SAILPLANE & GLIDING

December 1967—January 1968 3s 6d





WHERE ARE YOU?

Keep your airfield recognition up to scratch by giving a name to this airfield somewhere in Britain. If you don't know it or guess it straight off, here are some clues to help you.



The name of the Airport Station Commandant is Wing/Cdr. C. V. Ogden.



The name of the Fuelling Supervisor is J. H. Rigg.

The main runway headings are 04/22 and 13/31.

The height of the airfield is 220 feet AMSL.

Add the lifeblood of any airport, AVTUR, AVGAS 80 and AVGAS 100/130

The tower frequency is A/G 118.1 Mc/s.

Customs category 'B' available during hours of operation.

Taxis. Public Transport and Hire Cars are available.

Dining facilities at airport. Hotels nearby.

GOT IT YET?
Here's another clue. "There is a welcome."

Answer Glamorgan (Rhoose)

SHELL-MEX AND B.P. LTD

Operators in the U K. of the Shell and the BP Aviation Services

SAILPLANE & GLIDING

OFFICIAL ORGAN OF THE BRITISH GLIDING ASSOCIATION

Editor: Alan Slater, M.A. F.R.Met.S.

Associate Editor and Production Manager: Rika Harwood

Magazine Assistant: Nicky Stothard — · Club News Editor: Yvonne Bonham

Advertisement Manager: Peggy Mieville

Committee: Philip Wills Chairman, G. Harwood, W. Kahn, M. Simons

CONTENTS

1967		P. A. Wills	451
Marfa — USA — 1967		J. Firth	452
A New Look at Glider Handicapping		I. W. Strachan	459
Sea Breezes and Soaring in Cyprus		R. P. Saundby	463
Rieti 1967		U. Nannini	466
Kronfeld Club News		Yvonne Bonham	469
Aviation Art Society			469
Final Results: RAFGSA Bicester			470
Dunstable Air Display		T. Godfrey	471
Flying Talk		R. Q. Barrett	473
Barographs		V. C. Carr	475
Austrian Motor Glider Rally		P. Ross	478
World Gliding Championships 1968		Ann Welch	480
BGA News			481
Wycombe Air Park Regionals		J. Ellis	484
Could You Have Won a Swallow?			486
Thirty Years Ago		A. E. Slater	488
I Was At Marfa		Suzie Bates	490
Final Results: Lasham Regionals			494
It's All Yours		Ann Welch	496
The First 500 Kilometres		E. Steinhoff	497
London Regionals		J. E. G. Harwood	501
Gliding Certificates			505
Book Review		A. E. Slater	506
Correspondence		C. Riddell, M. Dixon, D. Carey, G. Smith, U. Hänle, J. Harrison, D. Cadish	506
Club News			514
Service News			524
Overseas News			527

Cover photograph: Charles Brown took this photograph of a Skylark 3G during the practice week at Lasham, prior to the 1965 World Championships.

Published by the British Gliding Association, 75 Victoria Street, London, S.W.1. Sullivan 7548/9
Printed by The Amberley Press, Farnham, Surrey.

Vol. XVIII No. 6



SEE YOUR HP-14 REPRESENTATIVE FOR DETAILED INFORMATION

SLINGSBY AIRCRAFT CO., LIMITED

KIRBYMOORSIDE ∴ YORK ∴ ENGLAND

Telephone: KIRBYMOORSIDE 312

1967

CHRISTMAS again! And the last time this writer will have the privilege of writing the S. & G. Christmas Editorial.

The first time I did this was, I find, in the issue for December, 1955. The amalgamation of the old "Sailplane" with the post-war "Gliding" had just taken place, and we had gone from four to six issues a year, the price was 2s. 6d. and we had just boldly increased our size from 48 to 56 pages.

Nowadays, you lucky people get between 88 and 108 pages for 3s. 6d., so Mr. Aubrey Jones and his Prices and Incomes Board ought to give us a medal—I doubt if any other product in the whole of the United Kingdom actually provides more for its money than it did 12 years ago.

What do we still retain of those 12 years ago? Doc Slater, of course—his magic touch has tinged Sailplane, then Gliding, then Sailplane & Gliding, since 1933. Peggy Miéville started in 1955, and her work on the advertising side has done much to contribute to our growth and success. Rika Harwood came in in June 1958, but from that date on has put more work and heart into the magazine than almost everyone else put together.

But, of course, when one gets down to brass tacks, what makes or mars any magazine is the quality of writing of its contributors. And I think no one will accuse me of bias when I affirm that the general standard of writing which we receive (without payment—else our price would certainly not be 3s. 6d.) is the best of any aviation (not only gliding—*aviation*) magazine in the world.

Why British gliding enthusiasts should be able to string words together so well I don't really know—perhaps it is partly because we still retain a strong sense of humour. So many frustrating and maddening things happen to gliding enthusiasts that unless they retain the ability to laugh they will certainly give it up. But I had better stop before Rika tells me I am hazarding our overseas circulation!

So thanks, everybody. It's been a super year—wonderful weather and wonderful flying, except for SpLasham, dammit. It's been a super 12 years. To Doc, Rika, Peggy, contributors, and every one of our readers, now and always

A happy Christmas and a Diamondiferous New Year

MARFA—USA—1967

By JOHN FIRTH

An excellent write-up on the USA Nationals appeared in the September issue of *Soaring*. Here John writes about some of his experiences in this event.

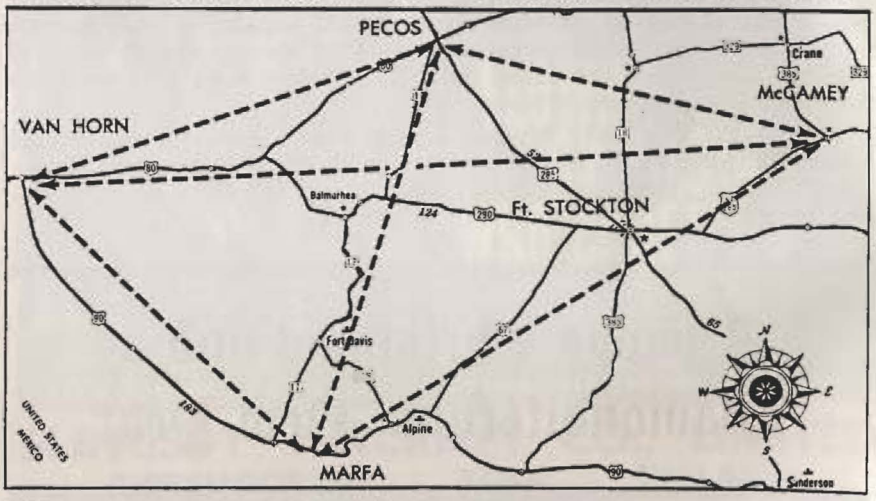
THE 34th USA contest attracted the biggest array of high-performance gliders yet assembled in one place, together with most of the top USA pilots and some foreign visitors. Some familiar faces were missing, including Dean Svec and Hans Grosse and his AS-12. All the same, the appearance of two BS-1's, Phoebus 17, HP-11 to 14, Libelles in quantity, various Austrias and two Diamants, not to mention most of the Sisus, was impressive enough.

A tentative plan of mine to arrive by air in the best possible manner was foiled when we found every soaring afficionado in Odessa was already at Marfa, so no tow. Frustration was further increased on arrival at Marfa at 4 p.m. under a superb sky, when we found the fuselage loose in the trailer, with the front mounts of the folded tail torn out. That this mishap did not ground me for several days, I have to thank Dick Schreder, already adviser to several repairers of damaged gliders. He inspected the damage, suggested the remedies and later, seeing I was quite inept at the work, volunteered to come at 6 a.m. next day to help. By about 10 a.m. we, or rather he, had the job done, and I was able to fly with the 80 or so other competitors on a practice out-and-return task to Van Horn.

The previous week of rain had left the ground very moist, and the task was further complicated by cu-nims generated by Mt. Livermore. This latter was a recurrent factor during the contest. Even so, the task was easy by English standards, and nearly everyone got round.

Convection cycles differ somewhat from my experiences elsewhere, due in part to the mountains, and longer nights than at more northerly latitudes. The latter produces considerable nocturnal cooling and hence a deep low-level inversion and late start to convection, and the former triggering cu-nims even in the morning, while sunlit slopes give lift till late evening.

These factors made tactics for speed tasks difficult; a late start and one might



have to divert for thunderstorms; while an early start meant poor thermals for a while. If one believed the met. man, there was some uncertainty about being able to stay up before noon, so even on distance days one started late, but when one had learned that sunlit slopes really do work late in the evening, it was possible to fly till dusk, with some risk to ship and self on landing.

* * *

Day 1 started with a 236.5-mile Triangle. A gasp of surprise escaped as this was announced. Most of us were not yet attuned to the idea of this magnitude of task. After the usual formalities and a forecast of good soaring, we moved out to the take-off line, where about a dozen Cessnas and Pipers were waiting to go. Line-up was four abreast, with consecutive take-offs. The whole operation was very good, especially as many of the pilots were new to towing.

After starting, most of us headed for the edge of a cu-nim over Mt. Livermore, climbed to cloudbase and ran along the western edge, trying to stay away from rain and lightning. After this interesting start I met Dick Schreder and we both headed for a vast wall of dust rising to the N.E. It seemed possible to run along it to the turning point. Lift was there all right, but the dust reached the turn before I did, and after climbing to cloudbase (gyros were banned) and running around the turn, it was evident that all was dead behind it. Some pressed out on course and landed fairly soon. Most of us elected to return down the first leg trying to go through the middle of the triangle. No one succeeded. Only Stuhr (BS-1) from Germany and A. J. Smith (Sisu) got round at 40 and 35 m.p.h.; the rest of the scores were indicative to a large extent of the time of departure. Only the early ones went a long way.

* * *

The first ever American trial of the new "Prescribed Area Distance" task, variously known as Round Robin or Cat's Cradle, came on the second day. Some experienced pilots decided to go first to McCamey, in order to have the last part of the day among the mountains. Others merely followed the crowd. Noting some cirrus in the east, I made for Van Horn and thence to Pecos. Good streets lured me back to Marfa, from where I struck out in the direction of McCamey, thunderstorms now having cut off the route to the north. After a few miles, I was cheered to find myself with Wally Scott. As we skirted the edge of a cu-nim, I snapped what should have been spectacular pictures of the Ka-6 against a rainbow, but rainbows turn out to be rather unphotogenic. Eventually we diverged; at 8 p.m. and 1,000 ft. (on what I had expected to be final glide) I found a 1-knot thermal. After 10 minutes of careful circling it grew to 5 knots and carried me to 7,000 ft. a.g.l. A long glide into the dusk and gloom under the anvil of a giant cu-nim brought me to the last cultivated fields I could see, and from 1,000 ft. I descended to a safe, if bumpy, landing on a track beside a rough field. Five minutes later I don't believe I could have landed safely; it was suddenly dark! The day was won by Dick Schreder with 444 miles, via McCamey, Van Horn, Marfa and beyond.

* * *

With a short 146-mile Out-and-Return to Ft. Stockton on the third day, there seemed little point in taking off early and sweating to stay up. A few astute pilots, seeing cu growing unexpectedly early, advanced their times, and were in the air when, around 12.30, some of these cu grew to cu-nims, which then joined hands to produce a line squall. There was a frantic dash to the hangar by men and machines; many were left in the pouring rain, clinging on to their machines. Nothing was damaged but several came close to it, like the gentleman who sat in his Dart facing into wind with someone holding down the tail! A brief tornado funnel was seen miles away; John Ryan, who was flying in the vicinity of this, was flipped on his back. He was thereafter referred to as One Tornado. Excitement over, launching was resumed and the rest of us set off about the time Moffat arrived back. The going was easy, but not fast, as far as the turning point; thereafter, blue thermals made the return difficult. It paid to stay in company. My personal distaste for crowds led me to press ahead, whereupon I spent a very uncomfortable half-hour at less than 1,000 ft. over completely uninhabited and un-



A. J. Smith, this year's winner, in his Sisu.

improved terrain for as far as could be seen. A weak thermal lifted me over a mesa with jagged cliffs which I worked to the last drop, and set off in the direction of home arriving back a good half-hour after the gaggle I had left. Twenty-three pilots finished; among the notables who did not, were Bill Ivans, Al Parker, Graham Thompson and John Ryan. Sadly, the AS-12 was completely wrecked when the drag chute failed.

* * *

The same task was set again the next day; no complications this time, except that I was having unexpected trouble with Total Energy on the PZL vario, and heard other people had the same thing. Eventually I tumbled to the fact that this was an air density error, and made an attempt to adjust the compensator. (At 10,000 ft. the vario is only 2/3 compensated if the system was correct at sea level.) Still, George Moffat, who had worse troubles, didn't seem to be unduly hampered. Nearly everyone made it, with Smith first at 61.2 m.p.h. My 45 m.p.h. was good only for 33rd place.

* * *

Area Distance again on the 9th July. Same weather; take-off around 11.30, struggle towards the hills where the first cu-nims were brewing, gaggles everywhere. I followed George Moffat as he pressed on, but in a short time I was well below him and scraping. Those I had passed earlier streamed overhead. Got going again, contacted cu-nim, climbed rapidly to cloudbase, and set off east at 100 m.p.h. A few seconds later Dick Johnson flashed by, going the other way!

By this time most crews, including mine, were pretty fed up with driving 200-300 miles around inside the "Area" in 90°F heat, only to have their pilot land at or near home. My crew and several others elected to go through the mountains as far as Balmorhea, where there was a large swimming pool and other attractions. The poor radio reception peculiar to this spot merely encouraged them in the philosophy that "no news is good news". So it was from about this time until 7 p.m. that many were out of touch. The mutual rejoicing when contact was re-established was amusing in its way, until one wanted to get a message through.

Nearly all of us followed the good cu to Van Horn and thence to Pecos or McCamey. I struggled back to Pecos around 7.30 p.m. guestimated the turn panel in the shadow and slid on into the Davis mountains hoping for one last climb.

I followed the road on final glide,

still hoping; with some relief I found a level field beside the road in the middle of the mountains; 360 miles in about nine hours. Rudy Allemann did 472 to win in his Libelle, going all around the big triangle, and thence to Pecos and beyond.

* * *

With improving weather, the Pecos-Ft. Stockton Triangle seemed a nice-sized task, 201.5 miles. I hung around waiting for top people to leave, determined to stay with them. Some started, I followed, rejected a couple of thermals and ended up scraping. Back for another start. Sky empty, everyone gone. Still, I pushed around at a goodish speed, and got home in good order. Disgust! 53.8 m.p.h. was good only for 27th place. Moffat won at 68.3 m.p.h.

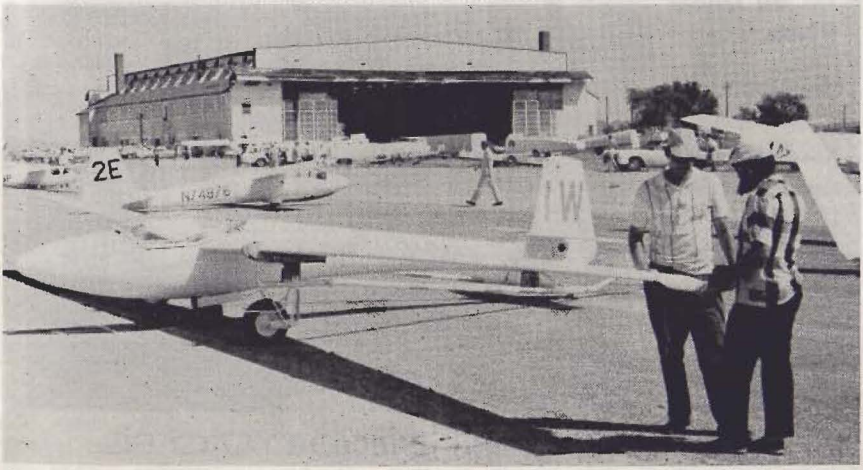
* * *

Dave Owens, weather man, promised Texan style thermals for the 273 miles McCamey-Pecos Triangle. This seemed to call for water in all those plastic tubes hurriedly stuffed in the wings before the contest. Other crews were seen carrying bags of sand and tools, etc.

Weather according to plan; take-off reluctant with all that water. Crew depart for swimming pool. Everyone goes like hell and I am pleased to be catching Dick Johnson. After Ft. Stockton no clouds for miles and miles. Thermals small and elusive. Wish I could dump water! Creep past Pecos not expecting to get home. Hear others on final glide. Press on nervously into Davis Mountains again; relief, sunlit slope works. Mesmerised, I climb back to 14,000 ft. Calculate glide and go in at 100 m.p.h.! An average of 40 m.p.h. ensured me a completely undistinguished placing.

* * *

The groans which greeted the announcement of Free Distance subsided when the weather was explained; a low to the north with a cold front and thunderstorms to be pretty well everywhere by late afternoon. My take-off was 12.11, before thermals were due to start. Busy with preparations for a long retrieve, we scarcely noticed wisps of cu starting. By the time we were in line, a solid band had formed overhead and experienced, alert pilots like Moffat, Schreder and Ryan had jumped to the head of the queue, causing chaos in the process, were off and away. I released in 4 knots which soon grew to 8 knots. Cancelling plans based on the forecast, I followed the cu north to Van Horn; some went N.W. up the Mexican border, others N.E. into Texas. All in all, it was much the way Free Distance days always



Ben Greene's Libelle on the special rig he uses to pull it from the tie-down area to the line.

ALEXANDER SCHLEICHER

Is pleased to announce that his factory premises have been extended and he is now able to offer, in addition to the well known current production range of K8B, Ka6Cr., Ka6E and S/K13, a further range of gliders for quantity production:

AS-W15 15 metre Standard Class high performance single seat glider.
Best glide 1:38 at 48 knots.
Deliveries commencing early 1969.

AS-W12 18 metre Open Class ultra high performance single seat glider.
Best glide 1:47 at 53 knots.
In current production.

AS-K14 14 metre motorized high performance single seater.
Best glide 1:28. Climb 500 f.p.m. Cruise 80 knots.
Featuring retractable wheel, feathering propeller and air intake louvres for gliding flight.

For further particulars contact

LONDON SAILPLANES LIMITED,
c/o London Gliding Club, Dunstable, Beds.
Telephone: DUNSTABLE 63419

The Ideal Christmas Gift for all Glider Pilots.

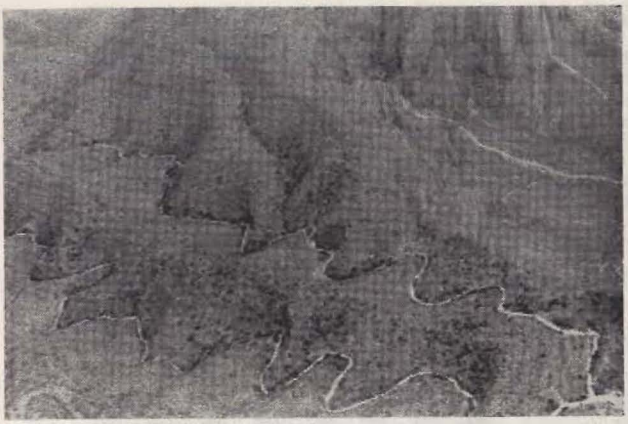
The AIRTOUR Glider Pilots' Kneeboard and Competition Flight Log as used in the World Gliding Championships.

Complete £1 15s. 0d. post 2s. 6d.



AIRTOUR PRODUCTS

AIR TOURING SHOPS LIMITED, ELSTREE AERODROME, ELSTREE, HERTS.



The foothills of Guadalupe Peak.

seem to turn out; straightforward and better than expected, over country which was rough and uninhabited, but not terrifying seen from 10 to 12,000 ft. A breathtaking scramble up and over Guadalupe Peak, 8,700 ft., jagged and torn like the thermals it produced. On and on past Roswell, New Mexico, and the 10,000-ft. Capitan Mountains. Thunderstorms were growing in an arc from W. to N.E. Making for a gap in the Manzano range, I climbed to cloudbase and slipped through between two storms, 500 ft. above the ridge at 10,000 ft. Turning north again, I headed for Albuquerque, seemingly just out of reach. Sink subsided to zero; a careful circle; sink again, press on, 55 knots max. L/D. An airfield appeared with B-52's, Phantoms, etc., scattered around. Not for me. From 1,200 ft. a.g.l. a long nervous glide carried me another eight miles with 50 ft. to spare to a small commercial airport just north of Albuquerque, 370 miles from home. Meanwhile, up in the air, everyone else was having thunderstorm problems too. Paul Bikle, indulging in his favourite rough-country flying, made 444 miles to Globe, Arizona, Schreder, ahead of everyone to the E.N.E., picked up a squall line and ran along it somewhat across course for two hours at over 100 m.p.h. and landed 460 miles out, at Kenton, Oklahoma. Others landed in New Mexico and Texas.

True to tradition, the retrieve for about 400 miles was under as superb a sky as any glider pilot could ever wish to see. When will they ever learn?

* * *

After these impressive tests of high-performance pilots and gliders, one should be able to draw some meaningful conclusions. These are my personal ones: There are far more really good pilots around now than when I flew at Adrian two years ago. Some names come to the top wherever the contest is held, though it was an enormous help to have flown in such tough country before. Talks with George Moffat afterwards revealed he was pressing on below 2,000 ft. in search of good lift. This takes courage and faith, besides first-class ability.

As we have come to expect, the organisation was excellent; the new turning-point panels, invented by Paul Bikle, were fine when evenly illuminated, but were difficult to see in the evening sun. Surely photographs involve less trouble for everyone; and was Area Distance not meant to replace Free Distance if possible?

Many were looking for a walkover by the super ships, two BS-1's and an AS-12; it did not happen. They appear very demanding aircraft to fly; Stuhr confirms this. The rough Texas thermals just did not suit them any more than the rough country. The performance of the top ten ships in my estimation and experience is very close. My HP-11 is on par with the Austria SH; in this

contest it was slightly outclassed by the HP-14 and 13, Sisus, Diamant, Libelle and Phoebus 17 as observed from the cockpit. I flew the Phoebus 17 and the Diamant; both are pleasant to fly, but I preferred the Phoebus. It appeared to climb and glide very slightly better than the Libelle I chased around. In the Diamant I had no trouble outclimbing Moffat flying my HP-11, and the glide up to 90 m.p.h. was equal or better. There is no spare room in the cockpit, and the complexities of gear, flaps, brakes (very powerful and tend to jam) and the supine position put it well out of the novice class. The ventilation in both gliders was disappointingly primitive and noisy. All in all, it seems that, except for a few star pilots, we will all need a lot of time in these new ships to get the best out of them; the AS-12 and the BS-1 are certainly no exceptions.

