Sailplane and GLIDING

2/6

DECEMBER 1956

The Compliments of the Season

EVERY now and again we rouse ourselves out of our torpid slumbers and start wondering How Things are Going, and we have suddenly realized that this will be our last issue in 1956. So it would not be a bad idea to see how the year has treated us.

Well, we are All Right. S. & G. is All Right: circulation creeping up, bank balance faintly black, no reader has recently sent us any Rat Poison for personal use. The British Gliding Movement is All Right, clubs are full or over-full, a few of them are even solvent, enthusiasm high. Nick Goodhart and Frank Foster have shown that we still know how to fly.

A curious feature is that the ordinary Press is taking less notice of us than before. We think the reasons are two. The first is: we are no longer generally believed to be Mad. The days are over when a Press report of a perfectly ordinary cross-country flight reads: "Caught up in a freak wind, glider pilot Snooks was carried 27 miles and crashed in a field near Little Woozlebury. Pilot and aircraft escaped undamaged." A perfectly ordinary cross-country flight is no longer a sensation.

On the other hand, we have not grown to the size where we can claim our place in the normal Sporting pages of the daily press alongside sports which are watched or gambled on by almost millions of people.

The only ways of still getting really full coverage, from *Daily Yowl* upwards, is to go up in a glider when a great-grandmother, or, if you are an exuberantly nubile blonde, to have your photograph taken obscuring the outlines of what would no doubt be a really beautiful sailplane if only one could see it.

This may slightly increase the numbers of elderly ladies and exceptionally curvaceous young ones in our clubs, which will be all to the good, but by and large the main burden of the day will continue to be carried by ordinary chaps like you and me, just quietly soaring around without any fuss or bother.

So keep it up, and may we wish all our readers

A Merry Christmas
and a Happy New Year

SAILPLANE AND GLIDING

OFFICIAL ORGAN OF THE BRITISH GLIDING ASSOCIATION

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Cover photo: Soaring over Muottas-Muraigl, Engadin. 7,500 ft. above sea level. Photo: T. Heimgartner, Zurich.

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Hans Nietlispach beside the Spyr two-seater at the 1954 World Championships in Derbyshire, where he led in the two-seater class on the first competition day. Seated is his co-pilot, Bernhard Müller.

Swiss Long-distance Route for Sailplanes

by Dr. Hans Nietlispach — PART I

This account of a magnificent 333-mile flight in a Slingsby Sky has been translated by Stephen Wills and is reproduced by courtesy of Swiss Aero Review.

UNDER this resounding title should also be mentioned what took place on the evening before July 6th, 1955, that was to have so unpleasant consequences during my flight.

Various people had got together for a bottle party in a student's college to recall memories of forgotten days. I had already listened in to the weather forecast and found out that tomorrow would probably be no good and in a faintly tipsy way I was rather expecting the worst. However this didn't last and hope was restored by three glasses of spiced wine. Thus before midnight I lay in Orpheus' arms, not before having rung Kloten to find out how the weather was developing. I slept the sleep of the righteous and the next morning set about my normal preparations.

The Met. prophesied a N.W. wind in east Switzerland with rain, and a north wind with fair-weather Cu. in the west; the Mistral was forecast in the Rhône valley: wind 35-40 Kts at Mt. Ventoux. Cloud base was expected to be not more than 1,400 m. above sea level, with moderate instability and not very pronounced thermal activity. The upper wind chart showed a northerly wind in the lower Rhône valley, and if one got there the marginal conditions of the earlier part of the flight to the S.W. would be made up for by increased groundspeed. I rather turned my nose up, firstly because of the tame N. wind and secondly because I wasn't feeling so well this morning.

I thought fleetingly of the previous evening and then buried myself in my preparations. A goal had to be given. Montelimar was out of the question, and if I got to Valence I could also reach Mt. Ventoux, and from there I could reach Salon in a straight glide. Also Salon-de-Provence was 420 km. by my blue waxed map. I couldn't really believe that I'd get there, but this always seems the case when one sets one's goal.

I fought with my maps, people smiled at

Challes-les-Eaux, the well-known French gliding centre just south of Chambery, over which Dr. Nietlispach passed on his remarkable flight in a "Sky" from Switzerland nearly to the Pyrenees. British pilots have often attended courses here.

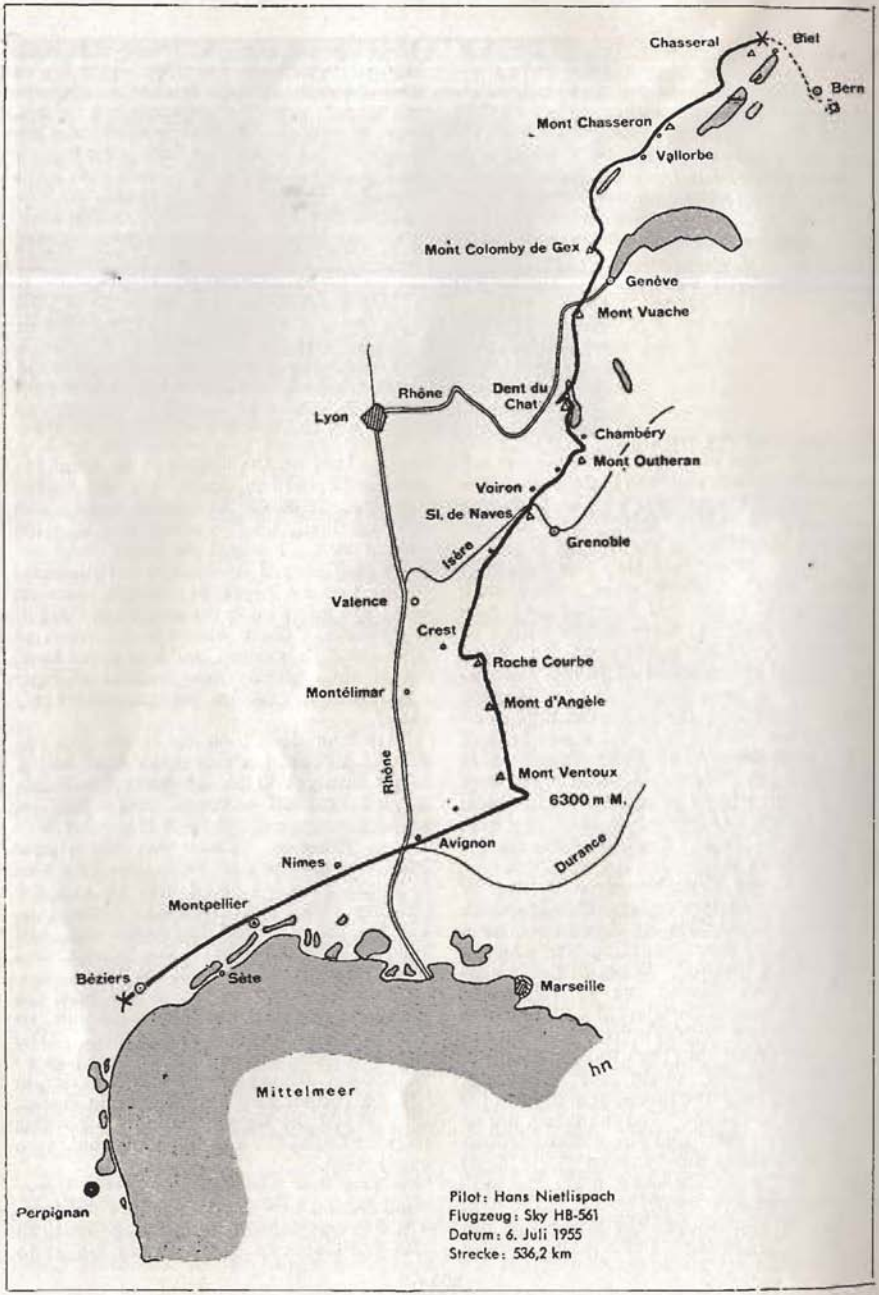
me, and then we were away. With Fritz Pfeuti in front in the Stinson we set off round the airfield and then to the Juras. The tug wasn't behaving itself very well but was beginning to bump about, and an unpleasant sensation in my midriff began to get worse. What had they put into that spiced wine? White wine mixed with champagne, bright red cherries and pale wood-strawberries, funny yellow lumps of pineapple and God knows what else. What an infernal mixture! Beni Müller's strawberries came to my mind and my salivary glands started the day with a doubtful overproduction. Gusts over the wings became more unpleasant, and Fritz thoughtlessly kept piling on the coal. I began to feel very ill, but there was no going back, as the point of no return lay behind us, and so I surrendered to fate. I would have to go through with it.

Thus young Fritz towed on a heap of misery to the eastern outlet of the Chasseral. In order to complete my depression, for a long time we found nothing that vaguely resembled a thermal. When at last a convulsive heave caused me to release at 10 o'clock over Courtelary, I couldn't even hold my height. Fritz circled round once or twice sceptically and then took himself off. I flew listlessly along the Chasseral, swallowing hard and throwing glances at the cloudbase above me. The mountain hid its head unmercifully and the cloud shadows crept irritatingly slowly from N. to S. at about 10 k.p.h. Underneath lay the well-remembered aerodrome: how I had to fight myself not just to open the brakes and put an end to my misery. For a long half-hour I fought against this temptation until at last, at last! on the heights of St. Imier the vario indicated 1 m. climb. The Sky for the first time regained its release height and climbed finally up to a cloud base of 1,400 metres a.s.l. I wiped the sweat from my brow and groped forward in the direction of the Vue des Alpes, persistently ignoring what was going on in the neighbourhood of my mouth. There wasn't much room to play about in between land and cloud base, yet thermic activity now became stronger and I could rely on ½m. per sec. under every cloud.

One hour dead took me to the Vue des Alpes. I could scarcely understand how I could have got 30 km. on the way to Salon in this hour of suffering, and again an aerodrome enticed me from down below—it was Planeyse. There was Alwin now bumbling around with his motor: how nice it would be if we could only be together chatting about this and that. Instead, as Goethe put it, "half fascinated and half repelled" (by the devil), I was being drawn as by elastic bands towards the Neubergers.

However, I wanted just to see what the position was over the Creux-du-Van, so slowly I flew over to the Racine. The thermals were still as thin as your legs so that 50 cm. around them was the maximum lift. A further half hour's fighting ensued until at last the happily flapping Swiss flag over the Creux Du Van was somewhat more easily seen.

It was half past twelve and the upper wind should now become a little stronger. The flag was pointing near enough south so that the slopes of the Areusetal ought to


Chasseral
Biel
Bern
Mont Chasseron
Vallorbe
Mont Colomby de Gex
Genève
Mont Vuache
Rhône
Dent du Chat
Lyon
Chambéry
Mont Outheran
Voiron
St. de Naves
Grenoble
Isère
Valence
Crest
Roche Courbe
Montélimar
Mont d'Angèle
Rhône
Mont Ventoux
6300 m M.
Avignon
Durance
Nimes
Montpellier
Béziers
Sète
Marseille
Mittelmeer
Perpignan
Pilot: Hans Nietlispach
Flugzeug: Sky HB-561
Datum: 6. Juli 1955
Strecke: 536,2 km

have something to offer. And so they had; for the first time the vario shot up to two metres/sec. I became busy and nursed the green ball like a father, squeezing the last drop out of the lift. At 1,600 m., the maximum height up to now, I steamed off towards Mt. Chasseron, on the north side of which a fine 4 m./sec. thermal carried me to 1,800 m. Then the Aiguilles de Baulmes and hopefully to Mt. Suchet. There I cast around for some time under good-looking clouds without finding anything for my trouble. And so off to Vallorbe.

However, instead of finding any thermal, the little height I did have melted away visibly until I was hanging 200 m. over ground level above Vallorbe. I made a short uncertain search in this unfriendly ring of mountains with the oppressing certainty that within the next two seconds something had to happen. Suddenly the Sky received a 4*g* shock which chattered my teeth two or three times. I had felt this strong lift under my left wing and I attempted to centre: the result was lift of the order of 3 m./sec. with the indicator alternating wildly. With every circle I was thrown backwards and forwards seven times and my tongue began to thicken in my mouth. Again a cold sweat began to creep over my face, my salivary glands were working harder than ever, and my air-sickness bag, which had also to serve for other things, was in constant readiness. However, it was no use my ranting to the crows; all that was left me was a heartfelt verbal tirade against that accursed punch. And thus I tortured myself up to 1,800 metres, and as I pushed off in the direction of the Lac de Joux I only regretted not being able to throw out a full bag into the unfriendly frying pan of the Vallorbe. Yet this tight spot seemed to have a good effect, for from now on things went much better and I had no more trouble with my stomach or the salivary tracts of my mouth.

My route now lay northerly from the Lac de Joux—south of the lake there wasn't a cloud to be seen—in a gentle arc over Le Brassus, St. Cergue sur la Dôle, where I climbed a good 1,800 m. in a short time, then on to Mt. Colomby-de-Gex. Here I believed the north wind to have sufficiently given way to the Bise for me to be able to soar on the S.E. slope of the mountain in promising thermal conditions, and to reach the Crête-de-la-Neige and further to Fort de l'Ecluse, over well-known ground. But I was wrong and was riding the wrong horse. Whilst on the N.W. slope the lift blew unused, the Juras bucked me off like a malignant animal. Floundering around over the Geneva plain, I looked back and recalled how Jonah had been cast up out of the whale onto dry land. Where had I gone wrong? I hadn't flown accurately over the crest of Mt. Colomby! A correction of my drift should have led me straight to the right slope. Plain, idiotic stupidity. I would have to watch this.

Yet in the meantime I wallowed on. The smoke from a high chimney was blowing straight towards Mt. Vuache. Cautiously I minced past Cointrin, elaborating on any tiniest particle of small-breasted lift. I just had to reach Mt. Vuache. Slowly and steadily I got lower and lower and things came to a crisis again. Here I lost 50 m. height and there I allowed myself to mess around in negative sink. Finally, looking down from 200 m., I decided to fly straight for the mountain. The ground and Mt. Vuache together came nearer.

Luckily, however, it also went upwards, although one couldn't have known it except topographically or meteorologically. Tensed like a grasshopper's hind leg ready to leap, I flew straight at the slope, still at 650 m. above sea-level by the altimeter and actually on approaching the slope I began to climb at first quietly and then strongly till the vario finally reached 4 m. per second. Soon the mountain began to lose its outline. Thankfully I looked down on its broad shoulder and then buried myself in the cloak of invisibility above me.

Directly the vario registered zero I set off on a S.S.W. course. Coming out into the sunlight again, I now had time to reorganise myself. The barograph was still ticking, oxygen holding its maximum pressure, mask and its connections in order, the map, Maritimes les Alpes, ready, and the eatables in place. A bag was cunningly fitted, but with difficulty, as it was so, so cold.

A glance at my watch showed that I had already been under way four hours and I hadn't put behind me half of my pre-planned distance. This was very worrying, yet I reckoned that my ground speed would soon increase and that I would have to reach Mt. Ventoux by 19.30 in order to land at Salon. I had 5½ hours left to get to this mountain, which was tight with an indicated ground speed of 40-45 k.p.h. Luck, in spite of the difficult weather conditions, was

now to be seen and I began to believe a little myself that I would succeed. I flew over the Mt. des Princes at 300 m. and left it unused and went on to the Mt. due Gros Foug against whose peak I slowly sank down. I watched it like a hawk to see which was the correct slope. And I was right; as I crossed the upcurrent directly over the peak in straight and level flight, it became obvious that not the N.E., but the steep western slope faced the wind. Goodness, it has been said that gold can't be smelt.

I set off over the Lac du Bourget and essayed the two slopes of Mt. de la Charvaz and again the western slope was the fruitful one, and equally so at the Dent du Chat. Here again the cloud base was at 1,400 m., thus hiding the Katzenzahn peak. On an outcrop I watched with interest a party of nurses who were climbing the mountain. I flew right alongside and winked at them. When I had passed them and turned to repeat the performance, cloud had enveloped the outcrop and a few raindrops splashed on the canopy. Cloud base came yet lower and things began to get unpleasant. I doubled around the Katzenzahn and slipped away in the direction of Chambéry. South of Chambéry stands Mt. Outheran which sends out two spurs northwards, and the city is cradled between these two giant arms. In the basin between them the raw north wind was being swept up onto the broad breast of the mountain.

And I had to get there. Even though the entire ridge of hills had been curtained off, cloud base frighteningly low, and hardly a sunbeam showed beneath the murky grey, this was the only chance of the flight coming off. When I reached the valley the altimeter showed only 700 m. above sea level. The 150 atmos. oxygen equipment appeared ludicrous to me for the three-dozenth time and Challes les Eaux grew rife with doubtful remembrances. Yet after a little searching I was again wafted upwards. Soon cloud base at 1,300 m. impeded further climb and I had to fly around westwards over the wooded slopes of Mt. Outheran in order to reach the Col de Couz after Les Echelles. I will not quickly forget that Col de Couz. To the right and left lay fog-laden wooded slopes where invisible wires and cables were to be expected, and the whole 10-km. corridor was overshadowed with a uniform unbroken layer of cloud into a dull half-light. Here also I crept through. I could allow myself this cement-cylinder technique only because I knew the form from earlier flights when I had, ah! so majestically flown through.

Over Les Echelles was complete cover, a dark grey at 1,400 m., and, oh wonder, gentle lift all round; only 20-30 cm., yet this sufficed to hold a course of 210° at 1,380 m. a.s.l. with 90-100 k.p.h. on the clock. It was really quite fun keeping the altimeter at 1,380 m. Now and then I had to raise rather reluctantly a threatening finger at an unruly vario and put up my speed to 130 k.p.h. Thus I passed Voiron at 3 p.m. and the cloud capped Sl. de Naves after St. Jean en Royane, and flew thus 50 km. without hardly describing a circle. It was a unique picture to fly along the ribbon of the Isère as if under the dark eaves of a long house, whilst 10 km. to the west the sun was shining on the green fields. How soothing was the art of soaring flight!

