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SAILPLANE AND GLIDING

OFFICIAL ORGAN OF THE BRITISH GLIDING ASSOCIATION

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Dyhr Thomsen holding the oar inscribed "Blue Ribbon of the Kattegat", awarded to him after his long sea crossing.

SOARING ACROSS THE SEA

by Per Weishaupt

THE two-hour crossing of Kattegat last summer by Aage Dyhr Thomsen has once more drawn the attention towards the problems connected with gliding over water. Such flights have been performed in other countries as well. Best known are probably some brilliant flights across the Channel, which is about 38 kilometres (24 miles) wide on the shortest route, and a flight has also been made from Sweden to the Aalands Islands between Sweden and Finland.

But it is probably only in Denmark that flights across water have been made on a larger scale. The reason for this is obvious from a glance on the map of Denmark. You simply cannot perform very long flights without reaching a coast. Theoretically you might fly a 300-km. distance in north-south directions over Jutland, but the prevailing, comparatively strong westerly winds generally push you in another direction.

The first to cross our waters came to us from Sweden, but since then our visits to Sweden have not been repaid by them. The first crossings were made by E. Sparman on 12th August, 1933, who was towed to 2,000

metres and glided from Malmö to Copenhagen airport, where he was once more aerotowed up and glided back, using an E.S.G. 31 (No. 1 on map).

The first and only actual soaring flight from Sweden to Denmark was made on 6th June, 1936, by the German Peter Riedel, from Malmö to Copenhagen. After arriving over Denmark he continued to soar over Copenhagen for three hours before landing.

After the first distance flight was flown in Denmark in 1946, real soaring actually began in 1947. On 6th July, Gerhard Nielsen flew from Vaerløse near Copenhagen to Norra Rörum in Sweden, 80 km. (50 miles), with the help of a small cold front, and thereby became the first to cross Oeresund (The Sound) between Denmark and Sweden, winning a prize of 1,000 kroner offered by a Danish newspaper (No. 2 on map). The Sound is only 4 km. wide on the shortest route via Helsingör and Helsingborg, but about 16 km. (10 miles) where Nielsen crossed it (with an island in the middle) and about the same on the air route between Copenhagen and Malmö



(where there also is an island). It has, however, also been crossed further south, where there is a distance of 21 km. (13 miles) without any island.

On 21st August, Gerhard Nielsen was the first to cross Storebaelt (The Great Belt) between Seeland and Funen, in which direction the crossing was not repeated until 1956 (3). The shortest distance here is 16 km. (10 miles), with an island in the middle.

In the same year Lillebaelt (The Little Belt) between Jutland and Funen was crossed for the first time (4). Being down to about 1 km. wide (where there is a bridge), this is of course no obstacle, but nevertheless it has hitherto not been crossed from east to west.

On 23rd May, 1948, John Wetlesen made the first flight from Jutland to Seeland, thereby crossing both the Little and (for the first time west to east) the Great Belt (5). On the same day Harry Nielsen flew about the same distance from Roskilde across the Sound and across Southern Sweden (6).

While the flights in 1947 were performed in Grunau Babies, these were flown in a Hütter 28 and an Olympia respectively.

After a Jutland-Copenhagen flight in 1949, the first Gold C flight succeeded in 1950. This was made by K. A. Rasmussen, who, after just missing the 300 km. on a flight from Seeland into Sweden, made a goal flight from Ry in central Jutland to Karlshamn in Sweden, 322 km. (200 miles) (7). This was the first flight from Jutland to Sweden, and Rasmussen pioneered a new route via the island Samsø north of Funen. Here there are 16 km. (10 miles) of water on each side of the island. Rasmussen used the Swedish type Fi-1 (of Olympia performance).

This record was just beaten on 17th August, 1953, when Aage Dyhr Thomsen flew from Herning in Jutland to Sandhammaren on the south-eastern point of South Sweden (8). He did not use the more direct Samsø route, but went via Funen on a somewhat longer route, thereby being the first to cross both the Little Belt, the Great

Belt and the Sound. Actually he passed two airports on Funen and Seeland respectively, as planned, but without being observed. He had given Sandhammaren as his goal in order to beat both the free distance and gaol record, but obviously hoped to continue to the Danish island of Bornholm south-east of Sweden. The sea crossing here is a distance of 38 km. (24 miles) without comforting islands. That is the same distance as the Channel or as from Sweden to the Aalands Islands. Dyhr Thomsen arrived in time, but could not gain sufficient height to cross the fourth piece of water in his Mø-13d. So, after spending two hours over the goal, he landed after an eight hours' flight.

This record was equalled last year on 19th May by Niels Sejstrup, who took off from Karup Air Force station in an EON Olympia and used the Samsø route (9).

Quite a number of sea crossings were made last year, most of them into Sweden in the hope of continuing to Bornholm, for which a prize of 1,000 kroner has been offered on the occasion of the Ellehammer 50th anniversary year. Another prize of 1,000 kroner for the first flight from a point

west of the Great Belt to Jutland led to two east-west crossings of the Great Belt, but it was not possible to continue to Jutland.

Nobody thought of offering a prize for the first Jutland-Sweden direct crossing, which, as is known, was performed by Dyhr Thomsen on 3rd June (10). The shortest coast-to-coast distance here is about 65 km. (40 miles), but where he did it, from Frederikshavn to Kungsbacka south of Gothenburg (after taking off at Herning) the distance is 82 km. (51 miles). A little south of his route the helping island Laesø is situated, but from Laesø to Sweden there are still 44 km. (27.4 statute miles—or 23.8 nautical miles, which perhaps ought to be used here, although the distance sounds longer when expressed in the metric system).

This is probably the longest sea crossing ever made by a glider in free flight. And the interesting fact is that it was not done in a long glide, but as an actual soaring flight—which now brings us to the techniques used on these flights. By way of completing the list, it must finally be mentioned that Dyhr Thomsen last year also made two flights from Jutland to Seeland over the Samsø

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route. On one of them he might have continued into Sweden, but, having no hope of reaching Bornholm, he landed at an aerodrome near Copenhagen and was towed home. Flights were also made from Southern Jutland to Seeland and from Seeland to Funen.

Three types of crossing

When studying the different flights mentioned, we find that three different types have been used.

The most obvious, of course, is to gain sufficient height at one coast to reach the other in a downwind glide. The stronger the wind and the better the gliding angle of the sailplane, the less height do you need. If you want to continue the flight after reaching the second coast you must, however, reckon with continuing quite a distance (say 10 km., 6 miles) inland before finding thermals again. In this way the gap to cross is wider than the coast-to-coast distance. But often the clouds continue for some distance out from the first coast, and in this way the actual gap is of about the same distance as the coast-to-coast distance, only moved about 10 km. downwind.

Downcurrents may be found over the water, but generally the air is stable without up- or down-currents. If you are crossing after, or partly during, cloud flying, you have to reckon with icing, which may put down the performance considerably. One pilot found this summer that his Olympia only behaved like a Grunau Baby!

Another way to do it was pioneered by K. A. Rasmussen in 1950. Instead of gaining maximum height over the coast and then gliding across, he flew along the coast until he met a fresh thermal. With this he at once proceeded out from the coast, gaining height, and in this way reached maximum height quite a distance out from the coast. By this means he arrived in a better position when reaching the second coast. You must, of course, be sure to have a good thermal, because the wind will soon make it impossible to return, but quite a number of crossings have now been made from a low height. Generally there is still no lift when the last thermals from the coast have died out, and often you have a blue sky during the last half of the crossing.

The flight of Dyhr Thomsen last year across the northern part of Kattegat was

not a glide from a big altitude as was written in some papers, but actually a soaring flight over the sea for 1½ hours with a subsequent glide during the last half hour. Actually he had hoped for a cumulonimbus off the coast of Jutland, but it did not come. He then left the coast, climbing from 1,000 to 1,200 metres firstly but then descending to about 1,000, at which height he stayed for about half an hour with the variometer at zero, drifting with the wind to a point north of the island Laesø. While the small islands in the Sound and the Great Belt normally do not produce thermals, but may be considered as landing places in an emergency (never used, and not very easy to get away from again), Laesø, like Samsø, is large enough to be able to produce some. Samsø sometimes does, sometimes not. A landing has been made there once, and retrieving from there is no difficulty, as there are regular ferry boats. Laesø has a small aerodrome from which retrieving by aero-tow is possible.

Dyhr Thomsen was about 5 km. (3 miles) north of Laesø and saw a cumulus north-east of it. He judged it had no longer any connection with the island, but energy to last for quite a while. If he headed towards it he would have no possibility of going back to Laesø. After some deliberations he decided to take the chance. He reached the cloud at less than 800 metres, but found lift and climbed to 1,400 metres inside it. His only chance if it failed was a ship with a load of timber, upon which he might have landed as on an aircraft carrier! (That he does not need much room for landing he proved several times during the World Championships, where his market-place landing in Paray-le-Monial is well remembered.)

After flying blind for a while, hoping the wind was still in the right direction, he finally felt an urgent desire to see land again! He went on compass course towards Sweden, and on emerging from the cloud could see the coast in the distance. After computing the gliding ratio of his DFS Olympia as 44:1 with the 50-km. tailwind (31 m.p.h.) at 70 km.p.h. (43.5 m.p.h.) indicated speed, he flew to the coast, arriving with about 100 metres less than needed to catch the first of many fine thermals, which might have led him towards the goal, Stockholm airport. Instead, he landed at Kungsbacka at 2 p.m.

The flight shows us that under some

circumstances the thermals from the coast or from islands have a life long enough to allow flights across water of considerable distance.

When Dyhr Thomsen arrived back by aero-tow in very bad weather next day, his club friends presented him with flowers and

an oar with the inscription "Blue Ribbon of Kattegat".

As you will have seen, circumstances have taught the Danish "Gliding Vikings" how to make considerable gliding flights in spite of one of the handicaps nature has provided us with.

Design for a Gliding Club Headquarters

by T. E. Hood, A.R.I.B.A.

Faced with the task of writing a thesis, Mr. T. E. Hood, who, besides being a chartered architect, is also a member of the Midland Gliding Club, decided to produce a design for the Club Headquarters on the Long Mynd, Salop. Although there may be no immediate prospect of its being built, and the site is already equipped with a clubhouse, hangars and workshops, the proposed design is worth studying for its intrinsic interest.

The Site

The site of the Headquarters is situated on the westerly slope of the Long Mynd, 1,500 ft. above sea level, and is approached from two directions:

- (a) from Church Stretton to the north an unmade road follows the ridge of the Long Mynd to the site, a distance of approximately five miles;
- (b) from Asterton, a small village to the west and 1,200 ft. below the site, a partially made road with severe gradients forms the principal vehicular approach.

Function of the Club Headquarters

Owing to the comparative difficulty of access to the site and its distance from the larger Midland towns, sleeping accommodation had to be provided for members who wished to stay at week-ends or those spending weekly or fortnightly vacations during the summer months.

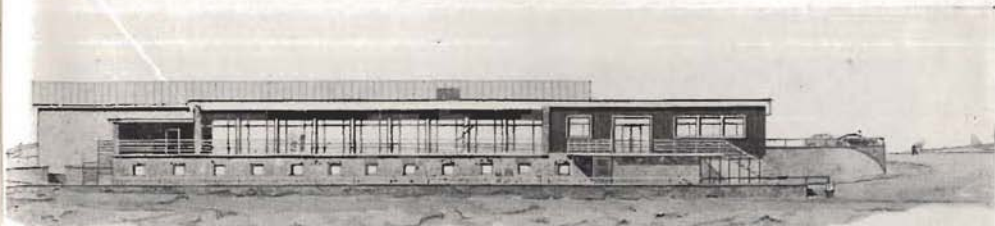
Although the site is a good one from the soaring point of view, mist and frequent wind changes cause intermittent spells of gliding inactivity. Adequate club facilities in the form of recreation rooms had to be provided.

During the summer months frequent gliding contests are held and further

accommodation had to be provided for this temporary influx of visitors. Catering facilities and observation terraces from which visitors could watch the flying were also deemed necessary.

Schedule of Accommodation

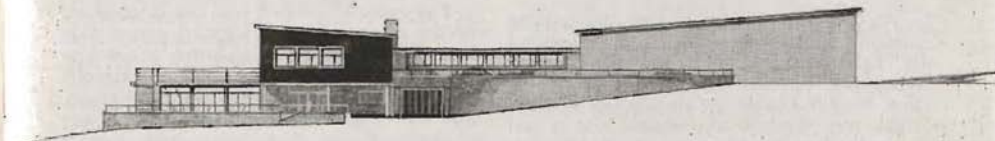
- (a) Club Room with small Bar.
- (b) Dining Room (to seat 40 people).
- (c) Kitchen and ancillary services.
- (d) Secretary's Office.
- (e) President's Room.
- (f) Club Committee Room.
- (g) Quiet Room and Library.
- (h) Sleeping accommodation for 20 people.
- (i) Dress changing accommodation for male and female members respectively, including lockers for clothes, baths, showers, cloakrooms and W.C.s.
- (j) Clothes Drying Room.
- (k) Battery Room (generating electricity for lighting, heating and cooking).
- (l) Meteorological Office.
- (m) First Aid Room.
- (n) Service Quarters, including:—
 - (i) Ground Engineer's Flat.
 - (ii) Four Servants' Bedrooms.
 - (iii) Cook's Quarters.
 - (iv) Housekeeper's Quarters.
 - (v) Staff Room, etc.
- (o) Terrace for spectators.
- (p) Garage for twelve cars.
- (q) Ground Engineer's Workshop.
- (r) Briefing Room.
- (s) Flight Office.
- (t) Hangar for fourteen aircraft.
- (u) Trailer Garage.
- (v) Winch Garage.
- (w) Aircraft material Store.



W E S T E L E V A T I O N



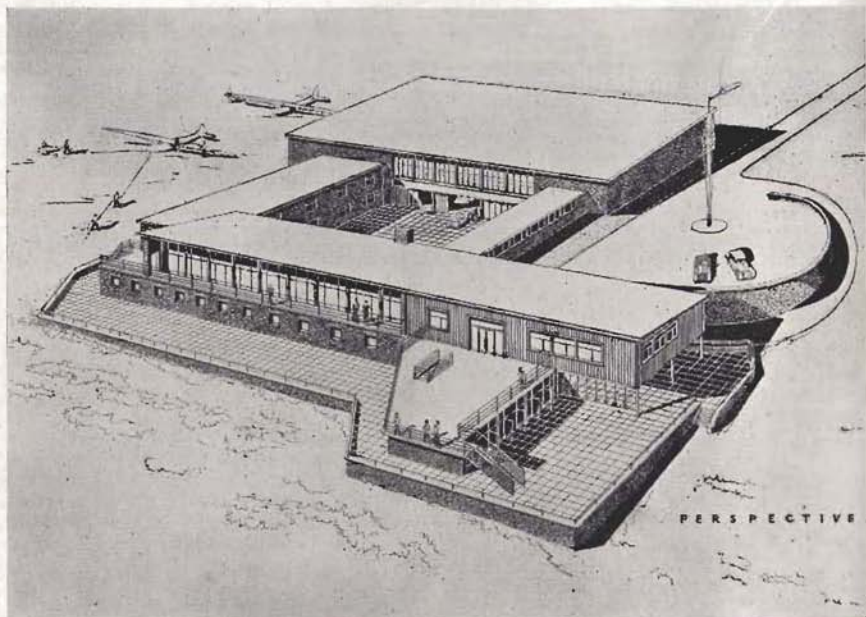
E A S T S E C T I O N E/W



S O U T H E L E V A T I O N



N O R T H S E C T I O N N/S



View from the N.W. of the Clubhouse

Characteristic Features of the Design

As it is desirable for gliding and soaring aircraft to operate from sloping ground in the direction of a prevailing wind, it is quite obvious that the Club building and hangar should be situated as near to these requirements as possible. It is not unreasonable, therefore, to site the building on the actual slope itself, making use of the falling ground for accommodation purposes and also to a limited extent in portraying the functional purpose of the structure. As the view to the west was good, it was considered that both the main Club Room and Dining Room should be so sited to take full advantage of this feature. Owing to the severe gradient of the slope at the top of the escarpment it was essential to bring the building as far forward as possible to avoid cutting out too much of the foreground from view. For this reason, the Living Quarters of the Club were placed above the Sleeping Quarters and on the same level as the

approach road.