Final leading results	Sailplane	1	2	3	4	5	6	7	8	Total points
Smith, A. J.	Sisu	1000	872	979	1000	866	990	942	776	7425
Schreder	HP-14	296	1000	979	879	928	915	932	1000	6929
Johnson	HP-13	810	872	923	960	746	923	825	715	6774
Moffat	Diamant	320	693	1000	883	819	1000	1000	863	6578
Greene	Libelle	801	611	870	877	850	859	857	752	6477
Lindner (Ger.)	Phoebus	354	872	900	948	819	915	879	760	6447
Allemann	Libelle	286	829	683	922	1000	906	960	793	6379
Briegleb	BG-12B	808	778	681	864	737	825	804	776	6273
Klein	Libelle	320	788	705	970	657	945	901	786	6072
Bikle	SHK	350	621	844	906	702	830	838	975	6066
Peter	Ka-6	354	643	769	789	815	795	863	834	5962
Scott	Ka-6E	316	829	701	899	547	861	833	763	5749

Reminiscences Wanted.—A book on the history of No. 216 Squadron, R.A.F., which celebrates its 50th Anniversary on 1st April, 1968, is being prepared, and readers with anything to contribute are asked to write to Flt. Lt. M. J. R. Lanng at 216 Squadron, R.A.F. Lyneham, Wilts.

SOUTHDOWN AERO SERVICES LIMITED

offers YOU a complete gliding service

Our workshops guarantee first class C's. of A. and repairs carried out by a highly skilled team under ideal conditions.

Our gliding shop now carries a complete range of the best instruments and equipment, as well as all the "bits and pieces" you are bound to want—and it's open at weekends.

Our experts are always ready to help solve your problem.

Call in, write or phone—

KEN FRIPP
Southdown Aero Services Ltd.
Lasham Airfield, Alton, Hants.
Telephone Herriard 359 or 0256-83 359

AGENTS FOR SLINGSBY SAILPLANES LTD., IN SOUTHERN ENGLAND.

Stockists for all PZL Instruments and Equipment.

A NEW LOOK AT GLIDER HANDICAPPING

By IAN STRACHAN, Chairman of the BGA Handicapping Sub-Committee

THIS article is concerned not with the arguments for and against handicapping, but with the best methods of formulating a list of glider handicaps.

An improved way of producing such a list is needed because glider performance is increasing rapidly and so handicaps are difficult to produce by the methods used previously. Handicapping has always applied in BGA Regionals and will now apply, at least in part, to both Nationals Classes. The concept behind the Sport Class relies on a handicap list from which gliders of roughly similar performance are grouped together to fly against each other in contests. For 1968, the Open Class *Champion* will be decided on the basis of unhandicapped scores; whereas both for pilot rating purposes and also to decide the Open Class Index of Performance *Winner*, handicaps will be applied. Handicapping has thus increased in importance—and will continue to do so as less of our movement can afford the exotic ships of the future—leaving most of us dependent on either handicapping or class contests to continue "in the swim".

The first BGA Handicapping System gave bonuses in ten per cent blocks for glider characteristics such as: struts, 15 metre span, 2 seats, pre-1950 design, etc. The system that was used for 1967 was little different, the five per cent groupings having been chosen by informed comparison of types, starting from the basis of the older ten per cent system. In 1966 Tony Deane-Drummond proposed that handicap figures be put on a sound quantitative basis by relating them to a mathematical formula. This was a big step in the right direction—attempting to take much of the guesswork out of producing a list of figures.

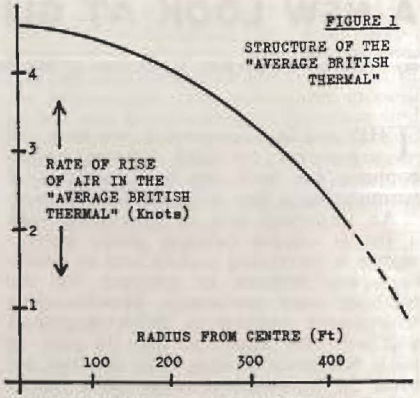
We must now consider the most appropriate formula. To do this, we must consider the fundamental question of exactly what we wish a handicap figure to do. What do we mean when we say that Glider A has a handicap of 50 per cent relative to Glider B? On a distance task we must surely mean that we expect A to go twice as far as B (assuming equal pilot skill and uniform thermal conditions). Thus when the distance flown is multiplied by the handicap, both gliders score the same points. If both were airborne for about the same time, this implies that A flies twice as fast as B. So it follows that for races, handicaps should reflect the relative cross-country speeds possible in different machines. We appear to have deduced a basic principle regarding the formulation of a handicap list, namely that *handicap figures should be proportional to the theoretical cross-country speeds that are possible in the gliders concerned.* Any speed achieved in a task that was different to that speed theoretically possible, would clearly be due to pilot factors and so should reflect in the day points.

Given glider performance curves, and knowing the thermal conditions, the calculation of such theoretical cross-country speeds is straightforward. For any glider, a graph of cross-country speed against achieved rate of climb can be easily plotted, and is the basis of speed flying techniques which include "speed-to-fly rings" and final glide calculations. Several such graphs for different gliders, plotted on the same axes, would give us relative cross-country speeds for different thermal conditions. In the USA in some regional contests, such a multiple graph has been used to vary handicaps each day as thermal conditions changed. Thermal strength was assessed by taking the speed actually achieved by the best glider of the day, and plotting this on its cross-country speed curve to find the thermal strength actually utilised. This "day thermal strength" was then used on all the other gliders' graphs to find the relative cross-country speeds that should have been possible on the day—handicaps then being proportional to these speeds. Such a system, whereas reasonably satisfying theoretically, has a number of practical disadvantages. The Handicapping Committee, the scorers and the pilots would find the system complex in formulation, presentation and operation, especially in a contest with

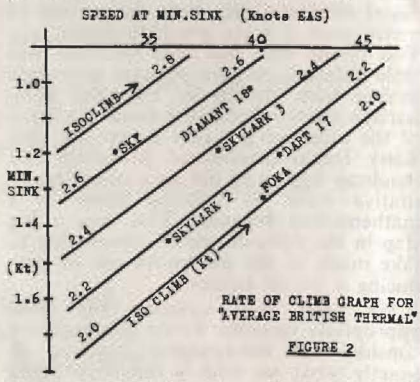
many glider types. Graphical methods are inherently not as exact as straight lists of figures, differing interpretations being possible of points on the graphs, which could well influence the outcome of a competition. So the next step would appear to be simplification into separate lists of handicaps for, say, weak, moderate and strong conditions. But again, the outcome of a contest might turn on which list was used for a given day—and who would care to arbitrate on that when perhaps the choice of National Class Winner depended on the decision? Another factor is that for British conditions it is essential to have some factor in the handicap which reflects thermalling performance. The glider with superb scratching qualities should have these taken into account, whereas the continental machine, which may have (in the UK) a poor thermalling performance, should not be handicapped out of existence purely because of its high speed characteristics. Regarding the National Ladder, any system based on variable day handicaps would be difficult to apply.

For all of these reasons, the BGA Flying Committee have approved for 1968 onwards a system which gives one handicap figure to each glider type, and is based on relative theoretical cross-country speeds which should be achieved after climbing in an average British thermal—the rates of climb being compensated for the thermalling performance of the glider. Detailed work has been delegated to a Handicapping Sub-Committee, consisting of Ian Strachan (Chairman), Gerry Burgess, David Carrow, Tony Deane-Drummond, Nick Goodhart and John Williamson.

The main assumption in the new BGA system is the strength and shape of the "Average British Thermal". It is considered that in UK contests, the overall average rate of climb is between 2 and 3 knots (1-1½ metres/sec.). This means that the upward speed of air in the thermal is 3½-4½ kt., falling off with distance from the centre of the thermal. Nick Goodhart had previously used such a thermal structure in an OSTIV paper on "Glider Performance", this structure now being accepted by the Handicapping Sub-Committee as the datum or "Average British Thermal"—see Figure 1. Compensation for thermalling performance is made by a rate-of-climb graph, also from Nick Goodhart's OSTIV paper—see Figure 2. Thus the Sky, having a very good climb performance, achieves a rate of climb of about 2.6 kt. from the datum thermal, whereas a Skylark 3 achieves 2.4 kt., Dart 17 2.15 kt. and Foka 2.0 kt. These climb figures are now applied to the standard equation for theoretical cross-country speed, and the relative speeds so produced constitute handicap figures when compared to the speed of the datum glider—Skylark 3,



NOTE: *Glider rates of climb will be less than the rates of rise of air shown, and are given in Figure 2.*



1. *Plot Min. Sink and speed at Min. Sink.*
2. *Read rate of climb along sloping iso climb lines, e.g. Sky, 2.64 kt.; Skylark 3, 1.38 kt.; Dart 17, 2.15 kt.*

achieving 28.3 kt. from the datum thermal, this speed equating with the datum handicap of 100 per cent. A glider speed of 14.15 kt. would produce a handicap of 200 per cent, and 56.6 kt. 50 per cent. Specimen calculations, which are not as formidable as they may appear, are in the table attached to Figure 3. It may be said that the assumed climb of about 2½ kt. is somewhat arbitrary, but one must remember that final figures are of *relative* performance and so would not be much different had, say, 2 knots or 3 knots been chosen instead. Of course, abroad perhaps 5 or 6 kt. might be more appropriate.

Is the system practical? Enough reasonably accurate performance curves exist for the Handicapping Sub-Committee to establish a set of datum figures throughout the performance spectrum. Where curves are either questionable or not available, known glider types are placed on the list by comparison with other types — the committee has some 6,000 gliding hours' experience and is well qualified to do this. With new or unknown gliders a handicap figure will be awarded based on the manufacturer's performance data, which figure will stand unless properly conducted tests convince the committee otherwise. Manufacturers are thus encouraged to produce well-founded figures—an over-optimistic polar curve would give an adverse handicap. Handicaps for 1968 will be given in two per cent intervals up to 120 per cent, and then five per cent intervals. This eases the task both of the committee and of the scorers, also ruling out special figures for small differences within a type such as wheel fairings, variable wing finish, pilot weight, etc. The 1968 BGA list appears on page 483.

The new system claims to be a balance between theoretical and practical considerations. Nick Goodhart summed it up as follows, when invited to become a member of the Handicapping Sub-Committee: "I am sure that we will get results this way which will make handicapping at least feasible, which I have never considered it to be before."

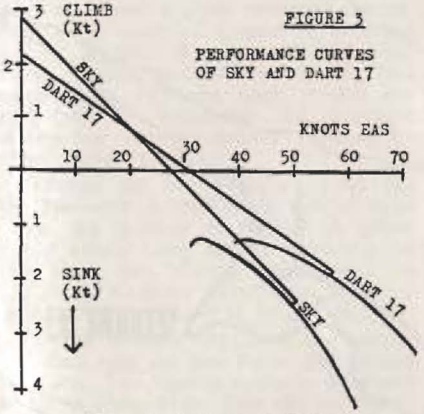


FIGURE 3
PERFORMANCE CURVES OF SKY AND DART 17

TYPICAL HANDICAP CALCULATIONS:

The glider rate of climb (from Figure 2) is plotted on the vertical axis of the graph above, and a tangent drawn to the glider performance curve. Where this tangent intersects is the "speed to fly", "V", The formula for cross-country speed is:

$$\frac{V \times C}{S + C}$$

Where C = Rate of Climb
V = Speed to fly after climb "C"
S = Sink at speed "V"

References

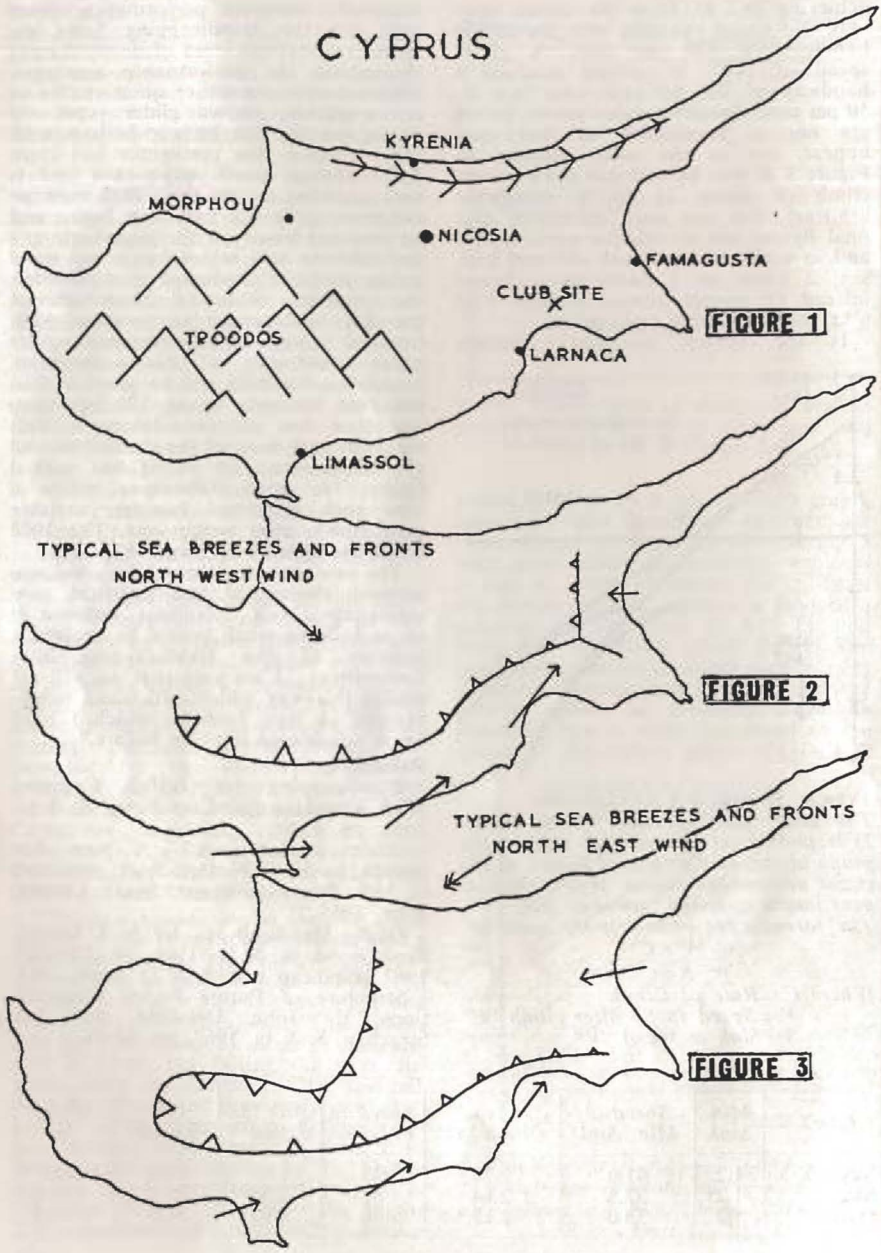
Handicapping for British Contests, BGA Handicap Sub-Committee, S. & G. 1961, pp. 45-46.

Glider Performance — A New Approach, by H. C. N. Goodhart, presented to 10th OSTIV Congress, South Cerney, June, 1965.

Glider Handicapping, by A. J. Deane-Drummond, S. & G. 1966, pp. 260-263. 1967 Handicap List, S. & G. June, 1965.

Structure of Future British Competitions, by John Delafield and Ian Strachan, S. & G. 1967, pp. 46-49.

Glider	*Min. Sink*	*Speed at Min. Sink*	*Iso Climb "C"*	*Speed to Fly "V"*	*Sink "S" at Spd V*	*XC Speed*	*H'cap %*
Skylark 3	1.2	41.0	2.38	52	1.95	28.3	100
Sky	1.21	37.5	2.64	50	2.50	25.6	111.6
Dart 17	1.2	33.0	2.15	56	1.70	31.3	90.4


CYPRUS
KYRENIA
MORPHOU
NICOSIA
FAMAGUSTA
CLUB SITE
FIGURE 1
TROODOS
LARNACA
LIMASSOL
TYPICAL SEA BREEZES AND FRONTS
NORTH WEST WIND
FIGURE 2
TYPICAL SEA BREEZES AND FRONTS
NORTH EAST WIND
FIGURE 3

SEA BREEZES AND SOARING IN CYPRUS

By R. P. SAUNDBY

CYPRUS is an island about 100 miles long and 50 miles wide. About half the island, to the south-west, is a complex mountainous area called the Troodos Range. The central mountain rises to over 6,000 ft. but most of the peaks are between 4,000 and 5,000 ft. The valley bottoms are V-shaped and the few flat areas are irrigated and used for growing fruit trees. There is nowhere, except a few coastal fields and beaches, where a glider could be landed. The north coast of Cyprus is bounded by the Kyrenia Range, a fold of limestone reaching to 2,000 or 3,000 ft. This steep ridge, 70 miles long, is still unexplored by sailplanes. Its northern slopes are almost entirely covered by olive groves. (Fig. 1.)

Between the two mountain areas lies the Mesaoria, a level plain, full of large fields, the granary of Cyprus. A glider could safely land almost anywhere in this plain, but Nicosia airport with its associated Control Zone, and areas of political tension have to be avoided.

During summer the skies are almost cloudless and the sun burns the ground each day. The harvest ripens in May and is cut in June. From July till the winter rains the island bakes, and the dried mud brick houses of the villages scarcely stand out from the brown fields. The few oases of green indicate underground water. Every day small thermals start all over the island. Looking from the top of Troodos, an inversion at about 500 ft. is very obvious. The Kyrenia Range sticks through like a whale-back, and to the north the Taurus Mountains of Turkey can easily be seen.

After a short period of convection, the inversion breaks and sea air flows in over the coasts. To the north and south-west the mountains block this inflow and tongues of cool, moist air enter from the bays of Morphou, Larnaca and Famagusta. If there is no wind, there will be no sharp transition between the land and sea air. Convection will be restricted to the Troodos Range and the central Mesaoria. Except for a short period each morning, the Kyrenia Range is not high enough to maintain its own convective system.

Usually there is some wind, commonly from the north or west, but sometimes from the north-east. This wind will distort the convective areas towards the leeward coasts, and form a system of sea-breeze fronts. Due to the site of our gliding club, it has only been possible to explore these sea-breeze fronts when the gradient wind blows from between north-west and east, and is stronger than 10 knots. The sea-breeze fronts formed in these conditions are predictable and have provided our summer soaring.

These fronts usually have a line of occasional ragged cumulus, a line of dust devils on the surface with a change of surface wind direction and temperature. This change of temperature is several degrees centigrade and the front can easily be plotted when driving around Cyprus by holding a hand, one finger wetted, out of the car window. Driving with assorted limbs hanging out of car windows is an accepted local custom in Cyprus!

From the air the front may be more difficult to detect. Clouds and dust devils may be absent, there are few indications of surface wind direction and, due to the relatively short land track, the inland air has not picked up sufficient dust to make obvious changes in visibility.

Typical frontal patterns for north-west and north-east winds are shown. In both wind directions a glider can work along the Larnaca Bay front to the Troodos range and enjoy high thermals over the mountains. (Figs. 2 and 3.)

In summer the sea-breeze fronts remain straight. There is little evidence of bar clouds or other waving of the frontal line. In winter when sea-breeze fronts form, they often show these features and are similar to sea-breeze fronts in England. After the initial establishment

phase the fronts only move very slowly, rarely more than two or three miles an hour.

In the late afternoon the fronts decay; if midway between coasts they may just disappear. Sometimes convergence zones are left where two fronts meet or angle. These convergence zones produce the rare summer thunderstorms and are shown by the summer rainfall maps. In strong north-west winds the front sometimes remains active after sundown, moving back to the sea and giving weak smooth lift to about 3,000 ft. This local variety of the evening thermal is presumably due to the inertia of the massive sea breeze persisting after solar heating has finished. It has produced some enjoyable evening flights, landing when it was almost too dark to see.

In their prime, Cyprus sea-breeze fronts may reach to 8,000 ft., although 5,000 to 6,000 ft. is more common. Over the mountains the inversion is pushed up and cloudbase is often over 10,000 ft. Cloudbase over the mountain is irregular; pockets of moist air may condense to transient clouds several thousand feet below the main base. It is always advisable to keep the turn-and-slip switched on when flying in this area. The area of convection may be quite small and tends to overconvect; for a period of about 20 minutes there may be no lift under the clouds; they then evaporate and intense convection resumes. Fortunately some convective lift remains over the windward slopes, but these periods of overconvection are traps for the unwary. Promising-looking clouds with flat bottoms often drift downwind, but to chase them has proved unwise.

Close to the mountain tops the airflow is very complex. Anabatic convection occurs on all slopes, and on the lee slopes marked turbulence and heavy downdraughts occur over the valleys. Club pilots are briefed to keep well clear of the mountain tops and on the windward side of the range. Fortunately we can only soar to the range with a northerly wind, and there are suitable landing areas to the north.

A good soaring day is indicated by a strong gusting wind starting at about 22.00 hours and lasting till about 03.00



Flying Instruments

much sought after throughout the World



● Total Energy Variometers ● Air Speed Indicators ● Electric Turn and Slip Indicators ● Artificial Horizons ● Clinometers ● Compasses

Metric or English Calibration

Stock Spares Overhauls

SAILPLANES

Sole Concessionaires for Motoimport Poland

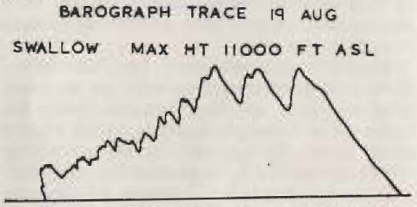
NORCO AVIATION & INDUSTRIAL EQUIPMENT LTD.
Burrell Road, Haywards Heath, Sussex, U.K.
Telephone: Haywards Heath 51771

hours. This wind is only felt over south-east Cyprus between Famagusta and Larnaca. The cause is unknown, but it could be the stable night air forming a lee wave system from the Kyrenia Range.

To join the frontal system often provides the most difficult soaring. Our site is about two miles inland at the head of Larnaca Bay. Launching is by winch to about 1,000 ft. If the wind at dawn is offshore and is stronger than about 10 knots, the front will form between the airfield and the sea. It will move inland at a rate depending on the strength of the offshore wind: the stronger the wind the later the passage of the front. The later the front passes, the stronger its convection and the easier it is to remain airborne. If the front passes before 09.30 hours it is usually too weak and low to stay airborne soaring. In high summer it is unknown for the front to pass later than noon, but in spring or autumn it has been known to remain all day between our site and the sea, or even across the bay. The surface of the front slopes at about 45° upwards towards the sea. Any clouds formed will drift to the sea side of the lift. This is deceptive when trying to reach a front that has already passed over: one finds oneself making a field landing right under promising-looking clouds. We have four good wind indicators situated on a line inland: the power station on the coast, the windsock at the British Military Hospital, our airfield windsock and another one at RAF Pergamos. These are situated in a line, each about a mile apart, and clearly indicate the position of the front.

One reason why these fronts have been little explored before is that one often has to scratch at low level, drifting inland without a hope of making it back to the airfield. While scratching, I always console myself with the thought that, failing an eclipse of the sun, the conditions are bound to improve. Usually the frontal convection improves suddenly, but often jumps rapidly inland at the same time, providing another trap for the unwary.