A great bonfire down by the Isère was emitting billows of smoke to the south. I estimated in the circumstances how fast a

cyclist would have to pedal to keep up with the cloud of smoke. He would have to be at least as good as Coppi was in his prime. The wind speed had now risen to 50 k.p.h. The bonfire anemometer was very useful to me, since under this complete cover it was impossible to follow any fleeting edge of cloud. It appeared also that I was finally through the cement-cylinder and out on the other side of the mountain. The wind speed had increased fourfold since the beginning of the flight and the ground speed had increased accordingly, especially during the present peculiar position at 1,380 m., and unless the devil arrived on stilts I must reach Valence, still at least 40 km. away. I could already see it, and the barometer of my spirits rose slowly but surely. At 3.45 I arrived at Valence at the proud height of 1,500 m. Cloud base had again raised itself somewhat, the sun streamed in a friendly way through the clouds, and I flitted on at 100 k.p.h. to the south. Now and then I had to guard myself from tipsyness, for this was child's play compared with the battle of the cement-cylinder. Pierre Chauve, La Raye. Here Werner Schatzmann and I had veered to the right in order to enjoy the delights of Montélimar.

I kept this time to the left over the gently falling surroundings of the Vallée du Drôme, on whose south side runs a chain of mountains from west to east. From Crest to the Roche Courbe (1,592 m.) this long-extended slope offers its brow to the on-rushing air masses of the north, changing its gigantic flow into hill lift. Near the Pas de Lauzun I reached the 30-km. long slope at 700 m. after I had flown rapidly across the wild Tal des Drôme. This valley looks like a field of ruins without any landing-place, burnt up by the sun like a moon landscape. I was glad to find 5 m./sec. over the slope, and set off eastwards towards the Roche Courbe, whose peak I reached travelling at the order of 130 k.p.h. Without wasting any time I followed the crest of the Roche Courbe, which runs southwards, and arrived at St. Nazaire le Désert (truly an inviting name) and kept on at 140 k.p.h. to the Mont d'Angèle. The Mistral was blowing at 70 k.p.h., thus I reached the Angèle at an uncanny speed. This Angèle appeared very much like homely Belpberg at the starting point with its trapeze shape, only it is almost four times as high. It stands alone exactly in the midst of a sunny desert of rocks amongst which a landing is quite unthinkable. The raw Mistral was blowing full in its face with all its force. To-day, set up coquettishly over its summit, was a small white cap which immediately interested me strangely. The base of the cloud was 50 m. above the top of the mountain and its upper borders were in the form of a skull cap; just like an English battle-helmet, most peculiar. Yet the hat of the Angèle was somewhat individualistic.

As I allowed myself to be thrown upwards by the slope lift of the Angèle at 5 m./sec., I had a brief opportunity to collect myself. The last kilometre had slid by at 120 k.p.h. The clouds, whose base had risen somewhat, were sparser. The declining sun also had its effect, and the cap over the Angèle appeared to be the last cloud formation to be seen on my way to the south.

And so it was. As I glanced between the now attained mountain edge and the base of the cloud, there was no other cloud to be seen. But nevertheless my heart was full of joy, for I caught sight of it: that stately mountain wreathed in myth. I pulled out the brakes so as not to disappear into the Angèles helm and waited five minutes, keeping it in view.

To be continued.

ADDICTION

by Brenda Horsfield

(Reproduced with acknowledgments from "Lasham Gliding")

THEY told me I was cured—two years going straight and I'd be able to take it or leave it, to look back unbelievingly to the time when I spent whole weeks turning crazy for a "fix". They were wrong.

I slunk back on to the aerodrome one Wednesday afternoon in April and asked casually for a couple of circuits, just to check on my resistance, and I knew before we were twenty feet off the ground that I was a goner.

Of course there had to be some readjustments—invitations to be cancelled, responsibilities to be shelved, dogs and children to be given away or lost, intimate friends to be dropped for ever, smart clothes I'd never need again to be sent to refugees or cut up for sleeping-bags. It was all pretty tough on the nerves and I tried to forget all those fine people who had helped me make the Big Break—lending me dark glasses, taking me to cabarets and bottle-parties, introducing me to hashish and absinthe, teaching me poker, chemin-de-fer and roulette, anything to ease the craving and keep me from gazing at the sky. Glider-Pilots Anonymous they used to call themselves. I hoped they'd be big enough to forgive me.

* * * *

When I regained consciousness, a confirmed addict, I couldn't see anyone I knew, but I could tell by the way the C.F.I. growled when I got too near the gliders that he remembered me well enough. As my head cleared I realised there had been some changes around the old clubhouse—there was a red light in the ladies' bunkhouse and electric blankets as well; hot and cold water in segregated washrooms; a drying cupboard for clothes and racks for storing parachutes. Barographs lived in a hut of their own and so did Ann Procter and Derek Piggott. Bill Gotch was managing things pretty furiously from dozens of caravans connected up in series. Lots of members were surprisingly married and lots of other members just as surprisingly weren't. Only the Elsans seemed to have stayed the same, like a sort of lodestar, and I started out again from there, finding my way around the aerodrome like an archaeologist tracing a lost city from its drainage system.

Time passed and I learned that at about 9 o'clock on a Sunday morning chalk is at a premium, and the crafty type with a piece of his own has a very good chance of getting his name on the top of the flying list, while less worldly and experienced members are still messing around with patches and dope or filling decrepit retrieving cars with petrol. One of the more sinister developments was the fact that people were going around with pieces of chalk concealed about their persons. Naturally I took immediate steps to acquire some private chalk, but my summer wardrobe, and my person, being what they are, I have so far found no way of concealing it, and so I fly as little as ever.

With regret I discovered that winching has become a lost art. Winches are now cherished and maintained by a band of eccentrics rather like those people who go about protecting the constitutional rights of ancient tramways or founding homes of rest for derelict steamrollers. To get a winch driven, one should apply to the secretary of this curious society, giving three days' notice in writing and stating whether one's intentions are honourable.

Furthermore, the whole winching business has changed. On approaching a winch one Sunday afternoon I was surprised to find a party in progress. At intervals of about 40 minutes one of the guests would see a signal from the aircraft, retire reluctantly from the festivities and go through the motions of hoisting the importunate glider into the air. More often than not there would be a cable break and the winch-driver would set off with sandwiches, thermos flask and a vast bag of tools to mend the wire.

Long ago I remember having to visit a

public library to get the real low-down on the fisherman's knot that used to be considered *de rigueur* for mending the 25-cwt. cable. The ends of the knot had to be hammered against the sharp edge of a hunk of mild steel before they consented to part. Now all is quite otherwise. The lighter cable looks deceptively less lethal than its predecessor, but I have learned that it has diabolical qualities of its own. To make a join in it that will not foul the rest of the wire on the drum calls for a combination of advanced creative thought, skill and strength that would qualify a chap for the highest posts in industry. Just the same, winches, which I had always thought of as dangerous animals like lion or rhino, have obviously lost the respect accorded to them in any well-conducted jungle.

Beaverettes, on which I logged hundreds of hours, are now discredited if not actually obsolete, and are given only menial tasks like opening hangar doors and pushing vehicles that do not start. Meanwhile various outdoorish people have learned to drive the tractor, a curious form of sporting activity, lonely and contemplative, rather like fishing.

For a week or two, while recovering from the shock of my "relapse", I had a very pleasant time on the aerodrome, just holding pliers and so forth for people, leaning on aircraft, and watching things like cushions to see that they didn't escape or burst into flames. I held wingtips, while passed-out, O.K.'d people did D.I.'s and squirmed around on the wet grass peering wisely into inspection panels. Answering to calls of "hi!" and "you there!" I walked cretinously round the hangar manoeuvering machines. I even helped some happy character pivot an Olympia 14 times before getting it to the light of day. I became very, very happy and relaxed.

But the thing that struck me most, with that sudden stab of poignant regret one gets on revisiting one's old nursery or reformatory, was how small everyone had become since I went away. Members I recalled as being fully grown were walking around with their arms full of cushions, eiderdowns and even mattresses. They seemed obsessed with the need to see out of gliders. I thought for a while that they had all become soft-bottomed, but it wasn't that—they had just plain shrunk, or the gliders had got bigger. One or the other . . .

* * * *

Now, three months after my return and fully conditioned to those lost weekends, I can just feel occasional twinges of nostalgia for "outside", that half-forgotten world in which a field is a place for keeping cows in or growing oats in; in which a build-up of cumulus over Piccadilly on a Monday morning doesn't bring on a neurosis; in which all roads do not lead inexorably, and expensively, to Lasham.

RETURN TICKET FOR "LADY GODIVA"

Two members of Coventry Gliding Club describe how, scorning an aero-tow, they delivered their T-21b two-seater by air, first to Edgehill for the club's summer camp, and then back home after the camp was over.

Part I
by Vic Carr

OUR summer camp at Edgehill was due to commence at the weekend. Our local Aero Club were still promising that they would be ready to tow by Saturday, July 14th; but there was still no hook on the Tiger Moth.

When Wednesday dawned, the sky was completely clear and I determined to have an attempt at delivery of our T-21b, "Lady Godiva", by air. I had first to contact Louis Glover, to whom I had promised the second seat, and John Colvin and Norman Bell to help with the launching.

The first Cu appeared soon after 10 a.m. and by the time I reached the airfield there was 4/8 of the very best, based, the met. man said, at 4,000 ft. After the launching run had been arranged with the controller, what wind there was turned through 180°. The first launch was a shocker, and two more quick circuits followed without result. On the fourth launch we found the first green air of the day directly over the local garbage tip. At 1.40, ten minutes after take-off, we found ourselves at 2,900 ft., still going up fast. By two o'clock we were again back at Baginton, not having smelt another thermal. However, at 2,800 ft. further warm air came to our aid and at 5,600 ft. we at last took our feet out of Baginton and set course for the next leg, Gaydon. Down to 3,000 ft. we found another thermal and had our first good look at our goal, which still looked a long way away; this is more than can be said of the Valiant which chose our thermal to gain a little extra height.

At 6,000 ft., 200 ft. in cloud, I lost the centre of the thermal and re-set a course to the south. From this last thermal we dived at Edgehill slightly in excess of 70 knots, to beat up John and Rose Greenway who were at work on the aerodrome. We landed at 3 p.m., 90 minutes after taking off, and the sky still looked as good as it had done when we started.

Part II
by Jimmy Joss

WHEN, at the end of our summer camp, we found ourselves in a similar position to the beginning, of having the T-21 at Edgehill without any facilities for a tow home to Baginton, it was arranged that, on leaving the club on Sunday, August 19th, I should ring Ivor Tarver if the weather proved to be anything like sure enough over the next two days.

Came Tuesday, and I felt that conditions, with a slight sou'-westerly breeze

and good Cu with base at about 4,000 ft., were good enough for an attempt. Ivor was delayed ten minutes by cornering his boss and telling him that a situation of extreme emergency had arisen, necessitating an afternoon off.

Thus we happily set off at a belting pace of about 70 m.p.h., Edgehillwards, thirty miles away. Forty minutes later we were knocking on our friend John Greenway's farmhouse door with the intention of asking for his co-operation in providing an auto-tow with his Zodiac. Rose, his wife, however, informed us that John was at Stratford-on-Avon cattle market, so some 14 miles and 20 minutes later we found ourselves tramping between cattle, avoiding piles of pancakes and bleating sheep. Luckily, after several abortive circuits, we found John.

Back at Edgehill, a crosswind launch from the hangar only developed 400 ft. The next attempt at 14.45 resulted in a launch of 600 ft. As in most stories of this nature, the green ball eased itself off its seat with the altimeter reading 500, and things improved as we waved goodbye to the Greenways and made our way up in steady 10's to 1,800, where finger trouble was high and our spirits low as I lost it.

A steady glide back over the ridge via Tysoe village until we were again down to 500 ft. over our own hangar, and at 400 ft. yet again good fortune was with us. We worked our way to the critical height of 1,800 ft., where this time 20's were encountered that set the altimeter and Ivor's eyes rotating; this, coupled with sighs of relief, took us to cloud base at 3,800 ft.

With an obvious clamp approaching from the south-west and what appeared to be a slight deterioration of conditions to the north, it was now or never. We set course for R.A.F. Gaydon, arrived there at 15.20 at a height of 2,800 ft., met lift averaging twos, and after 20 minutes struggle had drifted to Bishop Itchington with a height of 4,800 ft. Back on our heading with complete deterioration of conditions, slight rain and no sun-spots anywhere, we found our last thermal which gave us 4,200 ft. at Radford Semele, with Baginton Aerodrome in view some seven miles away. The smoke from Long Itchington cement works chimney indicated that the wind was now freshening westerly, and with the rain turning to hail we viewed the prospect with some misgivings.

From what appeared to be a decaying street, however, reduced sink was obtained which enabled us to reach a point from which we were confident that the glide home could be achieved. Our judgement completely up the spout, we found ourselves at 16.00 hrs. approaching the perimeter of the airfield, quite cold but laughing our silly heads off at 2,000 ft.

Exploring the Sea-Breeze Front

by J. K. Mackenzie

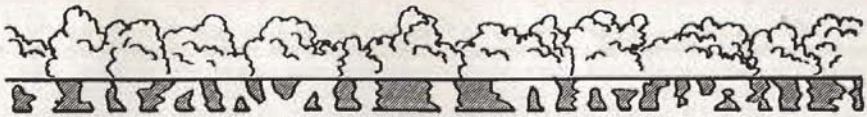
I HAVE noticed, in several articles about cross-country soaring flights, references to the "sea-breeze effect", but have not yet seen any accounts of the structure of this phenomenon. During the last two seasons at Lasham I have become very interested in the "sea-breeze effect", and have observed and studied it on several occasions both from the ground and in the air. I made a flight on July 6th, 1956, in the sea-breeze front, which taught me a great deal about its structure. After describing this flight I will give some general facts about the sea-breeze effect, which I have learnt from other observations as well as this flight.

During the early afternoon of July 6th, 1956, at Lasham, the wind was W.N.W., 20 knots, and the cloud was 4/8 Cumulus, base 4,500 ft., tops about 7,000 ft. a.s.l. I first noticed a long line of Cumulus with dark hanging wisps to the south at 2.30 p.m., and was launched by air tow to 2,000 ft. at 3 p.m. After about half an hour of circling in rather weak lift over Lasham, I reached 4,000 ft. a.s.l., with the Cu base some 500 ft. above. I then steered toward the line of Cu, with wisps, which appeared to be some 8-10 miles south of Lasham. I passed through a belt of downdraught on the way and reached the wisps at 2,500 ft. a.s.l. midway between Alton and Petersfield. The lower limit of the wisps was then about 2,400 ft. a.s.l., with the solid Cu above, base 4,500 ft. a.s.l. I found quite strong lift immediately and started circling, mainly in the wisps.

After an initial climb to 3,100 ft. a.s.l. I found myself out of the lift and sinking steadily. I had unwarily drifted to the south of the line of Cu and was in stable cool sea air which was void of lift. The line of Cu was still advancing northwards, and I had apparently been left behind while fumbling about in the wisps. On realising this, I rapidly proceeded on a N.N.E. course towards the best-looking wisps, but lost a lot of height in the process. I was down to 1,400 ft. over Frensham Pond and, being 10 miles downwind of Lasham, I didn't fancy my chances of getting back against a 20-knot headwind. I found some weak lift over Frensham Pond, but, seeing some rapidly ascending wisps over Farnham, I flew to them and found very strong lift by circling half in and half out of one of these wisps.

When at 2,000 ft., I realised that I was getting by far the best lift in the clear air just on the landward (north) side of the wisp. The long E.-W. line of wisps had by then amalgamated into a solid wall of cloud over Farnham, so I changed my tactics, and soared in straight lines, keeping just on the landward side of this wall, with one wing tip grazing the wall of cloud. This was very similar to mountain soaring, with a wall of cloud instead of a mountain slope.

After two beats of about a mile up and down this wall, gaining height all the time, I saw that a line of wisps pointed towards Lasham, which was then about 10 miles west. I flew straight along this line, keeping just to the landward side of the wisps, and gained height steadily without circling, so that when I arrived back over Lasham at



LINE OF CUMULUS AND WISPS MARKING SEA BREEZE FRONT:—
FIG: 2 LOOKING SOUTH

4.20 p.m., I was at 4,000 ft. a.s.l. I had been airborne for 1 hour 20 mins. I stayed up for another 1 hour 40 mins. in the vicinity of Lasham making further observations. I tried circling in the strongest lift, and found that it didn't work half so well as soaring in straight lines along the "front" of wisps. I tried circling in and out of the wisps, and again found that the strongest lift was in the clear side on the landward side.

I also discovered that there was a peculiar shear zone between the cloudy air of the wisp and the clear air just to the north of it. On passing from one to the other, the airspeed varied by as much as 15 knots, one wing would suddenly drop, and the aircraft would slip or skid violently one way or the other. Sometimes the wisps were small and isolated, not joined to the Cu's above, and at other times they grew and amalgamated to form a solid wall of cloud from 3,000 ft. a.s.l. to the Cu base at 4,500 ft. a.s.l. In the latter case the lift seemed to be at its best, occasionally reaching 15-20 ft./sec. The belt of lift associated with the front on this occasion was very narrow, being only 300-800 ft. wide, but on previous occasions it has been considerably wider.

At 4.20 p.m. the front had arrived over Lasham (Fig. 1) and until 6 p.m. it stayed within two miles of Lasham, only pulsating slowly back and forth across the airfield. It would appear therefore that this was the northern limit of the front on this day. I watched the smoke from a fire about two miles west of the airfield, and noticed that it indicated a W.N.W. wind when the front was to the south, and a S.W. to S.S.W. wind when the front had passed over it and was to the north. For a time, while this change was taking place, the smoke rose almost vertically towards the wisps near which I was flying.

I landed at 6 p.m. with the front still over Lasham and still as active as it had been earlier. I subsequently noticed that the E.-W. line of Cu remained active until after 9.30 p.m. even though 7/8-8/8 stratocu. had spread over it. The line was then 4-5 miles south of Lasham. Had I stayed up, I would have discovered whether or not the lift would have been sufficient to support a glider until this late hour.

