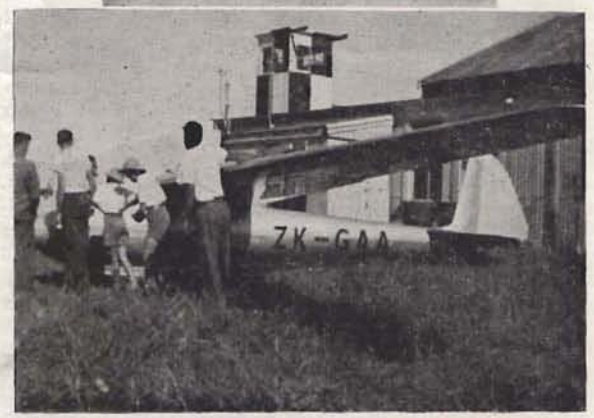
record with her a week or so before, but the thermals and I couldn't keep our circles mutual—which was perhaps a Good Thing as I was due sixty miles away two hours earlier. . . . Between the bar and the car I collected a few scattered notes.

I had been flying with the Hinkler Gliding Club—Chief Instructor, Fred Hoinville (Australian Gold "C"), tug pilot, Miss Ellis. The club owns 2 "Grunau Babies" as well as the "Schweizer" low-wing two-seater, and flies from Campden. This is a private airfield, taken over by the R.A.A.F. during the war and now used by newspaper delivery planes, so it is kept in perfect order. The best flight so far is Hoinville's 222 miles, but the season is only just beginning and I expect great things.

Flying from the same field on alternate week-ends is the Sydney Soaring Club—in a way a misnomer, because it is in actual fact a group of private owners, all Silver "C's" and all connected in some way with aviation or with radio. Between them they can claim the really remarkable total of 75 years' gliding experience. I find the sixth name has gone off the bottom of the page—owner, please forgive! But the other five are Mervyn Waghorn (from Dunstable), Doc Heydon (aged 70 but still active as tug and sailplane pilot), Martin Warner (with a magnificent new height record), Keith Colyer (the Youngest Member), Len Schultz, and the mysterious A. N. Other. Between them they own an "Olympia," Will's "Gull IV," and a "Tiger Moth"—a very enviable group and an exceedingly go-ahead one. They also own and operate a most excellent Bar! And good marks go to them for a neat idea—the trailer with all their best flights painted clearly on the side (but even so, converts are hard to come by, as always; a pity, in a country of such soaring possibilities).

9th October. Brisbane. There is a gliding club here but it is away in Toowoomba and alas, I had only a few hours free, being due on the *10th October* in Melbourne. Here at the airport were three cheerful types and a very gliding-club vehicle—Ron and Grace Roberts, Laurie Johnstone, and the "utility". We only had time for a quick greeting and an exchange of telephone numbers, but they arranged an evening at the studio. There I met a tremendous crowd of enthusiasts, one of them being Derek Reid of the Surrey Club, and another Arthur Hardinge, who took an "Olympia" and flew it all over New Zealand last year on a magnificent one-man effort that caught the attention of thousands. We talked till we were hoarse—which way does a thermal twist, why does the best wind always lead over the worst country?—and so on and so forth. The next day . . . *14th October*, I visited their airfield at Berwick, another private 'drome, this time belonging to the Caseys. This is a good field but it floods, and after such an astonishingly wet winter it was very soggy. Mr. Casey rolled with a huge tractor while Mrs. Casey and Grace tramped all over the runway looking for a sign of dry land. But in any case the machines were being overhauled in preparation for the summer, so there could be no flying.

There are two hangars side by side, one belonging to the Beaufort Club and the other to the Victoria



Top: Auckland, N.Z. J. R. Court—in cockpit. G. A. Hookings, W. G. Read (with hat).

Centre: Grace takes us to call on Geoff Richardson and his "Golden Eagle."

First N. Z. Sailplane (Eon "Olympia" Mk. II) owned by J. R. Court and G. A. Hookings, Auckland. Photographed at Mangere Airfield, March, 1950.

Motorless Flight Group. These are instructed by Ron and Grace Roberts respectively. The Beaufort Club has a home-made two-seater which looks a little miraculous but flies quite adequately. (Two-seaters are what these clubs need—not necessarily for training, but to lure the public in at so much a head. I've not met a club yet that doesn't need one in the same way that it needs cash—to keep alive. What about it Sling?

While I was out at Berwick I met the Secretary of yet another Melbourne Club—the Gliding Club of Victoria. This is long-established but has been dispossessed of its field and is now feverishly seeking another in order to get flying again. I hope they have been lucky enough to find something in time for this season. Reports of an Australian heat wave ought to bring in some interesting results—and here I sit amidst snow and slush to write about them!

15*th October*. Adelaide. Here again, although it was a Sunday I had no chance to visit the field, which is out at Waikere, 107 miles away. But the Adelaide Soaring Club and the Waikere Gliding Club (remember John Wotherspoon?) found me, and we had coffee and conversation the next morning. There I discovered that I had missed something by believing the local inhabitants, for there *is* gliding only 25 miles from the city. The Adelaide Soaring Club fly every week-end from Cawler, where they have a flat airfield complete with airstrip, club room and hangar. Both clubs have a flourishing membership and between them they own 2 "Olympias," a "Gull I," 2 "Grunau IIB," a "Kite," 2 two-seaters (one a "Falcon" and the other a "57-varieties") and they are building a "primary"; to get them into the air they have a choice of car, winch, or aerotow. They are indeed fortunate. I was shown, and tried to appropriate, some most attractive sailplane pictures taken by the local newspaper, who were putting on a special supplement that week. Adelaide is becoming very glider conscious.

16*th October*. Back to Melbourne and on the track of some standing-wave experts Dr. Loewe and Dr. Radok of the meteorological department of Melbourne University. I met them a day or so later and listened to a most enthralling account of the waves so far discovered in Australia and Tasmania. Both men are keen soaring pilots and hope to get permission to study the subject from a sailplane. Two articles by Dr. Radok are to be reprinted in *Sailplane* in the near future, so I will give only the briefest details. They are at present studying three waves in Australia. One is in Victoria by Mount Donnabuang in the Dandenong Range about forty miles behind Melbourne. Another is at Nowra in the Blue Mountains, equally handy for Sydney; and the third is in the south of Queensland, at a place called MacPherson (?); but the best of all is over the north of Tasmania, and this is the one most likely to be investigated first because it is a definite menace to airline pilots, who get swept up and away when they are innocently coming in to land.

Two things more before I leave Melbourne. I tried to fit in a visit to the workshop of the Gliding

Top: *Ron and Grace Roberts—Melbourne.*

Centre: *Who is this? None other than Derek Reid of the Surrey Club in his element in Australia.*

Bottom: *My oath,* **what** *a hat! Grace Roberts and Bruce Heithersay—Adelaide.*

Club of Victoria, and got as far as Mr. Dowling's telephone number—but alas, the usual distractions came up and I had to leave it. But there was one other visit, and a most interesting one. On my way to Berwick, Grace took me to call on the Geoff Richardsons. He showed me his " Golden Eagle," all polished up and rarin' to go. She was designed in 1934 and first flown in 1937, but over the last two years Geoff has entirely rebuilt her with a new line to her fuselage. He has fitted spoilers, oxygen, and all manner of opulent instruments, dressed her up in a new coat of luscious blue enamel, and is building a cockpit cover. He hoped to be flying in a couple of months, so that should mean that she is already in the air. Best of luck, Geoff!

28th October. After flying visits to Canberra and Sydney we left for New Zealand. Here I was somewhat tangled up and very rushed. I had only a couple of hours in Christchurch so was unable to meet Dick Georgeson and his partner, who own a " Prefect " ; but I hear the Canterbury Gliding Club have ordered a " T.G. 31 " and from personal experience in a " Dakota " over the Plain I should think there would be some interesting flying. (It was one of those places where only by shutting my eyes and holding an imaginary stick could save me from airsickness).

Another place I would like to fly over is Masterton, which lies across a range of wild hills at the back of Wellington. There is a flourishing Aero Club but I think no gliding—which is a pity, because there they frequently get an interesting cloud formation called the North West Arch which builds up about twelve hours before a strong wind (according to local non-flying observers). This arch obligingly formed on the day we were there and it is something I had not seen before. I photographed it but the light was very bad and the picture will not reproduce. As far as I can say it appeared to be a vaulted ceiling of cloud about a mile wide running from horizon to horizon a few miles in front of, and parallel to the range. The formation showed no sign of change during the hour I watched it. And the great wind duly arrived in the early hours of the morning—but from the South East. Is that usual, or why the name ?

6th November. We flew south as far as Dunedin, a most attractive place but no gliding. Thence back via Wellington and by road through the Thermal (not hot springs this time), district to Auckland.

20th November. Here we had another coffee and cake evening, and thanks to Jim Harkness I met most of the local enthusiasts. There is an "Olympia" owned by Ralph Court and Gordon Hookings, and this is flying steadily. But Auckland is a very awkward piece of country surrounded by sea inlets and almost useless for anything but perhaps height. Arthur Hardinge reached 4,000 feet over an extinct volcano (craters abound round there and perhaps the sun-heated scoria might help the lift).

The " Olympia " flies from Mangere airfield and the Auckland Gliding Club hope to do the same. But so far all they have to do it with is a " T31 " in kit form to be ordered in the near future.

The Government have been a bit unco-operative in their efforts to cover and provide against all possible hazards, and it is very difficult indeed to get started. But once the leash is off they hope to make up for lost time. Meanwhile the whole of New Zealand must do its gliding vicariously by reading about Court's " Olympia " and Georgeson's "Prefect." It must be very tantalising.

News in Brief

A NEW RECORD.

MARTIN Warner, of Sydney Soaring Club, has beaten Flt./Lt. A. W. Bedford's altitude record of 21,340 ft. a.s.l., made over this country on August 24th last.

This new Empire record was claimed by Martin on December 30th, who is reported to have reached 26,000 ft. without oxygen at Narromine, New South Wales.

It is hoped to publish Martin's exclusive account etc., in next month's *Sailplane.*

" SKY "—this is the name, so we understand, by which Slingsby's new 18-metre sailplane will now be known.

PILOTING of sailplanes is now officially recognised as " flying ," as it may now be included in the 40 hours' flying experience required for the Private Pilots' Licence.

The new regulations allow a glider pilot with the Silver " C " certificate (awarded for 1,000 metres' climb, 50 kms. across country and a five-hour soaring flight), to enter for the practical flying tests and the technical examination, even if the whole of the required 40 hours has been spent in flying gliders.

The same applies to Category " A " Gliding Instructors ; but Category " B2 " Instructors must have done three hours' cross-country flying in the preceding six months.

Glider pilots with the plain " C " certificate (awarded for a single soaring flight of five minutes) may count only 20 hours' soaring time towards the Pilots' Licence, if they have done as much ; they must also have had 10 hours' dual instruction and 10 hours' solo in aeroplanes, as well as produce evidence of cross-country flying as already described. For renewing the P.P.L., two of the five hours required may be flown in gliders.

NATIONAL COMPETITIONS.

THIS year's National Gliding Competitions are again being held at Camphill, site of Derby and Lancs. Club, during the last week in July. More details in next month's *Sailplane.*

21st BIRTHDAY.

THE London Gliding Club celebrates its coming-of-age with a party at the Club House on Saturday, February 17th.

1950 — A REVIEW
THE PROSPECTS — 1951

BRITAIN

I decided that gliding had arrived when an odd Austrian bod, somewhere in wildest Tyrol a couple of weeks ago, recognised my badge for what it was, and I think it's symptomatic of a general interest in the game all over the world. I feel that a non-pundit like myself senses the feeling of the man in the street rather better than the Olympians, so that, although when I decided to write this rather high-sounding article I thought I was perpetrating a most resounding piece of effrontery, now I am inclined to regard it as another babe and suckling effort, and to entertain the pious hope that truth will emerge from the well—or sink—of my immature pen.