The front is seldom a regular band of lift; usually it is a line of rather narrow turbulent strong thermals, with large areas of steady sink on the sea side and occasional well-developed large strong thermals on the land side. Once having established oneself in the main front to the north of the site, it is usually advisable to wait an hour for the system to stabilise before venturing long distances. Returning to the site is no problem. The inland thermals always give enough height to glide back to the site, and pilots have only landed out after making mistakes. A landing towards Morphou gives Silver C distance. Because of political troubles, a pilot can only be briefed for a cross-country if his navigation is sufficiently good that he is sure to land at a specified place.



The barograph trace shows the initial scratch, the gradual exploration along the sea-breeze front, three high thermals over the Troodos Mountains, and the long glide home.

This pattern of flying has enforced some re-organisation of club soaring policy. A sailplane has only one good chance of soaring on any one day. The pilot must be briefed for a longish trip, because if he returns early the glider is wasted, at most doing circuits in stable sea air. To date we have more soaring opportunities than competent pilots, and there has been no great pressure on our only Swallow. We now have the Olympia 401 from Aden, and with two soaring aircraft the opportunities will increase further.

I leave Cyprus at the end of this year. Exploring the summer soaring here has been an exciting challenge. The club has only just started to nibble at the cherry, and doubtless much more remains to be discovered. Nevertheless the exploration has been productive. During August alone the club gained several Bronze legs, all three Silver legs and a Gold C height.

Unrecorded, but wept over in private, were many more missed opportunities.

RIETI 1967

By UMBERTO NANNINI (rather loosely translated by Tony Goodhart)

THE gliding competitions at Rieti ended on the 12th August and count towards the Italian Championships. For the first time, in accordance with a much discussed decision, not at all supported by the glider pilots, the Rieti competitions were not the Championships but merely count towards them, together with two other competitions in May and June at Bologna and Turin, both of which were not very successful because of bad weather, with days of either very poor conditions or else extremely violent thunderstorms.

The officially reduced importance of these competitions, however, in no way affected their sporting success, both because of the rightly famous uplift of the skies over Rieti and its surroundings, which permitted a large number of excellent tasks, but also because of the remarkably large number of new generation sailplanes competing. Mention must also be made of the highly efficient, but at the same time relaxed, competition organisation. It was unfortunate that, partly due to late arrival of the invitations, very few foreign competitors were present.

Of the 44 sailplanes entered, 34 were in League 1 and 10 in League 2. Because of marked differences in performance in League 1 a subdivision was made with 21 classed as club sailplanes, leaving the remaining 13 as Open Class. As there is no clear ruling for this separation, the Open Class in fact consisted of the following super-sailplanes (or "orchids" as they were called): BS-1, Diamant, Cirrus, SHK's, Phoebus, Austria S, Zefir and, finally, the EC-41, flown by its designer Ciani. As may be seen, all these are really high-performance aircraft, and, except for the Austria S and the Zefir, of very recent production.

The results show that this group filled the first ten places practically throughout the competitions and amply confirmed the forecast superiority of the

SPEEDWELL SAILPLANES
SHEPLEY LANE, HAWK GREEN,
MARPLE, CHESHIRE
Telephone: 061-427 2488

Wish all our friends in the gliding world

A Very Merry Christmas

and

A Happy and Highly Soarable New Year.

new aircraft over the Club Class, which included 11 M-100S's, 2 CVV-8's, Ka-6, CF-26, EC-40, 3 Uribels, Skylark 3 and a M-200 (the latter flown by the French Sornin/Rantet team).

A total of 278 competition flights covered 43,476 kms. and included only 94 away landings, 51 of which were air-retrieved. Nine aircraft and two pilots were damaged in out landings and two were damaged in collision (aircraft, not pilots). Three national triangle speed records were bettered: the 200 by Vergani (Cirrus) at 94.3 km./h., and by the only woman competitor, Adele Orsi (Cirrus), improving her own record to 75.7 km./h., and Giorgio Orsi (SHK), the 300 at 84.7 km./h.

AUGUST 2ND: Out-and-Return, 149 km. Good conditions with cloud base at 1,700 metres. Only two pilots in League 1 failed to get home, while in League 2 only two succeeded. The best times were put up by Brigliadori (Austria S) and Vergani (Cirrus), both with an average speed of 75.7 km./h.

AUGUST 3RD: 106-km. Triangle. Conditions not so favourable. Occasional isolated cumulus. Fastest time by Spänig (Germany) in the BS-1, 85 km./h., followed by Wetli (SHK), Vergani and G. Orsi. Again only two failed to complete, and four succeeded in League 2.

AUGUST 5TH: Same as 2nd day but the triangle flown the other way round. Conditions poor and variable. Fastest time, Vergani at 84.3 km./h. The fickle weather made things difficult and ten League 1 pilots failed to get home.

AUGUST 7TH: Distance via a turning point, Monte Petrano, 125 km. to the north and then free distance. The purpose of this stipulation was to make retrieves shorter and easier and also to make a 500-km. flight possible, so far not achieved in Italy. Although conditions were good, they were not sufficiently so for really long distances. The best was Spänig with 435 km.; Pronzati, G. Orsi, Zoli and Vergani all exceeded 400 km., while 15 others bettered 300 km. The best in League 2 was 254 km.

AUGUST 9TH: Out-and-Return, 180 km. Blue thermals all day. Vergani won with 87.4 km./h., eight pilots landed out. In League 2 only one, Naldoni, got home.

AUGUST 11TH: 200-km. Triangle. Weather excellent, the best of the meeting, and everyone got round with Spänig fastest at 96.7 km./h. and Vergani 3 minutes behind. No less than 12 pilots beat the previous national 200-km. triangle record, the new holder being, of course, Vergani, the day's fastest.

AUGUST 12TH: 304-km. Triangle. Forecast conditions good, but thick low cloud came in from the Adriatic and made the first turning point (Vicoli) invisible to pilots arriving above it. This phenomenon occurred after the first sailplanes had turned, so that the slightly later starters were at a considerable disadvantage and only 10 out of 28 reached home, amongst whom was Vergani, who arrived back after a terrific struggle, more than an hour slower than the day's winner, G. Orsi, and thus ensured his victory in the contest, and as Italian Champion for 1967.

It is worth noting, from the results, that the marks of the first nine pilots are very close—less than 1,000 between first and ninth. The "orchids" clearly demonstrated their marked superiority, as was to be expected.

Except for one bad day, the new Morelli two-seater, the M-200, flown by the French team, was steadily in ninth or eleventh position up in amongst the "orchids".

Pilot	*Sailplane*	*Daily Placings* 1	2	3	4	5	6	7	*Total points*
1. Vergani	Cirrus	=1	3	1	5	1	2	8	6347
2. Spänig (Germ.)	BS-1	5	1	3	1	7	1	2	6204
3. Orsi, G.	SHK	8	4	5	3	4	=9	1	5698
4. Brigliadori	Austria S	=1	7	4	8	8	8	6	5662
5. Wetli (Switz.)	SHK	10	2	10	=14	2	5	4	5554
6. Manzoni	SHK	3	8	2	10	5	4	=12	5540
7. Perrotti	SHK	6	5	6	=14	6	7	3	5496
8. Pronzati	Phoebus	4	6	8	2	3	6	=12	5394
9. Zoli	Diamant	9	10	9	4	10	3	5	5352

Pilot

'THE MAGAZINE FOR GENERAL AVIATION'



WIN A FREE FLYING COURSE

OR ADVANCED TRAINING

FULL DETAILS IN PILOT MAGAZINE

AVAILABLE MONTHLY FROM YOUR

NEWSAGENT PRICE 3s. OR BY

DIRECT SUBSCRIPTION £2 0s. 0d. FOR 12 ISSUES

FROM LERNHURST PUBLICATIONS LTD.,

20 ECCLESTON STREET, LONDON, S.W.1.

TATE GALLERY 8740

THE
KRONFELD CLUB

74 BASEMENT
ECCLESTON
SQUARE · SW1

THE Annual General Meeting of the club took place on Wednesday, 18th October. In his report, the Chairman, Hugo Trotter, drew attention to the Committee's concern over the lack of support, in particular for many of the lectures arranged. He announced that a special discussion was to be held on Wednesday, 10th January, at 8 p.m., which was to be entitled "Do We Need the Kronfeld". It is hoped that members and supporters would turn up and air their views. All the Club Group Member Organisations would also be invited to send representatives. The Committee was re-elected without any changes.

The club Christmas party will be a joint one with the Art Society and is scheduled for Wednesday, 20th December, and as last year will take the form of a turkey supper with wine (12s. 6d. at the door), followed by dancing and a mock auction of aviation pictures.

Y.C.B.

* * *

AVIATION ART SOCIETY

THE Society's Annual Exhibition and Competition was opened on Wednesday, 25th October, by Squadron Leader Ray Hanna, leader of the RAF Red Arrows Aerobatic Team. The Exhibition contained over one hundred exhibits on all subjects, but nearly half had been entered for the special RAF Section which is forming the basis of a travelling exhibition being arranged to commemorate the 50th anniversary of the RAF in 1968.

The British Aircraft Corporation have presented the Society with two handsome prizes for the collection: a silver model and a picture, which will be awarded during 1968.

At the Society's first dinner following the Private View, Michael Ramsden, Editor of "Flight International", presented the prizes. A full report of the Exhibition, together with pictures, will appear in the February-March issue, but meanwhile the winners are as follows.

The "Flight" Tankard—for the best exhibit by a professional artist to John Young; 2nd, Gerald Coulson; 3rd, Roy Nockolds.

The Kronfeld Challenge Trophy—for the best exhibit by a non-professional artist to Brian Withams; 2nd, Peter Mason; 3rd, Fred Slingsby.

Best Exhibit in the RAF Section as it stands at the moment: John Young.

Best First Entry: Peter Mason.

Diary of Lectures and Film Shows
Wednesdays at 8 p.m.

Nov.	29	E.A.A. Rockford Fly-in 1968 by Harold Best-Devereux.
Dec.	6	EXPO '67 with special reference to Hovercraft by R. B. Stratton.
"	13	More Flying Fun in Filmmaking. Derek Piggott.
"	20	Christmas Party—Turkey and Wine Supper; 12/6—Dancing —Picture Auction.
"	27	No Lecture.
Jan.	3	"Space Communications" and their impact on the emergent nations by Dr. W. F. Hilton.
"	10	"Do We Need the Kronfeld?" An open discussion on the future of the club.
"	17	Flying a Hornet Moth to North Cape and Finland. Illustrated with slides. C. B. H. Barford, Airways Flying Club.
"	24	Tiger Club Films, including "G" Men, presented by Ken S. Smith.

FINAL RESULTS: RAFGSA. BICESTER, 19th-28th August, 1967

OPEN CLASS

Pilot(s)	H'cap %	Sailplane	1	2	3	4	5	6	7	Total points
1. L. E. N. Tanner	100	Ka-6E	1000	1000	183	867	970	855	1000	5875
2. P. W. Williams	100	Skylark 3	730	417	689	1000	824	747	638	5045
3. R. W. B. Newall	95	Dart 17	682	605	836	722	819	718	619	5001
4. E. G. Shephard	100	Ka-6E	835	427	1000	180	900	1000	576	4918
5.=D. S. Bridson	100	Olympia 419	792	612	757	760	797	814	328	4860
5.=B. J. Willson	95	Dart 17	975	917	997	—	1000	356	615	4860
7. K. A. Harrison	100	Ka-6CR	842	563	799	615	496	802	553	4670
8. J. H. Stanley	100	Skylark 4	—	403	—	450	—	878	—	
J. N. Stevenson			669	—	706	—	880	—	609	4595
9. G. McA. Bacon	100	Ka-6E	867	724	1000	242	885	203	647	4568
10. R. Feakes	100	Ka-6E	677	331	709	676	454	995	553	4395
11. K. C. Morgan	100	Ka-6CR	642	531	301	760	877	699	510	4320
12. E. J. Robinson	100	Skylark 3	525	—	655	—	845	—	510	
R. J. Hale			—	190	—	760	—	713	—	4198
13. R. H. Powell	100	Ka-6CR	718	612	914	563	484	250	510	4051
14. N. L. Bailey	100	Ka-6CR	688	427	692	386	475	727	553	3948
15. B. Brownlow	100	Olympia 419	790	331	142	676	463	817	544	3763
16. J. A. Evans	100	Olympia 419	658	427	321	655	793	59	560	3473
17. B. F. Dobson	100	Ka-6CR	667	641	920	0	447	307	466	3448
18. H. Orme	100	Ka-6CR	672	395	278	760	475	742	62	3384
19. D. J. Marpole	100	Skylark 3	496	427	301	490	885	255	424	3278
20. A. M. Phipps	100	Skylark 3	266	384	73	551	448	941	510	3173
21. T. H. Williams	100	Skylark 4	717	16	293	335	472	748	429	3010
22. D. Holding	100	Skylark 3	255	264	630	593	446	231	553	2972
23. G. A. Ross	100	Ka-6CR	663	138	287	604	475	134	371	2672
24. Naomi Christy	100	Ka-6CR	114	0	121	593	354	122	—	1304

Tasks: Day 1, 220-km. Triangle; Day 2, 240-km. Triangle; Day 3, 140-km. Out-and-Return; Day 4, 105-km. Out-and-Return; Day 5, 200-km. Out-and-Return; Day 6, 170-km. Out-and-Return to choice of 4 turning points; Day 7, 100-km. Out-and-Return.

SPORT CLASS (Devalued to 55%)

Pilot(s)	H'cap %	Sailplane	1	2	3	4	5	6	7	Total points
1. T. W. Slater	120	SF-26	1000	224	688	1000	1000	1000	925	5837
2. J. H. Welsh	105	Olympia 463	562	242	921	860	598	908	352	4443
3. P. G. H. Purdie	120	Olympia 2B	848	398	196	746	966	722	386	4262
4. R. J. Lyndon	110	Ka-8	517	289	453	991	628	693	302	3873
5. A. E. Burgess	110	Ka-8	617	221	663	831	456	491	436	3715
6. C. R. Elliott	120	Olympia 2B	677	862	145	245	636	761	313	3639
7. A. Billington	120	Olympia 2B	683	224	349	427	615	277	520	3095
8. E. A. North	105	Olympia 463	522	219	329	635	618	307	430	3060
9. C. O. Hancox	110	Bocian	568	—	—	344	970	644	0	2526
10. M. Wilton-Jones	120	Olympia 2B	611	0	169	338	624	360	33	2135
11. H. S. Tee	115	Ka-7	0	—	201	—	642	—	43	
L. J. Monk			—	215	—	703	—	305	—	2109
12. R. Staines	120	Olympia 2B	286	40	174	427	617	352	190	2086
13. J. A. Bennett	120	Olympia 2B	619	213	5	238	594	128	268	2065
14. T. G. Bobbin	120	Olympia 2B	132	0	236	155	675	754	0	1952
15. T. J. Thomas	120	Olympia 2B	182	0	508	0	569	232	252	1743
16. B. F. Nowell	120	Olympia 2B	250	19	169	172	559	164	143	1476
17. R. Brett-Knowles	110	Skylark 2	569	289	440	—	—	—	—	1298
18. G. Kemp	120	Swallow	127	—	—	—	—	—	—	
C. G. Taylor			—	—	108	338	258	56	201	1088
19. S. H. C. Marriott	110	Skylark 2	609	253	—	—	—	—	—	862
20. D. G. Shepherd	110	Skylark 2	504	14	271	—	—	—	—	789
21. M. Dixon	120	Olympia 2B	27	0	—	—	—	—	—	27

Tasks: Day 1, 120-km. Triangle; Day 2, 150-km. Triangle; Day 3, 105-km. Out-and-Return; Day 4, 70-km. Out-and-Return; Day 5, 90-km. Out-and-Return; Day 6, 125-km. Out-and-Return to choice of 3 turning points; Day 7, 80-km. Out-and-Return.



WELL, now we know. It's possible to organise a two-day Air Display in ten weeks with no financial backing, and no call for padded cells for the organisers.

If you want to try it, get a met. man who can do as good a job as ours did, and get at least one unusual "turn" which the Press will come and see *before* the great day.

We seem to have the right formula now: a display which makes enough money to justify the effort, has enough variety to compare favourably with other air shows, and which at the same time gives the public a fair idea of what gliding is about.

Our gimmick, hot air and hydrogen balloons, takes some beating. To the public they proved an irresistible attraction: for us they provided much food for thought. What they lack in penetration they certainly make up for in min. sink, and one does, eventually, get used to downwind take-offs and landings. . . .

For spice we added a Spitfire, a Mustang, Gunbus and Eindekker replicas, the Tiger Club girl-on-wing and other items and, for education, glider aerobatics and a race. Course for the latter was from a point 3,000 ft. up five miles away and, by a lucky chance, the public were thrilled by the sight of the competitors arriving over the line together in a close, spectacular finish.

Saying goodbye to the last of our 18,000 spectators, we balefully surveyed our battered field and retired to the bar. For the loss of two gliding days and eons of spare time we had boosted our kitty, acquired approximately 27,436 ice-cream wrappers, 14,127 metal bottle-tops, 5,154 half-eaten ham sandwiches, two small boys and, perhaps, some goodwill for the gliding movement.

TIM GODFREY

Christmas Gifts from England's only Aviation Bookshop

The books, maps, plans, photos you want on Aviation are here—we stock nothing else!

We BUY SELL or EXCHANGE

Thousands of magazines and books always in stock.

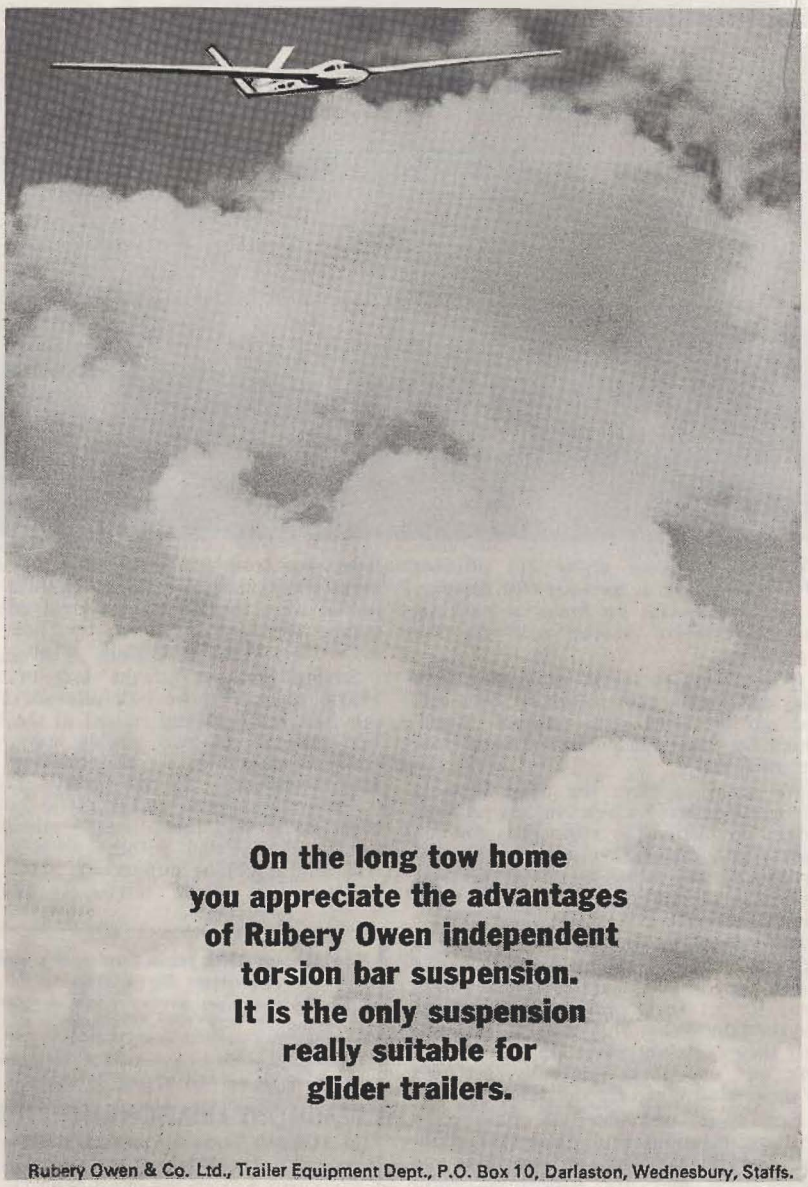
Send for our FREE 22-page catalogue

BEAUMONT AVIATION LITERATURE

11 Bath Street, London, E.C.1

Tel. CLErkenwell 9512

Open 9.30 a.m. to 5.30 p.m. daily



Rubery Owen & Co. Ltd., Trailer Equipment Dept., P.O. Box 10, Darlaston, Wednesbury, Staffs.

FLYING TALK

By ROGER BARRETT

Competitions in 1967. . . .

Those dreadful weeks at Lasham and Nympsfield early in the season seem more than just a few months ago—we really did have quite a vintage thermal year after that. Apart from lots of contest days for Regionals pilots we also had lots more National Ladder flights than expected. The Ladder has got off to an excellent start and we hope it will continue to raise the general standard of soaring ability.

Ladder flights are an ideal opportunity to practise photographic technique. Although nearly all the Nationals pilots proved themselves to be budding Charles Brown's the same cannot be said for a number of Regionals entrants. At more than one competition negatives showed close-ups of various pieces of non-transparent canopy or acres of English countryside with not a TP in sight. There was also the case of the gentleman who had carefully read the rules about taking a "signing-off" photograph of the glider fin. It was in his picture all right, the only problem the organisers had was in identifying whose fin it was as the pilot's farmer-host had been carefully posed slap bang in front of the glider number! However, these were all teething troubles and standards improved as competitions wore on. Undoubtedly photography in contests is here to stay.

. . . and in 1968

The brief announcement about National Class Championships on page 389 of the last issue just caught the printer's copy date. The reasoning behind these decisions may be of interest to competition pilots, organisers and crews.

The BGA stated earlier in the year that the opinions of Nationals and Regionals pilots would be taken into account before decisions were made about handicapping the Open Class, running the two Class contests concurrently at the same site and recognising the International Standard Class within our own Sport Class. Questionnaires covering these points were circulated widely during the summer and we had a good, representative response. We also gave pilots the opportunity to add comments and some very interesting ones were received which were all taken into account before making our final recommendations to Council.

First, handicapping:

Very strong and conflicting views are held by many pilots on this subject. A majority (60 per cent to 40 per cent) considers the Open Class should *not* be handicapped. We agreed with them but recognised that some kind of compromise was required. We do not think that declaring two Open Class Champions (one by using handicapped scores and one unhandicapped) is a satisfactory answer. Instead we shall produce the daily and final results and declare the National Open Class Champion using *unhandicapped* scores, but will also give an "Index of Performance" Award to the winner determined when handicapping is applied. To be consistent with all other competitions *handicapped* scores in the National Open Class will be used for rating purposes.