The second problem was the orientation of the aircraft hangar with its access side away from the prevailing wind, to obviate the possible danger to these light aircraft when leaving or returning from the hangar, and also to provide a sheltered apron space to leeward for preparation and rigging purposes.

With these two important facts settled, the general conception of the plan was completed by linking these two units together, to the north by the service wing and to the south by the Club ancillary unit and entrance foyer, thus leaving the ground to the north, used for take-off and landing, free from obstruction by cars or service vehicles. Only when service traffic reaches the general car park is it divided and taken below the main approach to a service yard on the lower ground level, completely out of sight from the residential part of the Club building.

A BAROGRAPH MODIFICATION

by Tantalus

THIS simple modification has been carried out on a Fuess barograph but is equally adaptable to any rotating-cylinder instrument. Its purpose is threefold:—

- (i) to keep the barograph in good running order during the winter months,
- (ii) to provide funds for next season's flying,
- (iii) to reduce risk of cancer of the throat.

Refer to Fig. 1. Remove the instrument from its case and detach the pen (by soaking for several hours in methylated spirit and then drawing pen off arm with stout pliers).

Cut a rectangle of corrugated cardboard (A) to wrap round the drum, with an overlap of one corrugation. Flatten the last corrugation and overlap the ends, which should come under the usual metal clip (B). If no clip is fitted, use adhesive tape.

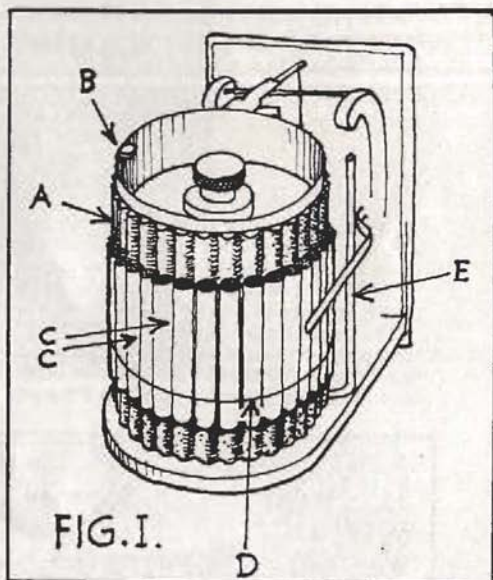
A Fuess barograph will take about 24 corrugations. In each corrugation, or every other one, or at any desired intervals, place cigarettes (C-C) held in place by a light elastic band (D).

Wind up and start the mechanism. If the pen-lifting arm (E) fouls the attachments, a partial movement of the starting lever may be found sufficient to operate the clockwork without fully moving the arm.

Now either (a) cut a narrow vertical slit in the celluloid window of the cover, or (if the barograph is your own property) use a stout box in place of the cover, with a similar slit. Padlock the cover or box, and hand the key to husband or wife.

The device will now ration the user to anything from one cigarette per day at a predetermined hour (24-hour setting; one corrugation loaded) to one per 15 minutes (6-hour setting; 24 corrugations loaded).

It will be readily evident that by widening or narrowing the slit, the period during which a given cigarette is available may be varied; if not taken, it will pass beyond reach. If, after the first day's use, the smoker still finds himself lurking by the instrument long before a smoke is due, the addition of an intermediate stationary cylinder of light cardboard, just in contact with the cigarettes, with a slot, enables the elastic band to be omitted, and if the device



is placed with a slight tilt towards the slot, cigarettes will drop out as they fall due, and could even be saved up in an outer receptacle. The device can then be placed well out of reach, reducing the risk of a forced lock or a distorted mechanism.

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Scottish Height Record

by Bill Lawson

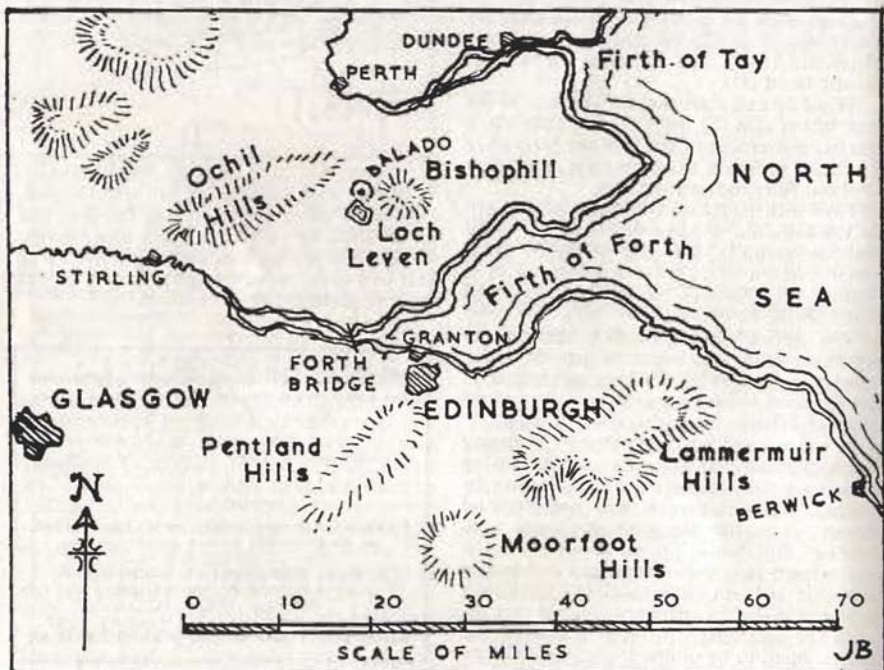
The Scottish height record, which had stood at 10,170 feet since A. J. Fyfe reached that height in a wave on 9th December, 1951, was raised to 11,225 ft. by James Rae on 28th October, 1956, likewise in a wave in the lee of the Ochil Hills. A week later, on 4th November, in a similar wave, this record was again beaten at the Scottish Gliding Union by "Bill" Lawson, who here describes how he raised it to 12,500 feet.

AFTER an aerotow at 13.30 to 3,000 ft., I released over the Ochil Hills in strong wave lift in which I climbed in smooth air to 9,300 ft. I went up through a gap in the clouds in front of a large roll cloud.

The gaps all closed in later on, and there were only occasional small holes. The cloud was between 6,000 and 7,000 feet; this must have been the inversion level, as Pitreavie

told me later there were two freezing levels—one at 6,000 ft. and the other at 7,000 ft. The wind direction was N.W. at all heights but the speed was 25 knots at 5,000 ft., 30-35 knots at 10,000, and 45 knots at 15,000. They estimated the temperature to have been -8°C . at 12,500 ft.

I flew downwind of the Ochils and found the lift to be less strong with each downwind






*Looking
eastwards
across a hole
in the cloud
layer marking
a wave trough.*



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Wave clouds over the Ochil Hills, looking west, photographed from 9,000 ft. by William Lawson while putting up a new Scottish gliding height record. The air is pouring downwards on the right and rebounding upwards on the left.—Courtesy "The Aeroplane".

bar of the wave. I found that if I went back over Balado I could maintain 9,000 ft., and after 1½ hours decided to go down through a hole and let someone else have a go. However, at about 7,000 ft. I went into very turbulent air in front of a very large roll cloud, and further forward I entered very strong lift which was so good I decided it was worth investigating. I was up at 11,500 ft. in a very short time and after hunting about a bit the maximum I could get was 12,500. The other Club Olympia at that time got to 9,000 ft. but could not get any higher.

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As I could not make Gold C height, I decided to see how far I could go and set off towards Edinburgh at 60-70 m.p.h. I was hoping that the same sort of clear gaps that were appearing over Balado area would materialise on the other side of the Forth. I was wrong, as there was complete cover over Edinburgh and as far as I could see in all directions.

I only had two glimpses of the ground: one of a span of the Forth Bridge and the other of the gas holder at Granton Gasworks. I was a bit pressed for time with darkness coming in about half an hour so I put my speed up to 80 to 90 m.p.h. and actually ran into lift which must have been caused by wave from the Pentland Hills. I could not waste time investigating, and after eventually going through about 2,000 ft. of cloud came out over the Lammermuir Hills. I was very lucky to find a fine stubble field, the only one for miles, on the hills at 1,150 ft. where I landed at 4.30 p.m.

My distance from Balado was only 49 miles, but the retrieving crew took five hours to reach me and we had to get the local farmer to use his tractor to take the trailer up the hill to the field.

The biggest difficulty of the flight was not being able to see the ground at all.

Swiss Long-Distance Route for Sailplanes

by Dr. Hans Nietlisbach

PART 2

(Concluded from page 289 of the December issue)

There it stood, gigantic and threatening, a grey eminence, the mountain of Provence, Mt. Ventoux. Thirty kilometres separated me from it, and this had to be crossed in order to achieve a safe landing at Salon.

It was now a matter of getting over this jolly 30 km., for between the Angèle and Mt. Ventoux once again there isn't even the smallest landing field. In the lee of the Angèle was to be expected a gruesome downdraught, for the mountain falls away there just as steeply as on the north face. The old lake-dweller trick would have to be tried out again—to smuggle myself as far as possible over the lee in the hill lift, and then leg it as quickly as possible down wind. And so, on with the turn and bank indicator and up into the Angèle's hat. However, after a hundred metres gain the upcurrent changed to 4 m./sec. down almost instantaneously and I had to leave the helmet and flee away on a 180° course. My trick had openly failed me, I hadn't time now to think about it as the vario showed considerably more sink, 8 m./sec. But this appeared to me very suspicious. I couldn't quite understand why the Angèle should have so cunning a wife. Really most peculiar. I took to my heels as quickly as I could to escape the fangs of this Eve. In a few seconds I had put behind me two or three kilometres. Suddenly the vario needle swung back to zero and past the critical mark, and after half a turn remained at three metres per sec. without budging an inch. Instinctively I had turned immediately, and while I still wondered why the Sky had followed my subconscious and remained on course for the charming lee side of the Angèle, hanging quite motionless over the terrain, it began to dawn on me what it must be. The Sky lay in the air in complete calm, the variometer stuck fast between 4-5 m./sec. up. Already I had regained the

altitude of the wind-dishevelled lady's fog-cap, and still further we climbed. The mountain visibly diminished and I could look down on the helm from a greater height. Its windward edge was constantly being renewed out of a packet of cotton-wool, while the condensed masses of moisture fell away from the cap on the south side to disappear into the sun-warmed depths of the valley. The rapid internal movements of this cloud appeared as a contrast to its stationary position. Would I have been able to reach the lee-wave without cloud-flying if I had manoeuvred intelligently? Very probably yes. I gave this cloud, which I had never before noticed in this position, the name of *Cumulus Lenticularis Angelicus*. The Angèle appeared ever less noticeable underneath, until finally it was almost completely hidden under its cap.

The altimeter now registered 3,000 m., and the rate of ascent began to drop off slowly. I had decided to get the last centimetre out of the wave, for from this height I could almost fly direct to Salon. Since no spur was apparent from the lenticular, I cautiously tested the wave a little upwind. In this way I reached a height of 3,700 m. a.s.l. I had already donned my oxygen mask at 3,000 m. and let the gas flow through the flowmeter—not that oxygen was really necessary yet. The bad conditions of the earlier part of the flight were now only an evil memory and I was not aware of any tiredness. However, I thought that I might become discouraged suddenly at the slightest lack of O₂ and also the time was now past when I could climb to 6,500 m. without the aid of oxygen.

On the appearance of zero lift I turned southward and flew quickly through the gentle downdraught to the rear of the wave, and what I had scarcely dared hope became

after a short time a reality. I entered a second wave and, satisfied with 3 m./sec., I climbed to 4,000 m. I was hanging over St. Jalle and was watching the surroundings as well as my instruments. Everywhere were stones as far as the eye could reach; not a single green patch, at most only a few sundried patches—a veritable desert. A small road struggled laboriously across the light grey hillside. A cold shudder ran down one's backbone at the mere thought of a landing in those god-forsaken surroundings, and yet there lay in this stretch of earth an austere beauty which I could enjoy undisturbed from my lofty height. I had plenty of time. Once more I tried out my game in the waves and flitted away to the south, gaining height. At 17.15 I was flying at 5,500 m. over Mt. Ventoux.

Mt. Ventoux, the mountain for meteorologists, the mountain of the Tour de France, which the giants have to cross with immense effort on dry land—mountain of yearning and distant woe to the glider pilot. It rears up rugged and alone nearly 2,000 m. out of the Rhône plain. There it lay beneath me, small and insignificant. It had been outdone by this Angèle which had led an unnoticed existence up to the north like an unknown country girl. It was not a question of working out the wave system of Provence, with my course of entry as a premise. Mt. Ventoux now only played the part of a king who had lost his throne through the machinations of his wife; humbly it abased itself. The vegetation lies halfway up its height, its bare head cleft by ravines which the Mistral has polished since time immemorial. Like a dried-up silkworm the road clings to its long body; wind and weather tug the station at its summit.

Yet, as if it wished to demonstrate its fading significance to the tiny human being above it, it caused the eighth and last wave, which I was soaring in this strange manner, through resonance to grip the wings of my bird more strongly than its predecessors. At 18.00 hrs. the altimeter stood at 6,300 m. above sea level and I found myself exactly over La Gabelle.

A wonderful view was laid out before me. Far off to the north-east stood the massif of Mt. Blanc picked out sharply by the sunlight in the midst of the low cloud under which I had been burrowing like a mole for hours. A dirty yellow strip of horizon melted into a bright blue which changed into blue-black as it arched up into the

vaulted heavens towards the zenith. To the south lay Marseilles on the misty coastline, which swung elegantly across in a broad bow to the Pyrenees. The Mediterranean and the lakes glowed in the evening half-light. With the whole of Provence at my feet, I laughed into my oxygen mask in exaltation: I was as happy as a snow king.

A thought which had been at the back of my mind for the past hour now came to the fore. Something had to be done with this 6,000 metres. The height reached exceeded by far what I needed to make a descent at Avignon or even to scull comfortably across to Salon. If, however, I should still have 4,000 metres over Avignon, then I would give up my goal, fly along the Mediterranean coast and press on as far as possible towards the Pyrenees.

Thus I rode my wave slowly over Carpentras towards the west. In order to make definite headway to the west I had to fly at an indicated 130 k.p.h.; however, I hardly lost a metre and for most of the time the vario remained at zero sink. After 40 minutes struggling for precious height against the crosswind, I flew over the meandering river of Durance to the south of Avignon; yet I was still at 5,500 m. Fifty kilometres distance in forty minutes with 800 metres loss of height: what a feeling! I had flown 400 km. and there still lay 150 km. before me: simply impossible. Not beautifully, but loud and clear, I sang into the fluted muzzle: "Sur le pont d'Avignon on y danse, on y danse, sur le pont d'Avignon on y danse tout en rond".

I said farewell to Salon and soared away in the direction of Montpellier. Soon I crossed the Rhône, which rolled wide and languidly towards the Mediterranean: I was flying at 100 k.p.h. so as to get on quickly. This was made easier for me by my constantly meeting fresh waves in which I was able to drive on westwards, losing hardly any height. Even at 19.30 hrs. I still flew thus along the coast for a quarter of an hour, gently climbing or in no sink, at 120 k.p.h.

The map problem now became acute. The Maritimes des Alpes had run out, I had reached the bottom left-hand corner of the map. Thus I had to rummage around among the thousands of maps of France, which were mostly tucked away and packed solid. It took me some time to bring them to light and to pick out the right area. I could only roughly estimate the 500-km. circle, for it was not drawn in.

To the north Nîmes with its amphitheatre drifted by, followed by Lunel and Montpellier (480 m.), the altimeter still indicating 3,000 m. Slowly the irregularities of the ground became more apparent and the feeling of sitting over a museum relief of the Alps gradually disappeared. I took off my oxygen mask and closed the flow meter. There remained only 15 atm. on the clock as the oscillating needle in the meter sank back into its place; it was not surprising that the supply was becoming short as I had spent all of three hours over 3,000 m. I was again breathing normally like all the earthly creatures to whom I was shortly to return.

A passenger aircraft crossed my flight path at about my height, hardly 500 m. in front of me; she came from North Africa and was pressing on northwards. I waggled my wings violently, but stubborn as steel the crate roared on past me. Possibly a new type without ailerons; or maybe the fellow inside was busy with his aperitif or simply asleep.

"CHANGE OF SCENE"

How different the landscape looked down there to that of my far-off homeland. Flat and thinly populated it lay soaked in southern magic, just freed from the brooding heat of the sun. Here and there a stony hill raised itself out of the plain in which the great vineyards were ripening and covering even the smallest field.