The outstanding feature of 1950, as far as this country is concerned, has been the emergence of H.M. Government from its state of comatose indifference towards us. Whether it was caused by the Minister's trip in " Dragonfly " at the 1949 competitions, the war in Korea, the General Election or—more probably—the sweat of B.G.A.'s brow, it is difficult to say, but the fact remains that the milestones of 1950 are the financial assistance given to the " Kendal two-seater " by the Ministry of Supply, the Private Pilot licence and C. of A. concessions, and the petrol tax reliefs. We may call all this chickenfeed, but it is a big step forward.

The other, and perhaps even more welcome, feature of the past year was the consistently lovely weather at the National Competitions, in spite of—am I being unkind if I say, because of—the consistently unlovely prognostications of the met. man. As a result, in the incredibly chaotic way these things have of happening, we found that, discounting Mr. Wills, who in these matters is a law unto himself, the " Mü. 13 " is a far better machine than the " Weihe," or perhaps just that the *Goodhart brüder gesellschaft* has the answer to the problems of competition flying, which appears to be an antique aeroplane and a Ford 8. What really does emerge is that a good time may be had by all without dazzling equipment, and at least one acquaintance is considering entering a " Cadet " next year. If he persuades enough other competitors to do likewise, he might win the Eon cup.

In Sweden, we did not do quite so well, in fact, we did very badly indeed. It is certainly not true to say that our representatives were not up to world standard. They just didn't come off. Still, for the first time the team didn't pick itself, and a good crop of gold " C " aspirants made efforts to attract the attention of the selectors : at least one made quite a splash with the coastguards.

So much for the competitions. The clubs continue to thrive in an atmosphere of glorious uncertainty and the well-ordered smoothness of the Royal Zoological Gardens. London has so many members they have to take a census occasionally. Derby and Lancs. wax fat on the well-earned profits from the Competitions, Surrey run scheduled services to the Continent, Bristol carry out interesting aerodynamic experiments on " T-21s.", Southdown were recommended to the Daily Mirror as the most shambolic club in Great Britain, against hot opposition, and Cambridge do more and more flying and more and more research and get broker and broker and happier and happier.

The advent of the " T-34 " has deprived us of our last remaining excuse for not winning international competitions in the future. By all accounts, it's good, very good. It's not customary to write about manufacturers in articles, but Sling is a national institution, and his ups and downs are our ups and downs. 1950 was a good year for him, and the " T-21 " is rapidly establishing itself as one of the ugliest and best-loved sailplanes in the world. Will someone please translate " semi-acrobatic category : loops, stall turns, spins and steep turns at 3½g. allowed " into Urdu ?

The year has, in a word, been rich in incident. There was the splendid, or crazy, according to your age—exploit of Bill Bedford, that most modest of men, with his new British height record, unassisted by oxygen. There was the coming of age of the British Gliding Association, or its two assistant secretaries : I never did discover which. There was the directive to the A.T.C. from Air Ministry recommending " A rate 1 turn at 30 degrees bank " for " T-21's ", which is said to work out at 240 knots. There was the Christmas camp I attended in North Wales. But I must resist the temptation to reminisce. In any case, the Ruthin police tell the story so much better than I can.

We can look back on 1950 with satisfaction. There was a time, which, sadly, is coming again, when the only way to do Silver " C " distance in Korea was on a triangular course, but by and large, world events have passed gliding by : progress continues unabated. New and interesting designs have been dangled before our noses like the proverbial carrot. More useless information about standing waves may yet lead to enlightenment—and spare a thought for Jock Forbes, who is at the moment coping with a great deal of cold comfort at Bishop. There is even competition—healthy or wasteful according to your political colour—in the gliding press, which is surely a sign that the movement is waking up in a big way. Not a word to the Editor about this, ladies and gentlemen. Only one cloud (stratus) hangs over our horizon—what is the Met. man going to do for us in 1951 ?

LIONEL ALEXANDER.

FRANCE

"SAILPLANE" editor has asked me to speak of the French projects in soaring matters for 1951. But nobody holds diviner faculties and till now it is difficult to foresee the soaring situation of 1951. A simple fact governs it—money. And the S.A.L.S. budget has not yet been decided. French soaring depends entirely upon this. During this period full of uncertainty numerous Aero-Clubs have been ordered to provisionally stop their flying activities, a non too serious step since winter slows down open air enthusiasts and in a few weeks new decisions will be known.

Another fact is perceptible, these clubs have no more instructors and the S.A.L.S. does not want any flying without them, because of the danger to men and machines. A solution exists, that is, to group all the small soaring clubs on the same airfield with formation of Inter-Clubs Centres and I think that many similar Centres will be created by SALS. But the National Centres will continue their activities as usual and for British pilots who may be interested by some courses during their holidays I give the programme of 1951 :—

La Montagne Noire.

May 7th—June 30th.
July 2nd—July 28th.
August 6th—August 31st.
September 3rd—September 29th.
October 2nd—October 30th.

Challes les Eaux and Pont Saint Vincent.

March 5th—March 30th.
April 2nd—April 28th.
May 1st—May 29th.
June 1st—June 26th.
July 4th—July 30th.
August 1st—August 31st.
September 3rd—September 29th.
October 1st—October 27th.

Saint Auban sur Durance.

January 1st—January 31st.
February 5th—February 28th.
March 5th—March 30th.
April 2nd—April 28th.
May 1st—May 29th.
July 4th—July 30th.
August 1st—August 31st.
September 3rd—September 29th.
October 1st—October 27th.
November 5th—November 30th.
December 1st—December 22nd.

Conditions are similar to those in 1950, with the following prices :—

Two-seater, Frs. 2.400 an hour.
One-seater, Frs. 1.500 an hour.
Aero-tow, Frs. 2.400 an hour.

The same subscriptions exist for decreasing the price of flights and they are as follows :—

Two days, Frs. 2.100 (minimum of flying 1 hour).
Three days, Frs. 4.200 (minimum of flying 2 hours).
Five days, Frs. 6.300 (minimum of flying 3 hours).
Eight days, Frs. 10.500 (minimum of flying 5 hours).
Fifteen days, Frs. 21.000 (minimum of flying 10 hours).

The above mentioned times, flight hours are free. Feeding fee is still 300 francs a day with free bedding.

Last year many British pilots came in France to soar and to get badges, but I hope that the thermals and wave conditions for 1951 will be better.

Another event may attract English pilots to come in France : "la Coupe Izarra," and since its importance deserves special mention I give an abridged version of its rules :—

"Coupe Izarra," Article 1.

The "distillerie de la Côte Basque" creates an international soaring competition open to motorless planes of the "D" class. The competition is sponsored by the journal "Les Ailes" and the Aéro-Club of "Les Ailes Basques".

Article 2.

The "Coupe Izarra" will be presented to the first pilot who, between January 1st and December 31st, starting from an airfield in the Paris district, lands on the airfield of Bayonne-Biarritz (Parme). This non-stop flight must start from a field less than 50 km. (31 miles) from the ancient Paris gates. Landing must be on the Parme airfield and inside its limits.

Article 3. Cup and Prizes.

Winner receives the Izarra Cup and a prize of 100,000 francs (about £100). Another prize of 50,000 francs is given to the first pilot, who, flying for the Cup, lands South of the Garonne river. A third prize of 25,000 francs goes to the first pilot who, lands South of the river Loire. In this instance the landing point must be at least 100 km. (62 miles) away from the starting one.

The first pilot going to Biarritz and crossing the Loire and Garonne rivers gains altogether the prizes of 100,000, 50,000 and 25,000 francs prizes, a total of 175,000 francs.

If several pilots land at the same time on the Biarritz airfield, the prize will be awarded to the pilot with the best average speed.

Article 4.

Entries must be submitted on special forms, obtainable from the journal "Les Ailes" 77, Boulevard Malesherbes, Paris (8), or the France Aero-Club, 6, rue Galilée, Paris (16), and must be sent to the French Aero-Club before the day of the flight.

Entries of foreign pilots must be sent to the French Aero-Club by their National Aero-Club.

Pilots must hold the F.A.I. "Licence sportive" issued by the National Aero-Club.

Entries are valid for a period of 30 days but can be renewed for a further period.

Article 5. Controls.

Before the start, pilots must warn the airfield commandant officer and be controlled by an Aero-Club de France officer who will sign the barograph chart and will seal the instrument. This officer will write an official report with the pilot's name, mark of sailplane, name of airfield, day, hour and conditions of the start. Any type of launching is permitted; but in the ease of an aero-tow the maximum allotted release altitude is 500 metres and the sailplane must pass in free flight above the airfield.

After landing, competitor is to obtain an official report from the Biarritz Airfield Commanding Officer or an Officer of the Aero-Club de France.

Article 6.

If a maximum delay of 8 days after the flight (including its day) is allowed to elapse the competitor must send to the France Aero-Club :—

1. The official reports of start and landing.
2. The sealed barograph instrument.
3. His own report of the performance.

The " Coupe Izarra " will be presented to the winner within a month following the flight.

Article 7.

La Distillerie de la Côte Basque declines any responsibility in case of accident or damage occurring to competitors or third party.

Looking at some maps this performance from Paris to Biarritz seems very difficult, but not impossible. Distance to soar is about 400 miles, a French or British record in free and goal distance categories of course. Favourable weather is mainly apparent in Spring (April-May-June) by strong unstable North East winds, with formation of cumulus and sometimes cloud streets giving very fast cruising speed. Best starting point would be an Inter-Clubs Centre for instance, Beynes (30 km. West from Paris). For a so long distance winner will deserve special praise, but will a winner exist ?

GUY BORGÉ.

PORTUGAL

GUY Grancha says little of the past year but looks to the future—

" Our programme for 1951 is :—

Establishment of the school at the valley : experimental flights on the wave, to study its maximum altitude and range, as well as the second or third wave ; more distances to Silver " C " standard ; establishment of the National Single and two places duration and, maybe a flight to Sevilha aside with the normal " C " flight courses."

SOUTH AFRICA

" WHAT'S going to happen in 1951 ? " writes Helli Lasch from South Africa . . . .

" At present we know that we shall have our next Championships during November and I myself am planning to try and give the 500 km's a crack and possibly look for wave over the Drakensberg during next winter which, of course, out here is in August, but a great deal depends on whether I can find the time."

" However I would like to take this opportunity of wishing your paper and our fellow soaring friends in England a most happy and successful 1951."

SWEDEN

WHEN perusing the statistics of Swedish Gliding in 1950, just issued, one notices that the chief trend is the increased average flying time per launch for sailplanes. Here are the figures of starts and flying hours for primary gliders and sailplanes as compared with the corresponding figures for 1949. (It ought to be mentioned that the periods compared are from April 1st, till October 1st, as there is practically no gliding activity during the winter-half of the year).

	1949	1950	1949	1950
	No. of starts		Hours	
Prim. gl.	22,403	20,890	306	303
Sailplanes	15,591	15,661	3,088	3,639
	37,994	36,551	3,394	3,942

The increase of average flying time for sailplanes amounts to some two minutes. From about twelve minutes in 1949, to about fourteen in 1950. As slope-flying is almost entirely restricted to some starts made at the central school of Alleberg, most of the flights, more than mere circuits, have been made in thermals.

I should like to oppose a misconception which one very often meets abroad that Swedish gliding is most generously subsidized by the Government and has no economic troubles at all. It is true that a sum of about £20,000 is given to private flying, but not even half of this sum is distributed to the clubs and the use of the money is subject to a lot of curious restrictions, e.g., no aid can be received for the purchase of high-performance sailplanes, for which the clubs have to pay themselves in some way or another. Nor are all the clubs subsidized. Those 30 clubs, which have the highest number of diplomas taken in the previous year, are subsidized. There are twelve more which are not.

The number of starts and hours is thus shared between subsidized and non-subsidized clubs.

	Starts		Hours		Aero-
	Prim. gl.	Sail-planes	Prim. gl.	Sail-planes	tows.
Subsidized clubs ..	16,737	14,237	231	3,490	3,011
Non-subsidized clubs ..	4,153	1,424	72	148	85
	20,890	15,661	303	3,638	3,096

At the central school of Alleberg 1,394 primary glider starts were carried out and 2,575 sailplane starts. Of these, 659 were aerotows. The flying-time was 13 and 870 hours with primaries and sailplanes respectively. The three best clubs were : (In order after the number of sailplane starts).