Next, whether or not to hold the National Class Championships concurrently at the same site

Of those replying to the questionnaire:

(i) Taking all pilots who replied—55 per cent in favour of different sites; 45 per cent against.

(ii) 1967 Nationals pilots only—60 per cent in favour of different sites; 40 per cent against.

In the Flying Committee's view there were overwhelming reasons why the two

JOHN HULME
Swaffham Road,
Bottisham, Cambs.
Phone: 323
for
REPAIRS, C of A's, OVERHAULS, and T.21b. HIRE

Classes should be held at different times. The most important of these are:

(a) More chances of flying for any one individual pilot with just one Class of, say, 40 gliders.
(b) Less concentration of gliders likely to upset farmers.
(c) Spread risk of "Damphill" and "Splasham" conditions.
(d) Easier to set good tasks with only one Class.
(e) Choice of holiday dates for competitors if Classes are held separately and swap June/August each year.
(f) "Nationals" flying over new territory.

When to hold these competitions?

We studied lots of statistics: the number of contest days there have been in different months over the past years and also weather records (kindly provided by Peter Wickham) showing sunshine hours, wind speeds and directions for different weeks since 1958. It is clear (in theory) that the first two weeks in June should give us the best chance of coinciding with the weather we want. The Sport Class is from Saturday, 1st to Monday, 10th June, inclusive, next year so we shall see just how the theory works out. Incidentally, the Spring Bank Holiday Monday is on the *first* Monday of the competition (3rd June). From the soundings we have taken we anticipate that almost everyone concerned in the competition will be able to take Monday the 10th as holiday in lieu of the Bank Holiday—so we have again got a 10-day comps.

The last week in August shows up just as well as the last week in May (these two periods come next after early June in matching our requirements), so we have crossed our fingers and opted for Saturday, 24th August, to Monday, 2nd September (Bank Holiday), inclusive, for the Open Class.

It is very fortunate that early June and late August shouldn't give us too many worries about outlandings in crops so we hope the NFU will not have cause to complain in 1968.

The Standard Class

The majority of polled Sport Class pilots want an additional list of results published in their Class—to include Standard Class machines only (48 per cent for, 28 per cent against, 24 per cent don't mind). We shall, therefore, do as they ask and use *unhandicapped* scores in the Sport Class to determine the winner of the Standard Class.

* * *

In all these decisions the Flying Committee recommendations coincided with the majority opinion of competing pilots and organisers—it sounds suspiciously like democracy for once!

* * *

Senior Official Observers

The Flying Committee is fully committed to a policy of decentralisation and delegation to clubs whenever it is practicable to do this.

An important step in this direction is the appointment of Senior Official Observers. Their responsibilities are being worked out in detail at the moment but they will be very great. SOO's will act as an arm of the BGA in their own clubs and will vet all claims for C and Bronze, Silver, Gold and Diamond badges from their own club members.

To all our customers in Canada and our wholesalers everywhere

Merry Christmas and a successful soaring New Year

from

ONTAERO CO.

P.O. Box 26, Stn. D, Toronto 9, Ontario, Canada.

If the instrument you bought from us is due for its free annual "Keep 'em Flying" service, please return it during January or February.

The delegation of these duties for internationally-recognised badges starts with the FAI and is passed down to the Royal Aero Club who in turn delegate it to the BGA. In the past the Flying Committee has examined the evidence for these claims. With the appointment of SOO's, who will represent the BGA, it is our intention that the Flying Committee will not normally require to see the detailed proof.

We anticipate that most clubs will only need to appoint one SOO but the bigger ones will, of course, be allowed to have more than one. We shall soon be asking CFI's and Club Chairmen for the names of the SOO's they wish to recommend to the BGA.

We realise that SOO's will require guidance from the BGA regarding how to check some of the astonishing claims that pilots manage to produce. We shall be publishing a booklet to help them and it will also be very useful for Official Observers. Vic Carr (the member of the Flying Committee responsible for FAI badge claims) has started to prepare this and Part One—some advice on Barographs—is printed here as we know a lot of pilots will benefit by reading it!

Part 1—BAROGRAPHS

APART from the general outline of regulations on the use of barographs contained in the Sporting Code, there is very little information available to Official Observers and others on the preparation of the claims which necessitate the submission of a certified barograph chart. The Flying Committee has therefore prepared a general guide on the procedures to be followed and it is hoped that this series of articles will help to clear up some of the misunderstandings which currently exist.

Sealing

Sealing of barographs can be undertaken in one of four ways:

1. Locking wire and lead seal as provided by Acme Seals Ltd., Seal Works, Ferndale Road, Leytonstone, London, E.11, in which case the Official Observers should be able to identify their own mark.
2. Locking wire and sealing wax, again with the Official Observer's mark or seal.
3. Locking wire and sealed gummed paper, in which case the Official Observer's signature should carry across the wire which is buried in the paper.
4. A complete wrap of gummed *paper* right round inner and outer case with Official Observer's signature across the join. The wrap must be tight so as to prevent slipping of paper. Unless this standard can be achieved the method should not be used.

On no account should the following methods be used:

(i) Masking or self-adhesive tape.
(ii) Gummed paper stuck across the join of the case.

Opening

The Official Observer opening the barograph must satisfy himself that the seal is in order before opening and that it corresponds to the flight claimed. He will not necessarily be the Observer who sealed the barograph.

The Official Observer must be present

WHAT
HOW
WHERE
WHY

All the gliding information on sites, badge requirements, competition numbers and records are included in this year's BGA slimline diary bound in black and embossed on the front cover with a glider.
Wonderful value at 7/6d. each including post.

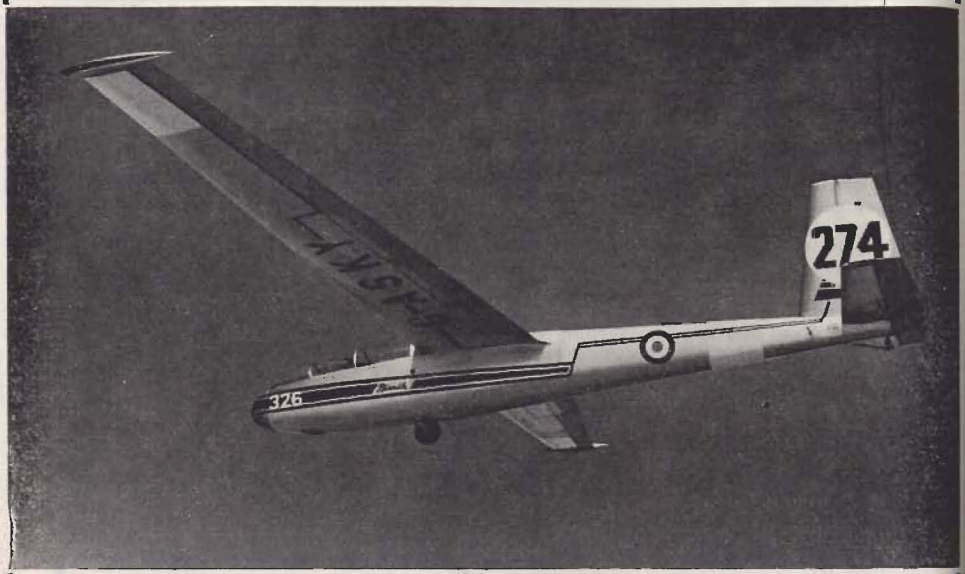
CHRISTMAS CARD
This year we have chosen one of Charles Brown's most famous photographs of an Olympia 2 in a vertical turn for our Christmas Card. The cards are beautifully printed in black and white — 3¾" x 8¼" — and cost 12/- per dozen including post.

We have a large selection of car badges, cocktail and place mats, scarves, ties as well as a super selection of books for the gliding enthusiast.

BRITISH GLIDING ASSOCIATION
ARTILLERY MANSIONS
75 VICTORIA ST., LONDON SW1
Telephone: 01-799 7548

GLIDE AHEAD WITH A 'BLANIK'

HOLDER OF THE U.K. TWO-SEAT HEIGHT RECORD



★ Unsurpassed two-seat performance
★ Fully aerobatic—Flies equally well inverted
★ Corrosion proof all metal manufacture—Low maintenance costs
★ High launches achieved through low drag and weight (Empty 650 lbs.)
★ Perfect for all training especially instrument flying
★ All purpose sailplane—ideal for club or syndicate
★ Winch belly hook now fitted

WELL PROVEN—NEARLY ONE THOUSAND BUILT

Delivered U.K. £1,950
(including instruments)

Duty £233
(if applicable)

IMMEDIATE DELIVERY — H.P. FINANCE ARRANGED

OVERSEAS ENQUIRIES WELCOMED

Distributor for U.K., Eire and Canada:
Peter Clifford Aviation Limited, Oxford Airport, Kidlington, Oxford.
Tel.: Kidlington 4262 — Cables: Cliffair, Oxford

Sole Exporter for Czechoslovak Aviation Products:
Omnipol Limited, Washingtonova 11, Prague 1, Czechoslovakia.

at the opening of the barograph and is responsible for ensuring that the chart is marked at that time with the mandatory information as follows:

(a) The pilot's name.
(b) The date of the flight.
(c) The make of the barograph.
(d) The serial number of the barograph.
(e) The Official Observer's name.
(f) The Official Observer's number.

It is also permissible to include a description of the flight, the aircraft type and its identification.

Base Line

In the case of height claims it is essential that a base line be included on the barograph trace. This may be included before sealing the barograph or after the flight.

It should be noted that the height of the base line is unimportant, it is essential that the base line be included before the trace is removed from the drum.

This requirement does not apply to barographs of the Peravia type that have a paper chart which is positively lined up with the base of the instrument.

Time Limits

Barograph calibrations where required, must not be older than 12 months prior to the date of the flight. Alternatively, barographs must be calibrated in the two months subsequent to a claimed flight.

Interpretation of Height Claims

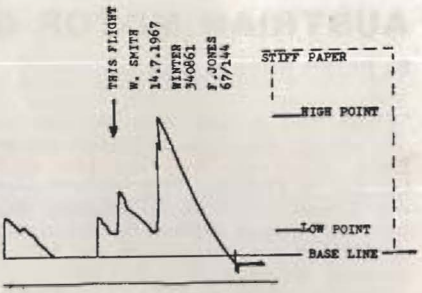
To measure the height gain from a barograph trace:

Place a stiff piece of paper over the chart with one edge parallel to the bottom edge of the chart.

Mark the bottom edge of the base line on the edge of the paper, where the lowest point of the flight occurs prior to the height gain. Also mark the bottom edge of the low point.

Now move the paper along to the highest point claimed. Make sure that the base line corresponds to the mark previously made and that the paper is parallel with the base line. Mark the bottom edge of the high point.

Now transfer your attention to the calibration chart, place your paper parallel to the base line and mark on



your paper the base line of the calibration chart. Measure the height of the low point above the calibration chart base line. Do the same for the high point.

Now deduct the measured low point from the measured high point, this will be the net gain in height.

To measure absolute height. By the same method compare take-off height with the highest point and apply a correction for the sea level height of the take-off point.

Reference to the bottom of the chart is only used to estimate the height band from which the calibration is to be taken.

* * *

Part 2—CALIBRATIONS—will be published in the next issue.

WORLD CHAMPIONSHIP NEWS

At the CVSM meeting in Paris on 2nd-3rd November, the Polish Aero Club president stated that 109 provisional entries had been received, divided fairly equally between Open and Standard Classes. This number had been accepted. The Foka 4's available for hire have already been over-booked. Leszno airfield has been extended and there is new living accommodation.

Among pilots to be entered are:

Belgium: Stouffs, Litt, and possibly Bluekens and Zegels.

Holland: van Bree, Réparon, Jungblut, Dekkers.

Poland: Krolikowski, Wroblewski; Standard Cl: Makula, Popiel.

Switzerland: Seiler, Wetli; Standard Cl: Nietlispach, Bloch.

Turkey: Akin, Aydopan, Atayler.

USA: Schreder, Johnson, Moffat, A. J. Smith.

AUSTRIAN MOTOR GLIDER RALLY

By PETER ROSS

THIS year it was Austria's turn to arrange the annual Motor Glider Rally, which was held last year near Cologne in Germany. The place chosen was Krems on the River Danube, not far from Vienna, famous as the centre of Austrian wine production and having a history dating back to AD 982.

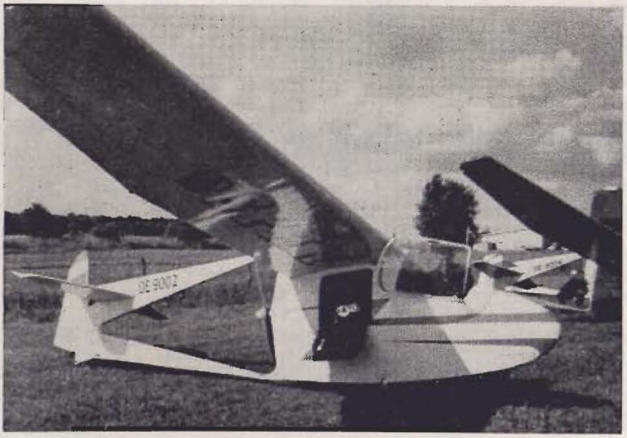
At the little airstrip of Krems-Langenlois the motor gliders were under starter's orders on Monday, 15th August: one RF-3, three Krähe, one Motorspatz, three Motorfalke, one SF-27M Illerschwalbe, and the new Scheibe Falke, completed only four weeks previously and on public display for the first time.

The task was a 100-km. Triangle to the nearby gliding school of Ottenschlag, then across the Danube to St. Pöllten, and back past the monastery of Stift Göttweib perched on the top of its own little mountain, across the Danube and the many-spired town of Krems, to the airstrip.

The previous day had been a washout, but the sky was now full of fat juicy cumulus as far as the eye could see, and the competitors were soon circling, engine off, as they were blown towards their first turning point. Despatched at two-minute intervals, they were all away by 10 o'clock, except for the Motorspatz which came back for its starter cable to be fixed—the handle had come off in the pilot's hand. With such cumulus, who needed a starter anyway? But as most of the competitors had not brought trailers, perhaps this was a wise precaution.

Lift was good, and by ignoring thermals of less than 3 metres/sec. the fastest two-seater, a Motorfalke, took 1 hr. 39 mins. and used 1.26 gals., the RF-3 flew round on engine all the way and was quickest with 1 hr. 12 mins. and only 1.16 gals. The others who had been paying more attention at the briefing and, realising that it was gallons *per hour* that counted, took up to the maximum permitted time of two hours for the trip. Best, whether measured on m.p.g. or gals./hr., was the little Krähe with 650 c.c. Puch motor which used only 0.83 gals. (75 m.p.g.). For the first time the Puch engine was installed without the usual cooling fan and ducts, and this reduced weight and added to the power available to drive the prop. Another had a mechanical hand-starter.

It was interesting to see that a Ka-6, launched after the last competitor had left, failed to stay up—and for the rest of the day no glider launches were



The Krähe with 650 cc. Steyr-Puch motor car engine.

The new Scheibe SF-25B Falke.



possible owing to a u/s winch and a non-available tug pilot.

After a leisurely lunch by the Danube, we returned to find excellent soaring conditions, and I was lucky enough to get a flight in the Falke. The SF-25B Falke is a development of the Motorfalke with a 1,500 c.c. Stark Stamo engine. This is basically a Volkswagen engine (with single ignition) but with new aluminium alloy cylinder barrels and heads (bores chrome plated). The importance of experience in motor glider development is clearly to be seen here in what is really a "third generation" motor glider, and Scheibe have done a magnificent job of fitting the larger and heavier (by 66 lbs.) engine into the same cowling as the Motorfalke. Wings have been moved down to the low-mid position, and one metre taken from each tip to keep the root bending loads the same as before and avoid building a new wing. The single wheel is now in a trouser fairing with a big reduction in frontal area. Wings are kept clear of the ground by small wheels on strips of spring steel mounted at each semi-span.

The side-by-side cockpit is exactly as before, but a new one-piece moulded canopy provides a superb view over the low wing. Production versions will have more perspex aft of the canopy to give a perfect all-round view. The fuel level may now be seen from within the cockpit.

Since the engine will idle at considerably lower revs than the Hirth two-stroke, starting is even easier (using the same mechanical principle) and may be done from either seat. Taxying is simple and we were soon facing down the strip for take-off. Full throttle gave about 2,500 r.p.m. from the ungeared propeller, and we were off the ground in 20 seconds, holding low for the news camera man, and then an impressive climb to 700 ft., where we caught a thermal and switched the motor off. This took us to 6,000 ft., where we were joined by a buzzard and two Motorfalkes, but neither bird nor glider appeared to be climbing any faster.

The Falke handles very like the Motorfalke but with a better rate of roll, and needs about another 3 knots on the best circling speed. The rudder is much more effective with engine on and it is easy to over-rudder until this is appreciated. Putting the speed up to 65 knots, we flew back across the Danube against a light breeze and appeared to be achieving about 20 to 1, ending with a finely judged (or perhaps I should say guessed) final glide, which had Herr Gad (Herr Scheibe's son-in-law) ready with hand on ignition switch and starter cable, but it was not needed and we got back with about 50 ft. to spare. The engine had been running for three minutes during the hour's flight.

The next morning I did two quick circuits with engine on to check its capability as a trainer. I climbed to 300 ft., turned whilst still climbing, and throttled back to idling when at 500 ft. halfway along the downwind leg. The subsequent landing was just like a sailplane, the slight thrust from the idling propeller giving us a "high performance" feel. Once firmly on the ground, the spoilers were closed (production versions may be ordered with Schempp-Hirth dive brakes as fitted on all current

Rudolf Kaiser's latest — the Ka-12. We hope to have a report on this in our next issue.



British sailplanes) and the throttle fully opened. She fairly rocketed up this time and I did the circuit slightly higher at 650 ft. The time for the two circuits was just 9 mins.

This is probably the most significant development in teaching people to fly since the Gypsy Moth of 1925. The engine has a life of 600 hrs., and this should soon reach 800. It uses normal fuel (i.e., no two-stroke mix required), has a cruising speed of 94 m.p.h., and yet soars like a true sailplane with engine off. Price is DM22,500 (approximately £2,040) ex-works, and deliveries start next spring.

The retractable-engined SF-27M Illerschwalbe is now in production, three having been built. The production version does not have the retractable wheel (keeping it within Standard Class regulations), but the doors covering the engine are linked to the engine retracting mechanism and so reduce the number of levers in the cockpit. Price is as for the Falke.

After a visit to the ancient Rathaus to be greeted by the Mayor, we went to the prize-giving dinner in the nearby village of Gleixendorf, surrounded by vineyards, where we heard of a Motorfalke syndicate which has achieved 1,000 hrs. in just over three years, including visits to Zell am See and Samaden, and where I was most touched to be presented with a Silver Medal as the only visitor to make the long journey from England.

WORLD GLIDING CHAMPIONSHIPS 1968

PREPARATIONS are going ahead for the British team to go to Poland, where they will be flying Slingsby HP-14's, and special Wortmann Darts in the Standard Class.

The cost of competing in 1968 is, unfortunately, more expensive than previously, and the team would be most grateful for financial support.

So far the SBAC has generously donated £1,000 and the team members themselves are contributing £650 personally; this leaves nearly £2,000 to find. Anyone who would like to help should send their cheque to the British Gliding Association.

ANN WELCH, *Team Manager*

BGA NEWS

BGA Chairmanship

In my last Annual Report I stated that Council would set up an elective machinery to enable them to recommend to you my successor at the next AGM. This has now been done, and I am glad to say Peter Scott agreed to put forward his name, has been accepted by Council, and co-opted by them. He will duly be proposed at the AGM.

The National Coach

I have personally had a growing feeling for some time that the job of the National Coach, started over five years ago and so ably carried out by John Everitt, had developed to a stage where it should be subject to regular rotation. The main reasons were in consideration of the Coach himself.

The Gliding Movement does not have sufficient funds to ensure that an adequately progressive salary will be available, or any pension scheme; in fact, it should not ask a first-class man (and only a first-class man can possibly do this job) to pin his whole life to it.

Secondly, it is a most demanding and peripatetic job, involving irregular hours, talking all over the country and often far into the night with endless white-hot enthusiasts who glide as a spare-time hobby (and so don't want to go to bed at all when the Master visits them!) and carrying very heavy responsibilities for safety and life.

In fact, it is a job demanding very much indeed, and offering too little *as a life-time career.* I think it a wonderful job for a limited period, for it carries very big (non-financial) rewards. But what has a National Coach got to look forward to when he retires in his sixties?

So I was rather relieved when everyone (including John Everitt) came to the same conclusion recently. It's going to take a longish time to find a worthy successor, for John has done tremendous things in improving the standards and increasing the number of instructors throughout the country. But the present aim is to try and find a successor in about six months' time, and to advertise the job as one with a three- to five-year cycle.

(No applications called for yet! We have to get out a very definite plan and terms of reference first.)

PHILIP WILLS

* * *

Annual General Meeting

The British Gliding Association's AGM and its associated meetings will be held on 9th March, 1968, at Imperial College, Kensington, London, S.W.7.

The Dinner and Ball will be held the same evening at the Connaught Rooms, Kingsway, London, W.C.2. (Tickets £2 10s. per person.) Details to be circulated.

* * *

Shock Absorber Ropes in Launching Cables

Several clubs have reported cases of the shackles of the shock-absorber ropes, used in the launching cables, flying back and hitting the bottoms of gliders when the weak link breaks. The main trouble here is the use of a rope which stores too much energy. In particular, the use of synthetic ropes, nylon, terylene, etc., contributes to this trouble. These ropes are very elastic, and store a lot of energy, most of which is returned when the weak link breaks, or the glider back-releases under tension. It is suggested that the shock-absorber rope should be of fairly heavy hemp or sisal, and in addition that the shackles should be no heavier than necessary. The rope then does not store much energy, and most of it is absorbed in the rope itself in the event of a sudden release of tension, so that the shackle is not catapulted back at the bottom of the glider.

Cockpit Loads

At the Inspectors' Conference at the Bristol Gliding Club over the weekend of 23rd-24th September, 1967, the conference felt that it should be made plain that the cockpit load, as quoted on the placard in the cockpit of gliders, means just what it says. Many pilots seem to take the weight figure as relating to their weight alone. This is not so. The cockpit load includes pilot, parachute, portable oxygen equipment, food, drink, maps, etc.—in fact, anything that is put into the cockpit for flight.

R. C. STAFFORD ALLEN. CTO, BGA

POLISH GLIDERS

FOR HAPPIER, SAFER GLIDING



HERE ARE JUST TWO GLIDERS—BOTH DESIGNED FOR PERFORMANCE FLIGHTS UNDER VARIOUS ATMOSPHERIC CONDITIONS.