In order that the sea breeze may start, there must be a contrast between the land and sea temperatures. This contrast may be as much as 15-20 degrees F. in good examples. If the offshore component of the land wind is not too large (i.e. less than 10 knots), this temperature contrast will cause a sea breeze, which starts at the coast a little before noon and subsequently penetrates up to 40-50 miles inland. For example, with a land wind of 10 knots from the N.W. and a sea temperature of 50 degrees F. off the South Coast and an inland temperature of 70 degrees F., a sea breeze would set in over the South Coast at about midday. This sea breeze would reach Lasham between 3 p.m. and 6 p.m. as a S.S.W. to S.W. wind of 5-10 knots. There is normally a well-marked boundary or "front" between the cool moist S.S.W. sea breeze and the warm dry N.W. land breeze. On convective days this front is marked by a line of large active-looking Cu joined together to form a roughly E.-W. cloud street. Either the bases of these Cu are much lower and they are of greater vertical extent than the ones to the north of the front, or there is a line of peculiar dark wisps hanging from their base. This line of Cu would be visible from Lasham looking S. between noon and 3 p.m. and would be seen to advance northwards. (Fig. 2.)

When the front passes over Lasham the wind will quite suddenly change from a warm N. W'ly to a cool S. W'ly, and pilots launched during this change would probably find an area or belt of lift in which height could be gained without circling. When this front has moved away northwards, the air over Lasham will become stable and only very weak thermals will be found with very limited vertical extent. It should also be mentioned that about 5-10 miles to the

north of the front there is a belt of down-draught which must be crossed quickly to the south if local soaring is to be continued.

Now I will attempt a preliminary explanation of this phenomenon. One would have expected a line of Cu and lift where the land and sea breezes converge. But the wisps were forming in the cool moist sea air, in which one would have expected no vertical motion because of its stability. It was found, however, that the vertical motion in the sea air was confined to the very narrow band which was in contact with the more rapidly rising warm land air. As this is the case, I think the rising wisps develop, not because of their own instability, but because of the friction supplied by the rapidly rising warm land air against the surface of cool moist sea air (Fig. 3).

I hope that next season more will be discovered about this effect, and that someone will be able to use it to establish a speed record, to prolong a duration flight or to lengthen a cross-country.

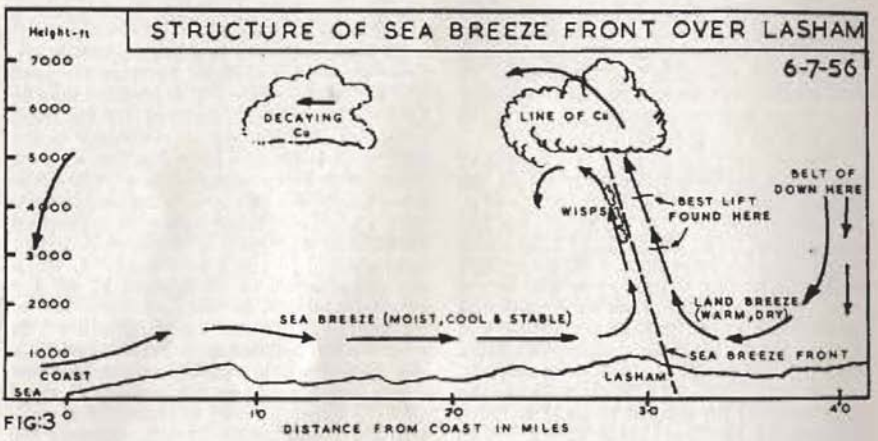


FIG:3

To Yorkshire by Olympia

by Sergeant A. Gough

(Wessex Gliding and Soaring Club, R.A.F. Andover)

I AM superstitious about pre-flight planning. All it has ever seemed to do for me has been to ensure a speedy return to earth. So, although the weather on Whit Monday morning promised to be as fair as on the previous day, but with a south-easterly as opposed to a westerly wind, I made no particular preparations and declared no goal.

I climbed into the Olympia IIA at 12.25 and was launched to a miserable 600 ft. Spitting (metaphorically) in the direction of the winch driver, I turned away and was fortunate enough to "bump" a thermal which, delicately worked, took me to 4,000 ft. in the next half-hour. There was now the alluring prospect of exploring the Welsh mountains for standing waves, so the course was set downwind, i.e. north-west.

Over the chalky soil around Cheltenham the thermals became stronger and cloud base lifted to 5,400 ft. As I approached Hereford, smoke from fires on the ground and the fact that I was drifting to the north

of my set course indicated that the wind was freshening and veering to the south. These changed conditions called for a change of plan, and I decided to try for Gold Distance.

A turn to the north produced a noticeable increase in ground speed, and Birmingham soon appeared to the east. I found my best thermal of the day over Wolverhampton, the Horn variometer reading maximum climb from 2,000 to 7,400 ft., the last 2,000 ft. in cloud. Thermals in general were very strong, but owing to the quite strong wind the technique had to be to find the "core" of each thermal and circle steeply in it to avoid being thrown out. This particular thermal "petered out" while I was still in cloud, so with the compass showing due north again I continued on my way at a speed of between 60 and 80 knots (depending on the rate of "lift" and "sink" encountered).

North of Manchester a draw-back of my happy-go-lucky attitude to pre-flight planning demonstrated itself: I flew off my map. Not that this was a grave disadvantage. Cumulus is not marked on maps, and since at this time the healthiest cumulus in the sky seemed to be over the Pennines that was the way to go. In any case, they were my obvious next line of advance, since, in addition to using what thermals offered themselves, I could also soar all south-facing ridges. This policy paid off.

Visibility soon began to deteriorate, and Bradford could just be distinguished through the haze. Villages were getting fewer and farther between too, and when I passed over Grassington at 5,000 ft. it seemed to be the last outpost of civilization. With the problem of where to land very much in mind, I flew on for about five miles, but, seeing nothing but unfriendly moorland ahead, I turned back. Here the map would have been useful as it would have shown the valley, dotted with villages, a few degrees to the west.

Selection of a landing field at Grassington was simple—it was the school football field or nothing. I chose the football field. Two ambulances, three fire engines, two police cars and the A.A. were all soon on the scene and seemed disappointed to find me and the Olympia still whole, but everyone was most hospitable. The flight had taken six hours and fifty minutes and the distance covered was 206 miles as the crow flies, so that my average speed appears as almost exactly 30 m.p.h., but as my progress had been anything but crow-like it was really much more.

What impressed me most during the flight was the comfort afforded by the cockpit of the Olympia IIA. It is roomy yet snug and the extended perspex of the cockpit cover is a great improvement on that of the Olympia II. Throughout the flight I was perfectly comfortable, and even though ice was forming outside the cockpit, the temperature inside remained pleasant.

THE BOILED EGG MENACE

by Dennis Bryce

(With acknowledgments to "Uplift", organ of the Scottish Gliding Union)

PEOPLE have two quite different approaches to gliding. The first, and once the most common, was to leap into any old glider and struggle manfully but unscientifically to keep it in the air. Many people still enjoy this sort of thing. But there is the other approach, whose supporters spend their earthbound hours earnestly soaking up wisdom from books of learning in which the print is broken at frequent intervals by sudden eruptions of remarkable symbols like lorgnettes and little boiled eggs in cups. What Doc. Scorer thinks to-day, these types think as soon as it appears in SAILPLANE & GLIDING. It is doubtful whether these people ever

really enjoy themselves, though they appear to get a certain arid satisfaction out of the thing.

These two types could no doubt get along quite happily, with only occasional bloodshed, by completely ignoring each other, were it not for the infuriating superiority displayed by the second type (we shall call them Boiled Eggs for convenience) as they smugly bandy among one another such appalling phrases as "saturated adiabatic lapse rate" and "kinematic viscosity". The Manful Strugglers, conscious that they don't know what the hell the Boiled Eggs are talking about (which is not surprising, because very often the Boiled Eggs don't know either) and determined not to feel inferior, begin, in secret places and in the dark watches of the night, to read all about lapse rates.

And when they do, of course, they are lost. For once they've got the taste of the thing, they just can't leave it alone. They follow the furtive path of perdition, and finally comes their moment of damnation when, with a bubbling of "Convection Turbulence!" they brazenly and publicly embrace the horrid doctrines of the Boiled Egg Creed, and turn their backs for ever on their earthy but honest-hearted friends.

When it comes to designing gliders, of course, the Boiled Eggs enter their own, and there is no holding them. The result is that gliders, which once were built, and flew, like fish boxes, are now exotic marvels which stall at 50 miles per hour and, provided you have read all the books and can find thermals two miles across, will fly to Moscow in an afternoon. And we look into a dismal future in which, in a cockpit already crammed with charts and slide rules, festooned with oxygen piping and equipped with a small library of reliable works of reference, we shall have to find room to work a little pump which sucks God's fresh air off our wings to make the laminar stick on, a prospect which makes the Manful Struggler feel simply terrible. After all, who wants to wear himself out flying five hundred miles? I want to fly for fun. There may be something in it all, but I doubt it very much. If you ask me, people who plunge into thunderstorms with their heads filled with little boiled eggs are simply asking for trouble.

HIGH FUMBLE FACTOR

By Peter Scott

Peter Scott, well known for many years for his studies and paintings of birds, particularly wildfowl, and more recently for establishing the Wildfowl Trust on the Severn estuary, joined the Bristol Gliding Club when it moved to Nympsfield early in 1956, and is now part owner of an Olympia sailplane.

"Now that you've got your C," they said, "if you come up during the week there's no reason why we shouldn't fling you off from time to time in the Tutor, without interrupting the course."

So I went up to Nympsfield on the Thursday. The T-21 was doing circuits and was back on the ground each time before the cable had been retrieved; but as the day developed, the two-seater began to stay up longer. After the first two soaring flights had been occupied with taping up some bad places in the cable and running out of petrol in the retrieving car, there was at last a cable waiting when the T-21 was still airborne. Here was my opportunity—I must grasp it with both hands, or something . . .

Three minutes later I too was airborne. There was no wind at all and I barely squeezed 700 ft. from the launch, but I found lift at once and began to circle. It felt nice and buoyant, but the green ball fell back and the red one bobbed up. I straightened and headed for where I thought the lift should have been, but the red ball only went higher. In two minutes more I was back on the ground—total, five minutes. This was repeated three times and then I found something better. The green ball stayed up at 3, occasionally 5. Even the altimeter needle moved up (slightly). When the green ball dropped back I went on circling for ages in no sink. Rather weak, these thermals, but really there's nothing in this circling business! We could stay up for quite a while—in fact we've already *been* up quite a while. (We? All this "me and the Tutor" stuff.) Hullo, that red ball's going rather high—worse than ten red. Oh dear, it's no good, we'll have to go in. But it was more like a flight—we must have been up at least half an hour. What did you say? Nine minutes? Oh well . . .

The next launch provided fifteen minutes of fumbling at 600 ft., and when I got back there was a cable waiting for an immediate re-launch. Now this was absurd—five launches and I still hadn't hooked myself on to the sky. Something positively must be done this time. If the T-21 can stay airborne for half an hour, and the Olympia is up there circling at 3,000 feet or more, surely, having kept *Soaring Pilot* by my bedside for the last month, I can centre on a thermal and *gain* a little height above the launch? I watched the Olympia circling "effortlessly," and wondered how much mental effort the pilot was putting into it. The silent lazy circles gave no clue, and already the sailplane looked small away up there, a thin little cross, not much more than a speck in the sky. I wondered when I would be good enough, or lucky enough, to become a "speck in the sky". But the first thing to do was to make a positive advance on the launch height; that was the immediate objective. Well, let's have another shot.

"Can-I-Take-Her-Off-Safely—All clear above and behind—Take up slack—All out!" Here we go again. Hold on to your hats. Screaming launch, let's try tail-wagging. He can't have seen it. Oh yes he did—I think we're going to stall. Ah, that's better. Considering there's no wind it's going to be quite a nice launch, 800 ft. Now, what did they say?—"Turn right off the launch and try the little bowl on the slope." Well, let's try it—but it's no good. Not a peep and we're back to 600. We must turn back into the circuit. Hold everything—here it is, a strong turbulent surge, the starboard wing blown into the air—tuck it down again like it says in the book and start circling to the right. You're skidding—too much rudder again! That's better, and the green ball's still shivering at 3 ft. per second. There's the winch immediately below and

The Severn Wildfowl Trust, Slimbridge, from the Air: taken at 4,100 *ft. by Sqn. Ldr. N. W. Orr.*

they're working on the cable again. Quite nice turns now, and still two or three green. Oh look, we're at 1,000 ft. A surge of lift, straighten for three seconds and then into the turn again. Oh yes, five green but not all the time. Now we're going to work at this: let's try the book methods. Worst heading, where's that? O.K., straight up the ridge, it's only 2 green; now 60°, straighten up and into the turn again. Golly, it worked! It's five green all the way round.

This is fun! No wind at all; the winch is still directly below. Wonder if we're interfering with anyone's launch. No aircraft on the ground, and anyway they're still mending the cable. Hey, watch it, the lift's falling off. Green ball's dropping right back on one side of the circle. Let's try the *best* heading method. Five green there—what's just behind the left wing-tip now? Easy—my home beside the bend in the estuary. Round to it, straighten, and two and three and in again. There it is, a real surge of it. It's worked again. It's really quite simple; needs a bit of concentration, though. I wonder why I'm so dry in the mouth—wish I'd remembered to bring those peppermints to suck. The winch is still more or less straight down there. It looks pretty small, we must be quite high. Cor! 2,500 ft. and still going up; not only that but the green ball's going higher now—up to 10. Time to look round and enjoy the scenery, but it's a bit hazy now and rather cold. It's also suddenly rather lonely and frightening with no windscreen, and nothing but a little plywood bucket to sit in. What the hell am I doing up here anyway, and at my age too?

Hullo, not going up any more. Perhaps the thermal has "thrown us out"—let's try over to the north. Yes, there it is again; really strong now, bursts of 20 green. 3,500 ft. and no barograph in the locker. "Never go without a barograph," one of the pundits had told me, but I had thought it could not apply at my level of proficiency. All the same we must get to Silver C height just for the fun of it. What's 1,000 metres? Three thousand, two hundred and eighty odd feet. Well, we're higher than that already but then there's the launch, another 800—call it a thousand for safety and then add some to make a round figure. We must get 4,500 on the clock. We're really in the core of the thermal, 15 green all the time, sometimes 20, and lovely big lazy circles with the lift steady all round and the ground getting hazier and the curious flat cloud on top like a grey pancake. And there's Silver C height. But we might as well go on to cloud base now, though we must be careful not to get sucked into it. It doesn't look a *very* big cloud, but with all this 20 green . . .

And now suddenly there are dark wisps of cloud trailing below us and the horizon has disappeared. The altimeter says 5,500 feet. It's time to stop going up. Nose down, speed up to 55, and a whole lot colder—in fact, perishing cold with no windscreen and clothing for a summer's day. And, look, the green ball is still up at 5 and the ground is hardly visible at all. Nose down some more and out spoilers. That's better, but the green ball won't go right down. It hovers between one and two. Oh golly, this is serious, we *are* being sucked right into the cloud. Maybe this is a Cu-nim; maybe it's already too late to escape and the Tutor will break up in the cloud, and me with no parachute. And then suddenly we're out into sunshine, and blessedly the red ball has popped up. Panic over, but it's still horribly cold. I'm shivering uncontrollably from a combination of fear and cold. But the horizon is there again and the sun is comforting and the cloud is quite definitely *not* a Cu-nim. Let's fly out over the Severn estuary, over my house, and enjoy the view in spite of the cold. I'm still shivering, and it can't be only the cold. I've throttled back now to 35 m.p.h. but I still wish there was a windscreen on this fuselage. There's still this feeling of loneliness too. It's really very silly. After all, I'm much safer up here at 5,000 feet than I would be at 500, and yet I should feel quite at home dicing about over the ridge, and up here I feel definitely unsafe. I suppose it's all a question of what one is used to.

Now, how far can I go and make certain of getting back? There's not enough wind to worry about (or to warrant trying to get 32 miles). What did it say in the book—"four miles to every 1,000 ft. Well, it's about six miles to home and six miles back—12 miles, 3,000 ft.—well, that ought to be O.K. and anyway there are patches of no sink which, combined with the cold wind, indicate that we should fly as slowly as possible. And so out over the ponds of the Wildfowl Trust, a tight circle there and on out over the river, another circle, and now let's head back towards Nympsfield. Still 4,000 ft. on the clock. Another circle over my house, I bet nobody down below has seen me. Pity really, but it's too far to shout. Might as

well go back by way of my cloud which is still sitting more or less where I left it. There's only weak lift under it now—that I can find anyway. But it's too cold to stick around, and so I go gently back, my world becoming gradually more and more familiar the nearer I get to launch height. Finally, the approach. This they had said was the time when one's judgement failed, after one had been high up for a while. I must exercise more care than ever. No wind. Much floating even with the spoilers out. Patience, there's no hurry. Hold off six inches, high, and then hold off some more and . . . down. Quite nice, really, and just as well with everyone looking. And down on the ground it's hot again, no need to shiver any more.

It was one minute under an hour since I had taken off, they told me. "You know" they said, "the Tutor looked absolutely tiny up there, straight above us—just a tiny speck in the sky."

The Kronfeld Club

OWING to the time limit for Club news, these notes were written before the First Annual General Meeting of the Club, which was held on October 26th, but the Accounts, which were presented then showed that during its first year of operation, the Club made a loss of £1 which can be considered very satisfactory.

The Wednesday evenings for December will be as follows:—

5th—Talk. R. A. Pilgrim on To Prague in a Sokol.

12th—Film. Lawrence Wright's "Gliding Till Now" in its complete version.

19th—Christmas Party.

The present series of Thursday lectures by Frank Irving and Dr. Scorer are due to end on December 13th, but it is hoped to run a further series of twelve Thursday lectures starting on January 18th to be made of pairs of lectures on such subjects as "Thermal Soaring", "Map Reading" and "Legislation" etc. Full details of this series will be given to Club Members in the next Newsletter. If non-members would like details they are asked to write to:

The Secretary,
The Kronfeld Club,
Basement 74 Eccleston Square,
London, S.W.1.

MORE ON THE RESTRICTED CLASS

The Board of OSTIV have now forwarded to the Federation Aeronautique Internationale their proposals for the Restricted Class of competition sailplanes. They are as follows:—

Requirements

1. *Span.*—The span shall not exceed 15 metres (49 ft. 3 in.).
2. *Aids to flying.*—The wing shall be as simple as possible. Flaps and other mechanical devices for changing the wing camber are prohibited. Jettisonable ballast is prohibited. Ailerons should be simple and arrangements for drooping them to form a flap are prohibited.
3. *Wheel.*—The sailplane must have an adequate, fixed wheel. Wheel brakes are *not* prohibited.
4. *Certificate of Airworthiness.*—The sailplane must have a certificate of airworthiness (or navigabilité) which permits cloud flying. The dive brakes (of any type) must limit the speed to the maximum permitted by the certificate of airworthiness. The certificate of the country of origin will be accepted. If an airworthiness code does not exist, the code of Great Britain or Germany is recommended.