	Prim. gl. st.	Sail-plane st.	Hrs. prim.	Hrs sail-plane.	Aero-tows.
Malmö Aeroclub ..	659	1,195	9	586	669
Karlstad Aeroclub	35	1,110	—	152	67
Eskilstuna Aeroclub	920	904	17	241	222

The number of breakages has been about the same as in the previous year ; 24 for sailplanes and 8 for primaries, which for the sailplanes means 0.7 breakages per 100 hours of flying-time or 1.5 per 1,000 launches—exactly the same figures as for 1949.

As for diplomas, the following number were gained :

	1949	1950
A diploma	428	421
B diploma.	273	306
C diploma.	198	205
Silver " C "	36	27
Gold " C "	9	5

The total number of diplomas issued by the Royal Swedish Aero Club now amounts to the following figures : " A's ", 5,624 ; " B's ", 3,318 ; " C's ", 1,984 ; Silver " C's ", 249, and Gold " C's ", 20. Of these figures, for 1950, the central school of Alleberg produced 50 " A's ", 28 " B's ", 17 " C's " and 8 Silver " C's ", which totals 113. The following clubs were the best ones with regard to diplomas taken.

	A.	B.	C.	Sil. " C "	Total
Stockholm Aeroclub	20	15	12	—	47
Malmö Aeroclub	13	12	11	9	43
Orebro Aeroclub	21	13	9	—	43
Eskilstuna Aeroclub	14	16	10	2	42
Västeras Aeroclub	10	15	13	2	40

Altogether 803 diplomas were gained by the thirty subsidized clubs and 158 by the twelve non-subsidized ones.

By the end of last year the clubs had the following instructor personnel : 85 soaring instructors, 17 dual control instructors and 62 primary gliding instructors. All these have been trained at central courses, held at Alleberg and other places by the Royal Swedish Aero Club. At the same time the following equipment was registered : 30 high-performance gliders (" Weihe," " Moswey III," " Mü-13," " Kranich," " Olympia "), 95 intermediate gliders (" Grunau Baby," " Baby-Falken," " H-17," " Schweizer 1-19," " Schweizer 2-22," " Slingsby T-21 "), 105 primary gliders (" S.G.-38 " and " Grunau 9 "), 53 winches, 61 tow-cars, 43 trailers, 89 barographs and 131 parachutes.

Some space ought perhaps to be given to the so called *Rikssegelflygtävlingen* (National Gliding Competition), which took place last year as well as in the one previous. It should not be confused with the Swedish Championships, which are held at Orebro every year, though it was impossible to hold it last year owing to the World Championships. *Rikssegelflygtävlingen* enables every glider pilot to take part in a glider competition, not just those few sent to Orebro. This competition stretches from April 1 to October 1. It is divided into two classes. Competitors of Silver " C " standard, and those without a Silver " C " badge. Each competitor can report the three best results obtained during the season. He may start on whatever field he likes. In class I (pilots holding a Silver " C ") the distance competition was won by T. Mathiason, Malmö Aeroclub and the corresponding place in class II was taken by T. Bergquist, Eskilstuna Aeroclub. In the altitude competition V. Larsson, Trollhättan Aeroclub, reached the top place with 33,300 feet in three flights in class I, and in class II the winner, K. Sjöberg, Malmö, scored 33,100 feet.

Here is a survey over the results in the competition.

Altitude Competition.

Altitude gain.	Number of flights	
	Class I	Class II
0-3,300 feet	10	29
3,300-6,600 feet	58	117
6,600-10,000 feet	42	26
10,000-13,300 feet	7	5
over 13,300 feet	1	1

Distance Competition.

Distance.	Class 1	Class 2
1-30 miles	—	2
30-65 miles	3	19
65-130 miles	11	7
130-190 miles	5	—
over 190 miles	5	—

The number of competitors in the distance competition was 21 in class I, and 24 in class II with 24 and 28 results reported respectively and 3,182 and 1,604 miles flown, making an average per distance flight of 133 miles in class I and 57 miles in class II. It should be observed that the results reached by those taking part in the World Championships are not counted here. Nor the numerous outstanding flights made by military pilots. BUMP.

U.S.A.

EL MIRAGE REPORTS

SOMETHING new has been added. The latest El Mirage innovation is to take off in a sailplane just before dusk and behold the beautiful desert sunset while soaring silently in the evening lift. Twice in the last three week-ends this has been done successfully. On both occasions, however, discovery was purely by accident. The ships were not equipped with lights, so the extent of the lift was not fully explored, as landings had to be made before dark.

On the first occasion your reporter was taking Barbara Beech for a ride in the " TG3 ". Releasing at 2,000 feet, and 10 minutes before sunset, we were prepared to glide down easily for a landing. We were very surprised, therefore, to find that the green pellet registered plus 2 ft./sec. The area of lift was wide, smooth and circular. We were soon joined by Gus Briegleb and Harold Zieglmeier in the latter's " Pratt Read ". Climb increased to 5 ft./sec., and got a little rougher as we passed the 3,000 ft. level. After watching the sunset, we pulled the spoiler handles and landed in the gathering darkness.

Since there was no wind blowing and the day had been warm, the only explanation of the phenomenon would seem to be evening thermal. On the second occasion, November 12th, Gus Briegleb and a student had much the same experience, only this time getting lift of 10 to 12 ft./sec., in the " BG8 ". Again darkness ended the flight, after a climb of 3,000 feet.

Other flying activities have included the soloing of Dick Bartholomew and Harold Zieglmeier in their " Pratt Read " ; Herman Stiglmeier has been instructing them on the dry lake using auto-tow. They make as many as 60 flights on a week-end. Per Moulengracht had his " LK " out for a few flights before he leaves for his homeland. Dick Eldredge, his partner, soloed the ship for the first

time. On November 12th, a breakfast flight of 10 Airplanes came in from Santa Paula.

When Gus is not flying students, he can be found with Anne mixing cement and adding more and more bricks to their house beside the swimming pool, in a frenzied effort to get it completed before the freezing weather comes. It should be finished quite soon, as there are only 3 or 4 more rows of bricks to lay to complete the walls.

All in all the summer soaring season has been the most successful since El Mirage was first opened as a site. Preparations are now being made for the winter. The Cinema is being recovered for auto-tow training off the lake. The slope at the end of the lake will be used for slope soaring. Already the Mt. Baldy wave has been observed, and will be explored fully in the next few months.

Reprinted from " The Thermal."

No. 1

WOMEN BEHIND GLIDING

BRISTOL

THE above title expresses an intriguing thought. Women behind gliding! Who are they? Where are they? What do they do?

Although participation in our Grand Sport would appear at present to possess a predominantly masculine flavour, it is clear that behind so many male participants there must exist an imposing element of feminine influence, whose good work with few exceptions remains cloaked in anonymity and whose praises remain unsung.

It seems to me, therefore, that it is time we mere males recognised what has for long been a simple truth—that without our womenfolk, our gliding would simply go to the dogs.

No—Mr. Carefree . . . you don't believe it? Well! really, —I'm surprised at you. But no, I understand, it's just that you can't see it. Yet listen, and maybe you'll change your mind. I'm not going to generalise, though even if I did I don't think it would miss the truth, so I'll just give you a glimpse of the picture down Bristol way.

As you know we fly at Lulsgate. Yes—Lulsgate . . the Bottom part has now been dropped by our aesthetes. We assemble there with unfailing regularity every week-end, and leap into the air with the greatest of ease . . . . after the usual bothersome but essential preliminaries with tow-cars, water, petrol, oil, D.I.'s, cables, and the rest. But while we are flying on that spacious greensward that is our airfield, who keeps the wheels going in the kitchen, clubhouse, and canteen, to which we repair at regular intervals with appetites like horses and one-way conversations about thermals, cu-nims, launch-speeds, and what-have-you? Who keeps the thing going? Our Women!

Without them we should go lunchless on the airfield, tealess in the canteen, fireless in the clubhouse, and . . . . but need I go on?

Admittedly there are more magnificent clubs we know, where we are sometimes welcomed as guests, where ample funds and a pre-war, background permit the presence of a genial steward and his wife, or a merry housekeeper and her daughter, to hold sway over the needs of the Inner Man. But despite our lack of such magnificence, we fly without starving, we eat like locusts in the canteen, and our clubhouse provides all those amenities which give our gliding many of its social joys. How come? It's just Our Women!

And what a mountain of careful organisation lies behind this feminine contribution of voluntary effort for the welfare of the men who fly.

Two volunteers are on duty every Saturday and Sunday, drawn from a Rota of some sixteen or more of our ladies. A snack lunch on Saturdays, and a three-course one on Sundays, is served on the ring of the bell. Teas are available with unfailing regularity, even for those carefree laggards who come in long after the normal time. Such is the service of these ladies of ours.

What is all the more surprising is that, at present anyway, few of them are pilots. Most of them fly as passengers in the " two-seater ", but their time on the airfield is as nothing to the hours they spend behind the scenes, and of them it can be truly said, as has been said elsewhere and in another sphere : " They serve who only stand and wait."

Yet even this is not enough. It is on our Party Nights that Our Women really shine. The buffet trembles beneath the load of delectable comestibles, the essence of the culinary art, on the making of which they have spent many hours of labour.

And that is not all. Many also are the tasks they undertake for we who slide the bumpy slide, fly the tremulous circuit, or soar the sunny skies. Repairing that slit in Jim's flying suit that he got last week on the tow-car. Knitting that big scarf for John because he always looks so cold in the winter. Making a linen cover for the perspex bubble of our " Olympia." Re-covering that upholstered settee in the bar. Waiting up until after midnight with hot cocoa for Bill when he came back from Jim's retrieve.

Yes.—Our Women really take the biscuit. Cheerful, unassuming, unfailing. Though they remain behind the scenes, what would our gliding be without their ministering charms?

And so, with humble hearts, we thank you, Millie, Monica, and Doris; Mildred, Mary, Jean and Joan; Barbara, Peggy, Jess and Nora; Jill, Olive, Hilda, and Ann. Gliding would indeed be grim without you down Bristol way.

It's a safe bet, too, that your counterparts are filling a similar role in many other Clubs. Women behind gliding! Now, Mr. Carefree—what do you say now?

T. R. Y.

SOUTHDOWN GLIDING CLUB.

Hon. Secretary E. R. Jarvis writes : " I regret that we shall be unable to help you regarding the article as unfortunately we have only two women members and they only visit the aerodrome occasionally."

Next month, Dudley Hiscox writes about the Women of the London Club.

THE CENTRE OF GRAVITY LAUNCH WITH TAILLESS GLIDERS

By HEINZ SCHEIDHAUER

Translation by G. S. Neumann from "Thermik," Göttingen, Aug. 1950

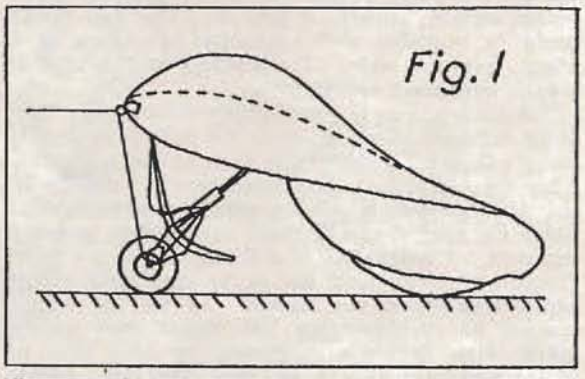
INDEPENDENT of tests carried out with ordinary sailplanes, the method of the centre of gravity winch launch was systematically tried out on the tailless gliders "Horten III f" (pilot in a lying position), "Horten III g" (two-seater), and "Horten IV" at the soaring centres—Klippeneck and Hornberg from spring, 1944, onwards. The main object was to obtain a higher launch, since the height reached by means of the usual nose launch method with a tailless glider was only two thirds of that obtained with an ordinary sailplane of corresponding performance, which was due to the smaller turning moment of the elevator.