SINGLE-SEATER, FOKA 4 is built to conform with the standard class of OSTIV, and is designed for performance flights under any atmospheric conditions.
Wing span: 15 metres. Aspect ratio: 18.5. Best gliding ratio: 34
Never exceed speed: 260 kilometres per hour. Flying weight: 386 kilogrammes.

TWO-SEATER, BOCIAN

Due to its many flight qualities under varying thermic conditions, Bocian is suitable for all types of performance flights. The pilots' seats are in tandem, and there are coupled control columns, which make the glider ideal for basic training.
Wing span: 18 metres. Aspect ratio: 16.5. Best gliding ratio: 26
Never exceed speed: 200 kilometres per hour. Flying weight: 525 kilogrammes.

MOTOIMPORT

PRZEMYSLOWA 26, WARSAW, POLAND
Cables: Motorim, Warszawa. *Tel:* 28-50-71

Sole Agent in U.K.
NORCO AVIATION LIMITED
BURRELL ROAD, HAYWARDS HEATH, SUSSEX. *Tel:* 51771

Handicaps to Apply in BGA Contests in 1968

The basis of these figures, taking the Skylark 3 as 100 per cent, is the relative theoretical cross-country speeds of the different gliders, after climbing in an average British thermal of about 2½ knots. Rates of climb are compensated for differences between gliders' thermalling performance.

See also article on page 459.

86%	SHK, HP-14 (16½ metre)
88%	
90%	Dart 17, Phoebus 15
92%	
94%	
96%	Ka-6E, Olympia 419, Foka, Vasama
98%	Dart 15, Olympia 465, Skylark 4, Pirat
100%	Skylark 3 (Datum glider), Olympia 403, Ka-6CR, M-100
102%	Fauvette, Olympia 463
104%	Standard Austria, T-53
106%	Jaskolka, Olympia 460 Series 1, Regal
108%	Skylark 2
110%	K-13, Blanik, Eagle
112%	Sky, Weihe, Ka-8, SF-26
114%	Mucha Standard, Capstan, Bocian, Ka-7, Ka-2
116%	Skylark 1
118%	
120%	Kranich
125%	Olympia 2, Swallow, Meise, Gull 4

NOTES:

1. New gliders flying in 1968 contests that are not included above will have handicaps based on manufacturers' polar curves, unless properly conducted tests convince the Handicapping Sub-Committee otherwise. Thus, subject to this proviso, the AS-12 will be awarded 72 per cent; Diamant 18, 74 per cent, the HP-14S (18-metre) 76 per cent, Cirrus and Phoebus 17, 78 per cent.

2. Figures for two-seaters apply both one-up and two-up, but pilots must declare on booking in for a contest in which configuration they are going to fly. (The declaration is not applicable to the National Ladder.)

3. Pilots of gliders not mentioned above who require a handicap either for contest flying or for the National Ladder, should write to the Chairman of the BGA Handicapping Sub-Committee, c/o the BGA office. Evidence of performance must be produced, either by a polar curve (units, knots throughout if possible), "Tested Points", or from well-conducted comparison flying with known types.

Such performance data on any glider flying, or about to fly in the UK, will be welcomed.

* * *

Annual Subscriptions

The Association's financial year ended on the 30th September last, and in accordance with the resolution passed at the Extraordinary General Meeting at Cheltenham in March, Council have now fixed the annual subscriptions for the year 1st October, 1967, to 30th September, 1968, broadly in proportion to the last nine months' subscriptions, as follows:

	£
Full member clubs	35
Associate member clubs	20
Overseas clubs	20
Affiliated clubs	7
Private owner groups	5
Inspectors' approval fees	3
Individual associate members	2

Accounts of subscriptions have been sent out and it would greatly assist the BGA office if subscription accounts could be settled promptly.

In addition, to assist in the difficult but essential task of balancing our budget for the year 1967/68, Council have agreed as from the 1st January, 1968, to standardise the charges for all National Gliding Certificates up to Bronze C at 10s. and for all International Certificates (i.e., Silver, Gold, Diamond) at 20s. per leg.

Many incomplete Silver, Gold and Diamond legs have been registered at the BGA office over the years free of any registration charge. A charge per leg is in line with the work done rather than a payment on completion of the certificate.

Increased annual fees for competition licences for next season and capitation fees in lieu of club subscriptions for the year commencing 1st October, 1968, are also being discussed by Council, and proposals regarding these charges will be put to the Annual General Meeting.

J. C. LARGE, *BGA Treasurer*

Annual Trophies

A reminder that details of any good flight made in 1967 which qualifies for one of the BGA Annual Awards should be sent on a Badge claim form (marked "1967 TROPHY") to the BGA Secretary as soon as possible. Latest date for applications is 8th January, 1968. Details are given in the October *BGA-Newsletter.*

The Churchill Gliding Award for 1968

This annual award of £50 for a project involving "initiative, flying and hard work, undertaken in that gaiety of spirit Churchill epitomised" was made to John Simpson in 1967.

Applications for the 1968 Award must be submitted to the BGA by 31st March, 1968. Eligible projects, which should always include some flying, could be meteorological research (waves?), development of glider instruments, research on improved training or soaring techniques or investigation into some quite new aspect of gliding. Further details from the BGA Flying Committee.

Medical Standards

Clubs have already received a BGA circular about an alteration to the Operational Regulations concerning medical standards. *From 1st January, 1968, all pilots who wish to give instruction or carry passengers must complete the new BGA Declaration of Physical Fitness* (1968) *and it must be countersigned by the pilot's own doctor.* Further details from Club Secretaries or CFI's.

1968 Regional Championships

Clubs shown below have applied to hold BGA-approved Regional Championships next year. Address enquiries re entries to the club concerned.

Places available in Regionals may now exceed the demand so the BGA is asking organisers to confirm acceptances of entries not later than 29th February, to facilitate holiday arrangements. Any competition which has not at least 15 paid-up entries by 29th February will not be recognized by the BGA as qualifying for Rating.

Title	*Organising Club*	*Site*	*Dates*
Dart 17 Class*	Lasham	Lasham	May 18-26
Western Regionals	Bristol	Nympsfield	Jun. 15-23
Northern ,,	Derby & Lancs.	Camphill	Jun. 29-Jul. 7
Yorkshire ,,	Yorkshire	N/K	Jul. 13-21
Lasham ,,	Lasham	Lasham	Jul. 27-Aug. 4
Wycombe ,,	Airways	Booker	Aug. 10-18

*Restricted entry: Dart 17's only; N/K Not known.

WYCOMBE AIR PARK REGIONALS — 19th to 28th August

By JOHN ELLIS

THE first, BGA-recognised, Regional held at Wycombe Air Park was opened by Sir Anthony Milward, Chairman of British European Airways, in torrential rain. Harry Douglas, Met. man of Nationals fame, explained this away and promised better weather to follow. Both he and Mike Waller lived up to this promise, and provided splendid conditions, almost without exception, for the rest of the period.

Arthur Doughty, chief task-setter, took advantage of this to set petrol-saving tasks, of the closed circuit variety, only conceding weak thermals on one day by setting distance along a line. Out of seven competition days, only one produced really poor marks, the out-and-return to Chipping Norton. Nobody made the turning point, which was not surprising, as visibility was about half-a-mile with a very low cloud/haze base.



Roger Neaves (with hat) in radio contact with the "snifter" before launching the competitors.

Mike Riddell's radio transmission from somewhere over the A40, "On instruments—1,500 ft. a.s.l.", made a deep impression on all of us.

Due to the intricacies of the BGA scoring/handicapping system, an unexpected result arose on the last contest day. A difficult 147-km. triangle was set and only two gliders completed the race, a Dart 17 (95%) and a Skylark 4 (100%), the Dart being faster by about 20 minutes. It transpired that 800 marks were available for distance and 200 for speed. As the handicap is taken as a percentage of distance+speed marks (not speed alone), the Skylark gained the 1,000 points, in spite of being considerably slower. Was this a fair result? Or is the "cooking" Dart 17 over-handicapped? Or is the scoring system wrong under these particular circumstances?

The only disappointing feature of the competition was the small entry. One assumes that the main reason for this is Booker's position under the London TMA, close to the Control Zone. This does not affect normal club operations, and certainly did not affect this, our first, Regional.

We hope to have a much larger list of competitors in 1968; they can be sure of a warm welcome.

	Pilot(s)	H'cap %	Sailplane	1	2	3	4	5	6	7	Total points
1.	J. Ellis	100	Skylark 4	1000	682	1000	177	1000	800	1000	5659
2.	G. Scarborough	95	Dart 17	808	—	920	137	865	875	985	4590
3.	C. P. Wills	95	Dart 17R	896	305	709	150	810	772	278	3921
4.	M. P. Seth-Smith	105	Olympia 460	918	820	179	158	140	1000	443	3658
5.	I. L. A. Eyers,	100	Ka-6CR	—	—	—	0	153	—	564	
	L. E. Beer,			420	577	—	—	—	—	—	
	S. G. Davies			—	—	713	—	—	734	—	3161
6.	J. S. Wade	105	Olympia 463	505	402	811	154	0	874	330	3077
7.	S. B. Wills	105	Olympia 460	834	0	343	138	567	914	270	3066
8.	R. C. Stoddart	100	Dart 15	766	8	708	118	861	197	110	2768
9.	R. L. Clarkson,	100	Skylark 3F	389	—	737	—	310	—	285	
	P. G. Jeffers			—	302	—	135	—	592	—	2750
10.	D. M. R. Riddell,	100	Foka 4	941	—	—	135	—	823	—	
	A. E. Stenhouse			—	8	0	—	310	—	378	2595
11.	A. G. Burne,	100	Skylark 4	196	—	152	—	62	—	77	
	Philippa Buckley			—	323	—	153	—	759	—	1722
12.	E. R. Belbin,	100	Skylark 3G	494	—	0	118	—	—	0	
	N. J. Paine			—	0	—	—	116	659	—	1387
13.	J. E. Rouse	100	Foka 3	—	0	—	123	432	—	77	
	H. W. Fletcher			188	—	166	—	—	126	—	1112
14.	B. H. Latimer,	100	Skylark 3B	—	27	—	131	202	—	323	
	E. N. Baker			175	—	0	—	—	13	—	871

COULD YOU HAVE WON A SWALLOW?

A selection of questions from the written papers for the W. D. & H. O. Wills Glider Pilot Competition, for non-competitors to try their hand at. The answers are *not* given.

FROM THE SEMI-FINALS

A high performance single seater is being towed slowly by an aeroplane in level flight. Is the pull in the tow rope nearest to: A. 4 lb.; B. 20 lb.; C. 100 lb.; D. 500 lb.?

Which is the correct spin recovery drill? A. Move the stick forward, pause, and apply full rudder to stop the spin; B. Apply full rudder, pause, and centralise controls; C. Apply full rudder, pause, and move the stick steadily forward until the spinning stops.

What is indicated when the isobars on a synoptic chart are close together? A. Light winds; B. Heat thunderstorms; C. Strong winds.

You take off on aerotow and your brakes open. At about 20 ft. up with half a mile of airfield ahead of you the tug pilot waggles his wings. Should you: A. Close your brakes which you discover are open and carry on; B. Release?

The traffic zone of an airfield is: A. up to 1,000 ft. above it and within 1 nautical mile of its centre; B. up to 2,000 ft. above it and within 3,000 yds. of its boundaries; C. up to 1,000 ft. above it and within 2,000 ft. of its boundaries.

A white disc at the head of the landing Tee means: A. Glider flying in progress; B. Light aircraft must land on special area; C. The direction of take-offs and landings may not be the same.

If the unladen weight of a glider trailer is less than 1 ton, it is permitted to have: A. Brakes on the car only; B. Over-run brakes on the trailer; C. No parking brakes when the trailer is attached to the car.

FROM THE FINALS

Over your own site you see another glider circling and you fly across to join it at cloudbase. The other pilot decides not to go into cloud and flies away. (a) May you enter the cloud? (b) If not, why not?

Your winch launch is too fast. What signal do you give to slow it down?

How is night defined in the UK for the purposes of flying?

What is the speed limit for glider trailers on motorways?

You do not wish to fly into an airfield traffic zone. To keep out: (a) How high should you fly above it? (b) How far from its boundaries should you fly? (c) Should you decide to enter what is the specific rule about turns in such a zone?

What are the two frequencies for use by gliders in the UK? And for which do you not need an operator's licence?

What is the max. permitted winch, or autotow, speed on a Slingsby Swallow?

You are climbing in a thermal at a steady 5 knots, and after 10 minutes find yourself at 6,5000 ft. At what height did you start circling at this rate of climb?

You fly round a 200 km. Triangle at an average speed of 31 m.p.h. How long, to the nearest 5 minutes, does it take you to complete the task?

You are 20 nautical miles from your goal flying in calm air at 65 knots. Your aircraft has a gliding angle of 1:30, and you wish to arrive with 500 ft. in hand. (a) What height will you need at 20 miles out? (b) What height would you need at 20 miles out with a 10-knot headwind? (c) From what distance out would you be able to start your final glide if thermal tops are at 3,000 ft.?

CROSSFELL ELECTRIC AUDIO VARIOMETERS

Compact and Inexpensive.

Used by the foremost soaring pilots since 1959.

EQUIP YOURSELF NOW.

Also available without Audio.

Agents throughout the World.

Crossfell Variometers

10 Borrowdale Road, Malvern, Worcs., England.

Sailplane & Engineering Services Limited

Remove: that doubt when your machine encounters rough air.

Repair: your aircraft to manufacturing limits and finish.

Overhaul: quickly and efficiently at the right price.

Build: trailers of all sizes, shapes and materials.

HOLMFIELD ROAD, BURBAGE, DERBYSHIRE
Adjoining A53. Buxton to Leek Road.
Telephone: BUXTON 4365

Your glider stalls at 30 knots in straight flight. At what speed might you expect it to stall in a 60-degree bank?

At what rate will a standard glider parachute descend with a pilot weighing 220 lbs.?

What position should you try to achieve when free-falling before opening your parachute?

You D.I. an Olympia and find a hole the side of a halfcrown in the leading edge about halfway along one wing. What material would you use to make the correct repair?

The aileron cables are a bit slack. Would you expect the ailerons to upfloat or droop in the air?

Your Turn-and-Slip indicator has two needles, one for turn and one for slip. Which is power driven?

About how much G would you expect to pull on a smooth loop in a glider initiated at 75 knots?

The ground temperature is 18°C. You climb 7,500 ft. above the ground in a blue thermal. What is the temperature outside the glider at this height?

At 22,000 ft. you run out of oxygen. How long before you are likely to lose consciousness?

The trimmer tab on the elevator moves up. In which direction has the cockpit control been moved?

What is the most dangerous direction to get out of position on aerotow?

What are the three conditions required to maintain VMC?

What does FL25 mean when marked on a map showing airways?

Questions About Questions. — SAILPLANE & GLIDING would add a couple: Can you see anything odd in these from the semi-finals? "Which of the following are electrical phenomenon? A. Rainbow; B. St. Elmos Fire; C. The glory; D. Jet Stream." And is air resistance allowed for in this? "An apple falls from a tree. At the end of one second is the apple travelling at: A. 30 m.p.h.; B. 20 m.p.h.; C. 10 m.p.h.?"

A tricky one for artists is: "Which indicates a new moon? A. This (or B. This)?" We would draw attention to an old saying that a crescent New Moon "lying on its back" indicates rain. So: A. How far ahead can astronomers predict when the New Moon will lie on its back? And B. How far ahead can meteorologists predict rain?—ED.

DONALD CAMPBELL

WE very much regret to learn, as we go to Press, that Donald Campbell ("The Glider Doctor") and his wife lost their lives in the Caravelle crash in Sussex on 4th November.

THIRTY YEARS AGO

THE most notable event in 1937 was the first International Gliding Competition (not yet called a Championship). But there is no room here to give a detailed account, so we hope to do so in a later article.

JANUARY 10TH.—"Queer Soaring" at Dunstable: in a strong surface wind from S.S.E., a large area of smooth lift was found to leeward of the Downs, being easily contacted just west of the Dunstable end. It was not recognised as a wave, and it still remains to be explained why Dudley Hiscox, on reaching the day's greatest height of 2,250 ft., found himself in a strong S.W. wind blowing *towards* the hill.

APRIL 10TH.—Flight Lieut. E. L. Mole performed 67 consecutive loops in Egypt after a tow to 8,000 ft., flying a Wolf. (Next year he capped this with 147 loops.)

MAY 27TH.—World's two-seater distance record, 282 miles, set up by Victor Ilchenko with passenger. He capped this with 515.7 miles on 24th May, 1953.

JULY 4TH-17TH. — First International Competition, held at the Wasserkuppe, Germany. Won by Heini Dittmar (Germany). British team: P. A. Wills, P. M. Watt, J. C. Neilan, G. O. Smith, D. G. O. Hiscox, Joan Price, W. B. Murray, J. S. Fox, with Hjordis, 3 King Kites and Falcon 3 two-seater. Other countries represented: Poland, Switzerland, Austria, Czechoslovakia, Yugoslavia.

AUGUST 15TH-31ST. — Anglo-German Camp at Dunstable, in which 23 Germans at various stages from pre-A to pre-Silver C received instruction in company with British pupils, one of whom was Miss Ann Edmonds (now Mrs. Welch). Many club members flew across country, Philip Wills making the longest flight on the 15th to Dover, where he tried in vain to climb high enough for a Channel crossing.

This was a return visit, a British party having gone to a German school the year before. Though few of the Germans





AIR CHUTES IRVIN

LIGHTWEIGHT GLIDER PARACHUTE ASSEMBLY TYPE EB 62

A compact parachute assembly designed especially for use by pilots of British and continental gliders and suitable for canvas or pan type seats. Weight 18 lbs. For full details write to SERVICE MANAGER:

IRVING AIR CHUTE of G.B. LTD.

LETCHWORTH · HERTS · Tel 6262 · Telex 82198

could soar and none went across country, they were subsequently held responsible by the locals for every bomb dropped within 15 miles, and everyone believed a story that London Gliding Club had had "a lot of German members" since its foundation.

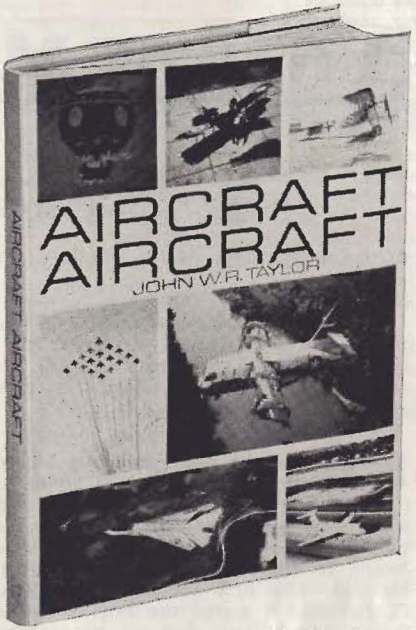
On the 26th Wolf Hirth came over in his Klemm, towing Eva Schmidt in a two-seater Minimoa, and next day, when Hanna Reitsch arrived in another aeroplane, all were entertained at Halton. After that, the Germans were taken in coaches to see the opening of the Nationals at Camphill (and, of course, were subsequently held responsible for all bombs dropped within 15 miles of that place too).

AUGUST 28TH-SEPT. 5TH. — National Contests at Camphill. For the first time in Britain, points were scored (in imitation of the Internationals) for duration, distance and height. This was the first National Contest at which any considerable number of cross-country flights were made, many being to the East Coast. On Sept. 2nd, with cloud streets all day, 14 cross-countries were done. As Philip Wills put it: "shrieking virgins were whistled, impotently struggling, in secondaries up to cloud-base and deposited a short while later dazed but in one piece at the seaside". This so upset one "virgin" that he changed his Falcon I for a Minimoa, took an advanced course at Wolf Hirth's Hornberg School, and was well on the way to catching up when the war came.

Philip Wills in Hjordis scored 477 total points, and 408 were earned by a Rhönsperber flown in turn by J. P. Dewsbery, C. Nicholson and R. P. Cooper.

SEPTEMBER 8TH.—First British wave flight to be recognised as such. Flying a Kirby Kite from the Long Mynd, John Simpson rose through a layer of cumulus and continued climbing in smooth air to 7,100 ft. above take-off (8,600 ft. a.s.l.). Later, R. S. Rattray came up in his Cambridge 2, then set off across country from 6,700 ft. a.t.o. On the way down, Simpson wrote, "when I got near to a cloud I amused myself by diving on it and gliding up and down its hills and valleys with my shadow close beneath surrounded by a complete rainbow."

A. E. S.



No other book can convey the thrills and excitements of flying. John W. R. Taylor, distinguished author of more than one hundred books on aviation, tells the story of man's conquest of the air from Leonardo da Vinci's designs for a flapping-wing craft to space vehicles, satellites and missiles of the 20th century. More than 240 illustrations in colour and black and white present a pageant of aircraft from all over the world.

PAUL HAMLYN HAVE A GIFT FOR IT! 15s.

Buy it at your bookseller TODAY! or post the coupon below

To: BRITISH GLIDING ASSOCIATION
ARTILLERY MANSIONS, 75 VICTORIA STREET, S.W.1

I enclose a cheque/postal order value £ s. d. for.....copy/ies of AIRCRAFT, AIRCRAFT price 15s. each plus 4s. postage and packing.

NAME.....

ADDRESS.....

I WAS AT MARFA

By Suzie Bates

The author was in charge of the USA nationals daily Newsletter from which we have extracted the following two days — with apologies for minor alterations.

Fifth Contest Day: Marfa, 8th July, 1967

Dear Readers,

I couldn't be here yesterday, so I asked a fellow hanging around the hangar to please take over while I was gone. My instructions were: Go to the office early. A lady will give you yesterday's results. Go to the pilots' meeting at 9.30 a.m. Wander around for a while and gather some news. Write it up and leave it on my desk. Here is what I found:

I WENT to the pilots' meeting and a little fat feller named Claybourn (Competition Director.—ED.) gets up and starts bossing all the fellers around. He tells this here guy, I think his name was Smith, to stand up and say something. He did. The first thing he says was, "Let's quit." I found out later that the reason why he said that was because he was ahead. Of course, I sized him up and I could tell he was one of them kind that likes to win, so it didn't surprise me none that he'd like to quit while he's ahead. He told all about how he was pulled off by one of them tow-fellers, and how he found one of them thermos that all the fellers seem to think so much of. That's all he ever done . . . all day . . . he jist hunted for more and more of them thermos and when he finished, he came home. I didn't have time to ask how he done it without a moter because this here other man jumped up and started showing some pretty pictures. He talked about them pictures and numbers for quite awhile and finally said they was on their own.

I found out later he was the one that furnishes the weather for all those men in them cheap planes. I think they get them cheaper without a moter!

When the meeting was over, I was lookin' on the big boards they have all over the walls and I jist figured from lookin' at one piece of paper that O'Neal and Fellner must be the fastest fellers here. Why they've had more tows than anybody else on the list.