In vain I tried to find a landing strip. No meadow, no field, however small, was to be found between the vines; it would be impossible for me to put the Sky down unharmed here. However, I still had a long time before I would have to make a landing; nevertheless the ground before me disquieted me to some extent—if it went on like this I could be certain of an untidy conclusion to my flight. Mèze passed underneath, Sète with its craggy hill overlooking the harbour, and still I hadn't seen a single landing field since Montpellier. Still with 2,000 m. on the altimeter, there remained nothing else for me to do but to seek out an aerodrome at the next big town.

I was still flying in no sink to the south-west in the direction of Béziers, and had hardly lost 500 m. on the way to this town: my watch made it 19.50 hrs. But where was the airfield? I looked vainly for a field which looked different to all the vineyards, but could find nothing like it, so flew on over the city. I wanted now to go on to Narbonne to

find somewhere to land, when I discovered to the west of Béziers a great military camp. There was everything in this area from cannon to waggons to buildings and hangars in between which dark specks moved here and there; these stood near a strip of common land on whose sandy soil dark brown bushes were growing. In the middle lay a relatively free space about 100 m. long. I searched again to the west, yet no better landing place was to be seen as far as Narbonne: whatever the surrounds of that city could offer, it would probably be just as marginal as this.

So I played safe and opened the brakes at 1,500 m. in sight of the pin-prick lights of far off Perpignan. I flew in wide circles, throwing away height, and established thereby that the wind strength was at most 10-15 k.p.h. from the north-west. I glided in steeply and put the Sky down at 20.00 hrs. on the border of the South of France.

The silence was very impressive. After ten and a half hours suddenly to hear no more the wind of my passage had a strange effect—especially as, having come down, one finds oneself standing at 20 m. above sea level, on the bare sand surrounded by

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thick bushes. As I finally let my hand slide off the stick, threw open the cockpit, and contentedly stretched my arms in the warm evening air in order to remain sitting in the narrow cockpit a while longer, different feelings began to steal over me after my happiness over the successful landing.

Like bats in a church tower flutter doleful thoughts of the joy of achievement. Indeed I had just finished the flight of my life, flown over ground in which for 100 kms. there hadn't been a single landing field, and discovered the Angèle. I could certainly be proud of my battle through the cement cylinder, and the flight had been successful in spite of more difficult meteorological conditions than might have been offered by simple Bise wind conditions. What was more, I was the first Swiss pilot to be able to add a third bauble to my badge, and further, I had carried out all the conditions for this distinction from Berne—an especial satisfaction; I had proved what Alwin and I had conjectured, the possibility of taking the south-westerly route. All this should have been able to fill me with pure joy; and yet the bat fluttered. One of these called: Why didn't you fly on to achieve a certain 580 km. instead of stupidly throwing away 1,500 m.? Another: Didn't you manage to get yourself caught out like a beginner at Mt. Colomb? A great big one spitefully: Do the old fetters still hold you now? Was not the pleasure of yearning more delightful than the encumbered joy of possession as measured by the yardstick of human accomplishment? Are you ambitionless from now on?

Frowning, I climbed out of the machine, stretched my stiff limbs, and banished the bat which wanted to remain down in the melancholy corner of my soul. Was it not the tiredness which now had crept over me? Yes, I was certainly tired.

The first people came hurrying up between the bushes. In front of everyone was a soldier with a machine-gun. I laughed lightly, and that began the fun. Pages could be written about my reception by the hordes of military and the police. How Nelly and Josette arrived 18 hours after my landing. How we romped around on the beach at Sète, dug for mussels in the warm sand, sipped "moules à la marinière" in a harbour tavern. About the journey home, when I first became truly conscious of the enormous distance. The reception at home where the sports-flying club presented me

with the whole flight free up to the last farthing; the congratulations from my circle of friends with all the stories and tales.

All this is as much part of a sailplane pilot's experience as water is to a fish. May you humble stick-stirrers enjoy this delicatessen of our wonderful sport to the full; may it be balm to your frustrated yearning; and if one day you choose the right day for the longest flight of your life—and I hope that I have shown a little of the way to you—may I wish you a hearty and healthy "Hals und Beinbruch!"

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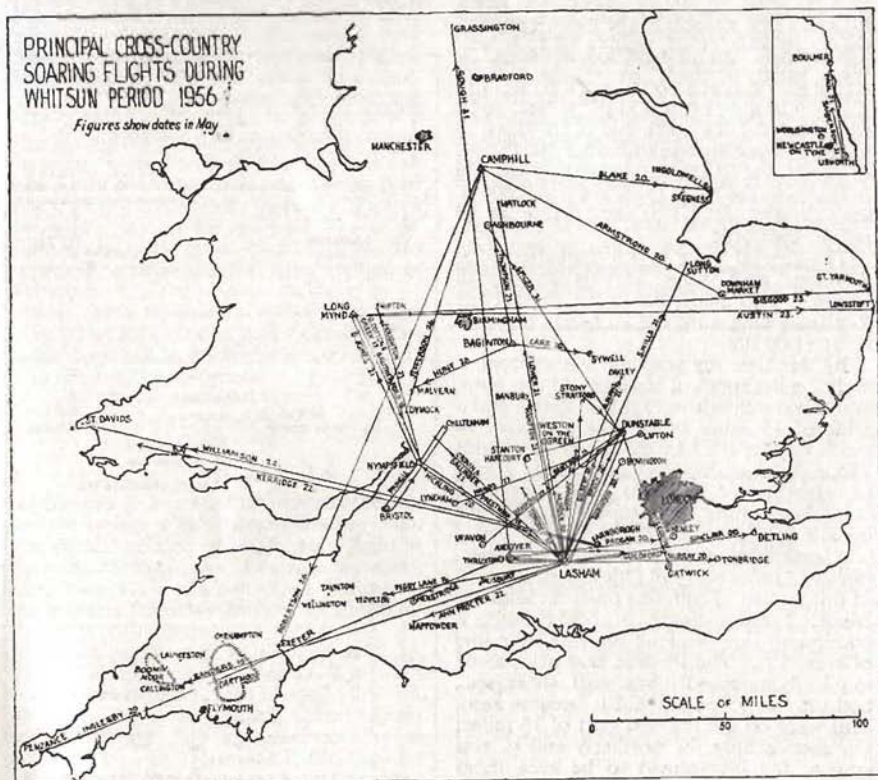
That Wonderful Whitsun Week

THIS time last year we published a map showing most of the principal cross-country flights of 1955 over Great Britain, excluding the National Championships. But the congestion in the area east of a line from Long Mynd to Lasham almost defied representation, and would have been even worse in a 1956 map.

So on this occasion we are confining the map to the most remarkable cross-country period of the past year, that of the Whitsun holiday and the week following; the map was, in fact, drawn to illustrate the articles

by Tony Deane-Drummond and Andy Gough in the last issue (December 1956, pages 312 and 296), and accounts of two other flights, by A. A. J. Sanders and John Williamson, in the present issue.

The map includes no less than six flights of over 300 kilometres for the Gold C distance leg, most of them earning a diamond as well: they were by Andy Gough, John Williamson, Peter Bisgood, Roger Austin, L. R. Robertson and John Inglesby.



CAMPBILL TO NEWCASTLE IN WAVES

by D. M. Kaye

Mick Kaye, son of a founder of the Derbyshire and Lancashire Gliding Club, made this outstanding wave flight in an Olympia on 21st October, the day after that of Rick Prestwich, described on another page. It should be noted that Kaye gives his heights above take-off, so his maximum height was actually 16,400 feet above sea level.

WAVES were visible at 7.00 a.m., and by 9.45 a wave was consolidating over Camphill after a temporary break-up. Take-off was at 9.55 a.m. into a 20-knot W.S.W. wind, to 500 ft. There was slight lift and I flew straight to the leading edge of the lower wave cloud, finding 10-15 ft./sec. lift. Cloud base was 1,300 ft., and by 10.5 a.m. I was at 4,300 ft. in 10 ft./sec. lift.

At 10.10 a.m. lift was still 2 ft./sec. and I set course for the north end of the dams at 5,000 ft., reaching weak lift after 500 ft. loss of height. At 10.25 a new wave was forming 2-3 miles to the N.E. I reached it at 3,800 ft. and climbed at 2-3 ft./sec., flying at 55 m.p.h. indicated.

The general wave length appeared to be 3 miles, each wave varying in overall length. This particular wave carried me 8 miles, giving a maximum height of 6,000 ft. at 11.00 hrs.

By this time my position was approximately 2 miles south of Halifax. At this point active wave clouds were rather sparse and a glide of 15 miles or so was necessary to reach further lift. In the lee of Rombalds Moor, between Keighley and Ilkley, a gain of height from 2,500 ft. to 5,000 ft. gave me sufficient altitude to see an enormous wave system 6 miles to the N.E.

A pin point, the reservoirs at Blubberhouses, 2 miles north of Otley, fixed one end of this system. From this point to Masham Moor, 3 miles South of Middleham, a continuous line of cloud indicated the line of wave lift. The lift was fantastic; at 65 m.p.h. flying speed it was still 3-4 ft./sec., and only at 75 m.p.h. did it become zero. This went on for the best part of 15 miles! On approaching the northerly end of this system, the lift seemed to be even more active. With reduced speed the variometer

read 15 ft./sec. green. My readings were as follows for this stretch of aviation, starting from over Blubberhouses:—11.35-4,300 ft.; 11.50-6,300 ft.; 11.58-8,000 ft.; 12.07-10,000 ft.; 12.15-12,000 ft.; 12.30-14,000 ft.;



12.45-15,100 ft. This was very obviously a lee wave of the back face of Great Whernside.

From this altitude I made a reasonably straight flight to Woolsington Aerodrome north of Newcastle, using very little wave to give me any further assistance:—landing time, 13.50 hrs. I had considered landing at Usworth (Newcastle Gliding Club), but the whole aerodrome was hidden under a rather large wave cloud. As there are charter flights running from Woolsington I imagined there might be complications if I met one, under such circumstances, and as Woolsington was clear of cloud it seemed a far safer bet.

At the best height, my machine was just under the base of a lenticular, but I could not get round it and so climb any higher. There was apparently no lift under the middle or leading edge.

In my opinion, the best action to have taken from maximum height would have been to have flown up the Eden Valley. From this position one could have contacted lee waves from such places as Mickle Fell (2,591 ft.) and Cross Fell (2,930 ft.). This is only my opinion after having viewed the map; when flying on the day it didn't look at all that way until later (about 3.30 p.m.), when an enormous lenticular covered the whole sky to the west of Newcastle. Incidentally, the upper wind (12,000 ft.) appeared to be about 280° with strength of 40 m.p.h.

It is quite feasible to fly to Edinburgh from Camphill under such conditions—rather pleasant, as we can have a go at Gold C in the middle of winter!

[EDITORIAL NOTE: Another member of the Derbyshire & Lancashire Gliding Club, Ken Blake, reached 11,500 ft. on a flight to Leeming in Yorkshire, likewise in waves, after Mick Kaye had landed, so the following extracts from his account of the flight should be of interest:—

"I took our Skylark into the air at 12.35, having declared Sutton Bank. The wind was now W.S.W. 10-15 kts., the lift uncertain, and the cloud cover almost complete. By 1 o'clock I had scraped up to 1,000 ft. by circling in weak lift together with Tweedy and Robertson, and we then

made contact with the wave on the south-west corner of the hill. I flew north to the hole over Bradwell, where I climbed at four ft./sec. to the tops of the wave cloud at 4,000 ft. and on more slowly to 6,000 ft.; then to 7,000 ft. over Kinder Scout. Looking north, there stretched a rolling sheet of cloud; the average length of the waves seemed to be three-four miles with a pitch of one-two miles. I went over and nibbled at a hole over Stocksbridge and grew taller to a height of 11,500 ft. To the north was the only high lenticular in sight, its nearest end about 40 miles away and the furthest maybe 100 miles; its height I estimated at 25-30,000 ft. I set off for this at 80 m.p.h. indicated, and crept round the shoulder of its lower roll cloud with the wheel scudding through its whiteness at 3,500, then forward into the hole, and the green piston rose to eight ft./sec. The cloud in front looked even better, and I think now I may have been in the secondary wave, but time was now short so I took the one I had up to 9,500 ft. while I pin-pointed the hole as being over Graithwaite Reservoir. I turned downwind and passed over two more waves; they were now running in long lines with no cloud in the troughs, and I could see I was clear of the Pennines. When down to 6,000 ft. I saw an aerodrome through one of the holes. I encountered the most severe turbulence I have met, mixed in with strong lift, while going down through the hole to R.A.F. Leeming, 70 miles from Camphill."]

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Two Leagues For The Championships

THE difficulty of launching a large number of gliders sufficiently close together to give all a fair chance, the wide range of glider performance, and the range of skill of competitors, are the main reasons for a proposal to divide this year's entries in the National Gliding Championships (to be held from 27th July to 5th August at Lasham) into two leagues, which can be set tasks of different standards. The proposal made by Mrs. Ann Welch, chairman of the Lasham National Championships Organising Committee, has been accepted by the Flying Committee of the British Gliding Association subject to certain alterations.

We give below the text of Mrs. Welch's original scheme and of the Flying Committee's modifications.

Ann Welch's Scheme

The Competitors to be divided into League 1 (or World Championships practice class) and League 2 (or Standard Nationals class). The two Leagues would in general be given different tasks. The launching order would be arranged as in 1955, by competitor's choice, but if necessary certain periods would be restricted to one or other of the classes.

The method of division for 1957 would contain a large degree of personal choice, with certain safeguards. League 1 would contain mandatorily any pilot who had flown in World Championships, any pilot with a Gold C, any pilot whose glider had been placed in the first x (probably 5) in any of the last three Nationals and any pilot who has been successful in foreign championships or has records obtained abroad to his credit.

Any glider flown by more than one pilot would have to go into League 1 if any of its pilots came into any of the above categories.

League 2 would contain mandatorily any glider with genuine struts (T-21B, Grunau Baby, Kite II, etc.). For the unlikely event of a Gold C pilot entering a Prefect, this

will be treated as a special case. Also, any pilot who has been flying for less than two years.

All pilots who are not restricted by virtue of skill or aircraft will be able to opt for the league in which they would like to compete, and they will be allowed this choice unless it is manifestly unfair, or the two leagues become of such unequal size as to defeat the whole object. The entry forms will have a space to mark accordingly. Any arbitration would be by the National Championships Organisation in conjunction with the B.G.A. Flying Committee.

There will be 1st, 2nd and 3rd and Daily Prizes in each class.

Two-seaters will fly directly with the single-seaters as in 1955, and as is now the rule in World Championships. The first pilot will be the deciding factor.

Women will fly equally with men as before.

Cups and Trophies will be awarded to winning competitors in League 1 unless (like the T-21B Trophy) they are appropriate to League 2.

As to the future, if this scheme is used in succeeding Championships, it is suggested that the top x of League 2 automatically move up into League 1 for the following Championships.

Flying Committee's Amendments

The amendments to the scheme are mainly in the method of assessing which competitors should go into League 1 and which into League 2. The Committee agreed that:—

1. Any pilot flying a machine of an aspect ratio of 14 or less would automatically go into League 2 (subject to possible adjustment if a Mu-13 should be competing).

2. Pilots above a certain arbitrary line in the previous three competition results would go into League 1.

3. Pilots who had never flown in Championships before should go into League 2.

4. Gold C pilots could opt for which class they liked.

5. The remainder could opt for which class they liked, but the final decision into which class they could go would be dependent on the number of competitors in

each class.

It was, however, recommended that a committee should be set up, which should not be part of the Lasham organising committee, to take these decisions. It had also been agreed that in cases where the above regulation was particularly hard, the pilot should be able to submit his case to the Committee.

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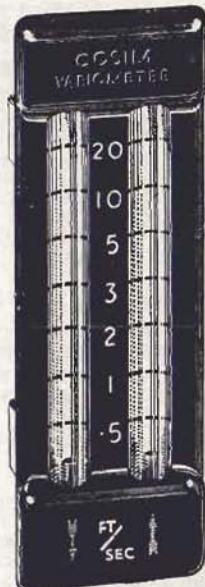
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ALTITUDE FOR GENTLEMEN

by R. H. Prestwich

HAVING once been a very lax boy scout, it is no wonder that I am never prepared. 20th October was no exception. On a day that tempted me to turn on the oxygen, I omitted to wear a sweater and take gloves.