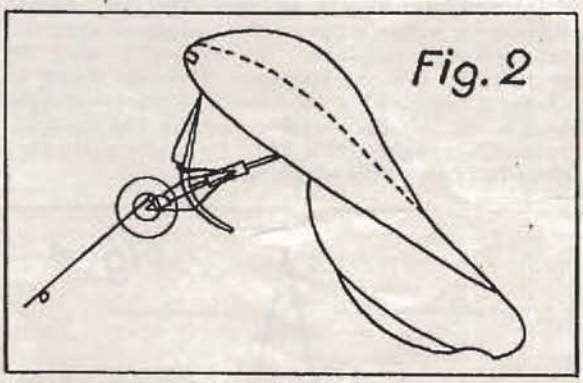
The second release hook was attached to the undercarriage which can be jettisoned, in order to keep modifications down to a minimum and avoid withdrawing the aircraft involved from service. The advantages of this arrangement are that the falling cable cannot get caught on the front skid after release, and that only one undercarriage had to be converted for the tests, the landing wheels of the "Horten III" and "Horten IV" being interchangeable.

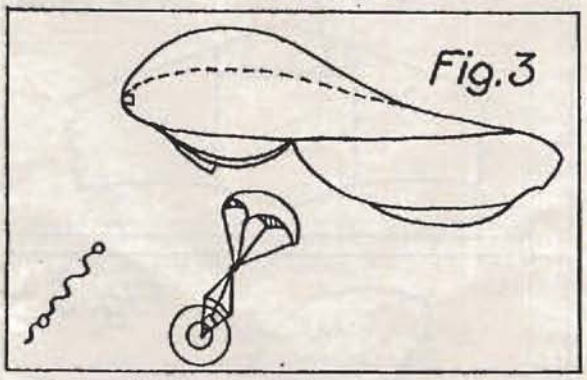
The launch was carried out in the usual manner, only the undercarriage which is normally dropped automatically on retracting the front skid, could no longer be jettisoned immediately after the take-off. Therefore it was dropped after release with a small parachute in order to protect the ground crew and avoid any damage to the wheel. This method never presented any difficulties, and even when the undercarriage was dropped well in front of the brow of the hill after a launch for slope soaring, it was always carried back by the wind.

With this launching method the cable pull was applied to a point considerably below the centre of gravity which resulted in an erecting moment. Of course, by keeping the stick well forward on take-off the normal flying altitude could be maintained and the climbing position only gradually taken up to avoid the danger of a cable break near the ground, but it seemed more practical to raise the point of application of the pull during the initial part of the launch so that the less skilled pilot might also use the centre of gravity launch without any trouble.

As a temporary measure a second ring was loosely slid on the cable and hitched on to the nose hook. On take-off the cable pulled at the nose, the aircraft climbed at 12-16 ft./sec., and after having reached a safety height of 100-150 ft., the nose release was pulled. The angle of the cable to the flight path was thus increased and the variometer needle went off the scale. After release the undercarriage was again dropped by parachute. (Figures 1, 2, 3 show this type of launch with a "Horten IV"; note the bag for the parachute at the front skid). Between autumn, 1944, and spring, 1945, many successful launches were carried out by means of this method with single and two-seaters. The data compiled







showed that these launches were 90% higher than an ordinary nose launch. No difficulties in pilotage occurred during the tests; the tailless glider proved as controllable in the centre of gravity launch as in a nose launch.

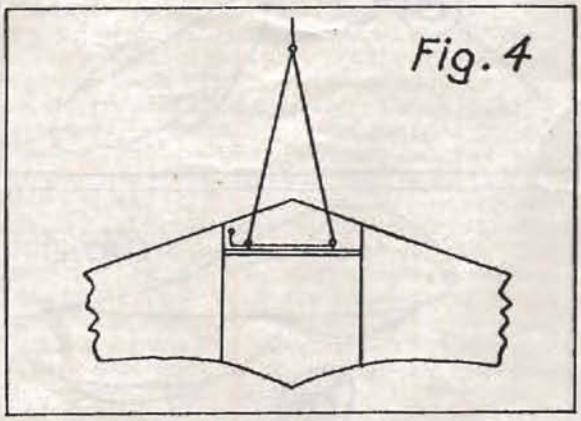
After these promising results further experiments were planned with a release hook fixed to the bottom of the wing centre section; but the collapse in Germany at the end of the war stopped this kind of research temporarily.

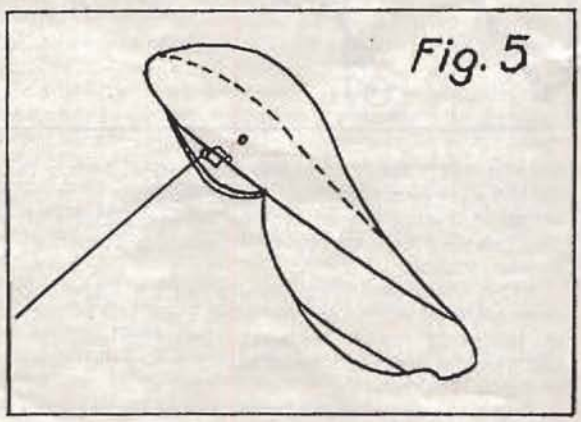
When the experiments were resumed after the end

of the war, Heinz Scheidhauer did the flying tests, and he reported the following :—

In spring, 1947, a " Horten IV " was modified for centre of gravity launching and tested at the gliding centre of Oerlinghausen. For this purpose two release hooks were fixed about 40 inches apart to the bottom girder of the steel-tube structure of the centre section, (figures 4 and 5). The two hooks could be operated simultaneously by means of a release lever and rods. The results with this kind of launch were most satisfactory.

The take-off run is considerably shorter than that of an ordinary sailplane, since the tailless aircraft is launched with the stick fully back at the beginning. After take-off the stick is eased forward slightly so that the necessary launching speed can be reached at which the aircraft can be flown hands off, if properly trimmed. The stability is amazing, and it is a most pleasant sensation that one never loses sight of the winch throughout the launch. As for the height reached no corresponding test flights were undertaken with ordinary sailplanes for the sake of comparison, but it can be said, that the release altitudes lie within range of those obtained with the best ordinary sailplanes. In closing I wish to mention that it is an experience of strange charm to take up a " Horten IV " in a centre of gravity launch. Because of the horizontal layout of the cockpit, one stands upright and is lifted up nearly vertically, with a full view of the winching run.





LISBON

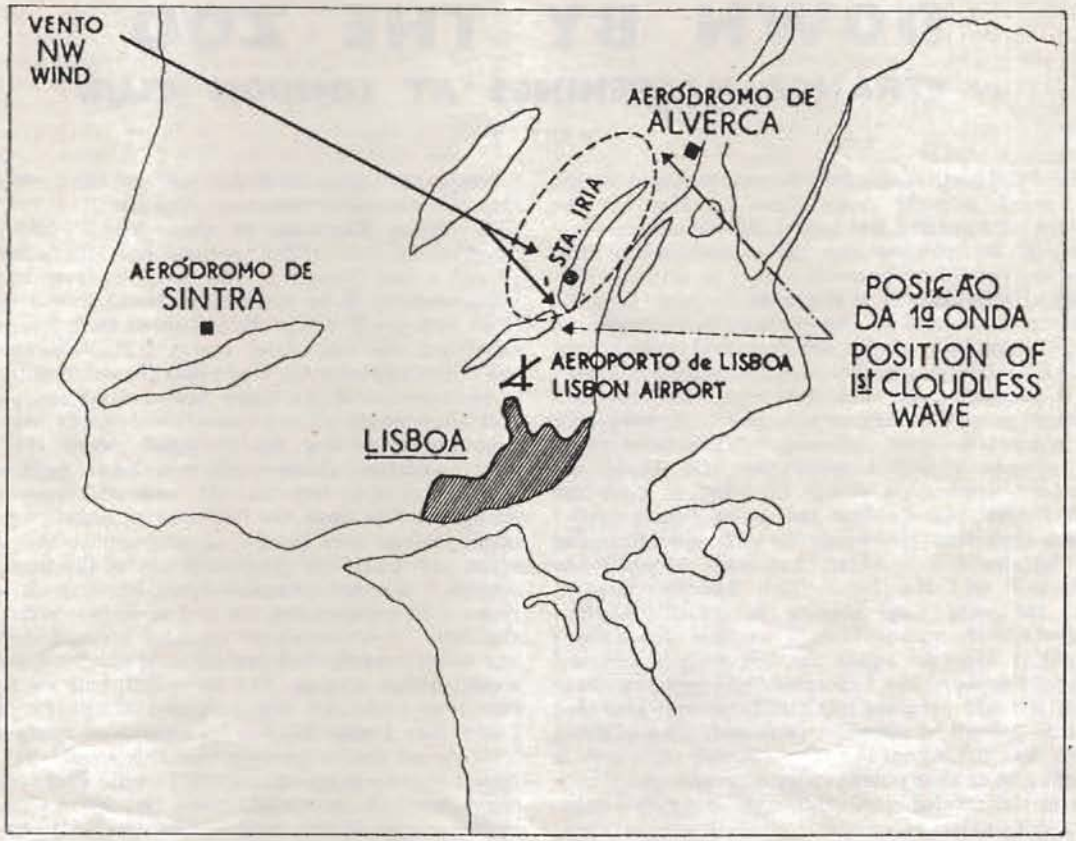
News from Portugal

Referring to our last article on St. Iria de Azoia Hill, here is a local map showing the school site, soarable area, the position of the airstrip to be built next year on the Valley, and the place for the new buildings. We hope to change the school buildings from the hill top to the valley airstrip, as the landing place on the hill, due to its small dimensions doesn't permit sailplanes to be towed off. In the valley we are in a good position for winch starts to the hill and airplane tows.

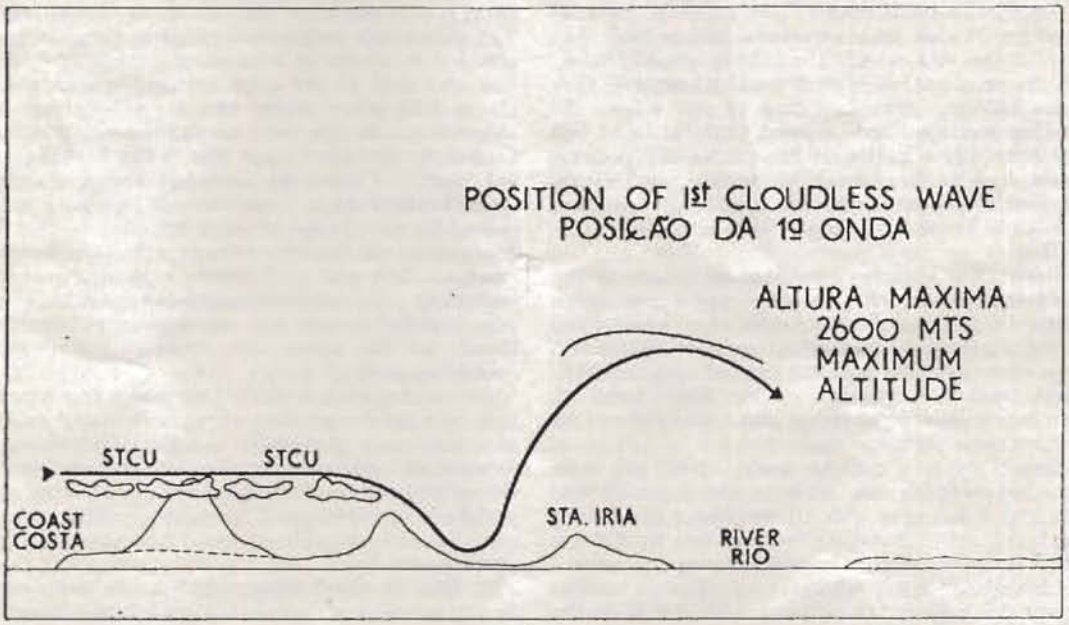
The school belongs to the " Direcção Geral da Aeronautica Civil " (our Civil Air authority) and during 4 years of courses, the Portuguese boys have gained, 400 " A's ", 200 " B's " and 32 " C's ".