Since I didn't know anybody, I jist bought myself one of them dollar programs—they're real handy. They got pictures of all them fellers I saw in that meeting and it tells all about them. I looked around on another board and there was all kind of things for sale. This feller Bikle wanted to sell his little plane, so I found him and said I'd oblige him. He said he didn't want to till after the contest. I said it wouldn't do me no good after the contest and he just got mad and walked off. So I talked to a Mr. Ryan and Mr. Stuhr (he jist acted like he didn't know what I was talking about) and Mr. Drew and they were all the same way. These fellers sure stick together.

A little later in the morning I didn't have nothing to do so I kinda wandered around and looked at people. I gave this here lady a blanket. Why she was jist



. . . lookin' on the big boards

so excited about who was winning this here race that she forgot to put her clothes on. Then I seen some fellers standing around on a box. They jist stood there and stood there. My, they must've been plum bored to death.

Once I went to the john. There was this feller jist standing there right in the middle of the floor taking a shower. I didn't have the heart to tell him he forgot to pull the shower curtain.

There was all these pretty ladies in the office that kept calling over the loudspeaker for all the people to come to the office. I kept standing around waiting them to call me so's I could find out what they was telling everybody else . . . but I guess they didn't know I was there. Later I found out that was where they were givin' away that beer to all them tug drivers that was doing all the work around there. I watched all them fellers with the green badges on and I think they deserve a lot more credit than anyone gives them. Why, you fellers up there in those cheap planes, who do you think is sending up all that hot air that makes those thermos that you talk about so much?

Well I waited around this place pretty near till dark and nothin' else ever happened. I kept askin' when all them fellers in those little planes was comin' back, but nobody seemed to know. Before long they had hitched up to all them trailers they haul them in and left. So I just left too.

P.S. Here's a bunch of figures on what them fellers was doing yesterday. I'll let you figure them out. By the way they flew 19,043 miles. (The leading results are shown on page 458.—Ed.)

* * *

Seventh Contest Day: 10*th July*

Yucca Pete came by yesterday, and I just didn't have time to listen to him talk. To get him out from under foot and keep him busy for awhile, I sent him out to gather some more news. Here is his report:

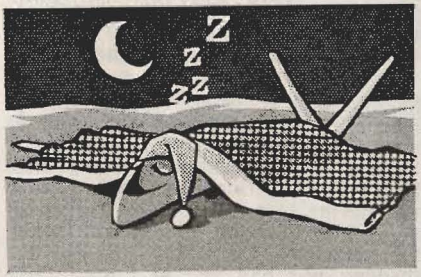
I went to the pilots' meeting again and that little fat feller named Claybourn was still telling all them pilots what to do. This time he made a different feller get up and say something. His label was Moffat. George Moffat. He acted a little bit embarrassed. You see, he'd already spoke at one of them meetings before so he kinda felt like Claybourn was pickin' on him. He decided to talk about what he had done yesterday. He said he made up his mind to go to Pecos, so he followed a feller named Dick (I reckon he did not know the way) or maybe they was playin' foller the leader because he did mention a lot of them fellers was follering him. Anyhow, they was having so much fun that they went on to Fort Stockton. Moffat was lookin' for something there, but he said the shadows was bad and he circled three times and jist gave up and came home. He didn't have nothing with him so I guess he don't ever found what he was lookin' for. Before I had a chance to tell him I'd go up there and see if I could find it for him, this here feller with the pictures got up. (You know the one I told you about that arranges all the weather for them.) He said he'd give them a better-than-average Texas summer day. And he did. He hollered out there to a feller named Bikle that he'd like to answer that question he was asking yesterday (he's jist so busy he's runnin' a day behind). He said, "Thunderstorms will be less yesterday than the day before." I heard a feller ask him, "What time will be the first stay-



upable thermos?" and that weather man hasn't had time to answer him yet.

A little later I noticed everybody was going outside so I follered along to see what they planned to do. Well three or four of 'em would go and get one of them little planes and drag it over and put it on a line. It takes three men to move those planes because not only do they have the moter missin', but they don't have no wheels . . . well, they have one on the belly . . . so you see the problem is it tilts. So somebody has to hold the wings up while another feller drags or pushes it. Well, they jist kept putting them on these lines till they was as thick as hogs at feeding time.

Then they all jist stood around and waited. One feller would stand and hold an umbreller over the little plane so's the sun wouldn't hit it. You know they're mighty particular about them little things . . . they don't want nobody touching them. Why they don't even want the sun to shine on 'em. They even cover 'em up at night!



Now all this time while they was gettin' lined up, these fellers with the tug planes was jist sittin' there waitin' and rarin' to go. Finally one broke lose and went buzzin' up there in front of one of them little cheap outfits, and Dub (he's the coach around here, you know) he'd have some of his strongest football players run out there and hitch a rope to him right fast and hold him down until they could get this other little plane hitched up to 'em. Then that tug pilot would jist leave right quick before the next tug guy could catch up to him. They'd go zoomin' down the pavement until the little cheap plane in the back went up first, then the tugger would go on up. He pulled that little feller right on up in the sky. He'd kinna make a big circle over and pretty soon, that little feller in the back would get tired of being pulled and he'd let go about 2,000 ft. up. (I don't know how he done it, but he did.) Then that tugger would come right back down to help another one. Boy, they sure are nice fellers, them tug fellers, that's the way these Texans are, you know, they got lots of money but they don't mind helpin' the less fortunate. I've seen them stop on the highways too, and help people who was havin' car trouble. Well, they jist kept comin' back and helpin' until they got them all up in the air.

Now that was a sight to see! All them little fellers up there all at once. These fellers are kinda chicken . . . they have to work up their nerve to go off on their own. A few jist couldn't stand it and they come back, but them tug


Henry P. Hickenbacker III (jun.)

fellers are determined . . . they'd jist hitch up and take him right back up there. (They wanted them to hurry and get out of the way, so's they can hurry and drink their beer.)

These little fellers up there kinda bunch up for a while, going round and round, like you've seen buzzards do out in the desert when they smell somethin' dead. Then all at once, one works up his nerve and he breaks loose, comes buzzin' over the tent and goes plum out of sight. The next thing you know they're all doin' it.

As soon as they all got up, I went over to stand under a tent. (The sun was hot and I'm not as young as I used to be.) I thought I was in a hornets' nest. There was that little fat feller, you know, the bossy one . . . and a bunch more people with talkin' boxes, stop

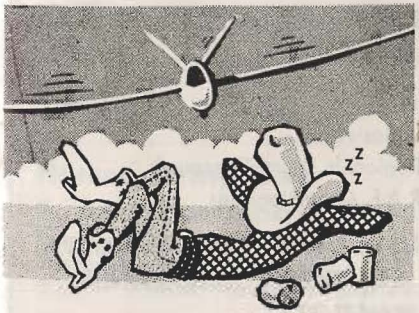
watches, and all kinds of paraphernalia. Everytime one of them little fellers would go over the tent, somebody'd yell "hack" and the radio was hollerin' and they'd say "good start" and they jist all talked at once. They jist kept hackin' and hollerin' until I couldn't stand it no more.

I looked out across the prairie and seen another tent away out there, so I struck out fer it.

These here two fellers had already beat me to it and they was doin' the funniest thing: they had a telephone way out there and this one feller was standing there with that telephone to his ear lookin' through this here big black square thing made out of iron and tied together with string. He'd look and say "good start" and look and say "good start". Once or twice he said "bad start" jist to break the monotony. I guess that Claybourn feller musta been awful mad at them two fellers when he sent them off down there so far. I don't know what they'd done, and I didn't want to embarrass them by askin'. It was a nice spot, though. They could see fer miles and maybe they enjoyed being out there in all the yucca where they could see the cows, and antelope and listen to the birds sing and all that.

Well, I got tired of hearin' them say "good start" so I headed back to that hornets' nest. When I got there the durndest thing was takin' place. Them people in the tent was talkin' to all them little fellers in them little planes, but I never could make heads nor tails of what they was saying. They kept talkin' about Romeo and Juliet and their Papa. Every once in awhile somebody'ud order one whiskey, or two whiskeys (I guess they get mighty thirsty up there). One little feller ordered six whiskeys. I never did see nobody takin' 'em up any. (They should've thought of that before they left.)

Finally everybody was out of sight and all of us left jist settled down and took a little siesta. When I woke up, things were beginnin' to stir because somebody had got the word that all them fellers was comin' back. Sure 'nuff, about 5.30 here they come. Now that was a sight to see! They kinda sneak up on you (you remember them little cheap planes don't got no moter). You can't hear 'em comin' from very far off. But when they get kinda close, you can hear 'em whistle jist ever so easy . . . they jist whish right down, make a big circle over the hangar and come in fer a landin'. It's kinda rough when they land cause they scrape and some fellers have to run out there real fast and catch the wing. Well they jist kept acomin' in until they was nearly all here. I found out later some of them fell down and somebody had to go to get them.



. . . took a little siesta



Fuller

STEVENSON-EBENTHEUER

World supplier of Scheibe gliders:
L-Spatz III economy single seater
Bergfalke III tandem trainer
SF-27 advanced competition glider
Direct sales at savings. Instruments and used gliders also exported.
Glider display models, all types, 1:50 scale £2/4/0; 1:40 £3/3/0; 1:30 £4/2/0 post paid
P.O. Box 52 806 Dachau
West Germany

FINAL RESULTS : Lasham Regionals, 22nd-30th July

	Pilot(s)	H'cap %	Sailplane	1	2	3	4	5	Total points
1.	J. W. R. Kronfeld	95	Dart 17R	1000	1000	210	843	957	4010
2.	I. Paul	100	Skylark 4	766	937	285	806	1000	3795
3.	J. Przewlocki	95	Dart 17R	753	944	1000	352	383	3432
4.	C. G. Day,	95	Dart 17R	—	935	—	1000	—	
	W. C. Swift			484	—	116	—	347	2932
5.	M. Gee,	95	Dart 17R	—	734	—	688	—	
	F. R. Ward			583	—	259	—	511	2775
6.	A. J. Burton	100	Skylark 4	753	258	245	942	468	2666
7.	T. W. E. Corbett	95	Dart 17R	810	128	200	784	714	2636
8.	J. Barrows	100	Skylark 4	844	922	186	0	562	2514
9.	J. A. S. Eccles	100	Dart 15	652	443	205	775	211	2286
10.	T. J. Krzystek,	100	Skylark 4	—	756	—	—	389	
	T. S. Kasperkiewkz			483	—	—	614	—	2242
11.	D. L. Pratt,	100	Skylark 4	—	115	—	631	—	
	A. S. Crease			638	—	305	—	365	2054
12.	L. Redshaw	100	Skylark 3F	340	412	296	734	224	2006
13.	S. B. Wills,	105	Olympia 460	517	—	468	266	610	
	D. H. Darbishire			—	118	—	—	—	1979
14.	A. J. Watson	100	Ka-6CR	713	640	547	—	—	1900
15.	E. Stark	100	Ka-6CR	—	696	285	33	441	1455
16.	G. Cornell	95	Dart 17R	853	351	—	—	211	1415
17.	P. Browne,	115	Sky	—	339	—	—	103	
	J. Collins,			—	—	237	—	—	
	D. Stevens			79	—	—	251	—	1009
18.	T. P. Docherty,	95	Dart 17R	0	0	181	0	737	
	G. A. Glennie			0	0	—	—	—	918
19.	C. G. Wilson	120	Olympia 2B	0	151	138	0	49	338

Report of the above Regionals was given on page 391 of the October-November issue.

SHK

The Sailplane for British conditions, low min. sink, good high speed performance, ability to "scratch" and good handling.

S.H.K.s figure prominently in British 1967 championships results.

3rd, 4th, and 6th National League I
1st Nationals League II

2nd Northerns
2nd Husbands Bosworth
1st Western Regionals (Hors Concours)
1st and 2nd R.A.F. Championships

Schempp-Hirth KG
7312 Kirchheim Teck
West Germany

Manufacturers of Fine Sailplanes

See the SHK at Dorset Aviation Centre,
Sole Agents: **SOUTHERN SAILPLANES**
Telephone: Weyhill 373

DORSET FLYING CLUB & AVIATION CENTRE LTD. AND SOUTHERN SAILPLANES

Offer an unrivalled service to gliding enthusiasts, at our hill site in Dorset and for repairs and maintenance at Thruxton

Our Fleet for 1968 will consist of

	Price per hour
Schempp-Hirth SHK	£3 15 0
Elliotts Olympia 465	£1 15 0
Elliotts Olympia 403	£1 10 0
Elliotts Olympia 463	£1 10 0
Schleicher Ka6	£1 10 0
Olympia 2B	£1 7 6
Bolkow Junior	£6 15 0
Auster J.I.N.	£6 10 0
Thruxton Jackaroo	£6 10 0
Aero-tows by Super Cub	£1 7 6

P.P.L. Conversions for Silver "C"

2 Seater Courses

We offer Courses on a Ka13 two-seater launches by **Aero-tow only.**

Think of the advantages.
More flying time.
No more pushing or pulling.
Accommodation available.
Our site is a beauty spot with magnificent views.
Go modern.
New licensed bar.
Comfortable club house.
Write for a brochure.

Maintenance and Repairs

We offer quick service with a first class job for all types of work from C of A, Minor damage, to full rebuilds. In wood, fibre-glass and metal. If you want your machine back in the air quickly, come to the experts. *Instruments, barographs, parachutes.*

For the best service come to Thruxton Airfield.

Gliding Holidays

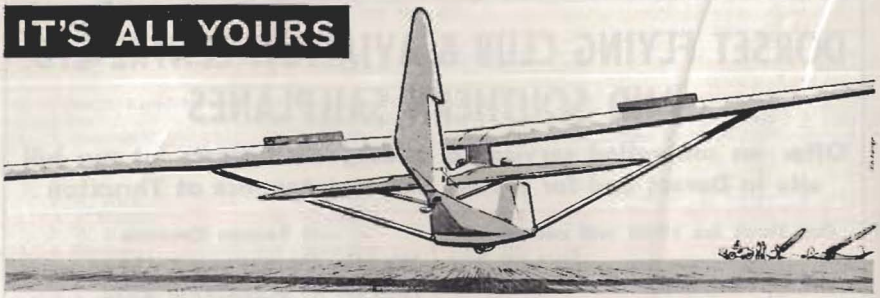
Hire any one of our fully equipped soaring machines for your sole use for a week (7 days at our site from £25. No flying charges.

Sales, Always a selection of good machines for sale.
Schempp-Hirth.
See the S.H.K. now at Compton Abbas.
Cirrus arrives end of March.
Write for details to

Dorset Flying Club & Aviation Centre Limited
Compton Abbas Airfield
Shaftesbury, Dorset
Ring J. Thorne, Fontell Magna 328

Southern Sailplanes
Thruxton Airfield
Andover
Hampshire
Ring R. Jones, Weyhill 373

IT'S ALL YOURS



The Older Pupil

MOST instructors agree that the older a person, the slower he is likely to be learning to fly ab-initio. People, of course, age at different rates, and some are capable of becoming safe and effective pilots in their sixties. Others are "too old at 40", and a very small number are not able to learn at all.

There have been a number of accidents to inexperienced pilots who are over 40, and it is worth looking at the problems carefully since gliding clubs are getting an increasing number of older members. This is understandable as such people tend to have more money and more uncommitted spare time, and want something worth while to do with it.

It is, however, not enough simply to say that the older person is slower to learn, since this implies that if he is given extra dual, he should end up as an average pilot risk. But this is not always so.

It is probably true to say that as most people get older they change, certainly in two ways detrimental to their learning something like gliding—their short-term memory worsens, and they are less prepared to be lavish with expenditure of their nervous energy. When young, most people stick their neck out to some degree and not infrequently frighten themselves as part of the fun and excitement. In due course, a realisation of how narrow the squeaks were is awakened, and a dislike of unnecessarily consuming their store of nervous energy creeps in. This manifests itself in a more sober approach to driving, skiing or whatever, and a slackening of the need, and often the ability, to cope with instant disaster. Many older persons coming into gliding have organised themselves pretty well in this way, and transfer their relaxed "safe" attitude to their new sport. They are sure that they will act sensibly, and have no intention of doing anything stupid. Unfortunately, this worthy approach does not equip them to act correctly and speedily when something unforeseen happens to them, before their reactions have become instinctive.

This is where the learning rate becomes crucial. Most young pupils go at their gliding with single-mindedness and deep concentration. They absorb impressions and lessons like blotting-paper, and this learning sticks. The older person often no longer possesses such single-mindedness of purpose, or thought, and his short-term memory is inferior. He requires greater repetition of the things he has to learn, and in his more conscious effort to take them in, tends to pigeon-hole his knowledge and experience.

Trouble can come to such people when they are solo and something suddenly gets, or goes, wrong which they have not got *time* to sort out. There is no instinctive response or corrective action rooted deep inside them and they have to work out the answer arbitrarily. But in the time available, only the instinctively and instantly-arrived-at action could have saved them.

There are, of course, young people who won't get it right either, but for a given amount of experience, the older person is worse off.

It would be quite wrong to assume that older pupils should be put off. There are some good ones around, and they

should, other things being equal, be encouraged, provided that the club is prepared to look after them.

The first thing is to discover what other related activities the older new pupil has become good at. If he has done a lot of dinghy sailing, or rally driving, or is a good skier or mountain climber, there will be some ready-made co-ordination, some sense of moving in more than one direction at the same time, and some training in quick thinking in emergencies. Use it. Link up, where possible, aspects of gliding which have associations with his previous experience. If, however he has none of these things, having lived an entirely sedentary life controlling nothing more exciting than a lawn mower, teaching him to become a safe pilot may be appreciably more difficult, or even impossible. If it is found, after the normal amount of dual training, that little or no development of essential in-flight judgement has even begun to appear, consider seriously whether he should, or should not, ever be sent solo. There are, after all, many other excellent sports which he could safely enjoy, because they do not have the desperately short time element endemic in most flying emergencies—or he may be happy in the gliding club flying dual only.

If you feel that it is possible, given time, to turn the pupil into a safe pilot, his instruction should be carefully controlled. If he is taught by a succession of different instructors who do not find him progressing, it will get around that he is not very good, and he will be subjected to uninterested tuition. This will encourage him to fly by the book, and do nothing towards developing judgement and instinctive reaction. The intelligent instructor will devote the extra training such a person needs to approaching flight problems from different angles in order to broaden his experience, and to dealing, dual, with a wide variety of simulated situations and emergencies. It is also useful to discuss with him non-flying topics when in the air to ensure that his flying is becoming instinctive, and is no longer just an applied activity which may fade out after a relatively short period. Such pilots should be encouraged to fly every day under the supervision of a good instructor for at least a week both before, and a little while after, going solo.

The future is likely to bring an increasing number of older pilots to gliding. They can be a great asset to their club, as well as getting real and safe enjoyment from their flying. But to achieve this they are best taught by experienced instructors interested in the problem.

ANN WELCH

THE FIRST 500 KILOMETRES

By Dr. ERNST STEINHOFF

The author was one of four pilots who simultaneously broke the World's Distance Record by flying 313 miles from the Wasserkuppe to Brno nearly a third of a century ago, but no detailed account of the flights were available at the time. He is now active in the space field, and kindly dictated this article between sessions of the recent International Astronautical Congress at Belgrade.

IT was during the Rhön Soaring Contest of 1935 when, on the morning of the 29th July, the contest site was partly obscured by low clouds. The Wasserkuppe summit was in the clouds and a fresh wind was blowing among the sailplanes lined up for take-off. No one had submitted his take-off card by 10 o'clock, although cloudbase could be seen gradually lifting and the sun broke through occasionally.

I decided that things would improve considerably within the next half-hour, so submitted my take-off card—the first contestant to do so—and asked my crew to get the sailplane ready for a launch



Dr. Ernst Steinhoff today.

quickly. My example started a run to get launched, and many planes began lining-up for take-off. This was on the west slope, on account of the wind direction, and it was only a few seconds before I was swallowed by the clouds, since the lift was very smooth with little turbulence. I started circling steadily within the cloud to gain altitude.

I must have been at 200-300 m. when I noticed shadows crossing my flight path within the cloud. In order to avoid a collision, I turned westwards and continued climbing as long as there was any lift. When the lift continued I turned south-east again to follow the wind and obtain as much distance from the Wasserkuppe as I could to increase my altitude above the ground below. I came out of the cloud about 10 km. south-east of the Wasserkuppe and saw Ludwig Hofmann near me searching for lift.

Soon I was circling again under the dark cloud and regained altitude. Only a small portion of the ground underneath was sunlit and could possibly produce thermals. I re-entered cloudbase to get above the mountain peaks which were still obscured as far as I could see. I again tried to climb as high as possible before turning south-east again. When I came out of the clouds once more, this time I noticed that I was near Coburg south of the Thuringian Forest.

The cloudbases were now high, but still did not show the promise of good soaring conditions, which should show up later. There was no real thermal development yet, and all lift was caused more or less by topographical convection. As I flew on south-east I lost more and more altitude and soon was so low that it appeared uncertain whether I could cross the next low mountain ridge just ahead of me. I found no substantial lift on its windward side and crossed it towards the east, getting ready to land on a potato patch on its leeward side.

Suddenly I felt some weak turbulence and started to turn carefully with very slight bank in the hope that some lift would develop. Indeed, after one or two turns I gained more than I lost in a very irregular turn. Although the net gain was not more than 0.3 m./sec., I felt that it was worthwhile to continue, and flew my circle as slowly and carefully as I could so as not to sacrifice any altitude, when I noticed that the lift became gradually stronger. I could still observe my height gain better by watching the nearby ridges than by my variometer, the climb rate still being only a fraction of a foot per second.

Miraculously the potato patch was still sunlit. However, there was a wheat field across the narrow valley on the west slope of the next ridge. After I gained some more height I very carefully tried to reach the wheat field in the hope of finding stronger thermal activity there, being prepared to return to the potato patch should my hope be disappointed. Indeed, I found lift much stronger above the wheat field and soon reached a climb rate of 1 m./s.

From the beginning of the potato patch it took almost an hour before I reached cloudbase again, and a strong increase of wind velocity with height carried me quickly towards the south-east. Soon I was flying over Bayreuth, Wagner's city. The earlier almost complete overcast gave way to well-developed cumuli which promised good lift. One of these was right ahead and its shadow on the ground appeared quite black. I found the main lift on its south side right above the sunlit area underneath the cloud's rim.

Reaching cloudbase again, I noticed that the cumuli further south had about the same width but were much longer,

their main axis extending north-west to south-east, approximately parallel to the westward border of the Thuringian Forest. I also noticed that I was drifting towards Czechoslovakia. I decided to reach the clouds to the south of me, since they promised to carry me further than the ones I was flying below. I dashed towards it and found strong downdraughts on its north side, and lost considerable height before reaching the lift. The available strength of the up-current was 1-2 m./s.; it was very steady and more resembled shear-line lift than that of a conventional thermal. On the other hand, it seemed to originate from the sunlit south side of the cloud shadows.