I was bunged off in Skylark to the music of the lunch bell, and in light lift headed, via the north end, for the Stiperstones. Wilbur in Flame Skylark was already there trying hard, and together we gradually climbed through thin overcast, until we were in dazzling sunshine. The whole of Wales was covered by an unbroken sheet of strato-cu, the apology for a hole below us having smartly filled up again. Slight undulations due to waves didn't look very promising, yet produced lift of about 3 ft./sec.

However, the sight to the S.W. looked really interesting. Great rolling waves were each coated with a smooth top at about 4,500 ft. a.s.l., though no holes were visible. Still climbing, I flew towards them, occasionally crossing to another wave, until I was at 9,500 ft. a.s.l. probably a few miles S. of Clun. I found a man-sized sink here, but got clear of it fairly quickly, and hooked up in one of the big fellows. My position by then was probably somewhere N.W. of the Black Mountains.

Conditions really looked quite promising, with big waves of 4-5 miles wave-length, each capped with a smooth top. Just to the S.E. the stratus looked like a severe tidal race, with huge waves, short and steep—a glider pilot's Mecca. Meanwhile, for a little light entertainment, I started playing with the oxygen, breathing two litres per minute at 10,500 ft. a.s.l. My feet and hands were getting cold, although I was flying in brilliant sunshine, whilst my face was getting really scorched.

Having had no sight of the ground for 1½ hours, I was quite interested in my position. I guessed that the steep waves were over the Black Mountains, which put me about 10 miles W.N.W. of Hay. Meanwhile, after spending several minutes trying to sort out the tattered Cotton map, I

shoved it through the window in disgust and started on another. Gradually the altimeter wound up to 13,800 ft. a.s.l., above which it would not go. Either I had reached the top or I had drifted into the back of the wave, probably the latter. I set off for the next series, and played around for a bit trying to get higher without any great success. A mere paltry 11,000-12,000 ft. a.s.l. was all that was available!

Suddenly a long thin hole appeared in the clouds and I nipped smartly over to have a look. A beautiful landmark appeared, a



triple bend in the Wye, liberally interlaced with railway line. This put me 3 miles N. of Ross on Wye.

It was definitely time to think out the next move. Return to the Mynd was out of the question, due to the total cover. I could therefore (a) land at Madley and have tea with Doc. C., (b) land at Rhosse, (c) visit Peter Scott at New Grounds, (d) land at Nympsfield. (a) and (b) were out, due to total cloud cover; I might collide with a goose at (c), so it had to be (d).

Further across wind I saw another small hole with the Bristol Channel showing through. I moved over to it and found slight lift on the downwind side. I was still at 11,000 ft. a.s.l., probably enough to reach Lasham with the W.N.W. wind behind me—what temptation! Finally the thought of not having my own car to retrieve me put paid to that.

I wish someone would invent a method of bottling surplus altitude for use another day. I had to fly 8 miles and lose 10,400 feet doing it. With brakes out I cavorted around the sky at high velocity, in an orgy of altitude-burning. When level with the cloud tops I steadied onto a compass course, and still on full brakes entered cloud at 4,500 ft. a.s.l. I cleared at 2,000 ft., shut the brakes and started looking for Nympsfield. There it was (luckily) two miles ahead. Approaching the S. end of the ridge, an annoying 3 ft./sec. lift started dragging me into cloud again, but the brakes soon put a stop to that. After two or three beats to try the ridge, I turned in and landed after a flight of 2 hrs. 55 mins.

The barograph chart gave the best rate of climb as 2,180 metres in 22 minutes, or 5.35 ft./sec.—nothing to write home about, but it does get you there. Take-off was at 1,400 ft. a.s.l., by bungy from the Mynd, and cloud base was at about 2,400 ft. a.s.l., gradually dropping to 2,000 ft. a.s.l.

One thing is certain: waves are a real gentlemen's way of gaining altitude, particularly on such a day as this. There is no turbulence, hail or ice, and there is plenty of time to look around and enjoy the flight. Only one thing disturbs one's peace of mind, the thought of flying over total cover with cloud base on the tops of the high ground. Unless one's ideas are slightly suicidal, it is only really safe with an abundance of height in hand, enough to reach the low ground without any shadow of doubt. At least, I hope so!

THIS GLIDING

Resignation

"... 'Wonderfully exhilarating,' says Mr. T—, who has hurt both chest and feet in gliding accidents. But his wife says: 'He's away from home from 10 a.m. till dark at week-ends, spends three hours gliding during the week. Other times he's working. I don't worry about him now. I've got used to it. But it's an awful bug to get—much worse than fishing.'"—*Scottish Daily Express*, Glasgow.

It Happened

"It happened in Bavaria. On one of her first solo flights a pupil of the weaker sex but with very strong nerves had a cable break at a safe altitude for returning easily to the take-off point in the normal way. She, however, waited until her Doppelraab nearly stalled, then pushed the stick forward and kept it there until she had completed half an outside loop. When the earth rushed up she finished the flight upside down by braking with the fin and rudder. The plane was pretty well damaged, but she escaped with a few bruises."—*From M. Deskau*.

It Might Happen

"Larry Gehrlein came up with the following novel idea. Dis-assemble all the sail-planes and put them in a pile in the middle of the field. This will give a rather mixed up ensemble of wings, fuselages, pins, bolts, and what have you. All the pilots and crew members remove their clothes (except shorts), the trousers are tied in knots, and the shoe laces are also knotted. These clothes are also thrown on top of the sail-plane parts. The pilots and crew members are positioned on one end of the field. At the appropriate signal, all hands head for the pile and go to work. The first crew to have the ship ready to fly, and are fully clothed, win the contest."—*Bulletin of the South Jersey Soaring Society, U.S.A.*

It Didn't Happen

"Glancing down along the rain-spattered nose of the glider, he tried to make out the earth below; his altimeter registered everything from zero to 500 feet within a minute... Why in heaven's name hadn't he seen the grey clouds forming beneath him, heard the rumble of thunder, instead of floating serenely in his own private world and glorying in the fact that he had reached

10,000 feet, his highest yet? . . . The stick in his hand became loose; there was a sickening plunge and the ache of nausea started up in his stomach. He gave a futile glance at the gibbering altimeter—it registered zero . . . With bloodless face he waited for the end . . . "No pilot's good enough to beat a storm in a glider. Balsa wood and paper against weather that's even got the biggest airliners grounded!" . . . Gradually life came back to the glider . . . The idiotic altimeter was still dancing up and down like a puppet gone mad. He wondered why he had ever taken up gliding . . . He came out of the clouds and saw the earth below. Bitterly he gazed down at the city, barely two hundred feet

below. It stretched away on all sides . . . He had just passed the Town Hall; it was four o'clock by the big clock on the tower . . . He was passing the hospital, and a mirthless smile caught his lips as he saw the ambulance turn slowly out of the gates. It was probably for him . . . It was a cinema: a large placard bearing the well-known figure of Marilyn Monroe came towards him, and then he twisted up out of the banking turn and tottered over the roof. He felt the jerk of the tail-plane as it dislodged a few slates, but he was laughing now . . . He didn't stop laughing until the crowds began to gather around, and then he asked for the nearest phone . . ."—From a story in "Clubman".

BRITISH GLIDING ASSOCIATION NEWS

Victory Ball

The Right Hon. The Lord Brabazon of Tara, G.B.E., M.C., P.C., has very kindly consented to be Guest of Honour at the Ball to be held on Friday, 15th March 1957, 8.30 p.m.-2 a.m., at Londonderry House, and during the evening will present the Annual Cups and Trophies. Tickets, £1 each, are on sale at gliding clubs and from this office. To keep the price of tickets down, the Buffet will take the form of light refreshments.

Instructors' Courses

The B.G.A. No. 1 Instructors' School at Lasham will be running two courses especially for Instructors from 24th February-9th March and 24th March-6th April 1957. Instructors can be accepted for part of a course, but not including week-ends. Charges include accommodation, meals and all flying except aero-tows and retrieves, and are £10 10s. for five days and £21 for the full period of 12 days. If the Instructor wishes to try for his B.G.A. Instructors' Category, this will be arranged while he is at Lasham. Applicants should write to: The Manager, Surrey Gliding Club, Lasham Aerodrome, Nr. Alton, Hants.

Film and Slide Library

The following films are now available on hire from the B.G.A. Applicants should ask for the circular with full information before ordering.

"GLIDING TILL NOW".—A history of gliding and soaring, with interesting material

from all parts of the world, though the emphasis is on gliding development in Great Britain. Suitable for a gliding club audience with some pre-knowledge, but not recommended for introducing an uninitiated general audience to gliding. Needs no commentary. Monochrome silent, 16 mm. or 9.5 mm., approx. 1 hour. Hire fee £2.

"CLOUD CUCKOO".—Cartoon. Wilbur Sparrow, though the unluckiest member of the Unstable Gliding Club, and despite the evil machinations of the villain, Harold Hawk, wins to fame in the end. Made in 1938, but a deathless work of art. Monochrome, silent, 16 mm. or 9.5 mm., approx. 15 mins. Fee £1.

"GLIDING ROUND THE WORLD".—A recent tour of gliding clubs and centres: Dunstable, Lasham, Lulsgate, Nympsfield, Kidlington, Malaya, Elmira; also soaring birds. Suitable for a general audience. Colour, silent, 16 mm. only, approx 15 mins. Fee £1.

"WORLD CHAMPIONSHIPS, CAMPBILL, 1954".—Filmed by Lawrence Wright. With script for rough guidance of commentator. Colour, silent, 16 mm. only, approx. 15 mins. Fee £1.

"WORLD CHAMPIONSHIPS, ST. YAN, 1956."—Filmed by John Furlong. With script for rough guidance of commentator. Colour, silent, 16 mm. only, approx. 15 mins. Fee £1.

DONALD GREIG SLIDE LIBRARY.—The following 2 x 2 inch slides, taken by the late Donald Greig and others, are available:

pre-war clubs (about 70 slides); 1948 World Championships in Switzerland (70); aircraft in 1956 World Championships (12); other slides of general interest.

The following can be hired from outside firms:—

"WINGS FOR PAULINE".—The story of two people learning to glide at the Derbyshire & Lancashire Club in 1948. Monochrome, sound, 16 mm., approx. 15 mins. Available from: Associated British Pathé, Film House, Wardour Street, W.1. Fee £1.

"SPORTS PAGE—GLIDING".—Filmed by 20th Century Fox in 1953 at various gliding clubs. Monochrome, sound, 16 mm., approx. 15 mins. Available from: Ron Harris Films Ltd., Glenbuck Studios, Surbiton, Surrey. Fee £1.

Homologation of Records

BRITISH NATIONAL OUT-AND-RETURN:
R. C. Forbes on 8.8.56, Grand Prairie,

Texas, to Stephens County Airport, Texas, and return, in a Weihe, 217 miles.

WOMEN'S BRITISH NATIONAL AND UNITED KINGDOM GAIN OF HEIGHT: Mrs. Anne Burns on 2.12.56, from Long Mynd in a Skylark 3b, 10,500 feet.

New Associate Member Clubs

NORTHAMPTON GLIDING CLUB, operating from Sywell Aerodrome. Secretary: A. C. Clarkson, 6, Mill Road, Kettering, Northants.

AIR SERVICE TRAINING GLIDING CLUB, operating from Hamble Aerodrome. Secretary: I. D. P. Hawes, 3, Hamble House Gardens, High Street, Hamble, Southampton.

Whitbread Bursaries

The Central Council of Physical Recreation has given a further donation of £50 from the Whitbread Sports Fund. This is being put into the Alex Orde Fund for young soaring pilots.

LASHAM TO CORNWALL

by *Wing-Commander A. A. J. Sanders*

THE task was an out-and-return race to Andover R.A.F.G.S.A. Gliding Club. I started on this at 10.30, and completed the task back to Lasham by 12.10 hrs. Because conditions looked good, I then aero-towed off again in the Skylark II and cast off at 12.35 hrs.

Again I went to Andover, where eight or nine gliders were busy, and then pressed off to Old Sarum. The clouds were arranged in rows N.E. to S.W., but their shadows were hardly moving at all. The lift was very good. Rates of climb were 500 ft. per minute on several occasions.

From Salisbury to the west, I went down the railway, keeping as far from the sea as I could. I covered 80 miles in the first two hours, cruising between thermals at 70 to 80 m.p.h. On hitting the turbulent boundary of the lift around each thermal, I pulled up the nose and stall-turned into circling flight. This technique worked well.

I went over R.N.A.S. Henstridge in Blackmoor Vale, finding the clouds here better than ever—due, perhaps, to the extra moisture in the green meadows. Cruising heights were 3,000 and 5,000 ft., staying below cloud-base. I got up to 6,000 in

cloud but wasted time through coming out facing the wrong way.

From Wellington, near Taunton, I carefully went round the north side of Dartmoor to keep away from the sea. The clouds began to get higher, thinner and flatter, and to spread out into large dark areas. Over Okehampton I penetrated under one of these wide cloud masses, finding clear-air lift to 6,300 ft. over Launceston. Ahead of me, however, another cloud mass, with shapeless black tendrils hanging far below it, covered Bodmin Moor, which I know to be poor glider-landing country—stone outcrops, peat bogs, rough heather—and I attempted to deviate round to the south, flying on the edge between the cloud shadow and the sunlit fields. However, this tactic was quite unsuccessful and I lost height steadily. Finally I turned towards a big field under cloudless blue sky and at 16.50 landed near Callington, in Cornwall.

The local doctor made me very welcome and told me that the weather had changed two hours earlier when the easterly breeze had suddenly swung round to a cold southerly sea-breeze.

When the trailer arrived at 12.30 just after midnight—driven by John Jeffries, who had flown his Silver C Duration at Lasham that day—the glider was completely covered by a thick layer of ice-hoar frost.



*Two pictures
of the lightweight
Italian Gheppio
described below.*

—Courtesy G. Apostolo.

AN ITALIAN LIGHTWEIGHT

by Giorgio Apostolo

ONE of the most recent Italian sailplanes, the Gheppio, has been built by the A.V.M. (Associazione Volovelistica Milanese) to the design of Engineer Rotondi. It is a single-seater, with a sliding canopy, and is of very small size.

The wing span is 10.50 m. (34 ft. 5 in.), length 5.5 m. (18 ft. 1 in.); empty weight 92 kg. (203 lb.), all-up weight 182 kg. (401 lb.). Maximum speed is 200 km./h. (124 m.p.h.) best speed 80 km./h. (50 m.p.h.), minimum speed 65 km./h. (40 m.p.h.).

Construction is of wood. The wing sections are NACA 4415 at the root and NACA 2R12 at the tip.

SCOTTISH GLIDING UNION LTD.

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3 DIAMONDS

FORTY-THREE pilots in the world have added all three diamonds to their Gold C badges, having made qualifying flights of 500 km. (310.69 miles) free distance, 300 km. (186.41 miles) to a declared goal, and 5,000 m. (16,404.2 ft.) gain of height.

Here is the official list:—

1950

1. John Robinson (U.S.A.)
2. Tadeusz Gora (Poland)

1951

3. Gérard Pierre (France)
4. J. Shelley Charles (U.S.A.)

1952

5. Jacques Lebeau (France)
6. Eric Nessler (France)
7. Paul Bickle (U.S.A.)
8. Raymond Parker (U.S.A.)
9. William S. Ivans, Jr. (U.S.A.)
10. Paul Rudolf Opitz (U.S.A.)

1953

11. Gérard Tahon (France)
12. Mme. Choisset-Gohard (France)
13. Andrzej Ziemiński (Poland)
14. Stanislas Skrzydzewski (Poland)
15. Zdzisław Przyjemski (Poland)
16. Zbigniew Kirakowski (Poland)
17. Roman Zydorsczak (Poland)

18. Henryk Zydorsczak (Poland)
19. Jerzy Popiel (Poland)
20. Marian Gorzelak (Poland)
21. Antoni Smiegel (Poland)
22. Jerzy Wojnar (Poland)

1954

23. Joachim Kuettner (Germany/U.S.A.)
24. Roland Cogne (France)
25. André Breuil (France)
26. Max Gasnier (France)
27. Maurice Kirschroff (France)
28. Yves Giard (France)
29. Charles Fevre (France)
30. Roger Biagi (France)
31. Rudolf Kopernok (Poland)
32. Wanda Szemplinska (Poland)
33. Tadeusz Szymczak (Poland)
34. Stanisław Cnotliwy (Poland)
35. Raymond Jakub (Poland)
36. Erazm Kapala (Poland)
37. Andrej Brozek (Poland)

1955

38. René Fontelles (France)
39. Paul Lépante (France)
40. Jean Rouchette (France)
41. Dr. Hans Nietlisbach (Switzerland)
42. H. C. N. Goodhart (Gt. Britain)

1956

43. O. Schwarzenberger (Switzerland)

LASHAM TO ST. DAVID'S

JOHN Williamson made a 300-kilometre goal flight on May 22nd over a route which is of special interest as not having been used for that purpose before, and the last part of the route had not previously been soared over.