In a lateral cross you can see the actual position of the school and the big range in front, from which we get the wave. This always occurs when a N.W. wind and a great amount of STCU comes inland from the sea, up to that range and stops at its peak. Then, as we have a large pass in our Hill, we think that a tongue of the wave rests on through that pass and we are able, while soaring at 300 metres from the Hill to the pass, to get the wave and climb in it up to 2,600 metres at the TAGUS BANK.

The mount has 400 metres and we are astonished as we can get 2,600 metres (barogram) from it. The river here is 10 kms. wide so we have had to postpone distance flights owing to the uncertainty of reaching the second wave. After the river there are 500 kms. of flat country up to Sevilha in Spain.



THE SANTA IRIA WAVE



DOWN BY THE ZOO

or STRANGE HAPPENINGS AT LONDON CLUB

PART I.

MEMBERS will remember the extraordinary squall which brought down three machines in the Zoo area on April 2nd last year. This was so unusual as to call for a record, so the experiences of four pilots are published below :—

John Ruffle in the "Krajanek." Just prior to the storm's arrival I was somewhere in the region of the pig farm, at about 700 feet and noticed the "Gull IV" climbing rather rapidly over the "Lion," and I proceeded in that direction. Eventually I contacted lift and religiously circled in it, keeping a very wary eye on my position. My rate of climb was between 2 and 4 metres/sec. On about my second or third cycle I was at 1,100 ft. over the wooded area just behind the polar bears, and I noticed then that the wind strength was increasing and the storm was about half-way between the "Beacon" and the Zoo. Both 2-seaters were at about the same level playing in this lift slightly down-wind of my position. At this juncture I thought it wiser to regain the hill while I still had height. Consequently I increased my speed to about 80 km./hr. and progress was steady at first and then began to tail off as the wind increased. I was flying at 100 km./hr. when I finally crossed the crest of the hill, and at that point progress became practically nil, and the rate of climb was registering at a maximum of 4½ m./sec.

The storm was just about to engulf me when, looking up I saw the "Minimoa" practically standing on its nose and then disappearing either into or behind a bank of cloud. It then occurred to me that should the cloud envelop me I should have no idea where I was, and would be descending very rapidly in the sink which I was sure would follow; and if I were not careful, I would lose my very precious hold on the sanctuary of the ridge. To add to my worries I now noticed that the wind had veered from West to North-West, and my position was now slightly down-wind of the site, so I established that a course of 330 deg. would give a track to the club house and hopefully switched on the T. & B.

The next few minutes are a bit indistinct in my mind, but I remember keeping my flying speed constant at 100 km./hr. with the turn needle and compass steady, whilst the variometer needle was flicking relentlessly at about 3 m./sec. sink, and the altimeter was unwinding steadily from 1,600 ft. The air was exceedingly rough and visibility was nil in all directions for some time.

At about 700 ft. I became aware of the pig farm just visible beneath me between the lines of hail stones, and I was then able to commence decreasing my airspeed. Finally the altimeter fell to 575 ft., and the storm gradually passed, leaving me with a pile of hailstones on my windscreen. The air became enchantingly smooth and I was able to slow the "Krajanek" down to 50 km./hr. and the variometer and the altimeter remained constant."

H. Tudor Edmunds in the "T21." 1.25 p.m. launched in the "T21," noticed that the wind had veered a few degrees in the last couple of minutes while waiting to be launched. Made a beat to the bowl with good steady lift. Turned back South and examined the oncoming storm. The clouds were less dense opposite the Zoo region so decided to keep in that area until the storm had arrived and passed, and then continued to press on towards the Zoo. Just before getting to the power wires the rain, mixed with hail, commenced, and the strength of the wind increased, but the lift was still very good. Along the Zoo slope the hail was increasing and the wind getting very gusty. I glanced at the variometer and found the green ball was at the top of the column. Almost immediately afterwards it came down with a bump and the red went to a point near the top . . . . the exact reading I could not see, but being over the hill and sinking rapidly I realised some sudden change had occurred and so turned round to make for home—speed about 50 m.p.h. I saw that I was drifting backwards so made hasty look round for a possible landing field, but still hoped that by hugging the hill I would find some lift somewhere. I increased speed to 60 m.p.h., but made no appreciable headway so decided to try and land in the field already selected. At 65 m.p.h., I made very slow ground headway but not enough to get over a hedge, and realised I was descending rapidly and almost vertically. I then dived at about 70 m.p.h. towards an electric cable which I noticed was above my hedge and running along it, and at about 2 ft. above it I eased the stick very slightly and was able to get over without contact, landing about 1.35 p.m. From the time I turned North to go home to the time we landed conditions were extremely turbulent, and the "T21" behaved like a "Scud." I think we must have been in an actual down-draught while over the hill due to a curlover caused by the change of wind direction to the North. Away from the hill the descent was rapid but not so intense. Lift was good before rain, and just at the beginning. As rain increased wind must have veered very suddenly and very considerably towards the North, at the same time increasing its speed to double or more.

On looking back I think this was a line squall due to a cold front travelling very quickly and consisting of a deep mass of cold air, the top of which fell over forward at times causing the violent turbulence, and this sharply defined front passed. The wind veered rapidly and with great precision, rather than the more leisurely veer that usually occurs when a cold front passes."

C. Ellis in the "Dragonfly." "In the course of two previous instructional flights I had found that

the wind was about 30 kts., occasionally gusting to 35 kts., and direction was originally S.W., but was gradually veering, and at the time I was launched on the third flight had become W. On the previous flights I had had no difficulty in returning to the hill from 2,000 ft., a mile downwind, after instructing the pupil to keep the speed at 50 kts. When at 2,000 ft. I had also noticed that the bases of many clouds in the neighbourhood were considerably below this height, and precipitating. None of these clouds went to any great height, in fact they did not appear anywhere to rise more than 3,000 ft. above their base.

Apart from the fact that the wind was now West conditions were similar on the third flight, and while giving circling instruction over the Zoo I noticed a line of more continuous cloud lying a couple of miles upwind, beneath which the visibility seemed poor. The continuity caused me to make the mental note that we should probably get wet before landing, otherwise there was nothing to distinguish it from previous conditions. I drew the pupil's attention to the rapidity with which we were drifting downwind, while circling, and pointed out the fate of the " Prefect," stranded in one of the large fields North of the Zoo, as an impressive warning. At 1,500 ft., I told the pupil to return to the ridge at 50 kts., which he did, and noted the " Krajanek " ahead of us, circling. As the lift continued good, I instructed the pupil to continue circling, and we again drifted back to 1,500 ft. behind the Zoo car park. On attempting to regain the hill I became dissatisfied with the rate of progress and told the pupil to steer S.W. towards the Dagnall beat. We immediately made progress but lost height rapidly and upon arrival were surprised to find no lift until we had proceeded almost as far as Polar Bear Corner; we were down to within 100 ft. of the hill top when the lift suddenly reappeared with great turbulence. I could now see that the approaching line of cloud had almost enveloped the Zoo Bowl and the landing ground was out of sight, as was the whole of the N. half of the Downs, but I imagined we could still press through low down.

We began to get thrown about rather badly, and glancing at the A.S.I. found we were doing 70 kts. I was about to ask the pupil what the * * * he thought he was doing when it dawned upon me that we weren't going anywhere. We then got thrown about even more wildly, and I decided to take over with the realization that the situation was something out of the ordinary. Facing us was a murky grey wall which seemed to be inclined towards us so that while it was possible to see the ground below, and a short distance upwind, the murk above inclined towards us and stretched above for some distance downwind. As we were still rising I feared we might disappear inside at any moment, which was the last thing I wanted to do as " Dragonfly " was without any form of blind-flying instrument. I therefore very gingerly eased on the spoilers and with 90 on the clock noted that the only direction in which we seemed to be going was gently upwards. I was beginning to have misgivings about the whole business when I suddenly remembered Mr. Butler's aerodrome, downwind. All I had to do now was to turn downwind and keep just in front of the cloud when one of two things would happen : either I should rise to a great height from which vantage point it might be possible to spy out a break in the front through which we might crawl back to the site, or I should be let down on Butler's aerodrome. It did not seem possible that the lift could so suddenly change to an equally vicious sink that I should be forced down at some intermediate spot. But it did ; and I was.

We touched down in one of the larger Zoo paddocks, and crawled out to sit on a wing feeling very much like a couple of castaways washed up on some desert strand, to await our fate at the coming of savage beasts or fierce native bands. The beasts proved timorous, but the natives rapidly came to the point, and had their chief not spoken a word of English I should have found it just as impossible to explain our presence to his satisfaction.

I should add that at no time did we run into hail. Just before turning downwind there was a short burst of heavy rain (probably ex-hail), but this ceased almost as soon as we landed and there was no trace of hail on the ground. The wind dropped shortly afterwards, the upwind end of the murk passed overhead and was replaced by a perfectly clear blue sky, in which the " Krajanek " and " Minimoa " returned to hill-soar even along the Dagnall beat, thus proving that the wind had backed to its original direction. The width of the cloud was not more than a mile from front to rear, and it had the appearance of being widest near the top, tapering down to a minimum at its base.

Disregarding the possibilities of the situation for cross-country flying, I believe there is a moral here : Just because you have grown old and grey in the gliding game, and carry a thick wad of log books, it is no reason for assessing present situations solely in the light of past experiences, on the assumption that " We've seen this one before." The lesson I have learnt is that appearances can be deceptive . . . . the wind being invisible ; and that Old Man Weather can still pull a fresh one out of the bag.

L. Wright in the " Gull IV." " About mid-day I was up in " Minimoa " and had not got above 1,300 feet when a solid curtain of hail approached from the west. When it neared Ivinghoe, seeing no break in it and not caring for blind hillsoaring, I landed. But the storm split into two and passed either end of the hill.

Tony Reilly took over " Minimoa," and about 13.00 hrs., I took off again in " Gull IV." The variometer was u/s and my barograph was in " Minimoa." Wind at hillsoaring height was S.W., about 35 m.p.h., moderately rough ; small hail-storms in places ; good but broken lift. I was getting 1,500 to 2,000 feet before leaving the lift, losing a lot on the way back, working always to the upwind (Zoo) end of the hill. I noted the " Prefect " down near the Zoo. About 13.20 hrs., over the Lion at 1,500 feet, going upwind with " Minimoa " higher on my right and the " T21 " beneath, I saw a more formidable example of the storm I had landed to avoid : a regular line squall running about N.E. and S.W. An unbroken straight line of cloud with base about 2,500 feet ; below it an almost unbroken

curtain of thick hail. It was like a great trawl, sweeping inexorably towards the poor fish on the hill.

But there was a narrow gap in the hail curtain, with the cloud continuous but a little higher, a sort of proscenium framing Ivinghoe. I decided to go upstage through this. As I neared the gap the prospect was awe-inspiring. On my right was "Minimoa," now about 500 feet lower, heading it seemed for the "black mouth of Hell" somewhere near Eaton Bray; then she was veiled by the fringes of the curtain on the right of my gap. Even my u/s variometer showed full green ball, and about two circles took me to 2,800 feet, where I ran into wisps of cloud, received a few pounds of hail and was through.

When I turned back, the hill was blotted out, but Dagnall soon emerged, about a mile north west of me. I was slow to appreciate that a heading on Ivinghoe should not produce this result, even with a few circles thrown in, in a S.W. wind. Still with that placid "upwind of home" feeling, I headed for the Zoo. At 2,000 feet I began to suspect that I was not getting along, and started doing 60. At 1,500 feet it began to dawn on me that the wind had veered and strengthened. (There were no cloud shadows to help). From then on I did 70 m.p.h. From 1,000 feet I saw the "T21" down one field S.E. of Dagnall, and knowing that the fields get progressively worse towards the Zoo, decided to share its field and its rescue party. But with not more than 10 m.p.h., groundspeed, I put down two fields downwind of the "T21." Within five minutes, when help arrived (running, "to get you out of the crash") the wind had dropped to such an extent that two could handle the machine easily.