The above (1, 2, 3 and 4) are *compulsory* requirements.

The following *recommendations* are offered as a guide to designers:

(a) The sailplane is intended to be *cheap to construct* and should therefore use cheap materials and methods of construction.

(b) The sailplane is intended to be *cheap to operate* and should therefore be easy to repair, quick and easy to rig and de-rig and easy to transport on a trailer.

Two-seaters.—If the F.A.I. decides to permit two-seaters to compete in the restricted class, OSTIV recommends that all the above requirements be satisfied, except that the span shall not exceed 18 metres and that two pilots shall always be carried.

Comments.—The only numbers given above are for span. We think that to quote too many figures might restrict the designer or encourage him to evade the spirit of the regulations.

We hope that designers will produce cheap and simple—yet efficient—sailplanes. One prize will be success for the pilot of the winning sailplane.

For the manufacturers of those sailplanes which are clearly in the spirit of the restricted class success in world markets should follow.

For the best sailplane, as judged by a jury of the F.A.I., it is hoped that a Cup will be awarded.

We sincerely hope that the F.A.I. will lose no time in considering and accepting these excellent proposals. It is only too easy to argue for years about such things, and eventually produce a compromise which is no more satisfactory than the original, but there is no time to waste if we are to see this new and vitally important class flying in the 1958 World Championships. In the meantime we hope that designers and manufacturers the world over will start thinking on the lines indicated in this draft specification.

One other matter deserves a little thought —a name for the new class. The word "restricted" is obviously quite unsuitable and quite misleading from the point of view of the Press and general public. The "Sports class" has been suggested. Have our readers any ideas on this subject?

A COMPASS FOR SAILPLANES

by H. Cook

Harry Cook's *ingenious compass, which he describes in this article, can justly be said to have become world famous, for it is now in use in the following countries: Great Britain, U.S.A., Canada, S. America, Sweden, Holland, Germany, Austria, Switzerland, Czechoslovakia, Italy and India.*

EVER since some ancient mariner floated a piece of lodestone in a bowl of water and used it to navigate his ship, compasses have been the cause of much heartache to all concerned with them. The climax to many a wet and windy story of a storm at sea often mentions a compass which oscillated wildly—rotated slowly—stuck—etc., etc. We don't need to read stories to find out what happens in the air; half an hour in a gliding club bar on a Saturday evening will usually produce at least one in which "the compass was of course quite useless . . ."!

Why do compasses misbehave as they do? There are two major reasons. The first is that although Mother Nature was kind enough to lay on a magnetic field for us, she didn't lay it on thick enough, so that a compass never has much incentive to point in the right direction and consequently is usually rather sluggish. The second major cause of trouble is that the Earth's magnetic field is only horizontal at the Equator, being vertical at the Poles and gradually becoming more and more horizontal as the Equator is approached from north and south (the initiated refer to this slope in the lines of force as "dip" relative to the horizontal). The development of the mariners' compass and later the aviators' compass has in fact been a constant battle to make compasses work in spite of these two natural obstacles.

Sailplane Compasses

We are only too familiar with what usually happens to a compass when we put a sailplane into a turn. If the turn is gentle, then the markings on the compass wander gently to and fro; if the turn is brisk, then the markings on the compass move briskly to and fro; but whether they move gently or briskly, it is beyond the wit of the mystified sailplane pilot to deduce which way he is pointing.

If we climb by circling in a thermal, the continuous rotation of the compass stirs up the alcohol with which the instrument is filled, so that, when we decide to leave the thermal to set off across country, the compass keeps us guessing for some time after we have stopped turning, simply because the alcohol keeps on swirling round, dragging the magnet and indicator with it. Consequently we have to wait a considerable time for the compass to recover from its vertigo before we can correct our course. Naturally, the action of turning the aircraft to correct our course upsets the compass again and so we have to wait, etc., etc. . . !

If our thermal takes us into cloud, then the situation becomes so much more serious and can waste enough time to lose a race, or we can find ourselves blundering into areas of turbulence and sink which could have been avoided if the compass had been doing its job.

What the sailplane pilot needs if he is to use his skill and his aircraft to the best advantage is a compass which can tell him instantly which way he is pointing at any time, regardless of whether he is circling or not, and in spite of whatever manoeuvres his aircraft had performed immediately beforehand.

It is not possible to design a conventional compass which will meet these requirements, since all the moving parts in a conventional compass are dangled from a single pointed pivot and are thus free to swing about in response to accelerations imposed upon the aircraft in turning flight. Correct indications are therefore impossible while the aircraft is turning. Similarly the

weight of indicators, damping fluid and odds and ends which the magnet has to drag round with it when trying to settle are so great in a compass designed on conventional lines, that even when disturbances have ceased the compass takes much too long to settle.

If a compass is to have a performance to gladden a sailplane pilot's heart it must break away from all the traditions inherited from marine compasses. It must in fact be specially designed for use in sailplanes.

The Cook Compass

It was decided at the very outset that the design of what is now known as the Cook Compass, Mk. I, should aim at quick settling and freedom from acceleration effects above all else. As can be seen from the photograph, the resulting instrument is quite different from what one expects a compass to look like. The reason for the unusual appearance and presentation will become apparent as the principles are explained.

In order to achieve the fastest possible response to the Earth's weak magnetic field, all the moving parts are made as light as possible and the magnet as efficient as possible. This is why the indicator is a small light-weight dart instead of the usual rotating ring which weighs so much. The magnet is of the most powerful magnetic material it is possible to use. The result is a response approximately 25 times as fast as the fastest conventional compass.

Freedom from the effects of accelerations induced by turning flight is obtained by mounting the magnet and indicator on a vertical shaft which is carried between two jewel bearings and accurately balanced. The use of the two bearing arrangement prevents the magnet and indicator from swinging about as they do in conventional compasses when subjected to any acceleration. Balancing the rotating parts on the shaft ensures that acceleration cannot cause the shaft to rotate.

Since mounting the moving parts on a shaft carried between two bearings and balancing them prevents accelerations from having any effect, the system can only move the indicator in response to a magnetic field, normally the Earth's magnetic field.

To ensure that the indicator moves steadily and does not overshoot and oscillate while settling, the magnet rotates within a metal ring to take advantage of the damping effect obtained when a magnet is moved close to metal (eggheads call this "eddy current damping"). Additional damping or steadying is obtained from the braking effect of the oil in the jewel bearings.

As mentioned above, the heading indicator is a lightweight dart which is easy to see and practically impossible to misread. This method of presenting the heading information has two advantages. The first is that the weight of the dart is almost negligible and so does not slow down the response of the magnet. Seondly, for a given diameter of instrument face larger markings can be used and the compass is easy to read.

It will be noticed from the photograph that the dial with the heading markings is fixed in the casing with the N. & S. markings in line with the mounting studs, and that the E. & W. sides of the dial are transposed as compared with the markings on a normal compass rose. This arrangement, in conjunction with the heading indicator which always points north, enables one to read off the aircraft heading without moving a verge ring. One simply reads off the heading at the pointed end of the dart. The compass must, of course, be mounted with the studs pointing forward and parallel with the centre line of the aircraft.

Correction for deviation in compass readings due to iron or steel objects in the aircraft are made by means of small

corrector magnets in the two holes covered by screws, which can be seen at right angles to each other in the base of the instrument.

The performance of the Cook Compass Mk. I can be considered under three headings:

1. Speed of settling is virtually instantaneous, and after 180° displacement correct heading is indicated in less than one second.
2. No acceleration errors.
3. Tilting the compass relative to the vertical produces an error due to the slope of the lines of the Earth's magnetism (the dip angle). The magnitude of the error is given by the frightful but unavoidable equation tan (error)=sin (tilt) × tan (dip) × sin (direction of tilt).

The tilt error, although it is undesirable, is far out-weighed by the advantages of instantaneous settling and freedom from acceleration errors.

Using the Cook Compass

The compass is usually mounted in a convenient position on the lower instrument panel or the side of the cockpit so that it is perfectly upright when the aircraft is in flying attitude.

The tail of the aircraft should be raised so that the pitch attitude corresponds with the average speed at which one expects to fly between thermals on cross-country flights. In this way the small tilt error due to flying slowly with the nose of the aircraft up, or fast with the nose down, can be minimised.

Compass swinging is carried out with the tail of the aircraft raised as above.

In straight flight the instrument makes course-holding easier because the accelerations caused by heading corrections have no effect and the heading indicator follows the heading changes instantly with no oscillations.

To obtain aircraft heading from the compass while circling in competition flying, when seconds count and advantage must be taken of every scrap of information, many pilots mount the instrument by its top stud only, leaving a slot for the bottom stud to move in. This permits the compass to be pivoted so that when the aircraft is banked in a turn the compass can be kept upright and indicates the aircraft heading accurately all the way round the turn. The advantage in this is that the heading information can be used to centre a thermal, especially while flying in cloud.

An example of a method of centring a thermal in cloud would be:—

"The lift was strongest when I was pointing west; I am in a left hand turn so when north is indicated I will straighten up for x seconds before resuming my left hand turn."

For an example of how to use the compass for hill-soaring in cloud, see the article by Philip Wills "Riding the Mistral" in the October issue of SAILPLANE & GLIDING.

For normal thermal-flying in cloud, it is not necessary to keep the compass upright relative to the ground by pivoting it as described above, since its performance in turns when fixed normally will permit easy cloud navigation if the following facts are remembered:—

1. On or near the Equator (where the "dip" is zero) the compass will indicate accurately all round the turn while circling.
2. In the Northern Hemisphere east and west are indicated accurately in left and right hand turns respectively.
3. In the Southern Hemisphere east and west are indicated accurately in right and left hand turns respectively.

By applying one of these three rules according to the latitude in which one is flying, it is possible to stop turning on any desired heading by estimating the right moment after the last accurate E. or W. was indicated.

One last rule is: "If in doubt, level out", and the compass will indicate the heading of the aircraft immediately its wings are approximately level.

Enquiries for further information will be welcome if addressed to the Cobb-Slater Instrument Company whose address may be found elsewhere in this issue.

Flight-Lieutenant C. M. Harcourt

It is with deep regret that we have to report the death of Flight-Lieutenant Charles Martin Harcourt, in a flying accident on the 24th October, 1956.

Flight-Lieutenant Harcourt was one of the founder members of the Gliding Club at Royal Air Force College, Cranwell, and more recently was a member of the R.A.F.G.S.A. Windrushers Gliding Club at Little Rissington, where he was stationed.

The Federal Soaring Championships

by Robert L. Mitchell
(Championships Secretary)

AFTER many years of prompting from member clubs, a sceptical committee of the Central African Soaring Association finally agreed to convene the First Federal Soaring Championships, and Salisbury Gliding Club was chosen as the host club. That much was easy; then came the difficulties of arranging a programme and dates to suit Umtali, Bulawayo and Northern Rhodesia. Eventually, it was decided to hold seven days of competitions between August 22nd and 28th and, as far as the tasks were concerned, to confine these largely to triangular races over short legs.

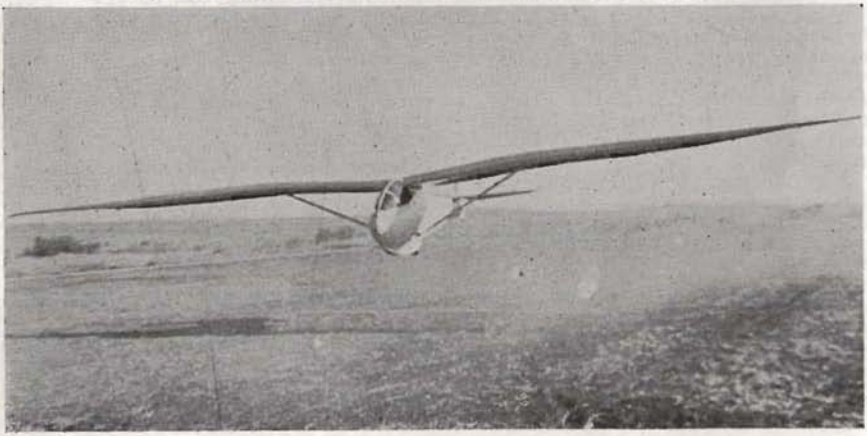
Several factors led to this choice. Firstly, it was felt that we should learn to walk before we ran, few of our pilots having had competition experience. Again, since as many as three pilots entered using the same machine, it was felt advisable to use short legs so that most, if not all, pilots could mak an attempt at each task.

At the last moment Northern Rhodesia decided that they could not send an aircraft 1,500 miles for so short a period, the Bulawayo Club withdrew two entries a week before the event, and Umtali withdrew its support. Eventually, members of these two clubs did arrive, *sans* aircraft, but a machine was made available for Ted Pearson of Northern Rhodesia and Basil Wordsworth of Bulawayo. Final entries were as follows:

Eric Burditt and Ted Pearson—Skylark II.
Ivor McCormick, Robert Mitchell and Basil Wordsworth—Grunau Baby IIb.
Leslie Snowball and Douglas Ryland—Grunau I and Tutor.
Peter Dance and Peter Bell—Kite I Special.
Jimmy Harrald and Jerry Wall—Hütter 17.

Thus, on the opening day, 11 pilots and six aircraft were available. Due to lack of

Peter Dance flying the Kite I Special in the Spot Landing Contest.



Awaiting take-off at Thorn Park Glider Field, Salisbury, S. Rhodesia. R. to L. Kite 1 Special, GB IIG, Skylark II and Tutor Special.

two-seater opposition, the Salisbury Gliding Club T-31 was withdrawn, and, owing to lack of visiting aircraft, the reserve Tiger Moth was cancelled, all hopes being successfully pinned on the serviceability of the Salisbury Club's own Tiger. Ivor McCormick did some excellent staff work in organising a supply of tug pilots, many of whom were captains of Central African Airways, and our thanks are extended to these chaps, some 15 launches being made each day at the scheduled time over the whole week.

A Pilots' Task Committee of three men was elected each day in rotation, to set out the day's tasks after "Met" reports had been received, and Ted Pearson and Jerry Wall (who had South African and International Championships to their credit), together with the writer, were selected as Points Committee, the writer also being Secretary of the Championships Committee which was formed of representatives of the Central African Soaring Association and the Salisbury Gliding Club.

The weather could have been better but could have been a lot worse. A cold front arrived on the last day, which would have put paid to all soaring had the "Champs" lasted a day longer. On the other hand, strong winds and a low inversion (as high as 27 knots and as low as 3,000 ft.) were encountered. Such difficulties handicapped the ambitions of the pilots in view of the large number of slow aircraft entered, and indeed all pilots save Burditt and Pearson in the Skylark II complained bitterly of the penetration characteristics of their machines.

From the start, the superiority both of Burditt and of his Skylark was clearly marked, his cross-country experience soon telling. With some speeds as low as 10 m.p.h., Burditt consistently averaged upwards of 30 and even as much as 55 miles per hour. On the other hand, McCormick, flying the G.B.II with no cross-country experience, appeared to be running a close second with Jimmy Harrald in the H-17 third. (I said that Ivor had no cross-country experience, but three days before the

Championships he was forced down 10 miles from the glider field below the Mazoe Dam, and chose to land on a gravel road which transpired to be badly corrugated. Having made a faultless approach and touch-down, he lost control on the corrugations and damaged his wing, necessitating three days and nights of repairs. Surely this is the first case on record of any pilot pranging from such a cause!)

Marking was on the basis of 200 for speed and 100 for distance, the H-17 and Tutor marks being increased 35%, the Kite, Grunau I and II 20%, and Skylark being scratch. The best mark of the day was upgraded to 1,000 points and other scores adjusted accordingly, the best three days' scores being selected in aggregate. The final results were:—

Burditt	3,000 points
Harrold	2,960 ,,
McCormick	2,930 ,,
Pearson	2,740 ,,
Dance	1,765 ,,
Snowball	1,757 ,,
Ryland	1,151 ,,
Wordsworth	530 ,,

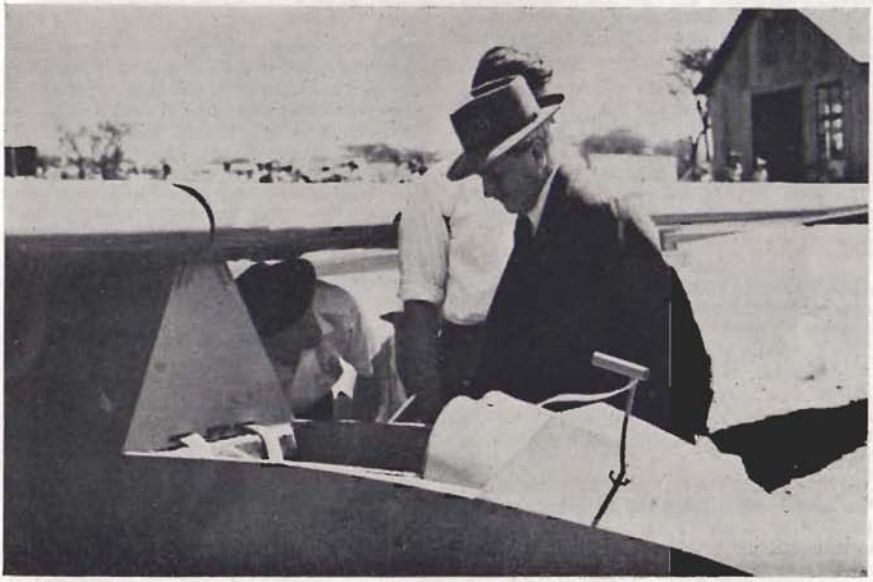
Wall, Mitchell and Bell withdrawing.

During the "Champs" four machines landed on race-courses and two on our old airfield, being aero-towed off; another half dozen forced landings were made on farms, none in the bush. Our two trailers were hard at work retrieving well into the night on two occasions.

The Public Day was held on August 26th to raise funds; this was attended by Viscount Malvern, our Federal Prime Minister and President of the Salisbury Gliding Club. In addition to short-circuit races round the airfield, the crowd was entertained with two-seater "flips" and aerobatic demonstrations by Jimmy Harrold and Eric Bone.