I reached the end of this cloud shortly, and noticed that further south the cumuli extended almost as far as I could see towards the horizon, so I went one cloud further south and approached its south rim. Again I had to fly through strong downdraughts before I reached its lifting side. After reaching cloudbase again I increased speed until my climb rate disappeared. My A.S.I. at that time was indicating 150 km.p.h., close to the red line rough-air speed. I must have flown at that speed about 45 minutes when I reached the end of this lift and also noted that there was absolutely blue sky south of me with a few isolated cumuli in the south-east. My altitude at that time was about 3,000 m. above the Wasserkuppe. So I decided to continue gliding south-east until I should find a thermal again. After about another hour of flying I was quite low, but observed a very bright yellow wheat field on the west slope of a lee ridge. As expected, I found strong lift there and followed the thermal all the way up to cloudbase. The average climb rate was between 1-3 m./s.

After repeating this several times, I found I was approaching a forested area with apparently no openings in it. I also saw that I was approaching a large city with an airport. Flying over the airport still about 3,000 m. above the surface, I read the four letters BRNO. I decided to land in spite of my altitude, which would have given me another 50-70 minutes' flying time.

There were several thunderstorms around, and I encountered all kinds of lift on my way down. In order to increase my sink rate, I performed quite a bit of aerobatics, finally lining up to land on the apron in front of the hangars on the north-west side of the airfield. In this attempt I encountered an airliner pulling right in front of me to land, so I had to turn away not to enter its landing path. This spoiled my plan to land directly in front of the hangars and forced me to return to land on the south-east of the field, approximately a mile away. After a few minutes, several military vehicles arrived and asked me whether I needed any help. The crews of these vehicles curiously studied my plane and particularly wanted to know "what is that little hole on the front end of the fuselage for?" (The pitot intake.)

With the help of the soldiers I was soon towed to the apron, and while leaving my cockpit I observed a well-known face among the spectators. It was Otto Bräutigam, one of our best soaring pilots, who must have landed a short while ahead of me. He congratulated me on my flight, and then I noticed his

AS-K13

The two-seater glider for all through training, already in constant club use.

Excellent performance at both ends of the range, with simple conventional controls.

Outstanding rear-seat visibility through almost 360 degrees.

Usual Schleicher high standard of construction and finish at usual Schleicher low price *(under £1,400 ex works).*

For more information contact LONDON SAILPLANES LIMITED, c/o London Gliding Club, Dunstable, who are sole U.K. agents for

ALEXANDER SCHLEICHER

SAILPLANES

6416 Poppenhausen
Wasserkuppe, W. Germany

AS-K13, K8B, Ka6CR, Ka6E



Ernst Steinhoff in 1935, *standing beside his record-breaking Rhönadler after the return tow to the Wasserkuppe.*

plane on the edge of the apron. He asked me whether I knew the distance between Brno and the Wasserkuppe. I told him I was not certain, but felt that it must be somewhere between 400-500 km., because I ran out of maps while flying north of Prague. While we discussed how to make a phone call to Contest Headquarters, we saw a Condor II coming in low over the field and, in a swift turn, landing right next to our sailplanes. It was Oeltzschner, my competitor of the last Regional contest. He was as surprised to see us as I was to see Bräutigam ahead of me. He also wanted to know how far the covered distance was, and we told him that we had just decided to put through a quick call to the Wasserkuppe. We then went on to see Flight Operations office to arrange for it, and while waiting for it we saw a Sperber just making the area of trees west of the airport. Since there were quite a few of this type of sailplane flying in the contest, we were not certain who would be in it, so we waited until the pilot landed and it turned out to be one of the youngest contest pilots, Heinemann.

Now we were four, but already the sun was quite low. The connection was established and Bräutigam, Oeltzschner and I were each on different phones listening to the following conversation. We reported to Fritz Stamer, the contest director, that four of us had landed at Brno. He asked whether we knew the distance, and we told him somewhere between 400 and 500 km. Then it was quiet on the phone, and we could hear subdued voices in the background. Then Stamer returned and asked: "Where did you land?" Repeated again, at Brno. He then said: "Do you know how far this is? It must be just 500 km. or even more." He congratulated us and said that every effort would be made to get us home as soon as possible. Since it was already late, he expected the towplanes would be sent next morning.

Unfortunately border clearance was difficult and only one aeroplane arrived early enough for the return to the Wasserkuppe. Oeltzschner was given this tow. Later in the evening three more planes came, but too late to start the return trip. So we stayed another night at Brno and took off early next morning. Since the turbulence was quite rough, we decided to fly as high as possible at about cloudbase, circumventing the well-developed cumulus. All three of us landed during the early afternoon at the Wasserkuppe and my crew placed a big wreath of flowers and branches around my cockpit.

After the formal reception we were told that Oeltzschner's sailplane had folded its wing due to a strong gust over the German border and, baling out too

late, he was killed. We told Stamer that, although we all three broke the existing world record, Oeltzschner should be the one in whose name it should be submitted.

After the Second World War I flew as a test pilot and flight instructor; my previous work gave me very little opportunity to fly until 1965 again. I have participated in the last three US National Soaring Contests and flew 3,500 miles cross-country in 1966 and 3,860 in 1967, including two flights over 500 km. in 1966 and five over 500 km. in 1967. One in 1966 and two flights in 1967 exceeding 600 km. With the first Diamond gain in 1935, I completed my Diamond badge (US No. 46) in November, 1965 —30 years between the first and last Diamond!

LONDON REGIONALS—5th to 13th August

By GODFREY HARWOOD

THIS contest differed from the other Regionals because not only had it a larger entry list of 32 pilots, but among those there were three League 1 National pilots. There was thus a known standard against which the competitors had to fly —this, however, does not imply any belittlement of other Regional competitions. It must, nevertheless, be more satisfying afterwards for a pilot to be able to relate that on such-and-such a day he beat "So-and-so", a League 1 pilot, rather than an unknown quantity such as yourself.

The difference was emphasised by the fact that the League 1 pilots were scored as for any handicapped contest, so that a direct comparison was possible. On the other hand there is a disadvantage in that the scorers have to produce a completely different set of marks for BGA scoring purposes, though on this occasion only four days of flying are concerned.

At any rate, the London Club has shown that it can be done, and so perhaps next year other Regionals may be able to attract more League 1 standard pilots, which will in turn help the up-and-coming new competition pilots.

At the opening day a ridge of high pressure gave moderately light westerly winds, and by 9.30 there were small cu in a blue sky. At the 11.00 a.m. briefing a smallish triangle of 120 km. was set,



Peter Scott flew his HP-14 competitively for the first time in this contest. Here Mike Garside gives a helping hand.

but launching was delayed, perhaps unnecessarily, until 12.45. Twenty-three pilots completed the task, Peter Scott making the fastest time in his HP-14; Martin Simons, however, won the day in his handicapped Ka-6E.

August 7th.—A high-pressure area over the North Sea and a front of sorts over Ireland with a band of rain 40-50 miles wide and no movement. Thick cloud to the west, but Eastern England would probably perk up, though, with large wedges of cirrus. Sea breezes likely on north and east coasts. Task—Free Distance.

Conditions were obviously better than forecast from the start, and only Carr Withall needed a re-light. As the day wore on and radio messages grew fainter, it became clear that some good distances were being made. In fact, ten pilots went past Gold C distance, three of them for the first time, though none reached their declared goals. Ray Foot, the winner, managed 371 km. to a point north-east of Carlisle; others not far behind were Alf Warminger, Tony Deacon, Peter Scott and Carr Withall. Martin Simons retained his small overall lead.

1968 NATIONAL CHAMPIONSHIPS

Pilots may only compete in ONE of the following National Class Championships in 1968:

NATIONAL SPORT CLASS CHAMPIONSHIPS

Organized by the BGA in conjunction with the London Gliding Club from 1st—10th June inclusive

AT DUNSTABLE DOWNS

Entries restricted to gliders with a Handicap between 91% and 115% inclusive on the 1968 List (see page 483).

Entry forms from: Competitions Secretary, London Gliding Club, Dunstable Downs, Beds. Telephone: OLU 2 63419.

NATIONAL OPEN CLASS CHAMPIONSHIPS

Organized by the BGA in conjunction with the Coventry and Leicestershire Gliding Clubs from 24th August—2nd September inclusive

AT HUSBANDS BOSWORTH

Entries unrestricted by glider type.

Entry forms from: Competitions Secretary, Coventry Gliding Club, Husbands Bosworth Airfield, Rugby, Warwickshire. Telephone: Husbands Bosworth 429.

IN BOTH CLASSES:

(1) The BGA Rating List determines priority of entry.

(2) Team entries will be accepted (not more than two pilots.

(3) Entries must be received by the local organizing club (not the BGA) on or before 26th JANUARY 1968.



Carr Withall, the overall winner.

August 8th.—South-easterly winds continued. Upper cloud from a weak and slow-moving cold front was expected to clear around midday. Cu-nim development was possible later in the day. Task—100-km. Race to Rearsby.

Eight pilots completed the race, several being forced down by a heavy thunderstorm which covered the area. Ray Stafford Allen made a very good time in his Capstan, and his handicap made him the day's winner with 1,000 points.

August 9th.—The expectation of large cu and later cu-nims over Southern England was baulked by the unexpected development of a new Low over the North Sea which upset the weather balance. Task—192-km. Triangle Husbands Bosworth, Caxton Gibbet, Dunstable. "Y" on this day was 90 km.

On the route there was a series of showers and thunderstorms, and the farthest distance was achieved on his second attempt by Carr Withall, who landed along the second leg. On the first attempt he, like seven or eight others, had been forced to land at Cranfield. Winning marks today were cut to 152.

August 11th.—Peter Wickham described the westerly airstream with low

cloud layers which were expected to burn off. This afternoon improvement coincided with the passage of a thundery trough with convection deeper and more vigorous than forecast. Task—Race to Swanton Morley via St. Neots, 145 km. total.

The race was declared No Contest, but the day will remain ever memorable for the luck—combined with considerable cloud-flying skill—of Ray Foot. Beyond the Airway he entered cloud which gave him enough height to round St. Neots; thereafter he climbed in a cunim to nearly 13,000 ft. when his ASI iced up. He came out of cloud and down to 7,500 ft. with complete overcast below him, and then suddenly through a small hole he saw the letters S.M. underneath, and thus became the only pilot to attain the goal.

No tasks were flown on the last two days and thus we finished with only four contest days, but they had been days of close struggle between the leading pilots, with daily changes at the top.

FINAL RESULTS

Pilot(s)	H'cap %	Sailplane	1	2	3	4	Total points
1. C. L. Withall	100	Skylark 4	722 (709)	846 (846)	838 (840)	113 (152)	2519 (2547)
2. M. Simons	100	Ka-6E	1000 (1000)	841 (841)	580 (558)	75 (104)	2496 (2503)
2.=A. H. Warminger (HC)	95	Dart 17R	788 (781)	860 (860)	790 (791)	58 (82)	2496 (2514)
b2. P. M. Scott (HC)	95	HP-14	961 (961)	840 (840)	535 (515)	91 (123)	2427 (2439)
a3. N. C. Fairman (HC)	100	Foka 4	814 (804)	685 (685)	852 (856)	65 (87)	2416 (2435)
3. R. A. Foot	100	Skylark 3F	775 (765)	1000 (1000)	560 (539)	50 (67)	2385 (2371)
4. F. Pozerskis	100	Skylark 4	727 (715)	747 (747)	806 (804)	78 (105)	2358 (2371)
5. R. C. Stafford-Allen	120	T-49	400 (366)	822 (822)	1000 (1000)	90 (121)	2312 (2309)
6. T. W. Sheppard	95	Dart 17R	628 (614)	765 (765)	774 (770)	77 (104)	2244 (2253)
7. J. R. Jeffries	110	Ka-13	678 (658)	813 (813)	616 (593)	45 (60)	2152 (2124)
8. A. J. Deacon	100	Skylark 4	734 (723)	902 (902)	360 (347)	108 (146)	2104 (2118)
9. R. Cousins	95	Dart 17R	688 (676)	584 (584)	602 (579)	62 (83)	1936 (1922)
10.=J. B. Bellew	115	Ka-7	254 (233)	709 (700)	906 (900)	35 (45)	1895 (1879)
10.=J. S. Wade	105	Olympia 463	590 (569)	704 (704)	512 (494)	89 (120)	1895 (1887)
12. G. R. Paddick	100	Skylark 3	861 (855)	—	417 (402)	—	
R. A. Walker			—	546 (546)	—	65 (87)	1889 (1890)
13. Patricia Watson	100	Skylark 4	—	767 (767)	613 (590)	49 (65)	
B. B. C. Watson			441 (418)	—	—	—	1870 (1840)
14. A. T. Wilson	95	Dart 17R	750 (741)	—	453 (436)	—	
A. Macdonald			—	651 (651)	—	— (62)(HC)	1854 (1890)
15. M. H. P. Pope	95	Dart 17R	456 (434)	693 (693)	—	—	
J. Webster			—	—	571 (548)	65 (91)	1785 (1766)
16. P. W. James	100	Skylark 4	—	770 (770)	—	0 (0)	
A. R. Ismail			116 (106)	—	825 (822)	—	1711 (1698)
17. B. Keogh	100	Skylark 4	513 (494)	526 (526)*	656 (632)*	0 (0)*	1695 (1652)
18. V. F. G. Tull	100	Skylark 3	754 (743)	170 (170)	442 (424)	78 (105)	1444 (1442)
19. F. H. Knipe	100	Skylark 4	612 (647)	—	371 (357)	—	
R. C. Pick			—	369 (369)	—	—	
J. G. Banks			—	—	—	0 (0)	1352 (1373)
20. W. E. Malpas	95	Dart 17R	608 (593)	632 (632)	—	62 (83)	1302 (1308)
21. A. T. Letts	100	Ka-6	—	792 (792)	—	0 (0)	
G. W. Locke			501 (479)	—	0 (0)	—	1293 (1271)
22. R. J. Smith	100	Ka-6	169 (155)	—	371 (357)	—	
V. J. Hurd			—	670 (670)	—	0 (0)	1210 (1182)
23. L. G. Crabb	100	Dart 15	76 (70)	524 (524)	540 (520)	31 (42)	1171 (1156)
24. J. Argent	100	Skylark 4	144 (132)	523 (523)	203 (195)	74 (103)	944 (953)
25. L. C. Booth	100	Dart 15	541 (520)	256 (256)	132 (127)	0 (0)	929 (903)
26. Rika Harwood	100	Skylark 3B	180 (125)	—	—	—	
J. E.G. Harwood			—	609 (609)	84 (81)	18 (25)	891 (880)
27. G. R. Whitfield	100	Dart 15R	144 (132)	580 (580)	0 (0)	105 (141)	829 (853)
28. C. L. Ryan	105	Olympia 463	—	86 (86)	—	68 (91)	
K. Barton			151 (138)	—	547 (527)	—	752 (842)
29. G.C.J. MacPherson	100	Skylark 4	89 (82)	—	214 (205)	—	
Philippa Buckley			—	348 (348)	—	62 (87)	713 (722)

Points shown in brackets are calculated with League 1 pilots (HC), scored as for any handicapped contest.

*Pilot flew Olympia 2, with permission from the Organisers.

Air Brakes

(very very very important)



Effective air brakes are not only important, they are imperative. Be rid of landing worries. Buy a new DIAMANT 16,5 or 18 with extra-large air brakes. They permit you to approach at a 45° angle (and can be regulated continuously).

DIAMANT

Flug- und Fahrzeugwerke AG, 9422 Altenrhein, Switzerland

Sole Agents for England, Scotland and Wales:

THORPE AVIATION LIMITED, 177 Lincoln Road, Peterborough

TAKE ADVANTAGE OF DUTY-FREE IMPORT (EFTA)

GLIDING CERTIFICATES

DIAMOND C COMPLETE

No.	Name	Club	1967
9	P. S. Dawson	Phoenix	12.6

DIAMOND DISTANCE

No.	Name	Club	1967
1/15	P. S. Dawson	Phoenix	12.6

DIAMOND GAIN OF HEIGHT

No.	Name	Club	1967
3/59	C. R. Simpson	Leics.	18.3
3/60	G. B. Atkinson	E. Midlands	21.3
3/64	T. J. Wills	Lasham	11.5
3/65	A. J. R. Deacon	Airways	16.3

DIAMOND GOAL

No.	Name	Club	1967
2/232	M. Bialkiewicz	Polish AFA	6.7
2/233	I. Vesty	Leics.	9.6
2/234	D. Cline	USA	26.6
2/235	J. S. Stuart-Menteth	Bristol	9.7
2/236	B. Fitchett	Leics.	9.7
2/237	R. Q. Barrett	London	23.7
2/238	E. A. Hull	London	5.8
2/239	B. Kay	Nimbus	6.8
2/240	M. Westwood	Bristol	5.8
2/241	J. A. S. Eccles	Lasham	9.7

GOLD C COMPLETE

No.	Name	Club	1967
180	J. H. Wilson	Surrey & Hants	27.6
181	C. D. Lovell	Surrey & Hants	8.7
182	B. Fitchett	Leics.	9.7
183	P. E. W. Marsh	Midland	8.7
184	M. Westwood	Bristol	5.8
185	M. Harper	Bristol	5.8
186	A. J. R. Deacon	Airways	7.8

GOLD C GAIN OF HEIGHT

Name	Club	1967
N. A. Dean	643 GS	24.7
F. H. Knipe	Yorkshire	30.4
P. Hurwitz	Midland	18.3
S. Fursman	Thames Valley	18.3
C. G. Taylor	Clevelands	4.6
T. F. Smith	Derby & Lancs	8.7
R. P. Saundby	Crusaders	19.8
M. A. Horan	Midland	20.6
S. Wheeler	Chilterns	30.4
J. Bushnell	Cambridge	20.6
A. F. Butcher	Swindon	3.8
C. Garton	Surrey & Hants	10.8

GOLD C DISTANCE

Name	Club	1967
M. Bialkiewicz	Polish AFA	6.7
J. D. J. Glossop	Fenlands	15.7
D. Cline	USA	26.6
J. S. Stuart-Menteth	Bristol	9.7
P. E. W. Marsh	Midland	4.8
E. A. Hull	London	5.8
B. Kay	Nimbus	6.8
F. J. Purchase	Swindon	2.6
J. A. S. Eccles	Lasham	9.7
A. T. Letts	London	7.8
E. Barker	Lincolnshire	23.7

SILVER C COMPLETE

No.	Name	Club	1967
2037	G. E. M. Smith	Southern Com.	9.7
2038	F. Humblet	Leicestershire	10.5
2039	C. Slack	Chilterns	21.7
2040	D. W. Evans	Midland	11.7
2041	J. M. Stockwell	Clevelands	20.5
2042	R. A. Rice	Midland	20.7
2043	J. M. Berryman	RPE Westcott	26.4
2044	D. Cline	USA	26.6
2045	R. J. Kerr	Fulmar	2.7
2046	W. Steynor	Thames Valley	21.7
2047	J. G. S. Gillanders	Lincolnshire	28.7
2048	T. R. Perry	Chilterns	23.7
2049	D. J. Sansom	Fulmar	12.5
2050	I. Wilson	Cambridge	16.4
2051	R. W. Howard	Surrey & Hants	5.8
2052	C. J. Marsh	Airways	11.7
2053	S. H. Wearing	Lakes	22.7
2054	D. C. Pentecost	Cornish	4.8
2055	S. L. Hoy	Chilterns	5.8
2056	B. G. Brown	Coll. of Aero.	7.8
2057	G. K. Smith	Oxford	4.8
2058	P. Young	Two Rivers	5.8
2059	L. Barnes	Crusaders	6.8
2060	T. E. J. Hayter	Devon & Som.	10.6
2061	F. W. Hinchley	Northumbria	31.7
2062	M. G. Hutchinson	Airways	3.8
2063	N. Mackay	Staffordshire	23.7
2064	F. Crisp	Leicestershire	23.7
2065	J. R. Calvert	Cambridge	24.7
2066	J. Clark	Clevelands	20.5
2067	I. R. Jorgenson	Fenland	23.7
2068	F. Townsend	Staffordshire	15.8
2069	F. Smith	Worcestershire	22.7
2070	E. Collins	Coll. of Aero.	20.8
2071	I. S. Bishop	Phoenix	28.8
2072	M. L. Beach	Thames Valley	31.8
2073	C. J. Marsh	Airways	9.6
2074	J. A. R. Tydeman	614 GS	20.8
2075	M. J. Fairclough	Devon & Som.	8.6
2076	D. W. McQue	Coll. of Aero.	26.8
2077	A. J. Mellor	Surrey & Hants	4.8
2078	A. Stephenson	Cambridge	24.6
2079	M. J. Barrie-Fl'nt	Phoenix	28.8
2080	J. D. W. Walker	Airways	3.5
2081	A. Smith (Miss)	London	29.8
2082	P. J. G. Harding	RAFGSA Bices.	24.7
2083	B. W. Cordon	Doncaster	9.7

Correction. P. 402 October issue, W. Stachowiak achieved Gold Distance *not* Height as shown.

BOOK REVIEW

Der Wetterschlüssel, by DR. HANS HERB; 2nd Edition. Published by Luftfahrt-Verlag Walter Zuerl, Steinbach am Wörthsee, Germany. Price DM 6.50.

THIS book, "Key to the Weather", is in German, but includes a large German-English and English-German dictionary of aviation and meteorological technical terms, taking up nearly half the book. This section is good on the whole except for the classic mistake of translating "Aufwind" as "up wind" instead of "up current". In meterorological English only a horizontal movement of air is a wind, and vertical motions are currents, while "up wind" means against the wind.

The book is evidently for prospective examinees; it starts with a comprehensive "potted" meteorology and ends with an equally comprehensive list of examination questions, well separated from their answers. A.E.S.

Aircraft—Aircraft, by JOHN W. R. TAYLOR. Published by Paul Hamlyn Ltd., London. Price 15s. Obtainable from BGA, price 15s., plus 4s. postage and packing.

"AN aviation history with a difference," is the author's declared aim in producing this book. As far as the illustrations go, the result is a great variety of striking and unusual pictures, most of which would never be found in a conventional aviation history book.

The letterpress is equally unusual and original, and the title of the first chapter, "Blame the Birds", sets the tone. They are blamed for the fact that, for thousands of years, men tried to imitate them by strapping wings to their arms and flapping, instead of getting down to the design of a practical flying machine. But human soaring, which is a true imitation of one form of bird flight, is, oddly enough, not mentioned, and the only gliders illustrated in the book are those of the early pioneers. So the author is probably thinking of them, rather than modern sailplanes, when he suggests that, in spite of his book being largely filled with a multiplicity of developments of aviation, may be "only the amateur in his ultra-light home-built aeroplane and the glider pilot knows what it is to fly". Although modern man-powered flight is not included in this sentence, he does describe and illustrate it.