Launched by aero-tow from Lasham in the Surrey Club's Weihe, Williamson was first towed 10 miles to the north-east so as to start at the required distance from the goal, and cast off over Farnborough at 12.15 B.S.T. Cloud base was at 7,500 ft. a.s.l. He first went northwards to the neighbourhood of Sutton Valence before trying to cross the Severn, as the sky looked dead to the south. In this part of the flight every thermal he used gave 10 to 13 ft. per sec., and with little or no wind he averaged 40 m.p.h. for the first two hours.

Over one of the Welsh mining valleys he was down to only 800 ft. above the hills bordering the valley, but he went north again to reach some massive cumulus clouds with tops at about 14,000 ft., and inside one of them reached 11,400 ft. Their presence was evidently due to an extension from a thundery "low" over France.

The flight finished with a more or less straight downward glide of 40 miles to St. David's; the cloud base here was 6,000 ft. a.s.l. Williamson's average speed was much reduced by having to scrape around the mining valley, and the whole flight of 196 miles took him six hours.

On the same day David Kerridge also released over Farnborough after a tow from Lasham and flew over much the same course as John Williamson, landing at Login in S. Wales after covering 174 miles.

CORRESPONDENCE

WET WINGS

Dear Sir,

In the December 1956 issue of *SAILPLANE AND GLIDING* Mr. Carl A. Beck referred in his letter to the operation of sailplanes in rainy weather. As designers and manufacturers of sailplanes such as the M-13E, Bergfalke II/55, L-Spatz-55 and others, we think we can make a contribution to this subject.

In general, every unevenness on the surfaces of an aerofoil, for example, rivets, dirt, dust and raindrops, causes a loss of performance. The magnitude of the loss differs with the shape of the aerofoil section used. We have noticed that the sections we developed for our sailplanes, which have high C_L -values and extraordinarily favourable stalling characteristics, are more sensitive to disturbances than others, probably because the maximum thickness of the sections is situated more forward on the chord. Raindrops not only cause a loss of performance, but also sudden

stalling at a speed somewhat higher than that experienced with a dry wing.

To prevent crashes, especially during the landing turn, which very often is made too slowly anyway, we advise pilots of our sailplanes, especially beginners, to increase the flying speed by at least 10 km/h. when landing in rainy conditions. So far no crashes could have been directly attributed to the changed qualities of a wet wing, but it is well possible that they contributed to them to a certain extent.

In this connection it should be noted that some polishing waxes used for improving wing surfaces tend to favour the accumulation of undesirably big water drops.

We shall be glad to hear from pilots who have had experiences or made observations in connection with wet wings.

FOR SCHEIBE FLUGZEUGBAU GMBH,
H. HARTMANN,

(13b) Dachau bei München,
August-Pfaltz-Strasse 23,
W. Germany.

Advertisements with remittance should be sent to Chelton Press Ltd., 3, Cork St., London, W.1. (REGent 0577) Rate 4d. per word. Minimum 5/-, Box numbers 2s. extra. Replies to Box numbers should be sent to the same address.

PUBLICATIONS

"SOARING"—Official organ of the Soaring Society of America. Edited by R. C. Forbes, British Gliding Champion 1951. Obtainable from Soaring Society of America, Inc., Post Office Box 71, Elmira, N.Y. Apply to your Post Office for a currency form.

WANTED

TUTOR or Tutor Wings. Also T31 or T31 Fuselage. Hon. Sec. Taunton Vale Gliding Club, 15 Stoke Road, North Curry, Taunton.

To purchase, Slingsby Prefect, Eon Baby or similar. W. S. Shackleton Ltd., 175 Piccadilly, W.1. Telephone REGent 2448/9.

WANTED.—2-seater Sailplane (T21B or similar) for the newly formed Birmingham and District Gliding Club. Please contact

Hon. Sec., 9 Broome Avenue, Great Barr, Birmingham 22a. Tel. Great Barr 3420.

FOR SALE

RHONBUSSARD for sale including trailer, spare tailplane and rudder. C. of A. expired but no snags expected. Can be viewed by appointment at Kidlington, Oxford. Price £300. Patrick J. Sullivan, 44 Lonsdale Road, Oxford.

BAROGRAPHS. 12,000 metres, 2, 4, and 10 hours, £30. 8,000 metres, 3 and 6 hours, £27. 6,000 metres, one speed 3 or 6 hours, £25. From the British Gliding Association. (Incl. U.K. duty). Export prices and details variometers and altimeters from Thermal Equipment Ltd., 17 Hanover Square. W.1.

FOR SALE.—Two Fuess Barographs (20 000ft. and 30,000ft.) German electric horizon and inverter. Offers to Box 28.

WAVES IN SEASON

ALMOST every week-end from 13th October to 2nd December, 1956, waves were found and used at British gliding clubs, often at more than one club simultaneously. Here is a brief history of this astonishing period:—

SATURDAY, 13TH OCTOBER.—Newcastle Gliding Club members caught their first good wave at Usworth, 10 miles south-east of Newcastle-on-Tyne. Allan Pratt and Steve Marples were launched into it at 1,100 ft. in the T-21, with the green ball showing 15 up. They reached 2,900 ft., and though wavy strato-cumulus could be seen 10 miles to the north, no clouds marked the wave they were in. Their area of lift was $\frac{1}{4}$ mile wide and extended $1\frac{1}{2}$ miles across wind, with the best lift concentrated in an area 200 yards by 1 mile. Ian Paul was then launched in a Kite II and penetrated to the next wave upwind, reaching 2,900 ft., while the T-21 made four attempts to do the same. Douglas Collinson followed into the wave in an Olympia. Flying times were 1 hr. 10 min., 1 hr. 45 min., and 1 hr. 20 min. respectively, the last two pilots being pushed down by darkness.

Upper air figures show a strong inversion from about 2,000 to 3,000 ft., explaining why the pilots felt noticeably warm at the top of the wave. A westerly wind increased up to about this height but fell off above it; in fact, the pilots noticed this diminution of wind with height, which accepted theory would find hard to reconcile with the presence of a wave.

SATURDAY, 20TH OCTOBER.—The weather map showed a "trough" which, without being either warm, cold or occluded, pushed the wind round to north-west as it crossed England in the morning. It had cleared the Long Mynd by 8 a.m., but not until the afternoon was a wave found at the Midland Club by Ric Prestwich, who describes in a separate article how he rose to 8,000 ft. near the site and later to 13,800 ft. over Wales on the way to the Bristol Club at Nympsfield. No one else there appears to have contacted it, though 25 hours' soaring was done. But away north at the Newcastle Club, Ian Paul again contacted a wave in the Kite II, reaching 4,100 ft. but being forced down by darkness after 65 minutes.

Upper air figures for 2 p.m. show that at Liverpool the wind increased with height only up to about 8,000 ft., but further south, at Camborne, it increased up to 45 knots at 14,000 ft. but decreased above that. It looks as though Prestwich could climb only where there was a wind shear. As to stability, there was an isothermal layer from 4,000 to 6,500 ft.

SUNDAY, 21ST OCTOBER.—The wind had backed overnight from N.W. to W.S.W. without apparently destroying the waves, though at the Long Mynd only Alan Pickup, among pilots who between them aggregated 52 hours over the hill, managed to contact one and rise above a cloud layer to 3,500 ft. a.s.l.

It was Camphill's turn to put up a show. Mick Kaye went all the way to Newcastle and reached 16,400 ft. a.s.l. in the lee of the Pennines. Ken Blake simultaneously reached 11,500 ft. on the way to Leeming. Both these flights are described separately. Both began early in the day.

At the Yorkshire Club too there were waves, and members were reaching over 6,000 ft. Keith Moorey did so over Thirsk in a Kite II and Bob Swinn (C.F.I.) over Northallerton in a T-21. After the morning the Yorkshire waves died out, but they reappeared in the evening, when some pilots reached over 3,000 ft., and David Hill and Bob Wilkin took the opportunity to get Silver C height. Newcastle club were unable to contact a huge wave which Mick Kaye saw above their site as he passed over.

Upper air figures show an exceedingly sharp inversion over Liverpool, Fife and Norfolk; the Scottish one showed a rise of 18°F. through a thickness of only 300 ft., and Liverpool 17° through 800 ft. Wind shear (increase of speed with height) ceased at 14,000 ft. over Liverpool, at 8,000 ft. over Fifehire, and at only 600 ft. over Norfolk.

SUNDAY, 28TH OCTOBER.—The Scottish height record, previously standing at 10,170 ft. (A. J. Fyfe, 9th December, 1951), was beaten by Jimmy Rae with 11,225 ft.; but as he had started with an aero-tow to 2,500 ft., he did not make a Gold C climb, and anyway had no barograph. Like Fyfe, he used a wave in the lee of the Ochil Hills—

at least, it was in the lee of the Ochils at the height to which the aeroplane took him, though it was south of west lower down. He found 5 ft./sec. lift in front of a wave cloud, but the lift area shifted downwind with height, so that he was later directly above the cloud; his maximum height was over the Forth Bridge, 17 miles to leeward of the Ochil ridge. There was an inversion between 7,500 and 10,000 ft., and a wind shear all the way up to the stratosphere, the wind being 50 knots at his greatest height.

SUNDAY, 4TH NOVEMBER.—Once again the Scottish height record was broken, this time by Bill Lawson, whose climb to 12,500 ft. during a downwind cross-country is described by him elsewhere. This day there was an interruption in the wind shear; the wind fell off a little between 8,000 and 10,000 ft., but increased with height at other levels; it is noteworthy that Lawson found it difficult to get above 10,000 ft. There was a strong inversion: 23°F. at 6,400 ft. to 34° at 7,700 ft.

At Camphill one pilot reached 6,000 ft.

SUNDAY, 25TH NOVEMBER.—A gale blew over the whole country. At Long Mynd the clouds came down on the hill, and at Dunstable, London Club pilots found shifting wave lift in the lee of Ivinghoe but were hard put to it to avoid being blown backwards. At Balado in Scotland only the T-21 was considered safe to fly, being given repeated winch launches to 2,000 ft., at which height the wind had veered sufficiently to blow from the Ochils. Wave lift was exploited to 6,500 ft. by M. and G.

Berry. Nympsfield also had a wave.

SUNDAY, 2ND DECEMBER.—The Midland Club was at it again. When Mrs. Anne Burns made her first cross-country flight from Lasham to Shropshire in 1955, she flew twice as far as the experts, and another beginner did nearly as well. This day, once more, she outflew the experts, but this time with altitude, reaching 11,890 ft. in a wave. Peter Clay, aged 20, just promoted to the Olympia, flew it to 10,000 ft., while the more experienced pilots made heights of 7,000 to 8,000 ft.

Anne Burns, who had brought a privately-owned Skylark III from Lasham, first reached about 8,000 ft. close to the Mynd; then pushed out a little and climbed to 10,000 ft.; finally she went south-east to a wave over Craven Arms to reach maximum height. She started as early as 9.30 a.m., and had a little ripple-like turbulence at one point on the way up, but plunged through some 2,000 ft. of quite violent turbulence on the descent, which took 20 minutes. The whole flight took three hours. Prestwich saw a better-looking wave cloud downwind, but it was not as good as it looked.

Away at Dunstable, shifting wave lift was again in evidence; George Scarborough obtained best height with 1,700 ft. (seven times the hill height); he found a very sharp veer of wind from W.S.W. to N.W. at only 500 ft.

By her flight, Mrs. Burns has won the British women's height record, previously held by Barbara Alexander of the Cambridge Club.

Up and Down

Belgian Events

For the longest out-and-return flight and the longest goal flight made by Belgian pilots during 1957, the Sabena airline company has offered two free flights from Brussels to Leopoldville, in the Belgian Congo, and back, Mr. A. van Ishoven writes. For the greatest altitude in a sailplane each year, the president of the Belgian Aero Club has offered a "Challenge Président Pholien" trophy. All the Belgian university gliding clubs have combined into an organisation known as ANCUA, which has acquired a renovated pre-war Rhön-bussard from the Antwerp Gliding Club

and "baptised" it on 10th November. In the decentralised national contest, P. Lafosse was leading with 436.3 points at the time of writing, and A. Xhaet was second with 407.6.

German National Contest

The 1956 contest in Germany was decentralised, Martin Deskau writes. The winning team was the Brunswick Academic Flying Group, with a Weihe flown by Kuntz and Fruböse, who scored 1,870 points; they each made several flights round a 101-km. course. Second, with 942 points, was the flying group at Schwenningen am Neckar with an L-Spatz-55 flown by Bodo Stähle, whose best flight was 352 km. (219 miles) from Klippeneck to Passau. Third

was a Bonn university team, earning 907 points with a Ka-2 flown by Brixia, Krettek and von Zahn; and fourth, with 592.5 points, August Wiethüchter with the HKS-1, representing Kirchheim in the Teck district where Wolf Hirth has his sailplane factory.

Andes Crossed

First to cross the Andes in sailplanes were Claudio Dori, of the Argentine Civil Aeronautics Administration, and Heinz Scheidhauer, formerly test pilot for the Horten tailless sailplanes. They flew a Slingsby Sky and a Horten, respectively, starting by aero-tow from San Carlos de Bariloche, a railhead close to the Argentine frontier in Northern Patagonia, then crossed the Tronador glacier range at over 9,000 ft. and, after covering 80 miles in three hours, landed at Ensenada in Chile.

CU-NIM DETAILS WANTED

DETAILED studies of cumulo-nimbus clouds which appeared during the summer of 1956 are being made by Frank H. Ludlam and P. J. Feteris at Imperial College, and they would like to receive accounts of any notable flights made by sailplane pilots with the help of such clouds on any of the following days:—

June 7, 13, 14, 15, 27.

July 2, 3, 5, 6, 11, 12, 16, 17, 18, 19, 20, 23, 24, 25, 27, 30, 31.

August 2, 3, 6.

In particular they would like records of updraught speeds below and in the clouds and precipitation (rain, snow, ice, hail) and icing encountered at different levels.

Anyone who has such information is asked to send it to Mr. P. J. Feteris at the Department of Meteorology, Huxley Building, Exhibition Road, South Kensington, London, S.W.7.

The Kronfeld Club

AS BRIEFLY mentioned in the last issue of **SAILPLANE AND GLIDING**, the first Annual General Meeting of the Club was held on the 26th October. The Chair was taken by Maurice Imray, the Secretary of the Popular Flying Association and approximately sixty people attended. Mike Gee of the Cambridge University G.C., the Club's Auditor, explained the Accounts, which showed a loss for the year of £1. Hugo Trotter was again elected Hon. Secretary and David Smith of the London Gliding Club, becomes the first Hon. Treasurer, as there has not been one in the past. The other members elected to the Committee were Yvonne Bonham, Mike Gee, Ron Willbie and Maurice Imray.

The meeting unanimously approved the election of Mr. Charles Brown as a life member, in view of his support for the Club. The annual subscription was discussed and it was finally agreed that in future there would be no entrance fee, but that the subscription would be raised from 10/- to 15/-.

As with last year, no talk was held on

the Wednesday before Christmas, the 19th December, but instead the Club held its Christmas Party. It is not known how many people attended, but over 130 glasses were washed up at lunch time the next day. Everybody seemed to enjoy themselves and a lot of the credit for a successful evening must be Ron Willbie's, who looked after the bars.

Programme of Lectures

30TH JANUARY 8 p.m.	Shell Films — "Distant Neighbours" and "1955 Grand Prix Race".
6TH FEBRUARY 8 p.m.	Dr. Geoffrey Melville Jones (of the Farnborough Institute of Aviation Medicine) on "Disorientation in the Air".
13TH FEBRUARY 8.30 p.m.	A programme of Czech Films.
20TH FEBRUARY 8 p.m.	Brains Trust—Question Master: W. A. H. Kahn.
27TH FEBRUARY 8 p.m.	"Ballooning"—by W. H. Scanlon.

OUR OVERCROWDED COUNTRY

THE Ministry of Transport and Civil Aviation have produced proposals for a revised Airways System covering the British Isles, to come into effect in 1957-58.