The end of the "Champs" saw eleven happy but wiser competitors, and, surprisingly, six aircraft still intact, although three were somewhat battered. In concluding, I want, on behalf of all competitors, to thank both Barbara Tattersall and Sue McCormick for their Trojan work in the clubhouse throughout the "Champs".

Viscount Malden, at that time Federal Prime Minister, the President of Salisbury Gliding Club, talking to R. Mitchell (under wing) Championship Secretary and John Bryan of S.G.C.



WITH A BUNGY IN THE LAKE DISTRICT

by Lawrence Robertson

So the moment had come. For years I had been dreaming of the joys to be had in soaring among the mountains of our English Lakeland; then last year I had surveyed a fine bungy-launching slope on Latrigg, a 1,200-ft. hill overlooking Keswick town and jutting out half a mile at right angles from the great slopes of Skiddaw, and now here we were at last with a fully organised expedition of three sailplanes and eight pilots from the Derbyshire and Lancashire Club at Camphill.

But it was not turning out quite as planned yet. Driving rain was spattering on the windscreen as I sat in our Olympia drawn up on the edge of Latrigg for the first launch; and grey clouds were scudding along the face of Skiddaw in an unbroken chain, well below the top. Stan Armstrong had given up marshalling the launching crew, who were now huddled beneath the wings, and I waited . . .

At last the rain eased off, but the wind was very much along the hill. Would there be lift, I wondered? I would soon know now. For the umpteenth time I wiped the mist off the perspex in front, then took a last look at the possible landing fields 800 ft. below, and gave the "thumbs up" to Stan.

The bungy launch was smooth, and almost at once came that blessed feeling of upsurge which means lift enough and to spare. The situation was immediately transformed, and my spirits surged up accordingly. With a few "S" beats I soon gained 500 ft. and moved over to the main south-west slopes of Skiddaw, where I could just hold this height in the sidelong wind.

There would undoubtedly be good lift on the north-west slopes, but to get to them I must first circumnavigate Dodd Fell, a conical hill of 1,600 ft. standing out to windward from the side of Skiddaw. This would be an operation rather like climbing over an overhanging ledge of rock, but I felt it should be attempted, so I set off in that direction.

There was lift over each minor ridge and sink over each gully as I edged along the face of Skiddaw, but I was not losing much —and now for Dodd Fell! The sink began as I swung outwards towards Lake Bassenthwaite, but it wasn't bad. I crept forward steadily, and the suspense began to build up again. I had a quick look for a landing field in case I struck the violent down-draught I half expected; but this didn't come, and before long I rounded the corner with little less height than when I started. I was told afterwards that a cheer went up at this point from the watchers on Latrigg, who saw their prospects of a good ride improved accordingly.

The new vista now revealed was somewhat awesome, and I felt a sense of loneliness as I looked out at the serried ranks of spiky conifers on Dodd Fell below and to the side, and at the wet black crags of Skiddaw ahead of me towering up and disappearing into the clouds. Fortunately the V-shaped bowl between Dodd Fell and Skiddaw provided good lift without my having to fly too close to either the conifers or the crags, and I was soon at cloud base at 1,800 ft.

The next two hours were spent largely in dodging clouds, which tended to form around one, and waiting as the cloud base lifted painfully slowly.

Towards the end of this period, as I patrolled up and down the beat of several miles, I could see that away over the Solway Firth the sun was shining, and Criffel, across the water in Scotland, was standing out like a great purple pyramid. A magnificent sight, and I nosed out towards it, away from my dank and grey slopes.

This time, unlike previous occasions, the

variometer continued to show lift all the way, so that when I reached the upwind edge of the clouds overhead I was able to give "Peveril" her head, and let her climb up past them. She responded eagerly after being held down so long, and the altimeter needle wound steadily round—2,000, 3,000, 4,000 ft. I was now well above the cloud layer, which had the usual "eiderdown" appearance of a wave formation, and I edged back over the mountains, still climbing. At 4,200 ft. I reckoned I was over where Skiddaw should be, but alas, there was not a sign of it! However, beyond the eiderdown there was much else on all sides to gaze at and admire in the now bright sunshine: a gigantic landscape of lakes, fields, mountains and clouds stretching out and merging in the blue distance. Life was just wonderful!

But suddenly I became aware of a large cumulus drifting up and closing with the wave clouds. I had the choice of diving quickly between them or flying straight through the cumulus on a compass course, as I didn't fancy circling in clouds the bottoms of which were "stuffed with mountains". I chose the second alternative and had a fairly smooth passage through the cumulus, but when I came out at the other side the wave lift had gone, and I sank back to 3,000 ft.

Not long after this Bernard Thomas arrived to keep me company in the "Skylark", as I flew along close in to the mountain side again. But the clouds were really beginning to break up now, and soon I obtained just a brief glimpse of a track on a ridge leading up to a cairn, before it was blotted out again. Could that be IT? I made another beat and then came a longer clearance. This time there was no doubt about it! I could at last see the actual summit of Skiddaw (3,054 ft.) standing out dark and bare against the sunny background of Keswick, far below, and I dived in to circle round it before it disappeared again—no doubt to the wonder of those few hardy souls standing around the cairn who had climbed the mountain the hard way in the cloud!

I had been flying about three hours and there was no excuse to stay up any longer now; so reluctantly, but with a feeling of task accomplished, I turned to go and land back on Latrigg, where Stan Armstrong would be waiting for his turn. On the way I passed Johnny Tweedy coming up in the Sky, and, really, it was like any Sunday afternoon at Camphill—with a difference!

Films and Slides

Several films and a quantity of coloured slides are available for lectures and entertainments. Applications for this material should be to the British Gliding Association, Londonderry House, 19 Park Lane, London, W.1.

WHITSUN WEATHER AT LASHAM

by Tony Deane-Drummond

THE Whit weekend produced quite fantastic weather for England which none of us really believed until it was too late. Saturday was an easy Gold C day and the task set at Lasham was only Andover and back—a mere 44 miles, which could be done in under an hour. Wind was north, about 10 knots, and cloud base up to about 4,000-5,000 ft. The thermals were extremely strong and rocketed us up at 750-1,000 ft. per minute, if centred properly. It was a waste of an exceptional day for the twelve or so pilots who took part.

Sunday looked better at first, but quite early on there was a suspicion of strato-cumulus which threatened to give 8/8 cover over parts of the course. The wind on this day was between south-west and north-west at about 10 knots. The organisers set a task running up to Yorkshire, but after some persuasion agreed to a 200-km. triangle as an alternative, with turning points at Dunstable and Stanton Harcourt near Oxford.

The first problem was to decide which way round to go. Myself, Nick Goodhart and John Williamson chose Dunstable first, whilst Philip Wills and David Ince preferred the opposite way round. I thought mine was better because I could use the really strong thermals in the early afternoon to go from Dunstable to Stanton Harcourt.

As it turned out, luck was to play a big part. Areas of strato-cumulus stretched over hundreds of square miles or more, and not until it passed was it possible to make much progress across country. On my flight the edge of strato-cumulus was met over the Thames, and from there to Dunstable was 8/8 cover. For the next two hours Nick Goodhart and I just kept going in a series of weak thermals from the hill or cement works. At Dunstable it did not appear to be soarable, as glider after glider was aero-towed up in turn, only to sink back to the ground again. After two hours the sky started to clear from the south-west, and quite soon after cumulus formed which pushed us up at about 700 ft. per min. instead of the bare 50-100 ft. per min. to which we had become accustomed. Once again it was possible to make progress westwards, only to see that there was apparently another large area of strato-cumulus between us and Oxford and stretching north as far as the eye could see. John Williamson and I—I met him again for a few moments soon after leaving Dunstable and not again till we landed—decided to go round nearly to Benson and then almost due north to Stanton Harcourt, keeping just clear of the strato-cumulus. Nick decided to cut the corner, came unstuck and landed at Thame.

It was possible to keep fairly close to the clamp, but as a result thermals were weak in comparison, and 300-400 ft. per minute was quite good. At last Abingdon was underneath at about 4,000 ft., and rather to my dismay Stanton Harcourt was again covered by strato-cumulus. However, the Skylark's gliding angle then came in useful and the turn was made over the airfield at 2,000 ft., and a glide back to the best piece of cumulus which was reached at 1,300 ft. From here the thermal gradually increased in strength until I reached cloud base at 6,300 ft. over Didcot. This was the height required to glide back to Lasham, which I reached 20 minutes later at 200 ft. In theory I should have had 500 ft. to spare, but the sea breeze was already blowing strongly over the last 500 ft. of the glide. John Williamson turned up three-quarters of an hour later. Both these flights were worse than David Ince or Philip Wills, who had chosen to go to Stanton Harcourt first and had almost missed being delayed by the strato-cumulus. David was held up 30 minutes or so at Stanton and Philip lost an hour between Dunstable and Lasham. If all had gone according to plan, it was possible to do the 200 km. in about four hours on Whit Sunday. Times were:

	Release	*Time taken*
D. G. Ince	12.03	4 h. 30 m.
P. A. Wills	11.55	5 h. 27 m.
A. J. Deane-Drummond	11.39	6 h. 30 m.
J. Williamson ..	11.44	7 h. 19 m.

Whit Monday was even better, but we were all misled by an erroneous met. forecast which talked about a front moving west to east across Lasham. Wind was south at about 20 knots and cumulus did not start to form until about 11 a.m.—needless to say, no front made its appearance that day.

The task set was Andover-Guildford and return, which would bring the gliders near Lasham in the middle of each flight. Thermals were extremely strong—again only if centred properly—and several on end blew us up at 1,000 ft. per minute. Cloud base started off at about 4,000 ft. and rose to near 6,500 ft. by the afternoon. Maximum possible cruising speed was the order of the day, and in the Skylark this is about 80 m.p.h. for an average 600 ft. per minute climb.

Nick Goodhart, David Ince and I were all released within five minutes of each other, using both Lasham tugs and Nick his own Auster. David and I flew together to Andover; sometimes we used the same thermal, but more usually we didn't. There were so many it did not matter. Occasionally we both thought we knew best and used a cloud the other was not working. All this time I could see Nick Goodhart, who seemed to be using a lower stratum altogether—he appeared to be in the 2,000-3,000 ft. bracket, whereas myself and David used 3-4,000 ft.

Andover was soon reached and then Guildford in the same manner. The "downs" between thermals were so strong that it made judgement of the final glide difficult back to Lasham. One more thermal was needed over the Hog's Back to make sure of it, although in the end we were left with 500 ft. too much. We all came back together: first David, then myself and then Nick, to land within as many minutes. We took about 2 hrs. 30 mins. for 90 miles, or about 36 m.p.h. with a 20-knot cross-wind. Whit Monday was a day on which a 500-km. flight up to the Border was possible. What a waste.

A scene from Lasham—the hazards of landing in a field.

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MORE BUNGY IN THE LAKE DISTRICT

By J. S. Armstrong

LAWRENCE Robertson was the first to be launched from Latrigg Fell in our faithful old Olympia "Peveril". This was as it should be, because Lawrence had put in a very great deal of work surveying the site last winter, and organising the expedition. The date was Tuesday, July 31st, and I will long remember it as one of the most interesting and exhilarating days' flying in nearly twenty years of gliding.

After a few beats gaining height over the face of Latrigg, Lawrence set off on what looked to me a most perilous traverse of the south-west slopes of Skiddaw. He was less than half-way up the mountain side in a gusty north-west wind, and with heavy rain-bearing clouds hiding the top of the ridge. We watched "Peveril" creeping slowly in and out of the gullies until it finally disappeared round the corner of Dodd Fell. We next saw it about half-an-hour later as a tiny speck about four miles away and at least 3,000 ft. high. The cloud had lifted considerably and Lawrence was obviously enjoying himself dodging in and out and playing hide and seek with the top of Skiddaw at 3,054 ft.

Herculean labours carried the Skylark II and the Sky through the bog, rigged them and dragged them up to the launching slope, and off went Bernard Thomas in the former and John Tweedy in the latter to join Lawrence. All three were obviously having a grand time, and when Lawrence finally returned to land on the top of Latrigg I could hardly wait to get in and be launched. There was a slight delay while he shouted down to us to clear the sheep (invisible to us on the slope) from his landing run, and then I was finally lined up and ready for off. As there was no one else for "Peveril," Lawrence suggested I should explore as much as I wished and land at the bottom near Keswick in a field we had prospected, or further along near our pub in a slightly less appealing field.

The journey along the slopes of Skiddaw was not at all to my liking, but, once round the corner of Dodd Fell, the lift was astonishing, and extended to well above cloud base, my best height being 4,400 ft. There was a suggestion of wave in the smoothness and extent; even a mile or so out over Bassenthwaite Lake the lift continued, and the others afterwards agreed that some wave was present. The cloud was breaking, and the sun shone; the view was superb, and life was wonderful.

Bernard had gone back and landed, and Brian Jefferson now came and joined John and me, and for a time we played peep-bo with each other and the mountain top. After a rather close shave I decided to seek pastures new, and from 4,000 ft. set course nearly straight down wind for Great Dodd at the north end of the Helvellyn range. The distance was a good seven miles, and there are no landing fields once past Keswick, but of course my height was ample and I arrived level with the top of Wanthwaite Crags, a fearsome-looking precipice about two-thirds the way up Great Dodd. The lift was good and in no time I was heading south along the eleven-mile range which looks so mouth-watering on the contour map.

The whole Helvellyn range has a rather "hog's-back" contour, with a steep slope up from the Thirlmere valley and lake, and then a gentle slope receding to the top, in places hardly more than the gliding angle of a sailplane. At first I kept out in front of the steep part, especially as cloud was still forming occasionally on the summit of the ridge, and even round me at times at about 2,900 ft. However, conditions were improving all the time, and although the cloud was never less than 4/8, it did lift sometimes to about 4,000 ft., and from this height the view on all sides was almost unbelievable. Away from the higher peaks there seemed to be less cloud, and the westering sun was throwing brilliant contrasts of light and shade across innumerable valleys as far as the eye could see. All the Lake District seemed spread out below me, and the lakes

to the west were glittering brilliantly in the sunshine. I identified fourteen lakes and tarns from my map, all within a radius of fifteen miles.

The Thirlmere valley is quite narrow, and the very rocky ridge on the opposite side is over 2,000 ft., with the result that a certain amount of blanketing occurs. This is very noticeable at the south end of the valley where the pass known locally as Dunmail Raise rises some 800 ft. before falling away again towards Grasmere. The first time I attempted to cross the pass, the ground seemed to come up to meet me so rapidly that I turned back and gained more height in a further beat to the north. The second time I pressed on and was rewarded with good lift from Seat Sandall (2,415 ft.), Great Rigg (2,513 ft.), and further south still Rydal Fell (2,022 ft.) above Grasmere Lake. There is a possible landing field near Grasmere village, and I was glad to see it, as there is no other for four miles along the valley.

By this time I was flying well back over the summit of the range, but owing to the gentle slope of nearly a mile back from the steep face of the ridge, the lift did not

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Photographed on Dunstable Downs, t(id)ying up after Bungy launching are London Gliding Club Members Mike Russell, Ray Stafford Allen, David Jones and David Spicer.

extend much above the top, and I was frequently within fifty feet of the ground, sometimes with cloud fifty feet above me. I felt rather like the filling in a sandwich! The top of this ridge is extraordinarily bare and lonely, as the bottom of the valley is completely out of sight and there is no sign of civilisation whatever except the deserted track along the top. I felt quite cut off from the world and had a strong desire to see even one human being, or even an animal! On my last beat my wish was granted as a solitary individual appeared on the path between the summits of Helvellyn and Dollywagon Pike. I was only a few feet above him when I shouted greetings and circled round him. I think he was too astonished even to wave, and he was still standing staring when I came back for another look some time later.

The sky to the west was now nearly clear of cloud, the wind was as fresh as ever, and it was obviously going to be a lovely evening for soaring. It seemed a shame to land in the only possible field near the north end of Thirlmere, and waste it in retrieving. The thing to do was return to Latrigg, land on top, and let one of our very hardworking helpers have a ride. But how? It was curious, but in the whole flight I never found a thermal in spite of the sunshine and clouds. Latrigg was 4½ miles right into wind from Great Dodd, and the difference in height 1,300 ft., so it seemed a doubtful proposition. However, I trekked back to Great Dodd and tried. The lift extended well out, but the deterrent was the complete absence of landing fields on the way. On the third attempt I burned my boats and of course arrived with 800 ft. to spare! (Personally I find this is usually the case when I am worried about reaching anywhere, and I always apologise to "Peveril" afterwards for my lack of faith.)

We quickly launched Rodney Sneath, who joined Ken Blake in the Skylark on Skiddaw, and they both flew till dusk, landing near our pub in time for us to stroll down and de-rig after a good dinner. Over seventeen hours' flying for the three aircraft! Not bad for a first day of Lakeland soaring, especially as it took anything up to three hours to get a glider rigged and to the launch, owing chiefly to the boggy ground. A day or so later we made a successful launch from a much more accessible field, and this may be the answer to the problem. Failing that, a Land Rover or a Jeep is a "must" for future expeditions.

There is no doubt at all that Latrigg is a wonderful site and much credit is due to Robertson for discovering it. It also possesses a very co-operative owner to whom our thanks are due. The possibilities for hill-soaring are fascinating, the scenery superb, and the folks most hospitable, so even if the landing fields are a little hair-raising, who cares?

WORLD CHAMPIONSHIP AFTERMATH

THE Aéro Club de France has sent out a revised list of final marks and placings differing from those which were given out at the end of the Championships, and on which the prizes were awarded. It is stated that mistakes were made in calculating some of the scores for the second contest day owing to errors in reckoning the distances. The table below gives the original and the revised points for the first 15 competitors in the single-seater class. It will be seen that Stephenson and Bar have each been deprived of 177 points which would, if correct, cause Stephenson to drop from 6th to 11th place and Bar from 13th to 15th.