Lesson learned: This line squall was so true to the textbook type that we might have anticipated the veer and increase of wind. Here is the textbook (my bold letters):

'It sometimes happens that when a current of warm air from the south or south-west is flowing across our islands it is invaded on its western side by a cold west or north-west current. This westerly current is colder and denser than the southerly one, and consequently the latter is forced up by it. The forcing-up of the southerly current causes the warm air to expand and cool, and the moisture contained in it condenses in **a band of cloud resembling cumulus, which stretches usually in an unbroken line right across the sky,** and moves forward with the squall front very much as does the foam on a breaking wave, or the tidal bore up a river estuary. Line-squall fronts often extend over hundreds of miles and are often **accompanied by a destructive short squall of wind, a shower,** and occasionally by thunder and lightening. **The wind veers round suddenly from south to west as the cloud passes overhead.**'

["WOT DUN IT"?—An attempt to explain these queer happenings, by Charles Ellis, will be published next month.]

THE TAILLESS HIGH PERFORMANCE SAILPLANE

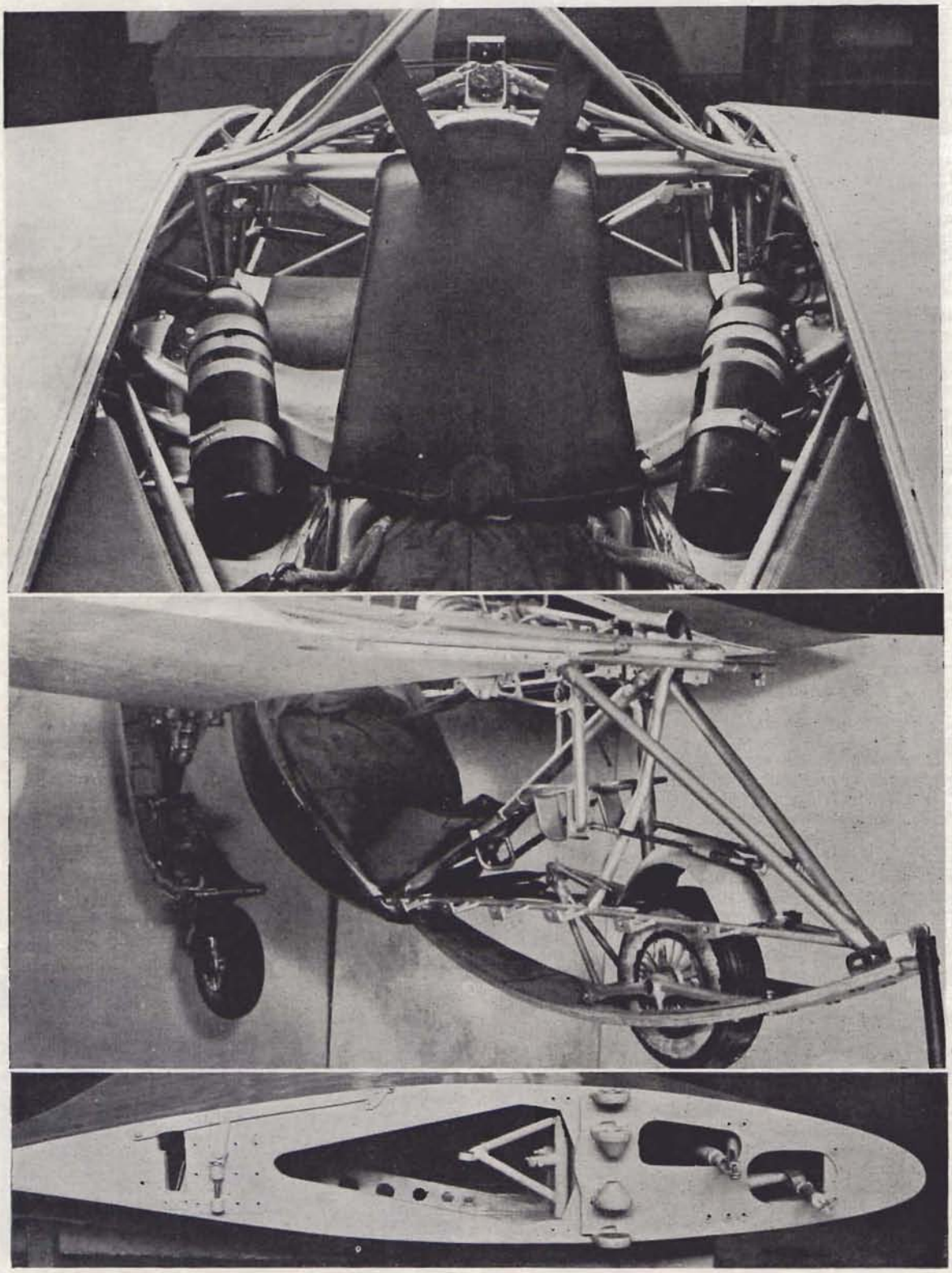
"HORTEN IVb"

By DR. REIMAR HORTEN, Argentine.

THE tailless high performance sailplane "Horten IV" which was described in the periodical "FLUGSPORT," 1942, No. 4, and 1943, No. 5, 6, was built in four models and tested in more than 1,000 flying hours. Its further development is now possible in two different ways, firstly, by increasing the aspect ratio and perhaps also the span, and secondly, by using laminor flow sections as on the "Horten IVb"

This design has the same span of 66 feet, the same wing plan form, the same area of the control surfaces, etc., in short, all main data are identical with those of the first model "Horten IVa." By using a laminor flow section of 14% thickness at the root the wing has become thinner, so that the plastic laminations in the main spar had to be replaced by laminations of Dural. In order to obtain a smoother surface and to simplify the construction, the leading edge is built as a shell and glued to the main spar in pieces of 2 metres. The construction with only a few nose ribs saves working hours, but the shells are about 33 lb. heavier than the original structure. The shells consist of two-ply panels, between which a light material (Tronal) is glued in over formers. The metal wing tips of 2 metres length each are plugged into the main wing. Plastic materials are used for strengthening, and all joints rivetted and glued. The wing centre section of 5 ft. 3 ins. width is made of steel tubing, welded and bolted, so that single parts, e.g., the spar, can be exchanged and the use of jigs is not necessary.

The kneeling-lying position of the pilot had proved very satisfactory with the "Horten IVa" and showed to be no more dangerous than the sitting position. So the "Horten IVb" has been given the same arrangement, although the placing of the pilot's arms and the oxygen apparatus have been improved and the parachute rests in front of the knees as a cushion. The automatic harness release gear which worked on casting off the hood, as well as the wheel control have been retained. The spoilers which act as a rudder control are operated by means of push rods with ball bearings. The whole assembly has temperature compensation so that the function and the setting remain independent of the altitude. The elevator and aileron control is effected by three flaps which are used in such a way that the sum of the movements of both wings result in an elevator effect, whereas the difference between right and left causes a rolling movement. The rudder control consists in spoilers fitted on the wing tips. These spoilers are part of the skin when they are not opened. Both spoilers applied at the same time



support the air-brakes which are built into the wing roots and operated by a hand grip.

The undercarriage, which consist of two skids with springs, the front one being retractable, secures a short slide and thus makes outlandings easy. After the landing a swivel-mounted wheel is turned out under the front skid in order to obtain a greater angle of attack for launching. With this angle the wheel fitted in the rear skid touches the ground; the aircraft can therefore be moved on the aerodrome without a trolley or other equipment. On retracting the skid the front wheel is automatically turned inside and remains in this position when the skid is brought out for landing, so that it cannot touch the ground.

The rigging is made very simple by special fittings and can be carried out by three persons in a few minutes. A "Kranich" trailer can be used for transport by road, but if a special trailer were built, the dimensions could be reduced.

Taken as a whole, the design of the "Horten IV b" is adapted for serial production where the construction is concerned; and with regard to the equipment and the handling properties it is meant for use by groups. This explains the high empty weight of 585 lb. Apart from this "maturity for serial manufacture," the laminor flow section used deserves special consideration. Owing to the shell-structure of the leading edge the contours of the section are accurately maintained. This fact, together with the good finish which is usually given to sailplanes, makes it highly probable that the boundary layer of the air-flow is kept laminor as far as the spar, since the greatest thickness of the section lies at 40% of its chord. It will therefore be possible to cut down the drag near the wing roots by 20 to 30%, according to flying speed and hence the Reynold's Number. At the wing-tips this reduction of drag will be less, because the section is symmetrical there, with the greatest thickness at 30%. In any case, the retention of the laminor flow at the wing tips would not reduce the drag appreciably owing to the small chord. Besides, there are the spoilers at the wing-tips with their slits and breaks in the contour which are certainly not conducive to laminor flow. However, within the lift range corresponding to the best gliding angles, a total reduction of drag by 15% can be expected at a flying speed of 50 m.p.h., and up to 30% at 95 m.p.h. This shows that a much better performance at high speeds has been obtained, although the best gliding angle has only been improved from 1 in 37 to 1 in 40, in comparison with the "Horten IVa." The latter result was confirmed by flying tests.

In 1944 the production of six models of the design "Horten IV b" was started, but only one of them could be completed and tested by the end of the war. It is desirable that this development be continued later on.

Translation by G. S. NEUMANN *from* "THERMIK" *No.* 8-9, *Göttingen, August,* 1950.

FRANCE

SOARING IN FRANCE

Winter Flying in Provence

by GUY BORGÉ

1950 has been an excellent year for wave soaring in Provence with a greater than ever number of "diamond" climbs gained. The year was one of great activity and ended with some nice performances. I will report these last days that have given the Saint Auban Centre first place in France (and perhaps in the world?) with 5,000 hours soaring during 1950, and the Fayence regional Centre a good position with the following results: 1,500 hours, 12 "B" badges, 15 "C's", 11 altitude legs, 7 distance legs, 7 Silver "C's", 2 Gold "C" altitudes and 2 Diamond "C" legs.

15th November.—Saint Auban: Weak wind at ground level (about 5 miles per hour). At 3.15 p.m. a "C.800" two-seater was aero-towed and released above the slope. With many difficulties the "C.800" crew managed to remain airborne until they found a wave lift and climbed inside it. Other sailplanes were brought into this favourable air, and the best ascent was accomplished by Mrs. Jacqueline Mathé, the international record woman, to 17,800 feet above the field.

16th November.—Saint Auban: Curious flights under rain in a lift seeming of thermal origin. In the lee of Saint Jean rock I found some turbulent up-currents, apparent by some cloud vapours, where we circled and drifted by the wind. Best flights: 5,200 ft., and 1 hour 30 minutes. At Fayence one pupil attained 16,000 ft.

17th November.—Saint Auban: Day seemed very bad without any wind at all only some strong down-draughts. So bad that the instructors talked of no flying. But suddenly a "Baby" found the wave above the field and disappeared out of sight. Other machines were then launched and Mrs. Jacqueline Mathé again claimed the best performanec with 20,600 ft. Similar performance was made at Fayence, where M. Landi (without oxygen) attained 20,000 ft.

23rd November.—Nothing noticeable at Saint Auban. But at Fayence, Prince Bira, well known in England, took his Diamond "C" altitude leg

Saint Auban: The Penitents slope in background at right.

Saint Auban : Aerial view by Guy from an " Olympia " at 7,000 ft. In lower left hand corner the airfield and hangars can be seen. In the centre St. Auban city. The dark spots are cloud shadows and the white line is the Durance River with its sands.

with a flight to 18,700 feet.

16th December.—Saint Auban : Just at the moment when the centre was celebrating its 5,000 hours of soaring from the beginning of 1950, Mrs. Marcelle Choisnet-Gohart flew the " Weihe " and climbed to 20,300 ft. a.s.l. With 17,300 ft. she gained her second diamond.

19th December.—One of the finest days at Saint Auban but also the most curious. No mistral at all, the Rhône valley completely overcast by stratocumulus, no lenticulars and only above the airfield a few rolls of stratocumulus, base 6,900 ft. But Mrs. Gaudry, the wife of the C.F.I., took her first diamond by climbing to 24,600 ft., and Captain Fonteilles gained his second one because he attains 24,900 ft. (gain of height of 22,600 ft., with a low point at 650 ft., above the Penitents slope). Lift here attains some astonishing values and the variometers are often insufficient to record them, because needles stop at the maximum reading of 26 feet/second. But actual lift is observed to exceed 30/50 feet/second. At the top of his climb Captain Fonteilles was still climbing at 10 feet/second in a very large ascending zone, but as he did not bring an official thermo-barograph he decided to descend.