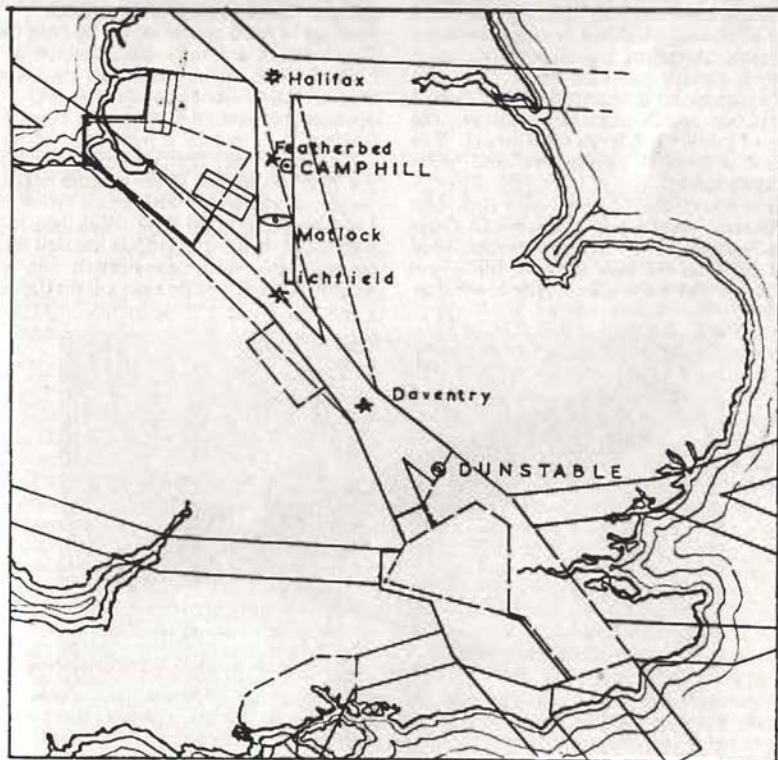
The accompanying map shows these.

The British Gliding Association have been negotiating with a view to modifying these as far as possible in the interests of the Gliding Clubs concerned, the two clubs most affected being at Dunstable and Camphill.

So far as Dunstable is concerned, a revision of the present and future northerly apex of the London Control Area has been agreed, which has the effect of bringing Dunstable out of the Area and under Amber 1 Airway. This allows aircraft to

fly in clear air or cloud freely up to 3,000 ft., and there is a possibility that, later on, the base of this Airway may be lifted to 5,000 ft.

The proposal to divert Amber 1 along a line Lichfield-Halifax, adjacent to an extended Manchester Control Zone, is a bitter blow to the Derbyshire and Lancashire Club. Every effort is being made to ameliorate this situation, but at the time of writing the best result achieved is limited to a raising of the base from the original proposal of 3,000 feet a.s.l. to 5,000 ft. a.s.l. This would allow free flight up to 3,600 ft. above the site, so that Silver C's will still be obtainable, but flight in Camphill's beautiful wave (except possibly in clear air conditions) is obviously gravely threatened.



THE SCHEIBE "SPERBER"

From Scheibe Flugzeugbau

FROM the intermediate two-seater Specht (Woodpecker), Scheibe Flugzeugbau G.m.b.H., of Munich, has developed the Sperber (sparrow-hawk). This strutted highwing sailplane features two seats side-by-side. It is especially well suited for initial instruction and passenger flights. The Sperber was designed according to the German airworthiness requirements for gliders with an ultimate load factor of 8. The prototype flew for the first time on 7th March, 1956, at Munich-Riem Airport.

Like all our sailplanes, the Sperber has a steel tube fuselage welded from St. 35.29 tubes. All wooden parts, made of spruce and birch plywood imported from Finland, are glued together with British-developed Aerodux 185 resin glue.

The fuselage is faired by wooden stringers and covered with fabric. Both pilots have plenty of room. Visibility through the large detachable Astralon (similar to Perspex) canopy is equally good for both. Only one set of instruments is required. The ash skid has rubber shock-absorbers; below the centre of gravity is a large fixed wheel. The tail skid is made of spring steel and needs no maintenance.

The wings of the Sperber, with their two C-type spars, are nearly the same as those of the Specht. They are plywood-covered as far back as the rear spar on the upper surface and the front spar on the lower one.

The ailerons are completely covered with plywood. The wing tips rest on wooden supports; thus the ailerons are protected on the ground. The spoilers on the upper surface of the wings, though rather small, are nevertheless very effective. The V-struts are made of streamlined steel tubes. The Mü-airfoil section of 14% thickness is well known for its harmless stalling characteristics.

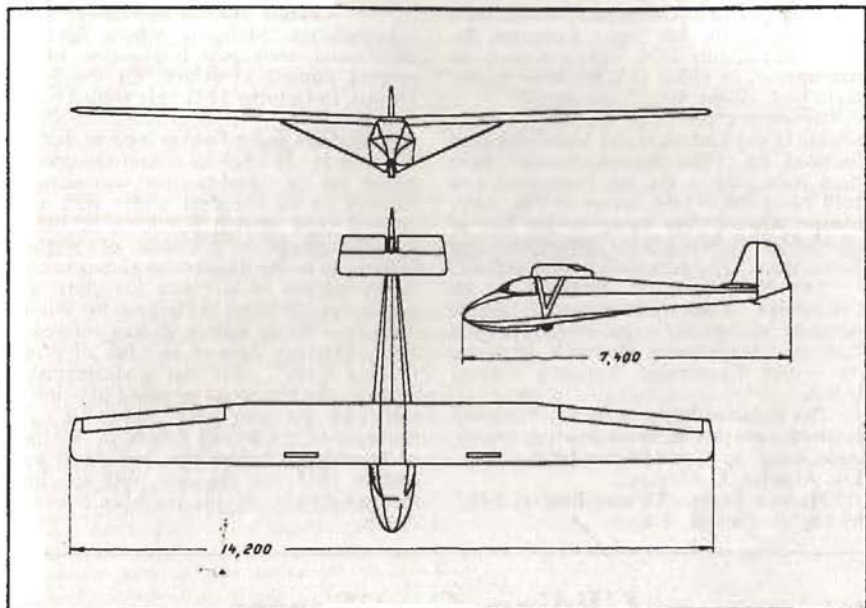
Tailplane and fin are covered with plywood, elevator and rudder with fabric.

The control system is made as simple as possible. In parts ball-bearings are used. The right control stick can be removed. Ailerons and elevator are operated by push rods, rudder and spoilers by cables. The spoilers close by means of tension springs.

Rigging and de-rigging of the Sperber can be done easily and quickly. The fuselage is fixed to the wings by four bolts. The V-struts are only disconnected at the fuselage end; during transport on a trailer they remain alongside the wings. The opening between the wings on top of the fuselage is closed by a light metal cover.

The admissible centre-of-gravity range of the Sperber extends so far that no balancing weight is necessary with loads from 75 to 150 kg. (165 to 330 lb.). With less load a weight of 5 kg. has to be carried in the cockpit, or with excess loads the same weight is fixed to the rear of the fuselage.





In addition the Sperber has an elevator trim tab, operated from the cockpit.

Dimensions:—Span 14.2 m. (46 ft. 7 in.); length 7.4 m. (24 ft. 3 in.); wing area 17.4 sq. m. (187 sq. ft.); horizontal tail surfaces 1.94 sq. m. (20.9 sq. ft.). Aspect ratio 11.6; dihedral 2°; no wash-out of incidence.

Empty weight, 220 kg. (485 lb.); flying

weight, one up, 310 kg. (683 lb.); two up, 400 kg. (882 lb.). Wing loading, one up, 17.8 kg./sq. m. (3.65 lb./sq. ft.); two up, 23.0 kg./sq. m. (4.71 lb./sq. ft.).

Estimated performance:—Best gliding angle, 1 in 19. Minimum sink, one up, 0.85 m. (2 ft. 8.7 in.) per sec.; two up, 0.93 m. (3 ft. 0.6 in.) per sec. Stalling speed, one up 48 km./h. (29.8 m.p.h.); two up, 54 km./h. (33.6 m.p.h.).

O.S.T.I.V. GRANTS

THE Organisation Scientifique et Technique Internationale du Vol à Voile (OSTIV) announces that the first of a series of grants from the OSTIV Research Fund will be awarded in April 1957. The awards will be given to individuals or small groups, not receiving financial assistance from other sources, to aid in conducting meteorological or technical research by means of the sailplane. One to three awards will be presented in April. The minimum amount of each will be \$20.00; the maximum amount \$50.00.

The first grants are limited to Associate Members of OSTIV. The majority of the future grants, to be presented once or twice a year, will be unlimited.

Interested persons are requested to contact either the OSTIV Secretariat, Kanaalweg 3, The Hague, Holland, or Betsy Woodward, Editor, *OSTIV News*, Dept. of Meteorology, Imperial College, London, S.W.7, for further details. Applications for grants must be received by 15th March, 1957.

Membership

Associate Members (£1 8s. per year) receive *OSTIV News* and the *Swiss Aero Revue* monthly, and a discount on OSTIV publications and reports printed after July 1956. Subscribers to *OSTIV News* (14s. per year) receive *OSTIV News* monthly.

Numerous technical papers, which were presented at the 6th OSTIV Congress, St. Yan, France, July 1956, have appeared, or will appear, in either *OSTIV News* or the main body of the Swiss *Aero Revue*.

The papers presented during the joint session of the Technical and Meteorological Sections on "The Stratosailplane" have been published in the 9th November and 16th November, 1956, issues of *The Aero-plane*. Reprints are being mailed free of charge to current OSTIV Members and Subscribers. The published papers include:

"The Meteorological Problems to be Considered when Designing a High-Altitude Sailplane," by Dr. Joachim Kuettner, Geophysics Research Division, Air Force Cambridge Research Centre, U.S.A.

"The Stratosailplane Designs Proposed by the Southern California Soaring Association, Inc.," by Victor M. Saudek, S.C.S.A., Los Angeles, California.

"Planeur Stratosphérique Bréguet S40," by Ing. R. Cartier, France.

Captain Warren Merriam

F. Warren Merriam, whose death is announced, took part in the first British soaring contest at Itford, on the South Downs, in October 1922. He stalled on his first bungy launch and crashed the glider, and was then lent a Fokker biplane, but did not soar it. In 1923 he rebuilt the crashed glider as a dual-control two-seater—claimed to be the first glider with dual control—and started a gliding school at Whiteley Bank in the Isle of Wight—claimed to be the first British gliding school. A photograph of him with the glider and pupils was published in *GLIDING* for Winter, 1950-51. When British gliding revived in 1930, Merriam formed an "Isle of Wight Gliding Club". He has a distinguished place in the history of powered aviation as well, for he was chief instructor and manager of the Bristol School of Aviation at Brooklands before the first world war, and in 1912 was the first pilot to climb through clouds into the sunshine above.—A.E.S.

Gliding Certificates

SILVER C CERTIFICATES

No.	Name	Club	Date of completion
608	S. F. E. Wills	Surrey Gliding Club	21.5.56
609	D. G. Elliott	Salisbury Gliding Club (Rhodesia)	30.9.56
610	H. A. Pitt-Roche	Surrey Gliding Club	6.10.56
611	D. B. Ballinger	Surrey Gliding Club	7.8.56
612	D. S. Innes	Army Gliding Club	19.5.56
613	J. Rae	Scottish Gliding Union	21.5.56
614	W. Lawson	Scottish Gliding Union	4.11.56

C CERTIFICATES

Name	Gliding Club or A.T.C. School	Name	Gliding Club	Name	Gliding Club
A. T. Hall	Perak F.C.	J. Krasnodebski	Derbyshire & Lancashire	M. Finnimore	HC Hawkinge
W. W. Hall	Blackpool & Fylde	D. S. Innes	Army	P. J. Sharp	Gatineau, Ottawa
A. H. Parkinson	Midland	R. G. Matthews	R.N.A.S. Lossiemouth	N. G. Radcliffe	Midland
R. I. Clarke	Bristol	M. D. Warner	No. 641 G.S.	G. H. Twigg	No. 92 G.S.
B. R. Bower	Derbyshire & Lancashire	E. P. M. Hansen	Bristol	R. H. King	RAF
P. A. Riddoch	Surrey	Y. C. Choy	Perak F.C.	G. Shanks	Moonrakers
R. Hill	Yorkshire	E. J. Chubb	Bristol	B. J. Butt	Scottish G.U.
J. I. Bisley	No. 613 G.S.	R. E. Anstee	Four Counties	H. A. Monk	Army
M. H. Ballinger	Surrey	H.M. Gregg	Coventry		R.N.A.S.
R. P. Bateson	No. 625 G.S.	C. D. Matthews	No. 621 G.S.		Culdrose
S. F. E. Wills	Surrey	L. A. Speechley	Oxford G.C.	R. Blacklows	No. 621 G.S.
H. A. Pitt-Roche	Surrey	R. A. Courtney	Oxford G.C.	E. J. W. Barnes	Surrey
J. N. Hopcraft	Surrey	D. A. Fifield	RAF	G. R. Hutchings	RAF Wessex
			Windrushers	W. W. Hall	Blackpool & Fylde
		J. Wright	No. 621 G.S.		

Club and Association News



At the time of writing it appears somewhat uncertain as to the extent to which Clubs will be restricted by the petrol rationing scheme. It may well be that for the majority normal activities will continue at least until Easter, by which time the 'further outlook' should be clearer.

In any event, restrictions do not damp the ardour of new recruits to our Sport, who continue to join existing clubs and to form new ones. We congratulate these last on their initiative, and wish all clubs the utmost prosperity in the coming season, at the same time thanking many Club Press Secretaries for their good wishes which it has been impossible to acknowledge personally.

This seems an appropriate time to remind all contributors of the manner of sending in their news. Due to the increasing pressure on our space, as well as limited staff, it will in future be only in exceptional cases that manuscript news can be accepted. Contributions should be typed double spaced on one side only of foolscap paper, and need not in future be accompanied by a carbon copy. It is regretted that they cannot be acknowledged.

For the April issue they should be sent in so as to arrive at 33B, Eccleston Square, London, S.W.1., by 20th February. Photographs, to reproduce well, must be glossy prints with good tone contrasts.

GODFREY HARWOOD,
Club & Association News Editor.

AUSTRALIAN NAVY

LAST October we took delivery of our new Schneider E.S.56, which has laminar-flow wings of span 40 ft. The words "took delivery" hardly convey a true picture of the four days spent towing an open cockpit Grunau 650 miles to Renmark in South Australia, and then towing the E.S.56 700 miles from Adelaide back to Nowra. The trip went without a hitch.

Unfortunately, only ten days later we suffered a big disappointment when a large cu-nim hurled hailstones as big as hen's eggs at the E.S.56 and our T-31b. The two-seater virtually disintegrated so far as the fabric and much of the ply were concerned, and even the new and heavier fabric and thicker ply of the E.S.56 were seriously damaged.

Repairs were an urgent matter, as the Duke of Edinburgh was due to visit Nowra shortly. We had to re-fabric all surfaces on

the E.S.56 completely and put 43 insertion patches in the plywood of wings and fuselage. The ninth working day—spare time only—found us starting on the spraying, which was finished at 1.30 a.m. on the Sunday morning. The T-31b had been sent to Glidair Sailplanes Ltd. near Sydney, where Reg. Todhunter and Steve Marton did a rapid job on the repairs. It reached us, however, partly unsprayed at 7.15 a.m. on the Tuesday, the day of the Duke's visit. With frantic spraying and rigging, and no breakfast, we completed the test flight just 20 minutes before the Royal Dakota hove in sight.

The Duke asked many questions when he visited and inspected our three aircraft, and was later treated to a flying display in which gliding provided two of the four items. Our fleet now comprises Slingsby T-31b, named "Sea Tern"; Wolf Hirth LO-150, named "Sea Hawk"; and Schneider E.S.56, named "Sea Lark".

Our latest pupil to go solo is Michael Dowling, the 13-year-old son of W/Commander Dowling, R.A.A.F., who is attached to the Naval Air Station at Nowra. This flight was made on Trafalgar Day, 21st October, and with the summer now well advanced, 'C' certificates are steadily rolling in.

A.J.G.

AVRO

UNSERVICEABLE equipment and aircraft coupled with poor weather conditions, hampered our training programme last year, but we congratulate Paul Fogg, Harold Orme, Bob Walker and John Bradley on gaining their 'B's, and Mike Fenton on his 'C', the only one in the year.