Pilot	*Original*	*Revised*
MacCready (U.S.A.)	4891	4903
Juez (Spain)	3806	3807
Gorzelak (Poland)	3576	3576
Saradic (Yugoslavia)	3435	3435
Ivans (U.S.A.)	3289	3366
Stephenson (Gt. Britain)	3142	2965
Ara (Spain)	3097	3097
Nietlispach (Switzerland)	3081	3116

Pilot	*Original*	*Revised*
Reitsch (Germany)	3042	3042
Wills (Gt. Britain)	3031	3031
Ortner (Argentina)	2977	2977
Persson (Sweden)	2887	2887
Bar (Israel)	2875	2698
Dommisse (S. Africa)	2866	2857
Toutenhoofd (Holland)	2775	2775

Examination of this table appears to show that in the revision new errors have been introduced. This second contest was a race to St. Etienne, 99.8 km., and as three of the seven pilots who got there have had their scores altered, it cannot have been a matter of distance; moreover, Ivans, who scored 775 points on that day, has been credited with 77 more than he had before, which would raise his score for the day to 852—an impossible figure, as 800 was the daily maximum.

Stephenson, who went furthest of those who landed short of the goal, has been credited with only 74 km. distance, which is incorrrect; because of this his score for the day has been reduced from 657 to 480 (the score for 74 km.).

The British Gliding Association has sent an official request for re-examination of the records.

* * * *

Philip Wills's letter to *Aviasport*, a translation of which was published in our last issue, was favourably commented on by the Editor of that journal, and a letter by Cdr. Fonteilles to another French aviation magazine has made it clear that the main reason for the disappointing results achieved by the French team was almost certainly due to a plan to place them under the complete control of their Team Captain.

The British practice has always been the reverse: we appoint a Team *Manager*, not a Team *Captain*, whose job is to assist and encourage each pilot, and take as much of the administrative burden from their shoulders as possible, whilst leaving each entirely free and independent in all his decisions. Our sympathy must go out to M. Gasnier and the French team; it has been an interesting and useful lesson, and we must confess that it has produced the answer we would have hoped for—gliding is still a pre-eminently individual sport.

* * * *

His many friends will be delighted to hear that Bill Ivans is well on the way to complete recovery after his nasty accident in the Olympia IV during the Championships. He left the American hospital at Wiesbaden on September 12th and flew to England, where he stayed as the guest, first of the Buckingham family at Newbury, then of the Goodharts, after which he left for a holiday in Spain. He gets around at low speed, but the framework "brace", which keeps his back straight, was due to be removed at the end of October.

* * * *

Many people are suggesting that St. Yan might again be the venue of the 1958 World Championships, and there is reason to hope that the French might be willing to offer to hold them again. In such an event they might even, given time, be able to arrange for distance flights to cross national boundaries, which would add yet more excitement to the meeting.

With the experience gained by both the organisers and the participating pilots in 1956 behind them, a second World Championship held at St. Yan would be Really Something.

* * * *

THIS GLIDING

Wave Lift?

"You sit back and relax, only to realise that you're doing more than eighty. But where are the bumps, the jerks, the lurches, the rolls? They're simply not there—you're not just riding, *you're gliding*!"—*From a Citroen advertisement in "The Autocar" (sent by D,D.C.).*

* * * *

Uphill Landing

"Plymouth Wheelers Cycling Club's sixth annual gliding competition, for the club challenge shield, was won yesterday by Roger Turner. Second was Derek Gilmartin and third Miss Barbara Pope. The shield is awarded annually to the club member who freewheels the farthest over a given course consisting of a long downhill run into a valley and on to a rising stretch of road for the finish."—*Western Morning News.*

* * * *

Confusion Worse Confounded

"Sir,—You report an Air Ministry official as having attributed to 'an air pocket' the sudden loss of height of a Valetta aircraft carrying 10 members of Parliament. What is an 'air pocket'? No glider pilot has ever reported having encountered one."—*Letter to "The Times," which added*:—"The Meteorological Office state that the term 'air pocket' is a misnomer. An aircraft is said to have entered an air pocket when height is lost rapidly through a downdraught in the atmosphere. In other words it refers to a change in the relative stability of the air."

* * * *

Directional Instability

"I still believe in the whole concept of the Minimidget, and in Al's plank, and I still think that the little fellers will slowly prove their worth—but now I'm willing to concede that a heck of a lot of other people don't agree with me. The sharpest lesson I have learned on this is that although the gliding movement is growing, maybe faster than ever, it has forgotten where it came from and doesn't know where it is going."—*Fred Hoinville in* "Texas Spirals," *bulletin of Texas Soaring Association.*

* * * *

Up and Down

Distance from Table Mountain

Starting from a climb to 11,500 feet in "Betty's Wave" over Table Mountain, H. von Michaelis flew eastwards 173 miles from Cape Town to Albertinia on August 16th. After facing the wind with an air speed of 80 m.p.h., according to report, he turned and flew east over the 6,000 ft. Sneeukop Mountain and later reached 14,000 ft. The wind then dropped and, after he had been in the air 7 hours, became a strong S.E. headwind, so he was forced to land before reaching his goal, which was Plettenberg Bay, stated to be 280 miles from Cape Town, though we make it 315 miles on the map.

* * * *

Schweizer 1-26 Regatta

The second annual one-class regatta for the 1-26 type was held at Elmira, N.Y., during "Labor Day" weekend. Eight of the type competed, and seven other types took part in an Open Contest at the same time. On the Saturday thermals were poor, and no one completed either the 24 miles round trip set for the 1-26s or the 36 miles set for the others. Otto Zauner, in a 1-26, did best by reaching the turning-point by ridge-soaring. On the Sunday the only lift was created by a wind up the hill in the afternoon, and 18 machines were in the air together. Some made their 5 hours' duration for Silver C, including a visiting Canadian, and Zauner was declared 1-26 champion. In the Open class Larry Gehrlein came first and Lou Rehr second.

NEWS FROM DENMARK

by Per Weishaupt

In addition to the national records set up during the U.S. soaring contest in Texas (SAILPLANE & GLIDING, October, p. 250), a Danish record also was bettered there, namely, a 193-km. out-and-return flight (120 miles) to Mineral Wells and back by Harald Wermuth Jensen on July 31st. Jensen, who now lives in Illinois, was unable to come to St. Yan as intended, and instead went to Grand Prairie to have a look. He borrowed a sailplane offered to him which had a 20 year old fuselage unable to go fast and a laminar wing which was not laminar but unable to go slowly, but nevertheless Jensen succeeded in some nice flights, and in addition to the National record he obtained his Gold C (Danish No. 5) with one diamond for goal flight. Considering that Jensen has been known as "Cowboy" for many years, he now seems to have been on the right spot.

Other Danish records recently ratified include the first goal flight for two-seaters, made in a Kranich II on July 15th from Birkeroed to Odense across the Great Belt (138 km.= 85.7 miles), a free distance record for women on the same day and nearly the same route from Vaerloese to Funen (117 km.= 73 miles) by Miss Signe Skafte Moeller in an EON Olympia, the first 100-km. triangular speed record for two-seaters of 29.7 km. (18.5 miles) per hour by Joern and Bente Raarup in a Bergfalke on July 19th from Vandel, and speed records in 100 km. straight line by Niels Sejstrup on August 12th from Karup to Grenaa in an EON Olympia with 87 km. (54

miles) p.h. and by Soerensen and Lund in the Kranich on July 15th with 42 km. (26 miles) p.h.

Although it has been a good year for records, nobody succeeded in reaching Bornholm, south of Sweden, from other parts of Denmark or in going from a starting place east of the Great Belt to Jutland. For these two flights, prizes of 1,000 kroner were offered by two newspapers in the 50th anniversary year of Ellehammer's first flights. No doubt many will try next year, and gliding people from other countries can try too.

OVERSEAS NEWS

from Veronica Platt

India

The chief centres of activity are Delhi, Allahabad, Bangalore and the old established Government Gliding Centre at Poona. Here the glider fleet consists of three Olympias, two Grunau Babys, three Primary trainers, one T-21B dual and one IT-G2 type secondary trainer. Of these, seven are in serviceable condition and the remainder are undergoing repairs or overhaul.

In the first five months of 1956, 564¼ hours' flying was done from 4,642 launches. The maximum height reached was 12,000 feet above Poona and the duration 7 hours 55 minutes.

The following licences were issued:—16 A, 15 B, 13 C, 8 CC; 6 altitude, 4 distance and 4 duration legs for Silver C; 7 passenger-carrying. Trainees were:—Civil, 5 ladies and 79 gentlemen; Military, 89 C.M.E., 23 I.A.F. The flying charge remains unchanged at Rs.1 per flight, irrespective of the time taken or the type of glider used.

No progress has been made so far with regard to the proposal to shift the centre to another site.

All-India Record Flights, officially recognised by the Aero Club of India:

1. Mr. K. Balaraman, EON Olympia, Fursungi Gliderdrome (Poona), 16.2.56, 7 hours 16 minutes.

2. Miss I. A. Bhide, Olympia, Fursungi Gliderdrome (Poona), 26.2.56: 2 hours 52 minutes (feminine duration record).

Miss I. A. Bhide, Olympia, Fursungi Gliderdrome (Poona), 11.3.56: 5,115 feet (feminine gain-of-height).

The Aero Club of India announces the award of a Gold C to Mr. N. A. Ostawari, Chief Instructor of the Poona Centre, for the following performances in an Olympia: duration flight of 5 hours 55 mins., gain of altitude 11,302 feet, and a cross-country flight from Poona to Bidar, 240.5 miles. This is the first award of its kind to be made in India.

Intermediate Gliders, Model IT-G3, constructed at the Technical Centre, were supplied to the Government Gliding centres at Allahabad and Bangalore and to the Delhi Gliding Club. These are made predominantly with indigenous materials.

The senior division cadets of the Air Squadron of the National Cadet Corps based on Kanpur took up gliding in October 1955, and this will be extended to four other units who are now to include gliding in the training syllabus.

The gliding centre at Bamrauli, about six miles from Allahabad, has given about 4,000 successful flights since its inception in March last. It is being run under the auspices of the Civil Aviation Training Centre at Bamrauli, and is an additional wing to the C.A.T.C., which will develop into an Air University, the first of its kind in India. After the establishment of the centre the State Government is providing transport facilities for those intending to go to Bamrauli to enjoy glider flying at a nominal charge of Re.1 per flight.

Holland

The first Gold C licence was obtained this year by A. Dekkers, member of the Gooise Zweefvliegclub. On July 21st Dekkers reached an altitude of 3,420 metres (11,218 ft.) in thermals over Terlet Gliding Centre. Some weeks earlier he made a record goal flight from Terlet to Hamburg (326 km. or 202.5 miles), for which he will add a diamond to his gold badge. He is the eighth Dutch pilot with a Gold C and the sixth with a diamond.

Trinidad

A Slingsby Tandem two-seater, constructed by members of the Trinidad and Tobago Light Aeroplane Club, had its first test flights at Piarco in June. Carl Agostini and Frank Fuller were one test team, and T. Galler and G. Beardman the other. Some tests were with the nose-hook and some with the belly-hook. Gliding will be open to all members after 24 tests have been made.

BRITISH GLIDING ASSOCIATION NEWS

Record Homologated

UNITED KINGDOM SINGLE-SEATER SPEED TO 100-KM. GOAL: D. G. Goddard on 30.7.56, Lasham-West Malling, 67.2 m.p.h. (107.3 km.p.h.).

Victory Ball and A.G.M.

The 1957 Victory Ball will be held at Londonderry House on Friday, March 15th, from 8.30 p.m. till 2 a.m. The Annual General Meeting of the British Gliding Association and the Instructors' Conference will be held on Saturday, March 16th.

National Gliding Championships

The 1957 National Championships will be organised by the Surrey, Imperial College and Army Gliding Clubs at Lasham from July 27th to August 5th, providing permission can be obtained from the Air Ministry.

R.A.F. Gliding Championships

In the account of the R.A.F. Championships published in our October issue, a correction should be made in the Final Results given on page 244. In Class C, the flight in the Moonrakers' Tutor which earned 1,000 points was made by L. A. Wilson, ex-Cpl., R.A.F. Compton Bassett.

Election of New Gliding Club to Membership

The Perkins Sports Association G.C. has been elected to membership of the Association. The Club operates from Polegate Aerodrome, Nr. Peterborough, but membership is only open to employees of the Perkins firm.

The Secretary is:
C. C. V. Samwell,
Perkins Sports Association,
Peterborough, Northants.

Courses in Meteorology

Following the course now in progress at the Kronfeld Club, three more University Extension courses will be held early in 1957.

1. Modern Developments in Meteorology and Climatology, by E. T. Eady; 12 lectures at Harrow Technical College on Tuesdays from 7 to 9 p.m., starting January 15th. Fee, 6s. 3d.; applications to Secretary of College.

2. The Earth and its Atmosphere, by T. J. Chandler; 12 lectures at Hendon Technical College on Tuesdays from 7.30 to 9.30 p.m., starting January 15th. Fee, 6s. 6d.; applications to Secretary of College.

3. Storms and Prospects for their Control, by F. H. Ludlam; 6 lectures at Department of Meteorology, Imperial College, on Thursdays from 6.45 to 8.45 p.m., starting January 17th. Fee, 7s. 6d. (single lectures 2s.); applications to Deputy Director (Extension), Dept. of Extra-Mural Studies, University of London, Senate House, W.C.1.

For the first and last series some general knowledge of the subject is required; for the second, little previous knowledge.

CORRESPONDENCE

WET WINGS

Dear Sir,

During showery weather at Unterwössen I noticed that adhering rainwater was wiped from the wings of sailplanes, and the lifting surfaces were carefully dried prior to flight.

An instructor informed me that the launching of gliders with damp wing surfaces is inadvisable. Furthermore, the airspeed of such aircraft, when wet after flying in rain, should be suitably increased on landing. The extra speed thus required for the Mu-13 was stated to be 10 kms. per hour.

I should be interested to know if neglect of these precautions elsewhere has been responsible for any troubles encountered through the operation of gliders in rainy conditions.

CARL A. BECK.

116, *Marlborough Park* (*Central*),
Belfast.

BOOK REVIEWS

Flying Training in Gliders: by ANN AND LORNE WELCH. Published by the British Gliding Association, London, 1956. Price 5s.

THIS indispensable bible for the instructor first appeared in 1952 as the "Manual for Elementary Flying Instruction in Two-Seater Gliders." I am glad that the opportunity has been taken in this revised edition of simplifying the title, because the new one helps to aim the booklet at the larger market called "the pilot who wants to improve his flying," whereas the previous cumbrous caption was more likely to attract only the budding instructor.

There is, I am sure, not a shadow of doubt that the flying of many pilots regarded as perfectly competent would be improved by their reading this manual at intervals. There is normally nothing like enough time for an instructor to tell his pupil everything he really should know about the flying of a glider, and of what he is told immediately before and after a circuit it is almost certain that only a small amount really sticks in his memory.

This booklet covers the technique of instruction, the methods of training, and all the exercises and manoeuvres from "Preparation for Flight" to "Aerobatics", with an Appendix on Club Test Flying. Each subject is divided into three parts, A, B and C. Part A is headed Considerations, under which is discussed the actual problem, the aim in teaching it, the principles of flight which are involved, and a summary of all the factors which have to be considered. Part B is titled Air Instruction and assumes that the pupil has a sound understanding of all the considerations outlined in Part A. It gives a form of words suitable for the instructor to use or adapt to the particular circumstances. Part C, headed Advice to Instructors, gives hints and tips based on past experience of instructing.

In recommending *every* glider pilot to buy a copy of this manual I feel quite sure that none will consider their 5s. to be wasted. Every glider pilot should want to improve his flying, and this booklet will certainly bring to his notice several points about which he had completely forgotten, or possibly had never received adequate tuition, the latter particularly applying to pre-war trained or solo-trained pilots. And, of course, the competence of the authors, both as authors and as instructors, is known far and wide.

J. C. NEILAN.

On Being a Bird, by PHILIP WILLS. New cheap edition at 5s., published by Sailflying Press Ltd., 19, Park Lane, London, W.

MOST glider pilots will have read Philip Wills's enthralling book and the cheap edition will need no introduction. It has been printed on excellent paper and the cover now features Charles Brown's lovely colour photograph of the Army Club Skylark soaring over Lasham.

The author's technique is to intersperse the beautifully written accounts of his flights with snippets from the various branches of the art with which all glider pilots must become familiar. This method is successful and the reader is left convinced that Championship gliding must be the most exciting and exacting sport of all time. I quote from a paragraph on cloud streets:—

> "On such a day no sailplane pilot worthy of salvation would change places with any king in history. The air is clear and cold, like spring water, vibrant with life. The earth is a dapple of greens and browns, striped with the soundless racing shadows of the clouds."

Only a glider pilot could have written that and only one with poetry in his heart. I think it is why we get so mad about gliding, though far less able to transfer our thoughts to paper.

This is a book for everybody. It will do for the aunts and uncles who ask you why you glide. It will suit the type who says he is very interested but wonders how to start. It will give invaluable instruction to every shade of glider pilot. My only criticism is that the type is rather small—or maybe I am getting old.

All profits on this edition are being given to the British Gliding Association so I hope all readers will lay in a stock to send to their friends at Christmas. They cannot fail to be delighted.

A. J. DEANE-DRUMMOND.

Gliding Certificates

SILVER C. CERTIFICATES

No.	*Name*	*Gliding Club*	*Date*
604	W. G. Parr	Cambridge University Gliding Club	5.9.56
605	K. H. Kuntze	London Gliding Club	6.9.56
606	J. F. A. Graham	Coventry Gliding Club	11.8.56
607	J. F. Harrison	Midland Gliding Club	12.9.56

C CERTIFICATES

Name	*Gliding Club or School*
P. S. Clay	Midland
J. K. McGill	RAF Windrushers
J. A. G. Ross	RAF Windrushers
D. F. Barley	RAF Geilenkirchen
V. G. Hill	Dartmouth R.N. Camp
J. H. Walker	R.N. Portsmotuh
T. G. W. Potts	Army
C. L. Hullock	Derbyshire & Lancashire
O. N. Anderson	RAF Wessex
R. Birch	Derbyshire & Lancashire
R. F. Brook	No. 624 G.S.
T. H. Perolls	R.N. Gamecock
P. Richards	No. 621 G.S.
E. Stephenson	No. 641 G.S.
R. S. Perry	RAF Fenland
R. G. Dalton	No. 621 G.S.
A. L. Millard	No. 621 G.S.
L. J. Schofer	No. 621 G.S.
C. W. Turner	RAF Andover
J. W. L. Westley	No. 621 G.S.
R. R. Garnett	Army
A. Hodgson	RAF Wessex
G. M. Rees	Derbyshire & Lancashire
J. C. Hodgson	No. 621 G.S.
J. N. Heath	RAF Moonrakers
E. Hunneman	No. 621 G.S.
B. J. Hoptroff	No. 621 G.S.
D. J. Aldred	No. 621 G.S.
J. Whitaker	Southdown
B. J. Hunt	Coventry
L. T. Johns	No. 621 G.S.
C. R. Lucas	No. 621 G.S.
J. G. King	Surrey
M. F. Meek	Southdown

Club and Association News

Taking advantage of 'St. Luke's little Summer', and flying the 'Sailplane & Gliding' pennon, we kept our promise to visit some more Club sites during October. Our sincere thanks are due to folk at Dunstable, Camphill, Sutton Bank and Cambridge for kindnesses received; and we are glad to have seen everywhere evidence of steady progress to keep pace with the expanding numbers of would-be glider pilots. We cannot omit to mention one of the highlights of our expedition, the visit to the Kirbymoorside Works where Slingsby sailplanes are made and where our welcome was most hospitable.