I was not present at Saint Auban on that day and I regretted it, and also the fact that the Centre had not tried to break the world altitude record which appeared possible.

On the 20th December, Mrs. Choisnet tried to break the world feminine record for two-seaters in the " C.M. 7 " but the lift did not exceed 2,500 ft.,

It is surprising to see that after five years of continuous experiments in Provence the black veil covering the secrets of waves has not been raised. The more climbs made, the more different appearances the wave seems to take.

The " Club Alpin Francais " has decided to offer 3 prizes for a scientific competition in France and French possessions between December, 1950, and May, 1951.

As first prize an oxygen apparatus is offered for the best wave height gain in a sailplane above 3,000 metres (9,840 feet) from any airfield except Saint Auban, Fayence or Les Alpilles. Pilots must send a complete flight report with observation of clouds and winds, meteorological and aerological charts of the situation, and the barograph chart.

The second prize concerns flights made at Saint Auban, Fayence and Les Alpilles.

In the third category the light planes with an engine, less than 6,500 litres capacity may be entered, and the winner must record the best altitude gain above the normal ceiling at full power of his plane in standard atmosphere. The gain must exceed this ceiling by at least 15%. The prize is a return ticket from Paris to London by Air France.

Till now French pilots are known to have used waves in Provence by mistral, in Languedoc by tramontane (north-west wind in the Béziers district), in Lyons by South wind, in Massif Central by West. Other favourable sites certainly exist and the Club Alpin Francais competition could disclose them.

SOUTH AFRICA

1950 NATIONAL GLIDING RALLY

THE National Gliding Rally which was held at Standerton in November, was the first at which a full-time Meteorological Officer has been in attendance. This was a big step forward as before each day's flying, pilots were briefed on lapse-rates, height of cloud, wind strength and direction, and were given an indication of what conditions could be expected in the various surrounding areas later in the day.

Sunday gave an indication of the conditions, when Dick Ascham flying the " Schweizer " two-seater, with Shorty Lindenburg as passenger, found lift everywhere at 7,000 feet, and had to circle with spoilers out in order to get down.

Points were awarded on distance only, a goal flight carrying a 20% bonus, and an out-and-return flight carrying a goal-bonus for the turning point, with a double distance-allowance plus a further bonus for the return. Winds were light on Monday, and two successful out-and-return flights were made. Helli Lasch " Air 100 " went to Amersfort and back, a total distance of 130 kilometres, in just over 2½ hours, while Alec Farquharson ("Baby") did an excellent first-cross-country by going to Bethal and back, a total distance of 112 kilometres. " Boet " Dommisse (" S-15 "), who had nominated Carolina as his goal, found that he made better time on a more Easterly course. He went 24 kilometres past Lothair (136 kilometres), but eventually came back and landed there, as the country beyond seemed to be rather desolate and possibly lacking in telephones. " Van " van Laansweerde ("Schweizer 119") went 16 kilometres past his goal of Bethal (56 kilometres) but, flying without a canopy, was forced to turn back by the cold. Dick Ascham ("Baby") landed near Ermelo (76 kilometres). The " Baby " belonging to the Durban Club (who were exceptionally well organised for retrieving) was unfortunately damaged by a hidden rock in landing at Trichard (48 kilometres) and had to withdraw from further flying.

Tuesday produced promising cumulus and a new South African record. " Sparkie " Davidson ("S-18") went to Heidelberg and back, a total distance of 192 kilometres. At one stage on the return he was down to 500 feet, but after being airborne for 5 hours, eventually reached Standerton at 6,000 feet, and then proceeded to amuse himself above the drome for another hour. Helli Lasch, in attempting Carolina-and-return, failed to jump a gap on his way back, and landed near Morgenzon, having covered 208 kilometres. Jackie Pullen ("Baby") found storms in the area of his goal at Belfast, and so landed on the Middelburg aerodrome (130 kilometres). Pat Beatty ("Baby") in landing in a very small field near Breyton (104 kilometres) proved to his own satisfaction, the use of dive-brakes. " Boet " Dommisse lost contact with cloud at his turning point Bethal, and landed after covering 14 kilometres of the return, while Gordon Clarry ("Minimoa") came down near Ermelo.

On the Wednesday Helli Lasch, in attempting Maritzburg, did a fast flight to the Natal escarpment, but thereafter found little lift, and landed at Dundee (170 kilometres). " Sparkie " Davidson was caught in the same way, and landed near Newcastle (115 kilometres. Upper winds proved too strong for an out-and-return in a " Baby," so Peter Leppan abandoned his into-wind goal, and went down-wind, landing at the Gem (158 kilometres). Heinie von Michaelis ("Minimoa") got close to his goal of Piet Retief, but after flying through a corridor of thunder clouds was forced down 145 kilometres from Standerton. Ken Newman ("S-15") also struck storms, and landed in heavy rain near Breyten (101 kiloms.).

On the following day only 3 pilots made flights of note. Hans Wurth ("S-15") did a fast trip to Wakkerstroom, where he waited for clouds to develop, flew over low cloud to Uitrecht, and then had to ridge-soar. A change in wind forced him down short of his goal of Vryheid, after he had covered 158 kilometres. Jackie Pullen, after ridge-soaring at Volksrust until a thermal took him to cloud base, found the usual lack of lift over the escarpment and landed at Ingogo (100 kilometres). " Sparkie " Davidson landed 20 kilometres outside Volksrust on his way back.

On the Friday he made a further attempt, this time covering a total distance of 142 kilometres. Alec Farquharson made his goal of Volksrust (81 kilometres), " Van " van Laamsweerde came down near Ermelo (84 kilometres), and Heinie von Michaelis, after dodging three storms, landed at Kinross (48 kilometres). The best flight of the day, and one of the best of the Rally, was Hans Wurth's out-and-return to Volksrust. Having got off late, he went with the wind to Amersfort, and then followed a cloud street towards Volksrust. There he had to wait for half an hour until there was a suitable cloud over the town. On his return he climbed to 10,000 above Paardekop, and had to detour along Westerlyng Street, which finished some distance short of Standerton. It was now towards evening and very little lift remained. He had a long dive into a strong headwind, and landed just outside the fence of the 'drome. By clever use of prevailing conditions, even though this at times involved getting well off track, he achieved what a " press-on " type of pilot could never have done.

On Saturday conditions were very overcast, with scattered thunderstorms. Gordon Clarry covered 131 kilometres towards Piet Retief, Peter Leppan landed near Ermelo, and Roy Lilienfeld came down on the war-time military auxiliary field at Uitkyk. Sunday was devoted to a short triangular speed-dash, which was won by Alec Farquharson. Helli Lasch made better time, but failed by 50 yards to make the 'drome. On the following day, early-afternoon storms terminated most flights. Jackie Pullen and Ken Newman were both forced down at Hendrina (100 kilometres), and Heinie von Michaelis at Ermelo. Other flights were all less than 50 kilometres.

Storms developed early on the Monday and only light lift was found under developing fracto-cumulus. Conditions such as these handicapped the heavier

machines, and Helli Lasch landed at Hendrina en route to Belfast. Peter Leppan managed to drift the " Baby " along until continuous lift was found under a storm cloud near Carolina, and this was sufficient to give him a fast flight from there to his goal of Belfast (162 kilometres). Alec Farquharson landed short of Middelburg (107 kilometres), and " Sparkie " Davidson was short of Volksrust. Gordon Clarry had an exhilarating flight in front of a storm, which eventually closed in on all sides and left him near Morgenzon.

On the Wednesday Helli Lasch en route for Belfast climbed in cloud to 20,500 above sea level. This is a South African record for absolute height, while his gain in height of approximately 14,000 is also a record. This climb took place near Bethal. From there he did the next 100 kilometres to Belfast in one straight glide. He and Peter Leppan thus shared his own trophy for the longest flight to a nominated goal. Heinie von Michaelis ("Minimoa") landed at Carolina (131 kilometres) just in time to form a welcoming-committee for Pat Beatty ("Baby"). Dick Ascham covered 95 kilometres, landing north of Ermelo.

Once again the best flight of the day was made by Hans Wurth. It was also the best flight of the Rally. He set off early in the " S-15 " towards Machadodorp (178 kilometres). He arrived there in just over two hours, but found no suitable landing area. He, therefore, continued northwards until a heavy storm, which had the threat of hail, caused him to land short of Lydenburg, after covering 222 kilometres. This was the longest flight of the Rally, winning the Kelvin Bottomley-Baird Trophy, and was also the longest flight ever made in this country in a machine in the limited class.

On Thursday alto-stratus damped out all instability, while stormy conditions on Friday (the last day) prevented any long flights. " Sparkie " Davidson landed at his goal, Volksrust, and Ken Newman was just short of the same town.

This brought to a close a highly successful Rally, during which over 5,000 kilometres had been flown by 7 machines. Of these only 3, (the " Air 100," the " Minimoa " and the " S-18 ") were in the high performance class, the two latter being given an allowance over the former. As a result " Sparkie " Davidson became National Champion, beating Helli Lasch by a small margin. Hans Wurth won the George Ward Trophy (the Junior Championship for those flying machines in the limited class), with Peter Leppan second and Alec Farquharson third. The Argus Trophy was won by the J.L.P.C. team, Hans Wurth, " Boet " Dommisse and Ken Newman, the Rand Flying Club " A " team being second.

Final results based on each Pilot's best three flights before handicap were :—

High Performance.

		points.
H. R. Lasch	" Air 100 "	745
A. Davidson	" S-18 "	698
H. von Michaelis	" Minimoa "	362
G. Clarry	" Minimoa "	254

Limited Class.

		points.
H. Wurth	" S-15 "	671
P. D. Leppan	" Baby "	438
A. Farquharson	" Baby "	405
J. Pullen	" Baby "	330
E. Dommisse	" S-15 "	319
K. Newman	" S-15 "	276
P. Beatty	" Baby "	234
R. F. Ascham	" Baby "	173
L. van Laamsweerde	" Schweizer 119 "	151
G. Jacoby	" Baby "	30
R. Lilienfeld	" Schweizer 119 "	28
J. Firmin	" Schweizer 119 "	28

NEWS FROM THE CLUBS

LONDON GLIDING CLUB

It was of the Spectator, we believe, that someone once said, " It is the proud boast of the editor and staff that no two issues have ever been proved to be identical." We sometimes think that flying news is open to the same kind of comment, since most flights consist of someone going up, flying for a while and then coming down more or less according to plan. Items of the same type occur again and again and there is a limit to the number of variations we can think of in describing them. Hence the air of repetition.

Week ended November 5th. There was no flying for the first three days, and although the Bonfire Party produced almost a record attendance for the week-end the weather let us down and our visitors did not see Dunstable at its best. The best flight of the day was only 7 minutes by Hall in the Surrey Club's " Olympia," and most of the other flights were only circuits.

Week ended November 12th. Four members, Scarborough, Garrod, Bridson and Howe came out on Wednesday for four hours' soaring, and Miss Jennings and Garrod got some " T21 " flying with Jack Hanks on Thursday. Saturday produced only circuiting conditions but Sunday was a bit better, about seventeen hours being put up. Our commiserations go to James (J. C.) who did four hours forty-nine minutes on a five hour attempt.

Week ended November 19th. Jack Hanks had the sky to himself on Monday and Tuesday, and put in four hours in the " Blue Olympia." On Wednesday four members came out but there were only circuits. There was then no more flying until Saturday when more circuits were done. And on Sunday likewise there were only circuits.

Week ended November 26th. Doughty started the week by managing an hour in a " Tutor " on Monday, though the other three members present only managed circuits. On Wednesday, West managed five minutes but otherwise there were only a few circuits, and that was all for the week.

November 27th—30th. The Met. office relented and let us have a good strong westerly wind for the last two days of the month. Eight members turned up to use it on the Wednesday and put in nearly thirteen hours, and on Thursday another five members totalled seven hours.