We also look back on a moderately successful first year of Skylark operations. Nine members have converted onto it from the T-31 or Tutor, but as we have no trailer yet, all cross-country flights have had to be out and returns.

Outstanding flights were Silver 'C' heights by Peter Teagle and Walter Parker, our Secretary, on the same day last 25th May; the duration flight by Charlie Christianson, our C.F.I., the next day; and height and duration a week later by Martyn Holbrook on his return from a course at the Mynd. Christianson's flight started with a cable break at 400 ft., but he went on to reach 6,000 ft. during the flight and got as far away as Glossop.

During the year our Tutor was fitted with spoilers by a team of keen members led by our Ground Engineer, Tom Smith. Also the leading edge has been sheeted, a canopy fitted, and other 'mods.' carried out, finally being finished in cream and flame orange.

For 1957 our biggest problem looks like being Air Traffic Control, as we operate

from the Company's airfield at Woodford which is only five miles from Ringway and well inside the Manchester control zone. We hope that by Easter, Bill Scull will have the Skylark trailer well under way. Both winches should by then be back in action, plus a tow car which is being modified by Peter Teagle from a Ford V 8.

C.C.

BELGIUM

GLIDING in Belgium is being very well encouraged. The President of the Belgian Aero Club has offered the "President Pholien" challenge cup for the Belgian glider pilot who gains the highest altitude each year, while SABENA Airlines have offered two prizes for 1957, consisting of a ticket for a flight from Brussels to Leopoldville (Belgian Congo) and return to the pilots who make the longest out and return flight and the longest goal flight in gliders. A pre-war Rhönbussard has been completely overhauled by the Antwerp Gliding Club and was baptised on 10th November last as the first glider of "ANCUPA," a national organisation including all University flying clubs.

A. van I.

BLACKPOOL AND FYLDE

SINCE our last report we have been extremely busy getting our "Eon Baby" into flying trim, and in spite of adverse conditions we managed to complete a considerable number of launches. Shirley Clapham and Joyce Witherup secured their 'B' Certificates, the first lady members to do so, and are now ready for some serious flying; also Alf Witherup managed to produce a 'C' out of the last launch of a very ordinary day in August.

Nymphsfield, the new site of the Bristol Gliding Club, is undergoing rapid development.



Our Ford V8 "Wild Winch" was converted last spring to facilitate two-drum operation and has proved really successful in speeding up our launch rate. If any other clubs are considering a similar innovation and feel that we might be able to assist with information, we shall be pleased to co-operate.

Our trailer is forming well under the very capable supervision of Tony Kemsley, Chief Engineer, and a mobile winch is planned to accompany it. Various members by various methods have been prowling about the local countryside, and a suitable hill site has been found, so next summer promises to be interesting.

We have completed three successful aero tows. In all three cases the tug used was a Cirrus Minor-powered Auster, piloted by Dennis Westoby. We were very pleased with these three trial tows, and are now preparing a training programme.

We were pleased to receive a social visit from members of the Lakes Club in October, and we hope other members of the movement will call at "The Kite" at any time they are in the district.*

G.H.H.

BRISTOL

OCTOBER and November each produced a fair quota of soarable winds and tantalising, because as yet unapproachable, wave systems. One of these was, however, exploited by R. H. Prestwich, when his Skylark suddenly appeared above the club fleet on the North slope on 20th October. He had used waves to fly down from Long Mynd, the last wave taking him to 9,000 ft. about six miles upwind of Nympsfield. On the same day Peter Philpot got a very nice 'C' with a flight of over an hour in the Tutor.

Waves were also in evidence on 25th November, when Mike Garnett and Pete Etheridge soared the West ridge. Lenticulars were visible upwind of Stinchcombe and about three miles downwind through gaps in the almost complete cloud cover over the district. Quite suddenly the hill lift increased, and from 1,200 ft. both pilots climbed to cloud base at 2,000 ft. and then lost the lift after gaining about 500 ft. in cloud. Below cloud base there was a wide area of lift extending about 1½ miles upwind of the ridge. These conditions did not last more than 45 minutes, when lift was again restricted to 1,000 ft. Pete Etheridge eventually found the turbulence too much

and landed after 3½ hours, just before cloud base dropped to 400 ft.

Other interesting flights during the period were a successful five hours on the North slope by Bernard Palfreeman, and a first cross-country effort of 28 miles to Corsham by Peter Scott, just before he departed for the Olympic Yachting in Australia.

On the ground side, members are busy on the clubhouse, with Derek Stowe in charge of the kitchen furnishing. By the time this report appears, we expect to have a fully operative canteen and bar to provide some comfort in the hard weather which the locals forecast for 1957. Our lean-to workshop is complete and in action, and provides a welcome contrast to the dark and leaking Nissens of Lulsgate. Members are at present busy erecting a thirty-foot water tower to provide sufficient head for our assorted clubhouse facilities. M.G.

CAMBRIDGE

THIS term there has not been as much flying as we would have liked, due partly to poor weather, and also to the restrictions placed upon our flying by air traffic control. As soon as a telephone line has been laid round the airfield we shall have this restriction lifted.

The telephone is being organised by Ken Machin who, with George Whitfield, has been constructing what looks like a sledge, but which swallows up cable from a drum mounted on the back, and lays it six inches under the turf. They hope to have it laid before next term, but the work requires the winch to tow the cable layer and hence a non-flying week-end is needed—with two heavy men to sit on the sledge to stop it riding out of the ground.

Work has also been continuing, organised by Richard Mason, on the clubhouse, which is being converted into a sort of cafeteria at one end and a power house at the other. Here the main item of equipment is a 5 kVA generator, generously obtained for the club by Pat Harris.

To sum up, apart from a day or so when the wind strength made 2,700 to 2,800 feet kite launches possible, flying this term has not been encouraging. Looking further into 1957, however, we hope to visit the Long Mynd in April for a fortnight, the aircraft staying there for the Easter Rally. Petrol rationing permitting we hope to have one or two further camps during the summer.

B.H.S.



Last autumn James Robertson Justice, the film star, visited the Severn Wildfowl Trust and was taken by Peter Scott to fly at Nympsfield. (L. to R.) Peter Scott in his Olympia, John Parry Jones, Robertson Justice and Harry Daniells.

CELLE (GERMANY)

THE club was started at the end of 1950, but had to be content with model planes and theory until gliding was permitted again in 1952. By May of that year we were able to buy a two-seater 'Goevier' which has now done over 4,600 launches on our site five miles North-East of Celle, where we have found an ideal thermal area surrounded by large stretches of heath. We also own a S.G.38, two Grunau 11b's and a Weihe.

The main wind directions are West to North-West, and with our 150 h.p. winch, we usually get launches from 1,000 to 1,650 feet. In addition to flying instruction each pupil has two hours each week of theoretical instruction in aerodynamics, meteorology, air-law and first aid. Written and oral exams. are required to qualify for the 'C' certificate. These are held in the clubhouse on the airfield.

Membership is at present 48, including nine Silver 'C' pilots and 13 instructors. Since 1952 a total of 8,244 launches, 1,038 hours, and 2,861 miles cross-country has been reached.

W.B.

CORK

ALTHOUGH we are a very new Club, we did not take long to discover the existence of this magazine, and to note that

every club in the world seems to get itself into print.

Our club was founded by a group of aero-modellers headed by Dominic O'Connor and Noel Looney, and by last May we had acquired two Cadets and a Humber desert car and were ready for our opening day at Farmers Cross airfield—shortly to be turned into Cork Airport. This field is only 670 yards long, so that we cannot get more than 400-500 feet on the launch, and the circuits have to be pretty snappy.

So far we can only do solo training, but there is great enthusiasm, as witness the large size of the opening day crowd. Already we have seven members who have got as far as circuits, and there are many more doing ground slides, low hops, etc.

We are raising money from dances, film shows, lectures, etc., and hope soon to be in a position to buy a T-21b for dual instruction, and a couple of Tutors. Recently we have been lucky enough to have some much needed help and advice from John Lathbury, who is well known to most Lashamites and who is now recovering from the severe bending he received in a motor accident in Persia. He does, however, show signs of a relapse when he sees someone on the approach doing a steep turn at 20 feet!

P.N.

COVENTRY

EXCUSE us if our skulls seem somewhat enlarged. Our first-ever 1,000 hours have caused a temporary swelling. They were completed on 16th December amid a battery of press cameras (at least two), after much holding of breath over the last few weeks.

Surveying the year's events, our craniums return to shrunken dimensions when we consider cross-country flights. They have been limited to the "over the fence" variety, apart from Mike Hunt's club record duration flight to the Malverns, and one each by past and present C.F.I.'s. Thanks to John Greenway's help with launches at Edgehill, however, five-hour durations have been quite frequent, the latest being L. Glover and D. Cunningham, which make a total of nine for the year. Latest solos are L. Watts, D. Dobson, A. Cunningham, R. Brown and R. Holmes, totalling 26 for 1956 ('55-20). Launches have also increased appreciably from 5,428 in '55 to 6,660 in '56. The figures for 'C's' are 13 ('55-20), and for Silver 'C' heights seven, making a total of 16 Silver legs compared with 19 in '55, the loss being in distances. Membership has increased during the year and is now around the 90 mark.

Speaking of Edgehill, which we do very often these days, seven pilots did 10 hrs. 40 mins. wave flying there on 2nd December. Frank Wright gained the best height. He went off for a pre-arranged one-hour flight and at the end of that time was at 2,300 ft. and steadily gaining one ft. per sec. when his conscience brought him down.

On 16th December, launch heights were extremely good, several reaching 3,000 ft., but yet another club record was set up when D. Cunningham kited to 3,400 ft.

We are better off for aircraft since the recent ex-R.A.F. Tutors sale, when Vic Carr's astute business ability gained us three of them.

Our transport officer, Ivor Tarver, and his crew, have done a magnificent job in maintaining and vastly improving beavers and winches. Both Ivor and Doug Cunningham have now been appointed instructors, and Cathy Liquorish is our first lady passenger carrier.

The club has been rather depleted of old stalwarts, namely Bob Gairns, Jimmy Joss and Peter Folkes, who have all emigrated to Canada, and Beryl Sanders, who is teaching

in U.S.A. Our saddest loss is the tragic death of 24-year-old Raymond Rastall, who was drowned whilst sailing at Brownhills. B.H.C.

CROWN AGENTS

OUR club has now been in existence for three years, during which time no fewer than 17 members from various parts of the Commonwealth have joined. Most of these have been able to spare enough time from their leave period in England to stay at Lasham, and several have been trained from *ab initio* to solo stage.

The club's prospectus has been revised and brought up to date, and is available to any member of the Oversea Civil Service upon application to the Secretary at 4 Millbank, S.W.1. It is hoped that the organisation at Lasham will be able to carry on their training programme in spite of petrol rationing, so that members on leave from overseas may not be affected.

J.E.G.H.

DERBYSHIRE AND LANCASHIRE

OCTOBER 21st was the best wave day we have had, so far as we know. Michael Kaye took off about 10 a.m. in his Olympia, having declared Edinburgh. This involved flying along the wave which runs up the Pennine Chain, a project which has been in our minds for some time. The wave over Camphill was not particularly good and no one exceeded 6,000 feet. Michael flew north and attained 10,000 feet over Stocksbridge. Moving steadily north he contacted a better wave in the lee of Great Whernside and reached the top at 16,100 feet a.s.l. From here he had little difficulty in reaching Wolsington Aerodrome, Newcastle. At Newcastle the wave appeared to run out to sea. If he had persisted, it is quite possible that he might have contacted the wave again and carried on towards Edinburgh.

Ken Blake in the Skylark reached 12,750 a.s.l. on the same day over Stocksbridge and landed late in the evening at Leeming Aerodrome. These flights break new ground as far as our club is concerned and may encourage pilots to make greater efforts to contact waves further north. Provided that air corridors do not block the way, it seems possible that, some time or other, a pilot will reach Edinburgh from Camphill.

Another small wave on 4th November enabled Graham Elson to reach 7,500 a.s.l.

in the Skylark over the Hope Valley, but no one else managed to contact. Malcolm Lickess managed to get his 'C' certificate with a good flight in the Tutor.

In the absence of suitable flying weather last autumn we have reason to be thankful for the activities of the social committee. A lecture from Philip Wills on 20th October was followed by a Bonfire Party on 3rd November. Casualties were lighter than in previous years. "Wally" Wallington talked to us about meteorology on 17th November and the Club Dance was held at the St. Anne's Hotel, Buxton, on 7th December. Slightly less formal than in recent years, and overshadowed to some extent by petrol rationing, the dance was a happy and successful event.

We have recently purchased two spare Tutors and the new Olympia has also been delivered. Our fleet has just about reached the optimum size and no further additions are contemplated for the time being. A new project nearing completion is the provision of car-assisted "bungy" launches, using pulleys and rope instead of elastic. Applications are invited for the post of honorary test pilot.

The question uppermost in our minds at the moment is the proposed new air corridor which will run over or close to the site. We are trying, by all means available to us, to have the arrangements modified and we hope to have better news in the near future.

B.T.

ISLE OF WIGHT

SINCE our last Club news was published in this magazine we have been rather in the doldrums. Our T-21 is now back in service, however, and there is a much brighter future ahead. The Grunau is

stripped for C. of A. inspection and we hope to have her flying again very soon.

It is hoped that ridge soaring will soon be a feature of our activities, as we have obtained permission to try a few launches from what appears to be a most promising ridge, running North and South for 2,400 yards and rising to 540 feet. Unfortunately foot and mouth disease has temporarily closed the fields involved.

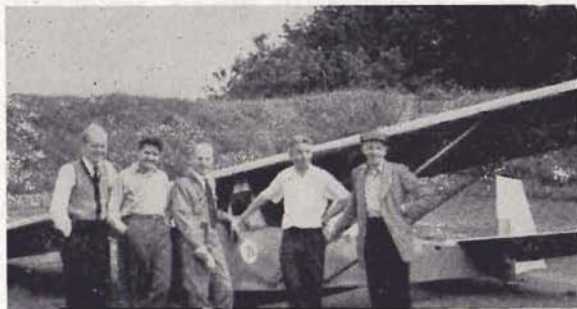
On 18th October, in conjunction with the Isle of Wight Branch of the Royal Aeronautical Society, we thoroughly enjoyed a talk by Mr. Philip Wills on the "1956 World Gliding Championships, St. Yan." It gave us a first hand and intimate picture of the heights, actual and metaphorical, that individuals and clubs can rise to—in short, a much needed "shot in the arm".

Earlier this year, on several occasions when the wind has been between W. and S.W., wave clouds have been seen in the West Wight, probably between 10 and 15 miles from our airfield. During his talk, Mr. Wills mentioned that an acquaintance of his, flying a high-powered aircraft over the West Wight, had noticed similar clouds but omitted to mention whether or not the wave had been contacted. With our intended ridge cleared for operations, we should be able to explore this wave during 1957.

Club members were especially interested in the article by J. K. MacKenzie, entitled "Exploring the Sea Breeze Front", which appeared in the December issue. It is being read very carefully all round, to see if anything can be learnt which will avail us in the future.

15th December proved to be a most entertaining evening. Originally started as a Christmas party, it served also as a farewell party to Don Ellis and Vic Gardner, who have worked very hard for the Club since

At Usworth (L. to R.), Leo Cullinan, Brian Marley, Joe Beckwith, Charles Ungley and Pete Wiles, of the Newcastle Gliding Club, with their faithful Cadet.





Hangars and Clubhouse at Sutton Bank, site of the Yorkshire Gliding Club.

its inception. They are now on a world tour, estimated to take roughly five years, and hope to visit Canada, the U.S.A., New Zealand, Australia and South Africa, calling on as many Gliding Clubs as possible on the way.

During this year we have gained three C's and seven A's and B's. With the Grunau back in service it is hoped to see many more C's and also, advances into the Silver C requirements.

P.W.

LASHAM

THE 1956 Christmas Party, held on the 15th December, took place under typical weather conditions—South-Westerly gale and pouring rain. In spite of this we were very pleased to welcome a number of visitors from other Clubs, including a reunion of veteran Southdown members. Unfortunately on the Sunday the wind was still strong and no flying was possible, so that the aerobatic competition and the bombing competition were postponed. Entertainment during the Christmas party included a striptease by Mabel, a song by the three Bills, Gotch, Wills and new boy Longley, and a short play based on Dickens called 'Roll Out The Carol'.