We feel that an apology is due to hard-worked Press Secretaries who were misled by our October Editorial. The 'deadline' date of October 26th had to be brought forward for reasons, which were at the time unforeseen, connected with printing arrangements for Christmas publications. There is more in planning the production of even such a slim magazine as this than meets the eye; and it is not always possible to hold open for the receipt of topical news as late as we could wish.

No sooner is one issue out of the way than the next is in course of preparation, and the latest date for receipt of Club and Association News for the February, 1957, issue has been fixed as Monday, December 17th. Please send your news by that date to 33 B, Eccleston Square, London, S.W.1.

GODFREY HARWOOD,
Club & Association News Editor.

AUSTRALIAN NAVY

OUR 3,000th flight was made a few days after the completion of our first year of operation. Flying activities were somewhat curtailed during the winter season with its exceptionally severe conditions, but several new members have gone solo, and the first 'C' Certificate of our second year was gained on August 25th.

Spring started officially on September 1st, and was marked by the report of readiness of our new sailplane, Edmund Schneider's E.S.56, reputed to have a performance similar to that of a Skylark II.

In spite of the disappointment that our Chairman, Tony Goodhart was not allowed to represent Australia at St. Yan, we are now looking forward to the Australian Nationals. These are to be held immediately after Christmas at a site yet to be announced

A.C.G.

BRISTOL

AT the end of our first full summer season at Nympsfield we feel that the site has lived up to our expectations, and that we have gained tremendously by moving from Lulsgate. Up to the end of August club flying hours this year were 295 in 2,030 launches, including winter circuits at Lulsgate, whilst resident private owners had 38 hours from 90 launches. The running total shows a reduction of about 500 launches on our Lulsgate average, but against that, there is a gratifying increase in the average flight time, which is now 9.5 minutes.

September and October did not produce any outstanding soaring, and the only items of interest are 'C's' by Ron Clarke and Ted Chubb, and a visit to Nympsfield and subsequent T-21 flight by James Robertson Justice, complete with deerstalker hat.

Peter Collier has followed up his completion of a successful season as our course instructor by being appointed club manager, an appointment which we expect will increase club flying, and also will enable club labour potential to be organised more effectively in our several major projects. Not being blessed with excessive funds, we have had regretfully to dispense with the services of Jack Houghton—our ground engineer, who has given us such sterling service in the past.

Site development has continued steadily, the club house is now ready for decorating and furnishing, whilst we are having a 26 ft. by 60 ft. lean-to workshop built onto the side of the new hangar. Thanks to a digging party led by Pete Etheridge, the local rock has been assaulted sufficiently for a 500 gallon underground petrol tank to be installed, and quite a few yards of drainage trenches have appeared. Although Nympsfield village, half a mile away, has mains electricity, our chances of obtaining this seem very remote, and at present Ron Clarke is installing all the house wiring, to be operated by a 10 kilowatt generator which he has acquired. Finally, negotiations with the local landowners and farmers have resulted in assistance being provided towards erecting nearly two miles of fencing round the field. When this is completed we shall be able to let the ground once more for regular sheep grazing, to our own and the farmer's benefit. M.G.

CAMBRIDGE

Our June camp at the Long Mynd was once again acclaimed to be very successful, after a rather slow start due to bad weather. The 35 campers logged 147 hours and 307 launches in only ten flying days, and collected four Silver 'C' duration legs. After this very enjoyable fortnight there was a great demand for another camp in September, but unfortunately this was marred by unco-operative weather and only 21 hours flying was done.

Sigfrid Neumann has once again been poring over the daily flying sheets and written a comprehensive report on the Club's achievements in the past year (Oct. 1955 to 56). Thirteen 'C' certificates and four Silver 'C' certificates have been obtained and also 13 Silver 'C' legs and one Gold 'C' (distance) leg. Bill Parr spent a few weeks in France, and five hours over France, to return with our fourth Silver 'C' of the season.

On further inspection of the report it is found that 29 members went solo for the first time with the Club, eight members have graduated to the Olympia, and that ten Olympia pilots have converted to the Skylark. In Ken King we have one further instructor, while there are three U/T instructors and two more passenger carriers.

In the Spring and early Summer in particular there was a great deal of cross-country flying, totalling 1,087 miles for 28 flights. All the aircraft except the Tutor contributed towards this, but, of course, most of the long flights were in the Skylark.

At the beginning of term the Club had a stall at the Societies' Fair, and also an open meeting to attract some members, particularly from the freshmen. The open meeting was packed, no doubt due, to some extent, to word having been whispered that Ken King was to show some more of his excellent gliding films. The result has been that a good number of new recruits have been enrolled, ensuring that Ted Warner will be kept busy this winter.

David Clayton, who has been our Secretary for the last few years, has now moved to Birmingham, and has had to give up his post. He has done a fine job for which the Club is very grateful, and we hope we shall still have the pleasure of seeing him at Cambridge in future. B.H.S.

COVENTRY

The advent of autumnal mists, and a slight touch of bronchitis here and there, have at last convinced even the most stalwart that the weather for the achievement of 'big things' has passed for this year, if in fact it was ever present. On looking back over this summer, results appear rather better than the weather has led us to believe, although the shortage of thermals has kept cross-countries to a total of five. Twenty-one solos so far have already exceeded last year's grand total. The last six 'A' and 'B's were gained in the same number of week-ends by Joan Cunningham, J. Brookes, B. Wicks, D. Chell, Howard Greenway and L. Venus, and George Turner gained his 'C'.

During the last few week-ends a good N.W. wind has enabled high performance machines to ridge soar at Edgehill, leaving Baginton entirely free for T-21 training.

One of the better days at Edgehill was October 6th, when two Olympias were airborne for 13 hours from 13 launches, the best height being 3,800 feet. Several pilots attempted to sit out 'fivers' but the nearest was 3 hrs. 40 mins.

Three syndicate Olympia owners spent a short holiday at Edgehill from October 2nd-5th. Total flying time was 4 hrs. 30 mins. from nine launches, as the 3rd and 4th were spent in the 'local', trying to get as damp inside as the airfield was outside.

At Baginton we are now settling down to intensive winter training and 'circuit bashing', coupled with prayers for more opportunities next summer. B.H.C.

DERBYSHIRE AND LANCASHIRE

SINCE the last Club Notes appeared we have lost our regular scribe. Alec Baynes has retired to London on a 'course' and his eventual posting is still uncertain. We hope he will be able to rejoin us next year (and resume writing these notes).

The summer has ended in the same way as it began, with "nowt for nobody". It is true that we have had one or two gold 'C' heights in waves, but cross-country flights have been negligible and the training programme has nearly come to a standstill. John Tweedy had his first cu-nim flight in the Sky and reached just under 10,000 feet.

Harry Midwood brought a party up from Bedford for the week commencing September 9th but the weather was unrelenting and, apart from a small wave on the 13th and two five-hour flights, there was nothing doing.

The week-end October 13th and 14th was the best we have had for a long time. On Saturday Brian Jefferson and Graham Elson in Skylarks and Michael Kaye in his Olympia contacted a wave and visited Stocksbridge, Buxton and various other places, heights ranged between 5,000 and 6,000 feet. It was Ted Weir's weekend however. On Saturday he went to the bottom in the T.31 but it was all right because the C.F.I. said it was unavoidable. On Sunday he went solo and took his 'A' and 'B', and on a subsequent flight he managed to stay up ten minutes for his 'C'. Soaring was

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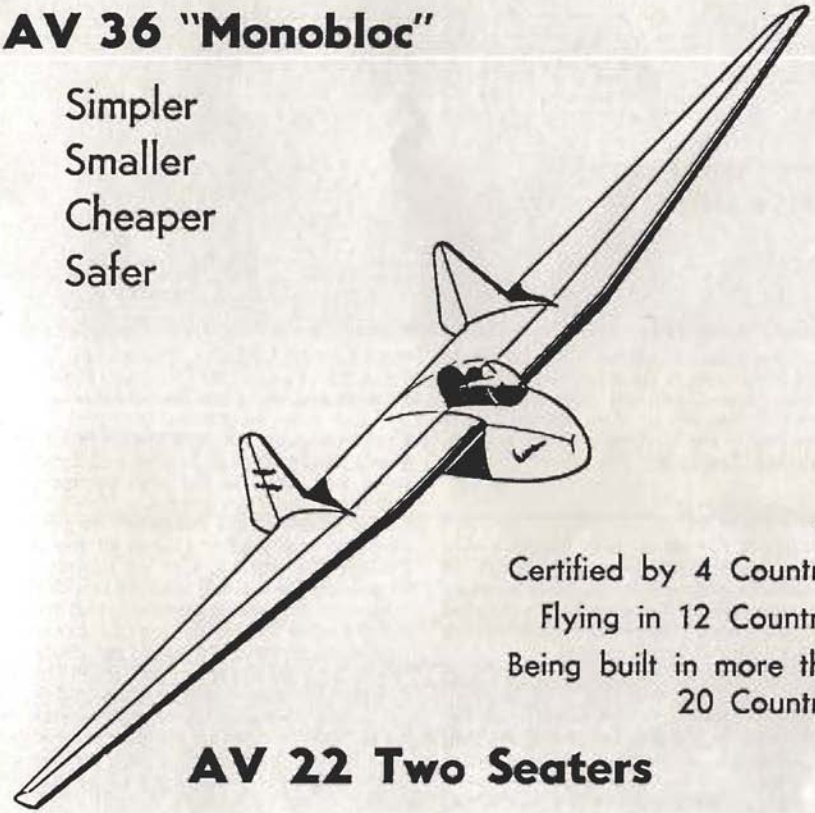

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only possible for about 15 minutes during the whole day. It was an excellent day for training, the first for months, and Lickess, Bower, Tune, Ralph and Krasnodewski all polished off their 'A' and 'B' certificates.

Both Tutors have now been fitted with spoilers and the T.31 will be fitted up next. The idea of the spoilers is to obviate the turns on the approach which have so far been a necessary and not very desirable feature of training at Camphill. Pilots still seem to prefer to do turns rather than use the spoilers but, when the T.31 has been fitted up, their use will become part of the training. Other additions to the fleet include a new Olympia, delivery of which is expected shortly.

The social programme opened on October 6th with a successful car Treasure Hunt organised by Michael Newboult. This was won by Rodney Sneath and his crew, who completed the course in 1 hour 1 minute, about half the time taken by the next competitor. Competitors assembled in the clubhouse at zero hour and were given rules and instructions and clues. These had to be solved from stage to stage and caused many puzzled frowns, but all who took part thoroughly enjoyed it. The Annual Dance will be held at the St. Anne's Hotel, Buxton, on Friday, December 7th.

B.T.

GAMECOCK

BRAMCOTE, former scene of the Nationals, has once more been the centre of considerable gliding activity, for in addition to the normal club flying we have welcomed the eighth annual Dartmouth Cadets Gliding Camp to our Midlands airfield.

Early in May we modified our Red Cadet for C. of G. launching and fitted a windscreen and instruments,with vastly improved results, heights of 1,600 feet being reached on our shortest tow. As previously recorded this machine was soared during the Whitsun week-end, greatly raising the hopes of those members aspiring to 'C' certificates. On May 23rd we improved our launching rate to the tune of 50 launches in 4½ hours, and on this day—or, to be precise, at 2045 in the evening—Chief Petty Officer Osborne found a large area of gentle lift which enabled him to maintain height in Red Cadet for 11 minutes. This phenomenon has occurred on several occasions, always late in the evening and usually under conditions of little or no surface wind.

June proved relatively uneventful, with slightly less flying than the previous month. July opened wet and windy, but on the 9th Osborne stayed airborne 36 minutes and reached 3,000 feet in Red Cadet, the same day Naval Airman Cummings took his 'A' certificate in the Primary. On the 27th Red Cadet soared again, Osborne reaching 2,000 feet and lasting 15 minutes. Three launches later our Treasurer, Lt. Harvey Terry, stayed up 12 minutes and reached 1,700 feet, thus gaining his 'C', and clinched it on his next flight with 2,300 feet and 20 minutes.

At the end of July the eighth annual Dartmouth Cadets Gliding Camp commenced operations, with our club instructors, Commissioned Airman Gunter and Chief Petty Officer Osborne on the instructional staff, and Lieutenants Terry and Griffin and Chief Petty Officer Perolls looking after the ground maintenance and winching. The Chief Instructor was Instructor Lieutenant-Commander Brett-Knowles, Royal Navy, and the aircraft used were Kranich I, Mu BA, Prefect, two T-31's, two Cadet I's and two Primaries, with three winches and two Tiger Moths for launching and four jeeps for ground transport duties. Communication between launch point and winch was by Type 622 radio, and Type 615 radio was fitted to the high performance sailplanes and Tiger Moths.

The object of the camp was to provide ab initio training for Cadets of the R.N. College, Dartmouth, also an introduction to soaring for a small number of midshipmen with previous experience, and to this end the camp was divided into three courses, with approximately 14 pupils per course.

The first course ran from July 31st to August 13th, and was most successful. Each day began with a met. briefing, followed by a pre-flight briefing on the exercise for the day; flying commencing at 0915 and continuing until 1900, with an hour's break for lunch. All ab initios gained their 'A', 'B' certificates and those with previous experience were introduced to the delights of aero-towing in the Prefect. One of these and one ab initio gained their 'C' certificates on the last day of the course, making a total of eight 'A's, 10 'B's and two 'C's gained, with 860 launches. The C.F.I., Lieutenant-Commander Brett Knowles, completed the height and distance legs of his Silver 'C' with a 34-mile flight to Poddington during this course.

Instructors at Dartmouth Cadets G.C.—L. to R. (Standing) Lt. Beyfuss, Lt. Kirby, Lt.-Cdr. Brett-Knowles (C.F.I.), Lt. Johnson, Cmnd. Pilot Edwards. (Sitting) P. O. Sansom, Cd. Airman Gunter, C.P.O. Osborne.

The Kranich I of the Dartmouth Cadets Gliding Club.

The second course commenced on August 29th and followed much the same pattern as the first. The third and last course commenced on September 8th, and two days later was visited by members of the local and national press, including Dr. Slater and Charles Brown, also the B.B.C. A slightly chaotic day ensued, with harassed instructors dodging cameras, and the air was filled with cries of 'Don't quote me.' Notwithstanding all this, a considerable amount of flying was done and the Pressmen eventually departed, apparently satisfied with their efforts. The course continued with visits by the Flag Officer Air (Home), Vice-Admiral Sir Caspar John and the Flag Officer Flying Training, Rear-Admiral Evans, and eventually ended on September 17th, with all eight ab initio cadets having gained their 'A' and 'B' certificates.

Statistics, for those who like them, are as follows:—Launches 2,150; Hours Flown 184 hours 44 minutes; Certificates 23 'A', 25 'B' and four 'C'.

Two of our members have now left us. Lt. Peter Fowler goes out into the world as a civilian, and Ed Clinton, one of our two flying policemen, is en route to Rhodesia and the Bulawayo Club. We would like to pay tribute to the sterling work of our retiring Secretary, Lt. Clive Latty, who has departed to 'civvy street'. He was a founder member of the club and our present measure of success is largely due to his efforts.

J.E.O.

KENT

By the time these notes appear we shall have been operating for some nine months, and can look back on considerable progress. By the end of September we had achieved over 2,500 launches and 15 members had gone solo.

The premises obtained as a clubhouse have been partially redecorated and a party was held on August 25th to declare it and the bar open. We thank Peter Beechey for all the good work he has done in organising everything including getting the licence and supplies from the local brewery, and thanks are also due to the willing helpers who did the painting and decorating.

Edward Day has been co-opted to the Committee, also Colin Moore who has taken over publicity matters from Peter Crabtree now appointed assistant C.F.I. Flying members now total 88, and we are steadily reducing the waiting list until membership reaches 100, after which more aircraft will be required. At present five aircraft are being operated—T.21b, T.31, Prefect, the Howe-Bridges Olympia and the Day-Foreman Sky, the latter two being available for selected club members.

FOUNDED ONLY THREE YEARS AGO, THE CROWN AGENTS' GLIDING CLUB INCLUDES MEMBERS IN THE TERRITORIES INDICATED BY GLIDERS ON THE MAP ABOVE

Weather conditions have not been very good for thermal soaring, but ridge soaring has been carried on whenever the wind was favourable. On September 28th Basil Meads of the Kemsley Flying Trust visited us for the first time since the inaugural meeting in April, and did some ridge soaring with John Furlong.

Our first Dance was held on September 15th at the Tudor House, Bearsted, and was well attended. A Christmas Party is being arranged for Saturday, December 22nd in the clubhouse, and we shall hold another dance early in the New Year again at Tudor House.

Club ties and car badges are on order and will be ready shortly. These incorporate the Kent County insignia and a sailplane and are already in great demand.

C.M.

LASHAM

We have designed and built a new building known as the 'Palazzo Elsano'. Increased comfort is now ensured over the coming winter months.

There is now no waiting list for new members, which will mean that people who start their training now should be able to make use of the next soaring season. We have had 18,456 launches so far this year which compares very well with 16,140 up to the end of October last year. The rate should continue well since our mid-week courses are fully booked up to the end of the year and 1957 is well booked up already.

At the time of writing, the marriage impends of Malcolm Laurie and Kitty Jackson on Thursday, October 25th. We hope they will be happy.