Totals for month : Taken all round it was an exceptionally poor month. The totals were 234 launches and 52½ hours' flying, with two " C's ".

UMTALI CLUB.

On October 13, 1936, a meeting was called in Umtali to discuss the formation of a gliding club. Major Bowles and Mr. H. T. F. Kent were the prime movers. And so the Umtali Gliding Club was born.

With the formation of the club began the heartbreaking struggle to obtain money, equipment and planes. The assistance of local firms was sought and permission was obtained from the Council to use the Umtali aerodrome. Members got down to it and dug out a site on the aerodrome and erected a hangar themselves.

The big day came early in 1937 when a kit of parts arrived from Britain, and the construction of a Slingsby primary trainer was begun without delay. Members were faced with shortages, faulty directions and lack of suitable working facilities, but despite these setbacks, the machine was completed by the end of June, 1937. She was registered " VP 1," and remains the club's primary trainer even now, although little of the original plane still exists !

By this time, another member and a friend had completed their own intermediate sailplane—a " Kirby Cadet."

On Saturday, July 3, 1937, Mr. C. H. Perrem and Mr. C. J. McGrane —two members with experience of power flying—having been deputed as instructors, moved on to the field in the towing car (an old 1925 model Nash which had been renovated and presented by one of them) with the two planes attached in tandem fashion behind. Neither of the two instructors had ever flown a glider, and were just a little bit apprehensive as to the outcome. However, they need not have feared, for both planes were flown—and proved—during their maiden flights, which took place about six feet above Mother Earth ! Flying had really begun, and the Umtali Gliding Club was no longer a name.

In the same year, the Rhodesia State Lotteries Trust gave the club a grant which enabled it to buy the intermediate sailplane for the club, and 1,000 feet of steel wire for use in launching " B " certificate trainees.

But it was not until April 9, 1938, that the club was officially opened by the Prime Minister. The meeting was a great success. During the same year, the Government also gave the club a grant which enabled it to buy a " Kirby Kite," improved wings for the secondary glider to obtain a higher performance, and left £25 towards the cost of a towing car and winch.

Mr. H. Bartaune, the German glider pilot and then holder of the South African record, gave the club much valuable tuition.

In April, 1940, the primary again crashed when piloted by Mr. G. Levy. He was seriously injured and the plane was almost a complete wreck. The crash decided the club to suspend flying for the rest of the duration of the war. Almost seven years later it was reported : " Circling silently over Umtali Aerodrome, two gliders rode in the sky recently—the first time gliding had been carried out in the Colony since 1940."

This was the outcome of a lot of very hard work by members between 1946 and 1947. A great deal happened in 1948.

Members towed the " Kite " in its trailer down to Kroonstad to attend the South African Gliding Championships, and although failing to win any events, reached the height of 13,000 feet and completed a 36-mile cross-country flight, gaining much valuable experience. Mr. J. Harrold then broke his own record and stayed up for 58 minutes at Umtali. The following year was black—very black. Many of the

club's members drifted away from the district, and eventually flying was done by two members only. The "Cadet" was sold to the newly-formed Salisbury gliding club.

Early in 1950, the club was entirely reorganised and new members formed a nucleus. Flying has been carried out nearly every week-end, and the club has now decided to buy a two-seater for training purposes and is busy raising cash. It is hoped that two departments will give grants towards the cost of this.

SCOTTISH GLIDING UNION

Snow, ice and blizzards, which have been a constant feature of the last two months has scarcely been an encouragement to enthusiastic gliding. Rather would we wait for our usual summer temperatures in the high fifties before we give serious consideration to the sport. But what has been done, has been spectacular.

One of our pilots, having an experimental frame of mind, and flying our newest and most precious aircraft, cast off from a winch launch at a height of around 750 ft. Yet the cloud base was 350 ft., and there was no flying panel! But luck was on the pilot's side and the result was the longest cross-country of the year, the aircraft landing several miles from the airfield. The best that can be said was that it added a little colour to the flying of the month.

The past year has been amazingly successful in that practically double the amount of flying has been done as that in the previous year. This was primarily due to the development of auto-tow launching, done in conjunction with winch-launching which meant the maximum use of suitable flying conditions. In addition we are now reaping the benefits of the ground work that was put in during the immediate post-war years. We have now a keen and vigorous membership using a settled and competent organisation to take every opportunity for flying. In the latter half of the year, the "T21 B" was used for primary training, but the general conclusion of our gnarled and weather-beaten C.F.I., Tom Davidson, is that the ground sliding and wire-hopping of a solo pilot in a solo machine gives a far better background than the more

(*continued on page* 48).

Letters to the Editor

Vancouver, B.C.
January 8th, 1951.

Advice to British Team.

Dear Sir,

Here in Vancouver we have a small gliding group as yet, in which there are 2 sailplanes—"Schweizer TG3 A" and a "Baby Grunau II" and one glider "Boeing type primary".

My best flight has only been 2 hours of soaring, using cumulus clouds, in the "Grunau."

Compared to International records we in B.C. don't have anything except boundless enthusiasm with high hopes for the future.

As you may know the National record for Canada is a 118 mile flight for distance and about 10 hours for duration. No altitude to speak of. Unfortunately, like elsewhere, there is no type of Governmental support. It all comes from our pockets.

I was sorry to hear that the British team did not fare so well at the World Soaring contest held at Orebro, Sweden—but with typical persistence, determination, more serious training and some luck, I am sure you all will do much better in future contests.

Yours for Soaring,
MICHAEL SHUBAY.

Kirbymoorside,
York.
17th January, 1951.

Sir,

Re your article on the B.G.A. Party in the last issue, you mentioned the "T34" model as "optimistic". Actually it is to scale—merely has the wheel deleted.

Yours sincerely,
F. N. SLINGSBY.

Lisbon,
19th December, 1950.

Dear Sir,

I am much obliged for your kind letter of the 23rd November, and I am very glad to have become your Portuguese Correspondent.

Lasch, Borgé and all the other articles in your journal are very interesting, and I acknowledge that these contributions make your magazine internationally unparalleled.

Yours etc.,
GUY GRANCHA.

NEW ZEALAND GLIDING ASSN. (Inc.)
AUCKLAND, E.1.,
14*th December*, 1950.

The Editor,
"Sailplane & Glider,"
London.

Dear Mr. Blunt,

At the First Annual General Meeting of this Association it was suggested that we should endeavour to arouse more enthusiasm for the sport of gliding and soaring among the Officers and Airmen of the Royal New Zealand Air Force, in which, unlike the R.A.F., no gliding activities are being undertaken.

As an aid in this direction, it was suggested that we should try and obtain a subscription to "Sailplane and Glider" from each station, or better still from each mess of each station throughout the country.

We had the pleasure of meeting Mrs. Platt a few weeks ago. Unfortunately both my partner and I were out of town for most of the duration of her sojourn in Auckland, so that we were unable to show her our "Eon" Olympia, which unfortunately is as yet the only motorless aircraft operating in this City. However there is another privately owned sailplane in Christchurch—a "Prefect"— and both the Auckland and Canterbury Clubs have orders for "T.31" kitsets, so when they are assembled there will be some Club aircraft operating in this country.

Mrs. Platt entertained several members of the Auckland Gliding Club one evening at her flat, and we had a feast of gliding talk such as we rarely are favoured with out here. However when the Club aircraft are operating, such occasions will, I hope, become more frequent.

With best wishes to our many friends in the British Gliding fraternity.

Yours sincerely,
G. A. HOOKINGS,
Hon. Secretary.

ROYAL AERO CLUB GLIDING CERTIFICATES

(Issued under delegation, by the B.G.A.) DECEMBER, 1950

GLIDING CERTIFICATES - "A" .. 65 (12763-12827 inc.)
"B" .. 32
"C" .. 12
Silver "C" —
Gold "C" —

"B" GLIDING CERTIFICATES

No.	*Name*	*A.T.C. School or Gliding Club*	*Date taken*
4625	George Edward Graham	27 G.S.	10. 9.50
8640	Thomas Alexander Hendry	Scottish G.U.	26.11.50
9388	Walter Henry Holderness	168 G.S.	12.11.50
10147	David Patston	89 G.S.	28.10.50
10439	Peter William Curtis	89 G.S.	3.12.50
10514	Donald Henderson	168 G.S.	5.11.50
11838	Frederick Walker	203 G.S.	2.12.50
11881	Colin Plaskitt	22 G.S.	10. 9.50
12337	Timothy James Thomas	Army F.C.	21.10.50
12348	Helen Muriel Baker	142 G.S.	3.12.50
12579	Harold Colin Black	Air Registration Board	18.10.50
12617	George Marsh	123 G.S.	4.11.50
12769	Keith Sergison Tipping	Wahn G.C.	29.12.48
12770	Eardley Claud Hill	22 G.S.	8.10.50
12777	Raymond Langford Akers	Perak F.C.	24. 4.50
12779	Ralph Godfrey	23 G.S.	26.11.50
12780	Elisabeth Richmond Case	Wahn G.C.	6. 8.50
12781	Frederick James Slater	Luneburg G.C.	8. 8.50
12782	Alexander Stewart Taylor	Halton Apprentices	5.11.50
12785	Albert Edward Cox	R.N. Fulmar G.C.	21. 7.50
12789	Alan Cecil Spain	R.N. Fulmar G.C.	13. 5.50
12791	Michael John Withey	R.A.F. College, Cranwell	15.10.50
12792	William Topping	R.A.F. College, Cranwell	14.10.50
12793	Donald Peter Davidson	R.A.F. College, Cranwell	17. 5.50
12794	Leslie Albert Boyer	R.A.F. College, Cranwell	15.10.50
12796	John Cox	22 G.S.	15.10.50
12798	Michael John Neale	Imperial Coll., G.C.	3.12.50
12800	John Alan Stroud	Wahn G.C.	6. 8.50
12806	Sidney Thomas Batterby	Fassburg G.C.	3.12.50
12809	Victor Jackson	23 G.S.	21. 5.50
12823	Arthur James Pentney	Fassburg G.C.	22.11.50
12824	James Spencer Wyatt	Surrey G.C.	3. 6.50

"C" GLIDING CERTIFICATES

5226	Gordon Henry Elsley	R.A.E. G.C.	11. 8.50
10445	Michael Pierce Garrod	London G.C.	8.10.50
11063	Michael Finn	Army F.C.	7. 4.50
11469	Edward King	Luneburg G.C.	7. 5.50
11919	John Frederick Gale	R.A.F. College G.C.	13. 8.50
12190	Joseph Auty	166 G.S.	19.11.50
12382	Christopher John Aucland	Wahn G.C.	11.11.50
12777	Raymond Langford Akers	Perak F.C.	11. 9.50
12780	Elizabeth Richmond Case	Wahn G.C.	10.11.50
12781	Frederick James Slater	Luneburg G.C.	16. 9.50
12793	Donald Peter Davison	R.A.F. College G.C.	25. 8.50
12800	John Alan Stroud	Wahn G.C.	3.12.50

SCOTTISH GLIDING UNION

(*continued from page* 47).

modern method of dual primary training. He admits to "appearing to be behind the times" but his faith in developing the beginners' feeling of responsibility has given completely satisfactory results.

This method takes longer, but the low accident rate amongst our inexperienced pilots, is the final justification.

A highly successful raffle was concluded on Christmas Eve, when we earned enough to pay off our next instalment of the Kemsley Loan and gave great satisfaction to our 50 prize-winners. The attraction of offering amongst other things, half-a-dozen nylons as one prize, and a half-case of whisky as another prize, made its success a foregone conclusion. We are indebted to the organisers in chief—Hal and Pat Thorburn and to the many prize contributors.

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WE now possess a large selection of back numbers dating from 1934 onwards. If readers desirous of obtaining copies will state their precise requirements we shall endeavour to accommodate them. There is a wealth of interesting and instructive detail in the matter of these numbers and, glancing through them, one cannot fail to be impressed at the rate of progress made in the movement which was in its infancy in the early 1930's. Price: 2/- per copy, January, 1948 onwards; 2/6d. for all preceding issues. Both prices include free postage to any part of the world.

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