At the time these notes were written, mid-December, it was reasonably certain we should exceed 20,000 launches in 1956.

With petrol rationing it may be impossible to reach a similar figure for 1957, but Lasham will be operating as fully as possible and if the weather is kind there should be flying on 364 days, as Christmas Day is a day off.

It is hoped that with strict economy in the use of fuel we shall not have to reduce our activities to any great extent, and the

acquisition of a diesel Jeep for cable retrieving will help considerably.

It is too early yet to know whether petrol rationing is going to affect the holding of the National Competitions from 27th July to 5th August, but we can only hope that by that time, petrol rationing will have finished.

E.D.C.

LONDON

By 1st December last, our flying hours for the year had exceeded 2,000, in spite of the season's bad weather. This creditable achievement reflects highly on our C.F.I., John Everitt, and Ray Stafford Allen. Last summer's courses were fully booked, and from them we obtained some very keen new members.

With much regret we have postponed our new garage building project, at least for these winter months, as we feel that petrol rationing will limit the number of members who can attend on any one day. Dunstable being a hill site we can of course bungy off in hill winds, but we have to get the gliders up the hill first, which may mean resuscitating our pre-war windlass.

Our workshop under Ray Stafford Allen has rendered sterling service, and all gliders are 100% serviceable two months ahead of schedule! A third club trailer for the Prefect and Grunau has just been completed.

Our good wishes go with Ron Travell, one of our keenest types, who has left to settle in Canada. The movement over there will gain a strong supporter.

During November and December we had some rather feeble waves, one of which was rather unusual and seems to demand an explanation from the Met. pundits. On 2nd December, the surface wind was S.W.,

but N.W. at 500 ft. and considerably stronger giving very smooth lift up to 1,700 ft. out over the valley between Ivinghoe and the Zoo slope. Upwind a large blue patch remained stationary all day while there was an inversion at 500 ft. Ground contours cannot account for this wave as we are not in the lee of any suitable hills to the North-West.

On 9th December we were visited by three Hungarian refugees, one a Silver 'C' and the others 'C' pilots. Much hand waving and sign language ensued and both sides seemed to understand each other. They were made guest members for the day and given two-seater flights, and we hope to see them at Dunstable again.

P.F.

MIDLAND

JUST what effect petrol rationing will have on the Club's activities is yet to be discovered, but with a membership of 200 well spread over a 100-mile radius we are not too optimistic.

This year's Easter rally will be held if sufficient support is forthcoming.

1956 produced a record total of flying hours with a figure hovering on 2,500. One aircraft—the Mk. 1 Prefect—which we use for all early solo flying, did the amazing total of 382 hours from 1,200 launches. An average figure for the other aircraft was 200 hours each. Our old faithful, the T-21b, has now accumulated 2,243 hours during her life which began in late 1947. The Tutor, which is kept in reserve these days, did 108 hours from only 91 launches.

Waves have again provided much enjoyment, and on 2nd December we had the sort of day that dreams are made of with stratocumulus roll clouds all over the sky, and a duty one directly over the site all day. Two flights were better than average and both were made by newcomers to wave flying. Anne Burns, visiting from Lasham, took her Skylark 111b to 12,500 ft. a.s.l. gaining, we understand, several Women's altitude records, and Peter Clay on his third Olympia flight reached 10,000 ft. a.s.l. To their shame, the "experts" failed miserably and even the best among them could only reach 8,000 ft.

The official Christmas party had to be cancelled but an "informal event" proved that socially the club is very much alive, despite difficulties.

J.H.

NEWCASTLE

AT the time of writing, 1956 was closing in an unkindly manner, the launch rate seldom exceeding 15 per day—if indeed we flew at all. News is therefore of a domestic nature only.

Two syndicates were organised to bid for the Tutors offered by the Air Ministry, and both bids were successful. Also the club was unexpectedly lucky in being able to take over an allotment made to the Dublin club which was in excess of its requirements. For this negotiation we have to thank S. C. O'Grady, who happens to have a member foot in both camps.

One Tutor group consists of Hetty White and Eric Vissenga, the other of Harry Seed, Brian Marley, Joe Beckwith and Cliff Sculthorpe. They are all busily engaged on C. of A. preparation. Ian Paul and Doc Kiloh have obtained a Skylark tailplane which they hope to fit to their Kite II in time for the 1957 thermals. The lack of flying has given rise to language hot enough to start off 20 f.p.s. thermals! L.A.C.

NEW ZEALAND

WITH the commencement of a new soaring season and the antipodean equivalent of Whitsun, viz, Labour Day week-end, thoughts of the Auckland & Tauranga Gliding Club members naturally turned to the Kaimai ridge (already described in the June *SAILPLANE & GLIDING*).

On the Thursday (18th October) the Eon Baby sampled the Piako air for the first time and logged a total of 4½ hours. In the Olympia, Ralph Court made trips of 1½ hours and two hours and reached 9,000 ft., while Gordon Hookings, on the afternoon shift, had a three-hour flight with a peak of 10,600 ft. Maurice Green spent 3½ hours in his Bergfalke and took some of the local aviation enthusiasts for their first glider flights.

Next day the highlights were Silver C climbs by Merv. North and Maurice Green. Merv. North made a particularly fine flight of 2½ hours in the "Baby" and was fortunate in finding that cloud base had risen to nearly 5,000 ft. by the afternoon. Earlier, Len Perry had kept the Baby airborne for an hour and a half, and Ralph Court had prospected the Silver C triangle mainly at heights below 2,000 ft. On the middle leg there was an almost total clamp. The second day's total was 15 hours with

three aircraft, which was regarded as quite encouraging.

The Tauranga Club's T-31 contributed a large share towards the Saturday total, when grey skies were the order of the day. Ralph Court recorded greatest duration with an hour's search for waves. Lenticular clouds appeared and disappeared with tantalising frequency, none of them lasting long enough to be of any use.

On 21st October the thermals were late in starting, but eventually the cumulus over the Kaimais built up to respectable heights. Gordon Hookings reached 7,000 ft. and then dashed back in the hope that his partner could make a Gold 'C' climb. This he did with a vengeance, but not until next day, and then only after a 45-minute scrape between 800 and 1,200 ft. Thereafter conditions improved and the barograph chart shows successive peaks in the 4,000, 7,000 and 10,000-foot regions before the final spectacular climb to and equally spectacular descent from 15,000 feet. Ralph Court says that had the Olympia carried oxygen he might have reached 25,000 ft., but as it was, with icing above 8,000 ft., the trip was exciting enough. Lightning flashes came regularly every six seconds with thunder like close gunfire, and so much static electricity tingled up the stick that he wrapped a handkerchief around it as insulation. The dive-brakes were used to break clear of the cloud and froze in the open position, so that with the extra weight of ice on the sailplane it only just regained the airfield.

G.A.H.

NORTHAMPTON

SYWELL being not very far from a district of England where oil has been found, club penguins go about muttering about drilling for oil in our overshoots, while in the meantime pilots fly with fingers crossed, hoping we shall not run out of petrol.

As the result of a visit from Ken Machin of the Cambridge club, who came on behalf of the B.G.A. to pass out Flt. Lt. Ken Pearson as our C.F.I., we have now been elected to membership of the Association. We also welcomed a visit from Basil Meads, after which our visions of a T-21 are growing brighter, although we still have to work hard to achieve this.

In common with many other clubs, we put in bids for the surplus Tutors from the Air Ministry, and were successful in

acquiring two, which are now here, thanks to our President, Tom Phillips, getting ready to ease the burden from the stalwart Grunau.

On the social side, we had a lecture and film show on 10th January, this being the first of a series intended mainly for *ab initios*, but open to all, which will take place every three months.

G.G.

OXFORD

WE rounded off last October at Weston with some more soaring in the T-21 whilst R. Pratt soloed in the Club G.B. The periodic arrival of No. 47 Squadron's Tiger Moth to carry out parachute dropping has been to our advantage, as we have been able to arrange some aerotows with it after the jumping has finished. One occasion could have been rather embarrassing for two instructors in the T-21 when the rope came off the tug at 450 feet and was recovered some three fields away.

Permission from the local farmers having been obtained, largely through the efforts of Alan Mann and Dick Everard, the small winch was towed over to a nearby ridge site in November, and this ridge has since been soared with success by the Gull syndicate and the Club Olympia. This expedition necessitated overhauling and repainting the Olympia trailer, and much work has been carried out in the hangar by a large proportion of our members on various tasks, notably by Chris Hurst and Barry Baker. Barry managed to arrange to take the T-21 wing into the nearby bacon factory to effect a small repair, our hangar being too cold for glueing.

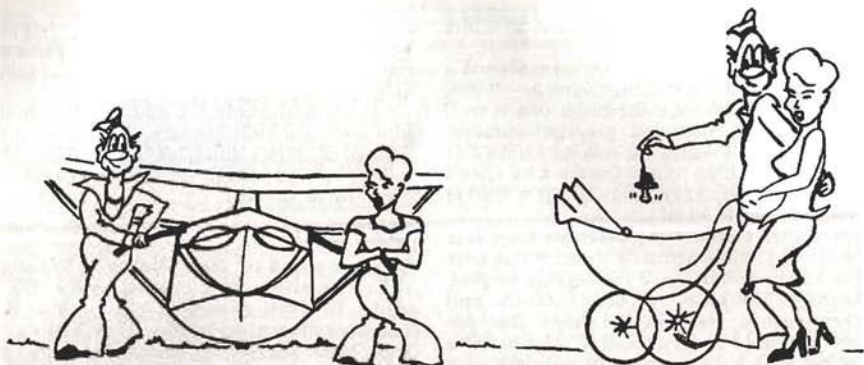
Despite November fogs, when the two-seater disappeared periodically from view only to reappear in the most unexpected places, training continues and we look forward to better weather this year.

We now have six machines at Weston. The White G.B. returned to the fold via Lasham from Lee-on-Solent, the retrieving crew being part of the Oxford contingent to the Lasham Christmas Party.

D.W.H.R.

PERKINS

THE club has acquired a Slingsby T-21b dual control trainer, and also owns three single-seaters including a Tutor. Instruction hitherto has been more or less confined to those members with previous



One of the trials of the Royal Naval Gliding and Soaring Association . . . is that personnel change from season to season.

power flying or gliding experience, but we can now concentrate on *ab initio* training as well.

About 60 members have now joined, and in the year since the club was formed, several have obtained their 'B' certificates, including our Chairman, Morgan Griffiths, who has been a power pilot for 23 years. We have two instructors, both qualified A.T.C. instructors, John Hulme, who is C.F.I., and Gordon Cornell.

We have to thank Mr. W. N. Collins, a Director of F. Perkins Ltd., for his help in obtaining hangarage facilities for the club gliders in the main hangar at Polebrook Aerodrome, also the Perkins Sport Association for financial assistance.

P.H.

ROYAL NAVAL G. & S. A.

IN an endeavour to achieve more regular reporting of the activities of the branch clubs of the Association, Lieut.-Cmdr. D. S. Elsworth Row has been appointed News Correspondent.

All naval personnel are borne on the books of a ship for administration purposes, but the ships are not always sea-going vessels, and naval air stations are shore establishments named after sea birds. It is the "ship's" name that is seen on the cap ribbon of a sailor.

The following list shows the names and locations of the R.N.G. & S.A. clubs which have been mentioned in this magazine from

time to time, although they are not necessarily all functioning at the moment. One of the difficulties in following the fortunes of the Association is that personnel change from season to season. Some naval air stations have never had a gliding club, even though equipment and key personnel may have been available, as much depends on the tasks of the particular station.

Club	Station	Airfield
Blackcap	H.M.S. "Blackcap"	Stretton, Lancashire
Condor	H.M.S. "Condor"	Arbroath, Angus
Fulmar	H.M.S. "Fulmar"	Lossiemouth, Morayshire
Gamecock	H.M.S. "Gamecock"	Bramcote, Warwickshire
Gannet	H.M.S. "Gannet"	Eglinton, N. Ireland
Heron	H.M.S. "Heron"	Yeovilton, Somerset
Nuthatch	H.M.S. "Nuthatch"	Anthorn, Cumberland
Portsmouth Naval	H.M.S. "Daedalus"	Lee-on-Solent, Hampshire
Seahawk	H.M.S. "Seahawk"	Culdrose, Cornwall D.S.E.R.

SOUTH WESTERN

FORMING gliding clubs seems to be one of the hobbies of Lieut.-Cmmr. Heenan, who became Chairman of our new club on 14th September, 1956. Our objects are the



Mr. and Mrs. G. Bambridge took over the catering at Lasham last autumn. Members of the Surrey, Army and Imperial College Clubs did full justice to the cold Buffet on the occasion of the annual Christmas Party.

usual ones, plus one worthy of special note, namely to follow up* the work of Prince Bira and Wing-Comdr. Pearse in mapping the areas of lift over Dartmoor and the surrounding country.

We believe we have one or two 'waves' to prove up on within sight of our proposed field, and if we can do a little sign-posting for the Land's End bound glider 'bods' it will be some sort of a reason for having a go here on the borders of the Last Wilderness.

The late Mike Royce is responsible for this ambition in an otherwise decrepit old pupil.

E.A.W.

WESSEX R.A.F.

AIR-COMMODORE Moore mentioned the pioneer Nyborg sailplane in the Press, and a vigorous Mr. Nyborg soon let us know that he still had faith in his creation. We have arranged to test this sailplane when some detail work has been completed, and if its reputed gliding angle of one in fifty plus, and cruising speed of around the eighties, turn out to be attainable, you won't see Andy Gough for dust at the Nationals next summer. Time (and distance!) will tell.

We held our A.G.M. at the beginning of December, allied with a film show, buffet and bar. After the very successful dance held the month before, we were very

disappointed that only our worthiest members turned up to the A.G.M., and in future we shall advertise the film and buffet first, throwing in the A.G.M. as a tailpiece.

New members continue to join in heartening numbers and we are sure it pays to keep flying through most of the winter, even if only on Sundays. There were no cross-countries or ridge soaring flights in November, but we sent off six new solo pilots. This is as many as we manage in most of the summer months, and makes the cold and wet less noticeable to our keen instructors.

We have purchased the wreck of a Gull I and, Slingsby's having very kindly lent us the drawings, we hope to have this slim lady flying in time for the championships. This is the second sailplane we have purchased as a club, without R.A.F.G.S.A. assistance, and we are proud of it as evidence that we do not sit around expecting to be supported, although we are very properly grateful for the assistance we do receive.

Headquarters Maintenance Command have kindly allotted us a cup, for award annually to the most promising beginner. The first winner is A.C. Pollard, of R.A.F. Middle Wallop, who has proved outstandingly keen, both in learning to fly and in turning up at our working evenings. The cup was presented to him at the A.G.M. of

the R.A.F.G. & S.A. on 15th December by the Vice-Chief of Air Staff.

The writer, about to depart in a Far Easterly direction, wishes to say how much he has enjoyed the flourishing and friendly Wessex, and urges all Service types who can afford a subscription of 5s. a month to go along and make it flourish even more.

R.B.L.

YORKSHIRE

MAIN item of news since the last issue is that we have lost the services of Bob Swinn and his wife, Sue, who have done so much work for us in the past few years. Henry Doktor has been appointed Deputy C.F.I. and will be in charge of flying at Sutton Bank. It is hoped that eventually he will be able to become resident instructor, but at present he will be there at week-ends only, and there will be no mid-week flying.

Meanwhile we have come to an arrangement with the Yorkshire Aeroplane Club at Sherburn-in-Elmet to use the airfield for training, and the old T-21b and Rice winch

are located there with Chris Riddell in charge. Every week-end a cheerful band of workers and pupils are there, and we have been made very welcome by the flying club.

Sutton Bank may be difficult for some of our members to get to while petrol rationing lasts, so they will most likely come to Sherburn which is so easy of access from Leeds, York, Harrogate, Bradford, etc. We hope to be able to run courses as usual this year, and the dates will shortly be available from Mrs. M. Lawson, the Secretary, 607 Anlaby Road, Hull. Our main trouble will be winch drivers, so if you can drive a winch and want a free holiday and a bit of flying, here is your chance.

We have been successful in obtaining two Tutors from the Air Ministry, and these will be a valuable addition to our fleet. Harry Sowden got his 'C', at which we were all very pleased and it cost him quite a lot in the bar. Our two worthy barmen, Keith Moorey and Bob Wilkin, are now passed out for two-seater flying and are thoroughly enjoying life.

E.H.

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