We have welcomed Bob Linton as our new M.T. mechanic.

The C.F.I. of the Bulawayo Club came to an Instructors' Course recently—they never bother to use less than '20 up' over there, and the T-21 normally soars at 10,000 feet.

Fanny went off to Firle not long ago where she and her 'crew' were royally entertained by Southdown. There was also an expedition to the Cocking Hill site on October 6th, where Peter Williams of the

Army Club achieved his five hours. Paddy Pitt Roche did the same, in spite of somewhat scrappy weather conditions, and completed his Silver 'C'.

The Christmas Party on December 15th is very near and we do hope that we will be joined by people from other clubs.

E.C.

LONDON

In spite of weather this Summer which has been more suitable for swimming than gliding, we have carried on with routine flying. August was a good month, with 1,143 launches and 481 hours.

Negotiations are in progress for the purchase of an adjoining field, which we hope will soon be completed and result in much improved launches in North East winds. The club's third Tutor is now being fitted with spoilers, and this will mean that all the three Tutors will have this very effective modification.

Work has already commenced on the new garage building scheme, and all members have been asked to give up one complete day to this project. So far the response has been very good.

Dan Smith retired as C.F.I. at the end of September, and deserves a hearty vote of thanks for his work over the past years. He will continue as Chairman of the Flying Committee, and our C.F.I. is now the resident instructor, John Everitt.

There will be a Christmas Dance on December 15th, and members of other clubs will be very welcome. The annual dinner will take place on February 23rd, 1957, and will be followed by a dance.

P.F.

MIDLAND

Generally speaking the weather during the Summer and recently has been most unco-operative. Early in September the club's final camp got in 100 hours, but later in that month the Cambridge Club members were not so lucky and managed only about 25 hours in their fortnight's stay.

On September 22nd we were able to hill soar on the East slope, and the following week-end produced West winds and quite a flock of visiting aircraft. Another excellent two days was enjoyed on October 20th and 21st with 77 hours soaring. This weekend made us equal in hours, from the site, to the record year of 1954, when 2,375 hours were flown. The 20th produced the best waves and Prestwich in his Skylark II used several to fly down to Nympsfield, 65 miles away. He reached a height of 13,800 ft. near Hay, in the Black Mountains area, and spent the first two hours above total cover, except for one small break near Ross-on-Wye.

The Snipe-Roeder winch has been working for several weeks and promises to revolutionise our existing ideas about winch launching. The best launch so far has been to 2,000 ft. with an average head wind, but what really pleases is that the two-seaters get up to 1,000-1,200 ft. in no-wind or cross-wind conditions. This new winch is an international effort, a German Roeder fitted with a Humber Super Snipe engine developing 127 h.p. driving an American torque converter and fully automatic gear-box.

Normally the cable slack is taken up by releasing the brake when initial acceleration takes place in second gear; with light winds the device changes itself into top gear imperceptibly soon after take-off. We are greatly indebted to the Rootes Group for all the help they have given us with this project. Progress is also being made with a device to retrieve the cable without a vehicle.

Plans for next year's camp programme have been made and will be published soon. We intend to run more courses both of five days and eight days duration because of the increasing demand.

J.H.

NETHERLANDS

The biggest club, Avio Eelde in the North of Holland, now has 250 members, and the total membership of all clubs is over 2,100. In the first half of 1956 21,500 launches were made for over 3,000 hours flying time. Machines are all the property of the Royal Netherlands Aero Club, being allotted to the various club centres. The fleet has been supplemented recently by the arrival of two Skylark IIIs, ten Skylark IIs and sixteen Rhönlerche 2-seater trainers.

Bad weather in July and August resulted in a sharp decrease in the number of 'C' certificates issued, but the total up to September makes good reading:—151 'B', 75 'C' and 19 Silver 'C'. Among the last of these was the first ever gained by a Dutch girl, Miss Hetty Amade, who is a sergeant flight controller at a R.N.A.F. base.

H.F.V.M.S.

NEWCASTLE

THE weather has failed to improve but I have been rescued from having to report routine circuitry in the T-21 and Cadet by what the Newcastle Journal called 'a big draught' which gave rise to three wave flights of over an hour each on Saturday, September 13th. The first was made by Alan Pratt and Steven Marples in the two-seater. They were airborne for seventy minutes and reached a height of 2,950 feet to the east of the airfield. By the time Ian Paul (in the Kite II) and Doug Collinson (in the Olympia) were launched, the wave had moved to the western end of the field and they had to go forward from the launch to contact it. Paul reached a height of 2,500 feet and was airborne for 1 hr. 43 mins. while Collinson was in the air for 1 hr. 10 mins. and reached 2,750 feet. There were still signs of wave activity when I left the field at about 5.45.

The Cadet has been extremely active and four pilots have recently made their first solos in it—Jim Askew, Chris Jelley, Cliff Sculthorpe and Hetty White who, incidentally, having completed the requisite number of solo launches, is the first lady member of the club to be 'certified' since we moved to Usworth. Our operations at Usworth have been considerably eased by the great kindness and ingenuity of Cliff Sculthorpe who, when our Beaverette and car were under repair, kindly lent the club his stock car. He has also provided us (by means of some mumbo-jumbo with three lamps, an accumulator and other odds and ends) with a foolproof and visible means of signalling to the winch.

The last piece of flying news is of the arrival of Andy Coulson's Skylark III from Kirbymoorside. Resplendent in its colours of light grey fuselage and yellow tailplane and wings, it made its maiden flight on Saturday afternoon.

L.G.K.

NORTHAMPTON

THIS is the first contribution from the newly formed Northamptonshire Gliding Club, but not, of course, the first, by any means, from its base at Sywell, where, for several years, the Kettering Gliding Club has been contributing the odd item of news.

Since the amalgamation with the Northampton Club and the formation of the County Club, the scene at Sywell changes weekly. Members respond gladly to the call for working parties and the speed with which a large Pantechnicon can change into a half-built 2-drum winch has to be seen to be believed.

A lot more work still remains to be done and possibly this may help us to forget our elusive summer and to keep us busy through the coming winter months, for which a programme of action has been drawn up by the Management Committee.

G.C.

OXFORD

SINCE our last report Joyce Taylor and Beevers have soloed in the Club G.B., and Ron Courtney and Larry Parrot have qualified for their 'C' certificates. Larry finally managed to beat his 10 minute bogey with a flight of 24 minutes duration and reached a height of 2,300 ft.

There has been some late season soaring during which Chris Hurst narrowly missed gaining his Silver 'C' height leg in a flight of 1 hour in the Olympia, and several new members have had their first experience of thermalling in the T-21.

The inside of the hangar is now being repainted, thus causing a certain amount of upheaval trying to keep the aircraft out of range of the spray guns.

D.W.H.R.

PERKINS

OUR first summer season has ended. In retrospect most week-ends, if not too wet for flying, were too gusty for elementary solo training. Three more members have been up and round and down sufficiently well and often to get 'B' certificates.

For the rest of us there has been much exercise and interest. There is lots of fun in watching, and there is much knowledge to be gleaned from listening in to a de-briefing chat. There is also much satisfaction in rigging, patching, maintenance, and repairing the hangar roof.

So far most of us are not yet airborne, and eagerly await the arrival of our new two-seater which should be here when this note appears in print. Our next contribution may be written in the jargon, and talk of Silver 'C's, and barographs, and other wonders. We'll still have fun.

F.I.W.

SCOTTISH G.U.

THE following report covers our activities since last June. One member, presumably to remind everybody that we were still active, actually attempted a trip to Sassenachia. Optimistically declaring Sheffield as his goal he set off, but returned to earth in confusion fifteen miles later on a football pitch, and dramatically interrupted a game. The flight was further notable for the reception he received from seven policemen (including two inspectors) an ambulance, a doctor and innumerable small boys, whose efforts to rend the machine apart were pursued with unusual earnestness.

Our recent cross-country attempts have all been of the brief-but-intrepid dash variety. Apart from the episode described above, Jimmy Rae flew 20 miles along the Ochils to Dollar, and Maurice Berry, in a 50-km. attempt, flew to Kilconquhar, also about 20 miles. Even local soaring has been sparse. We note from the log-book only three thermal flights of over an hour, although a number of shorter soaring flights have been made. A popular pastime has been out-and-returns to Bishop Hill (seven miles away) and John Paterson, on July 31st, stayed to do his five hours before returning to the airfield.

Our second expedition to Connel Bridge Airfield, near Oban, from July 21st to 28th, was a really mammoth enterprise, involving the transport of five gliders, including the T-21B, and mountains of equipment. The Tiger went along to provide aero-tows, and Robert Parker arrived later in his Auster. After all the organisation and hard work the weather let us down very badly. Nevertheless, Ben Lora, which can be soared from an auto-tow in a S. or S.W. wind, and from an aero-tow in a W. wind, provided good lift when flying was possible and a total of 31 hours was achieved.

A sad blow was the pranging of the Krajanek by an old member visiting us from another club. Stricken with grief, he emigrated to Canada almost immediately, where we hear he has already found a gliding centre.

In spite of all these unhappy experiences, however, we shall definitely be going back to Connel, and we enthusiastically recommend the site to other clubs. It will be well worth the long trip.

Negotiations are continuing in connection with Portmoak, our possible new site, which lies between Bishop and Benarty Hills on the N.E. shore of Loch Leven.

D.H.

SOUTHDOWN

THE official opening of the new hangar took place on Sunday, September 30th, in the presence of a large and distinguished gathering which included the Right Hon. Viscount Gage, K.C.V.O., Marshal of the R.A.F. Sir John Maitland Salmond, G.C.B., C.M.G., D.S.O. (both former Presidents of the club), Basil Meads, Esq., M.B.E., Secretary to the Kemsley Flying Trust, and Mr. and Mrs. Philip Wills.

The ceremony was performed by Lady Gage, who was introduced by the President, S./Ldr. E. J. Furlong, M.B.E. In his remarks he referred to the historic first gliding meeting in England in 1922 which was held on the actual site which the club now occupies, and which marked the beginning of the gliding movement in this country.

Lady Gage then knocked three times on the hangar doors which rolled back to disclose the youngest lady member of the club who charmingly presented her with a little scale model of an Olympia sailplane. Photographs were taken and the company went in to tea.

Afterwards Lady Gage and guests were taken up for passenger flights in which we were assisted by members of the Surrey Gliding Club who had kindly brought a T-21B over with them. Philip Wills also made a demonstration flight in his Skylark. An epic day for the club and happily the weather was perfect.

Improved weather conditions in the last few weeks have given us some excellent hill soaring and on one day no fewer than four members gained 'C' certificates.

H.W.H.

ULSTER

LATE in August was again a good time for soaring at Magilligan and several flights varying from 20 minutes to two hours were made, mostly by Heaslip, Liddell and Rountree. T. Linton made his first solo flight, and W. Gibson got his 'C' with 20 minutes' soaring. We had the pleasure of a visit from Kirk Harris, a Californian Silver 'C' pilot, who flew for 35 minutes.

After much preparation of cameras, etc. Carl Beck in the Tutor succeeded in getting an excellent shot of our site. Magilligan

Carl Beck in a Tutor looks down with his camera on Magilligan Strand, site of the Ulster Gliding Club.

Strand is often used for motorcycle racing, which sometimes interferes with us, but as the picture shows we can get well above the cliff, which starts at 200 ft. at Downhill rising in 1 mile to 400 ft. From there it turns inland for 3½ miles more reaching 1,200 ft. at the "Fairy Mountain" Binevenagh.

W.L.

WESSEX R.A.F.

SINCE our last report difficult weather continued, but we have put in much useful aero and motor tow practice. We now have some 30 members with aero-towing experience, a useful thing in itself since very often the tug pilot has not, but in addition it gives valuable practice in flying, navigating, and generally messing about with more air.

The motor tows were all in—or rather, on—an Eon Primary, kindly loaned to us by Elliott's, on which Frank Allen did a lark or two at R.A.F. Andover's Battle of Britain day to complement Andy's aerobatic show in the Olympia. A number of us had a go at circuiting the airfield behind Bill Stratton's Triumph and found it very good fun indeed; particularly going downwind. But it was not especially good for the Triumph.

One wonders how much we miss with modern dual training methods. Put your cap on backwards Charlie, and go wander the sky with the wind in your face. No instruments or anything else to stop you studying the pattern of things beneath. That? That was a stall, boy. Horrible, wasn't it? Teach you to keep your mind on what you're doing. And so much more instructive than a placid voice in your ear saying "You are flying too slow. Push that stick thing forward a bit".

Solo pilots confined by lack of lift to circuits of the airfield are beginning to spread aerobatic wings. Everybody seems

to be looping and stall turning these days and the space in our authorisation book for 'Remarks' is apt to contain such pithy entries as "Five loops!" This sort of thing leads to even more chaos on A.303, which passes our door, and both the police and ourselves wish we could open a car park.

We have been getting a lot of new members lately, and could make full use of two trainers. It is always much more difficult to get the ordinary airman interested than anybody else (we have shoals of enthusiastic sailors and soldiers), and so have been the more pleased to welcome a number of 'erks' from neighbouring stations as the result of a publicity drive.

We are leading the points race in the G.S.A. at the moment and aim to stay so. September saw Air Commodore Moore's Silver 'C' duration, Arthur Hodgson's 'C' and a number of first solos, amongst them Daphne Lane, young daughter of the President of the R.A.F.G.S.A.

We have acquired an Allis Chalmers 3-wheeled paraffin tractor, and this is already saving us money. It is nippy enough for cable retrieves, though not for attending to urgent repairs across the field, but its significant virtues are economy and an impressive capacity for remaining serviceable. Other clubs whose experience of jeeps, heavy tractors and tired Army trucks parallels ours, may find the type worth investigating.

R.B.L.

YORKSHIRE

AT Sutton Bank we have had a real example of an English 'Summer' and, as a result, the airfield gradually became one huge bog. On one occasion moving the winch required the combined efforts of a Beaver, a Landrover and a dozen stalwart pupils. However we have pressed on and flown whenever possible. Early in July, H. Salisbury gained his 'C'.

Seven Courses have been held, all fully booked, and in spite of the rain everybody enjoyed themselves thoroughly. When flying was impossible, pupils filled in the time by visits to Slings, lectures by Bob Swinn and even a bit of potholing! As a result of the Courses, quite a few new members have joined the Club.

On September 16th a north wind and sheer frustration made us decide to treat the ab initios to a few slides and hops, and as a result Bob Hill obtained his 'A' and 'B'. On September 23rd, following the same policy, Harry Sowden got his 'A' and 'B' and George Thompson his 'A'. On the following Saturday, Bob Hill went up in the 'Cadet' at *6 a.m.* and got his 'C'.

The silver winch now boasts a new engine, and the old engine has been installed as motive power for the 'Mobile' winch which at long last justifies its title. Bob has made a good job of covering in this winch, which has now a draught-proof driving compartment and covered engine room. Rumours that a bar and lounge are to be installed are without foundation.

Talking of bars, Bob Wilkie and Keith Moorey are making a splendid job of running the club bar, which now contains a really splendid assortment of drinks and, as we have plenty of coal in stock for the Lounge fire, we should at least have a comfortable winter.

E.H.

STOP PRESS

DUBLIN

THE early Summer saw at least one great improvement at Baldonnel. Almost unmourned, single seater training has been finally dropped. Now, and much to the relief of the club instructors, ab initio training is given on the Kranich. The new system is proving popular with all, especially those who were on the groundslide stage of their training—flying a high performance two-seater is a much more attractive proposition!

The one worry before the change over had been a doubt as to whether our auto-tow launches would be up to standard with such a comparatively heavy aircraft, but the average height achieved is proving to be between twelve and fifteen hundred feet.

We now have two more cross-country flights under our belts. Mike Harty, demonstrating the Petrel at an air display, impressed the crowd by flying on afterwards as far as Gormanstown, and Freddi Heinzl in the Kite II performed thirteen consecutive loops without losing any height. The second cross-country came in August when Pat Whelan flew the Grunau south to Hacketstown, gaining his Silver C distance.

The 'Wicklow Wave' has been much in evidence in recent weeks; plans are under way to reach it by means of aero tows from the nearby airfield of Weston.

T.B.B.

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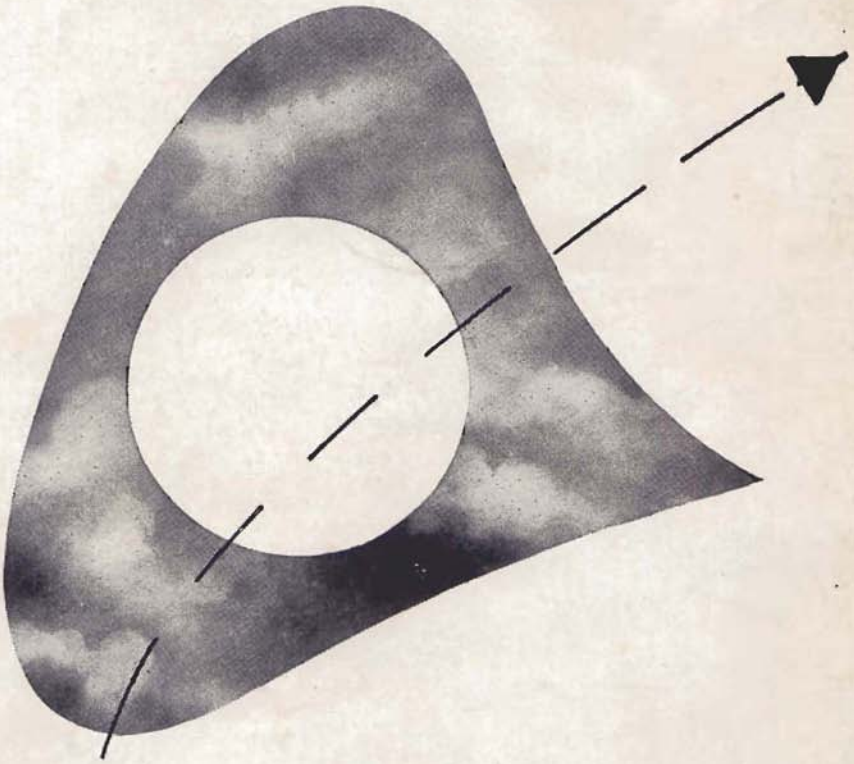

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