Other chapters are headed: Hot air and hydrogen, Fledglings, The first "magnificent men", The golden years, From dream to nightmare (First world war), No seas too wide. The air war 1939-45, The great deterrent (the nuclear age), Wings to lift a world (airlines), and finally, Out into space. The author ends this last chapter with the words: "When the real flyers, the birds, look down at 200,000,000 people crawling into metal cylinders with wings—like pieces of toothpaste in a tube—while other men are sealed into tiny capsules and shot into space, returning like fireballs, they may consider it all rather a joke."

A. E. S.

CORRESPONDENCE

HITCHING A LIFT

Dear Sir,

The other day I towed a member of another club back from an away landing. In the course of the flight we flew through several thermals, and in one I noticed we disturbed several Swifts at about 3,000 ft.

When I landed, the pilot of the sailplane came up to me to say that for several

moments (about 30 seconds) two of the Swifts had flown behind the trailing edge of the Terrier at the wingtips. We wondered if they had attempted to soar on the wing-tip vortices. The aircraft was travelling quite slowly at about 55 kts.

One remembers the Albatross, soaring on ships, so I wonder if these birds had come to terms with the aeroplane and were hitching a lift.

Wetherby, Yorks J. C. RIDDELL

SONIC BOOMS

Dear Sir,

I would quite like to bring to the notice of the B.G.A. that the effect of a sonic boom on a glider in flight is rather a frightening experience, and that if an inexperienced pilot encountered it in certain circumstances, the results could be rather dangerous.

On Tuesday, 11th July, a very experienced pilot, flying an Olympia 463 near the Bristol Channel, north of Taunton, suddenly heard a heavy bang which shook the machine. He thought the glider was disintegrating, although he was in clear air away from cloud. This is quite a thing, and I wonder if the B.G.A. has encountered it before.

Dulverton, Somerset MICHAEL DIXON,
C.F.I., Devon & Somerset G.C.

PROFESSIONALISM

Dear Sir,

Like many correspondents on this subject, Mr. Pickett-Heaps (August issue, p. 338) sees the solution to the problem of the solo pilot in terms of more private owners and greater "dedication" (i.e., work!) from the non-P.O.s.

While P.Os have a place in the overall scheme of things, the majority of non-smoking/non-drinking/domesticated/solo pilots find £200 or £300 difficult to come by. Exhortations to work harder are not entirely new, either! Indeed, one might reasonably expect such slogans, over the years, to have produced some tangible result in the form of higher aircraft utilisation and average flying time.

The statistics for non-P.O. club operation show that this is not so:—

	Hours/aircraft	*Members/aircraft*	*Hours/member*
1957	102.5	20.8	4.9
1966	118 (+15%)	25.2 (+21%)	4.7 (−4%)

When repeated doses of the medicine fail to improve the patient's condition, a new course of treatment is indicated.

The options available are obvious: (i) more aircraft can be purchased—which is hardly a practical suggestion; (ii) the ratio of members/aircraft can be reduced by restricting membership, in which case even more work "dedication" falls on the members; (iii) aircraft utilisation can be increased. The limit to what can be achieved in this direction, with week-end only operation, has probably been reached, since utilisation increases by only 1.5% per year on the average.

The alternative is to encourage mid-week flying, by reducing flying charges if necessary. This, again, is not a new suggestion, but if it is to yield dividends a nucleus of full-time staff is required to provide routine maintenance and a launching service to members when required. It is generally assumed that the cost of employing staff is prohibitive in flying cost per hour, but this obviously depends on the numbers employed, size of club and the utilisation achieved.

It can be shown that the cost of gliding to the average solo pilot works out at about £20 a year or around £4 10s. per hour of flying.

Let us assume that a staff of four is employed (manager, instructor, ground engineer and tug pilot) at an average salary of £1,250 per annum. This still leaves plenty of work for members to do, but we must also assume that aircraft utilisation increases with full-time operation. Theoretically about 350 hours/aircraft should be possible at the week-end flying rate, but we will assume 200 hours as a reasonable

figure for which to aim, with 25 members per aircraft. Thus, the average flying time is *doubled* to around 10 hours/member, and the total flying cost/hour works out as follows:

No. of gliders	10	20	30	40
Cost/hour	£5 10s. 0d.	£4 14s. 0d.	£4 2s. 0d.	£3 19s. 0d.

With more optimistic assumptions, i.e., a staff of three at £1,000 per annum and 300 hours' utilisation, the cost works out at:

Cost hours	£3 19s. 0d.	£3 8s. 0d.	£3 4s. 0d.	£3 2s. 0d.

However, even on the more conservative assumption, a comparative cost analysis suggests that flying costs are *reduced* and average flying time is *increased* with full-time staff, provided the club has a large fleet of aircraft.

The moral seems clear: the present policy of encouraging the formation of small under-capitalised clubs should be abandoned for a period, and existing clubs consolidated into larger organisations in full-time operation At the same time, members should be encouraged to fly mid-week, but this is unlikely to be successful while holiday courses for ab-initios are allowed to monopolize a club's facilities in the soaring season.

Rugby, Warwickshire. D. J. CAREY.

HOLDING OFF BANK

Dear Sir,

The number of accidents as reported in the August issue of S. & G. is disconcerting to say the least; some of the causes may be that pilots and instructors get careless; but there can well be other causes, where the people who govern the sport are in a position to intervene.

Some years ago now, I was told that holding off on bank was quite normal practice and that on some ships there is a tendency for the bank to increase on its own. When one examines this, it is obvious that the last six feet of the inside wing is stalled, and that is where the aileron usually is situated; this means that the outside aileron is not only trying to do the work of both, it also has the dead weight of that six feet of wing to contend with.

This holding off business may be all right for a pilot of considerable experience, but a beginner can get into difficulties with it; anyway, it's a good enough reason to advocate experiment with wing-tip rudders. It would be interesting to fit pitot tubes on the ends of a sailplane's wings and compare the readings with the ship's A.S.I.; some people may get a shock.

Stevenage, Herts. G. D. SMITH.

GLASFLUEGEL AND THE LIBELLE

Dear Sirs,

On reading SAILPLANE & GLIDING for Aug./Sept., 1967, I would like to make some comments concerning the articles "More About Cirrus" (p. 292) and "OSTIV at Stuttgart" (p. 307). In both these are some remarks in reference to Glasflügel. Since I'm married to this firm — that is, to Mr. Hänle, I feel I am authorised to correct some small details, for I know something of the circumstances.

1. It is incorrect to say that the first two prototypes of the Libelle were built by Schempp-Hirth. In fact, it was planned to have the wings of the whole series built by Schempp-Hirth, and the fuselages by Wolf Hirth GmbH. So the first pair of wings were made in Schempp's factory under the direction of my husband, as a guide for the future work of the staff of Schempp's. But owing to some disagreement concerning the price of the serial wing-pairs, the co-operation was cancelled after the first set of wings was removed from the moulds. The assembly and finishing of the first set of wings, as well as the fabrication of all further wings of the Libelle and Diamant 5 sailplanes, have been done in the Glasflügel factory at Schlattstall.

2. It was very interesting to read the impressions of an outstanding expert in

the Glasflügel factory. But there is a German saying: "The eyes of the master make fat the cows in the meadow . . ." That means: no paper organisation can be so effective as the watchful eyes and hands of the chief (not to mention that every organisation is the better for being imperceptible). There is also a fact which could not be registered by visitors from far countries: the workers in the Glasflügel factory are Swabians. This alone ensures quality better than any paperwork. True, the Glasflügel factory is not so big, but perhaps this is its great activating quality. After building more than 50 Libelles and some BS-1's, the facts seem to confirm Glasflügel's policy.

7311 *Schlattstall, W. Germany.* URSULA HANLE

P.S.—Note that Mr. Hänle is not only a graduate in engineering but is also a glider pilot. So is his wife.

RAPID RELIGHTS AND TRAILER RACES

Dear Sir,

Competitive gliding is inevitably full of rules and regulations, and I am certain that yet another would not be out of place. A feature of many contests is the rapid relight following an out landing. A pilot's daily points may well be determined by the speed with which his crew can get him back to base and into the air again. All too frequently there is a race against time on public roads. The idea outlined below is aimed at reducing the risks inherent in fast motoring with a trailer, and of course in preserving the good image of gliding with the general public. I am not suggesting that the exact details of my proposed regulations are perfect, but the purpose behind them is, I feel, of the utmost importance.

Let us say our pilot lands an air distance of D miles from base. The road distance back to base is unlikely to be less than 1.25D miles. The legal maximum speed for towing a trailer on ordinary roads is 30 m.p.h., i.e., 2 minutes for each mile. Therefore, a retrieve of 1.25D miles cannot legally be done in less than 2.5D minutes.



FOURNIER

R.F.4D

Orders now being taken for 1968 delivery.

Price ex Factory **£1,995**

Allocation to Britain strictly limited so early bookings essential to avoid disappointment.

Sole Agents: **SPORTAIR AVIATION LTD.**

LUTON AIRPORT, LUTON, BEDFORDSHIRE

Telephone: LUTON 29684

Let us make one or two other assumptions. A crew is unlikely to get to a pilot within less than 10 minutes of landing; 5 minutes is a reasonable minimum time for derigging. Upon arrival back at base it will take at least 10 minutes to book in, rig and get the aircraft airborne again. Let us add to this a safety/buffer time of 5 minutes. Thus the total minimum time spent *not* actually on the road is 30 minutes. To this we add our 2.5D minutes as outlined above.

The proposed regulation can be stated as follows: No pilot is permitted a Contest Launch following an out landing within 2.5D+30 minutes of landing, where D is the air distance in statute miles from base to the landing point.

There are obvious snags with the simple rule outlined above. For example, it would be necessary to rely on the pilot's stated landing time. But the 5 minute buffer time can take care of small errors, and in any case, barographs can always be inspected to confirm the landing time. It might be argued that the road time of 2.5D miles is too short, and 3.0D would be safer.

No doubt it will be said that this whole idea is a very negative one which will restrict the initiative of crews. I do not believe this is so. In practice, few crews could better the time of 2.5D+30 minutes. But this rule ought to be a safeguard against excessively fast driving when the crew know that no advantage can be gained by doing so. And it should rid our roads of that all too common sight of trailer races.

RAF Little Rissington. K. A. (JACK) HARRISON, Flt. Lt.

RADIO PROCEDURE

Dear Sir,

With the increasing use of radio by glider pilots, I feel it is time the BGA gave some guidance on basic radio procedure.

One has only to listen out on one of the glider frequencies on a good weekend day to be aware of the appallingly low standard of procedure, and the amount of unnecessary chatter which frequently makes it difficult to receive or transmit important messages.

Radio is a very entertaining new toy to most of us, so a certain amount of frivolous talk is inevitable until the novelty wears off, and I admit my own guilt in this respect. It tends to be used as a kind of telephone to chat to one's friends, and I have even heard two pilots haggling over the price of a glider on 130.4 m/cs.

With the limited frequencies available to us, some form of control—or self-control—is essential, or the channels will rapidly become so choked as to be unusable. I believe that most of the long-windedness is due to ignorance, and that a brief but authoritative instruction on procedure from an expert appointed by the BGA would do a great deal to clear the air. Such a document could be distributed by the clubs to all radio users.

London Gliding Club, Dunstable. D. E. CADISH.

IAN STRACHAN, BGA Flying Committee member responsible for "Operational Use of Radio", replies: We are much aware of this problem, caused by a minority of garrulous and inconsiderate individuals who seem to think that R/T was designed for their use alone. These chaps (or ladies!) should be buttonholed in the bar and made aware of the annoyance they cause.

Some "authoritative instructions" *do* exist—in the 1967 *BGA Competition Handbook* (price 1s. from the BGA). The most important of these are: "Transmissions must be confined to the operational needs of the flight and its retrieve and must be kept as short as possible. Crews should not normally initiate a radio conversation."

Copies of CAP-46 *Radiotelephony Procedure* can be bought from HMSO or the Royal Aero Club for 3s. 6d. This document is possibly too comprehensive (and incomprehensible!) for glider pilots but it is the best "official" guidance available at present.

Common sense, combined with these guidelines, should produce good R/T procedure.

Advertisements, with remittance, should be sent to Cheiron Press Ltd., 5 Crawford Street, London, W.1 (01-935 2814). Rate 1/6 a word. Minimum 21/-. Box numbers 6/- extra. Replies to Box numbers should be sent to the same address.

FOR SALE

1968 CALENDARS, featuring 12 full-colour photos of sailplanes by the Aldotts. $1.35 U.S. Pay by international money order but send name/address.—Soaring Society of America, Box 66071, Los Angeles, Calif. 90066, U.S.A.

* **1001 Genuine Bargains interest everyone!** *
Huge stocks **GOVERNMENT SURPLUS CLOTHING AND EQUIPMENT**, inc. flying suits from 25s.; flying helmets, anaraks, outdoor clothing, camping, immense variety of miscellaneous ex-Government equipment. Ever so useful—you will be sure to find something you need—and at a bargain price too! Send TODAY for our 30-page CATALOGUE—8d. post free or please call at **LAURENCE CORNER**, 62-64 Hampstead Rd., London, N.W.1. 2 mins. Euston, Warren St. It will be well worth while! Postal customers buy with confidence—prompt despatch, refund guarantee. Dept. SG.

GENUINE reconditioned steel grey ex-RAF Flying Overalls, 47/6, postage 3/6. State height and chest measurements. Huge selection of camping equipment, specialists in group camping. Tarpaulin & Tent Mfg. Co., 101-3 Brixton Hill, London, S.W.2. TULse Hill 0121.

ANY OFFERS? Every issue from "Gliding" No. 2 to present (92). Worley, Woolstone, Cheltenham.

TWO Olympia II's with trailers, basic instruments and current C. of A.s. £500 and £600 respectively. Can be seen any time by arrangement with the Manager, London Gliding Club, Dunstable, Beds. Tel. Dunstable 63419.

DART 17R and TRAILER. Top condition. About £1,950. G. E. Burton, 20 Rookery Court, Marlow. Tel. 4970.

OLYMPIA 463. Well equipped syndicate at Lasham has ¼ share for sale. Full details from Box No. S.G. 274.

SKYLARK III and lightweight trailer. Dunkeswell Light Aircraft, Honiton.

ORDER NOW for Christmas, Silver Tie-tack (Gliding). 21s. inc. P. & P. Lubin, 85 Collinwood Gardens, Ilford, Essex.

OLYMPIA 2B complete with trailer. Dunkeswell Light Aircraft Ltd, Honiton.

FOR SALE—ANTONOV A-15 ALL METAL GLIDER. Complete with full panel, oxygen equipment, trailer, etc. Price new US dollars $12,000—price now $7,500, complete with trailer, maintenance tools and many spare parts. Only 15 hours flown. Contact L. J. M. Simons, P.O. Box 69, Baarn, Netherlands. Phone 5429-Baarn.

OLYMPIA 463. Trailer. Instruments, including PZL & Burton Variometers. Current C. of A. Ready to fly away. Very few hours. Immaculate condition. £1,370 o.n.o. J. H. Price, 92 Rolleston Drive, Arnold, Nottingham. 264784 office hours.

SKYLARK 3B (F mods) new fabric wings and tail, full instruments, C. of A. June '68. Trailer. Private owner who has gone overseas. Contact CFI, Cambridge University Gliding Club, for particulars.

SKYLARK 4. Immaculate condition. Full flying panel, inc. artificial horizon (Bendix J8), Normalair oxygen, PZL and Burton (audio), Irvin parachute. C. of A. 12 months from purchase. Trailer with two-way radio. £1,475. Butcher, Draycott, Chiseldon (Tel. 209), Nr. Swindon.

FOR SALE—Glider Trailer, strongly built, plywood construction. Also barograph. Details from S. Hayes, 8 Redhall Walk, Wetherby Road, Leeds, 14. Tel. Leeds 657710.

OLYMPIA 419X with built-in radio. No instruments, but fitted trailer. Valid C. of A. Excellent condition, £1,600. George Collins, 31 Boscawen Street, Truro.

BOCIAN—200 hours approximately, together with very superior trailer, £1,300. Details from General Manager, Lasham Gliding Society Ltd., Nr. Alton, Hants. Tel. Herriard 322.

ZLIN KRAJANEK, 10 year C. of A. in 1966. Current C. of A. to May 1968. In very good condition. Complete with instruments and parachute. Holds British endurance record. Can be seen at D.L.G.C., Camphill. £350 o.n.o. S. N. Hawley, 542 Duffield Road, Allestree, Derby.

BLANIK all metal two-seater for sale. Complete with instruments, parachute and substantial well-built trailer. Less than 80 hours. £1,850. Hire purchase terms available. Thorpe Aviation Ltd., 177 Lincoln Road, Peterborough.

17 METRE AUSTRIA SHK
No. 19
1965. Third in the World Championships.
1966. Winner of British Nationals.
1967. First glider to complete 400 kilometre triangle in U.K.
Available immediately with trailer.
Contact
Mr J. K. Mackenzie, 178 Chiswick Village, London, W.4.
Tel. 01-995 1697.

MUCHA STANDARD. 1962, Polish oxygen equipment, instruments and tarpaulins. Excellent condition, Norwegian C. of A. valid until June 1968. £550 o.n.o. NTH flyklubb, Norwegian University of Technology, Trondheim, Norway.

OLYMPIA 463 (March, 1965), good condition, lined cockpit. Instruments include Crossfell with audio and art. horizon, £1,375. Box No. S.G. 275.

SHACKLETON AVIATION LTD. Visit our showrooms and view our comprehensive range of light aircraft, prices £350-£5,000. Most popular makes available, new and secondhand. Part exchanges welcomed. Head Office: 175 Piccadilly, London, W.1. Tel. Hyde Park 2448. Telex 263975.

FOR SALE—FOKA III, flown 40 hours, full panel, J8 transistorised, trailer, £1,300. Write to Pierre Cohen, 27 Avenue de la Couronne, Brussels, 5, Belgium.

KA6E. Third share available in new glider. Complete with new trailer, full instruments, oxygen, radio. Based Lasham. Tony Watson, 6 Park Road, Chandlersford, Hants.

FOR SALE: Schweizer 2-22—Excellent rugged tandem-seat training aircraft, indestructible, performance similar to T-21B. Price £1,200 new, with current C. of A. Apply Slingsby Sailplanes Ltd., Kirbymoorside. Tel. Kirbymoorside 312.

LEAP INTO THE NATIONALS. SHK 2 built 1967, immaculate condition after highly successful competition season. Complete set of competition instruments, including combined ASI/Variometer calibrated for SHK, tail chute, dust covers, robust, weatherproof trailer. Form a syndicate and buy at only £2,300. Write to David Innes, Officers' Mess, RAF Lyneham, Wilts.

TWO SHARES, one quarter each, Nympsfield. Skylark 3F. Competition No. 180. Excellent condition. Full panel includes Crossfell audio and PZL varios. Horizon. Oxygen. Bantam R/T Also car set, parachute, Barograph, trailer and 10 years hangarage (rigged). £340 per share. Box No. S.G. 277.

Two SAGITTA-2 sailplanes for sale. Built 1963, Dutch C. of A., excellent condition, fully aerobatic. Without instruments. Delivered at Terlet Gliding Centre (Arnhem) £750 each. KNVvL. Gliding Section, Jozef Israelsplein 8, The Hague. Netherlands.

1963 FOKA, only 100 hours, British C. of A. until July 1968. Complete with instruments and trailer, £1,395. Hire purchase terms available. Thorpe Aviation Ltd., 177 Lincoln Road, Peterborough.

1966 DART 17R Competition No. 140. 2nd League II. All white with full competition panel and oxygen. Only 90 hours. Including well-built modern trailer: Pye Bantam & parachute available. £1,995. Hire purchase terms available. Thorpe Aviation Ltd., 177 Lincoln Road, Peterborough.

PYE TRANSCEIVER boot-mounted remote-controlled 130.4 mc/s, recently expensively overhauled by makers. Seen London. £30. Box No. S.G. 278.

KA-6CR. Only flown 12 hours since new. Fitted with new PZL airspeed indicator and PZL variometer, Cook electric variometer, electric turn and slip indicator, sensitive altimeter, E.2a compass. Complete with 12 months C. of A. £1,175. Southdown Aero Services Ltd., Lasham Airfield, Alton, Hants. Telephone Herriard 359.

FOURNIER R.F.3. 440 hours total time. New two year public C. of A. Duty paid. Price £1,650. Sportair Aviation, Luton Airport.

FOR SALE — continued

CRASHED Rhönlerche for sale. Wings repairable. Fuselage badly bent. Price £75. Apply; Sec. Clonmel Gliding Club, c/o 1 Green Street, Kilkenny.

PREFECT port wing, rudder and tailplane. One damaged fuselage, also two Cadet Mark 2 ailerons (uncovered). Offers to G. Pearson, 38 Rotchell Park, Dumfries.

WANTED

Cash waiting for Dart, Skylark 2 or 3, or similar performance sailplane. Contact Thorpe Aviation Ltd., 177 Lincoln Road, Peterborough. Tel. Peterborough 68818.

RECENT K6E required—with instruments if possible. Box No. S.G. 276.

WEIHE Starboard wing wanted. Dunkeswell Light Aircraft Ltd., Honiton.

WANTED, Two-seater intermediate performance aircraft, preferably with covered trailer. Also dual-drum winch. Sloggett, 11 Drax Gardens, Crownhill, Plymouth.

FINANCE

FINANCE for your glider or aircraft purchase can be arranged by telephoning or writing to Colin Donald (B.G.A. Instructor). Burghley Finance Company Ltd., 50 Burghley Road, Peterborough. Ring Peterborough 5787.

STAMPS

PURCHASE, exchange gliding postage stamps. Write Frank Foz, 343 East 30th Street, New York, N.Y. 10016.

PERSONAL

CANADIAN, male, single, 29, interested in gliding, travel and photography, wishes to correspond with anyone with similar interests. Roland Goldsbrough, General Delivery, Brandon, Manitoba, Canada.

SITUATIONS VACANT

KENT GLIDING CLUB, Challock, requires an instructor for 1968 Course season. Must hold BGA category. Apply to Secretary, "Camberley", Lower Road, Hartlip, Sittingbourne, Kent.

FULL-TIME CATEGORISED INSTRUCTOR, preferably with P.P.L., required by Coventry Gliding Club for 1968 season. State experience and remuneration required. Secretary, 42 St. Stephens Street, Aston, Birmingham, 6.

COVENTRY CLUB invite discussions and offer for franchise of cooking and bar for 1968 season. Apply Secretary, 42 St. Stephen's St., Aston, Birmingham, 6.

APPLICATIONS are invited for a categorised Course Instructor for the whole of the 1968 season at the Devon & Somerset Gliding Club, North Hill, near Honiton, Devon. Please write to the Course Secretary, 2 St. Peter's Close, Horton, Ilminster, Som., for the attention of the Club Committee. All letters regarding this application WILL be answered.

PUBLICATIONS

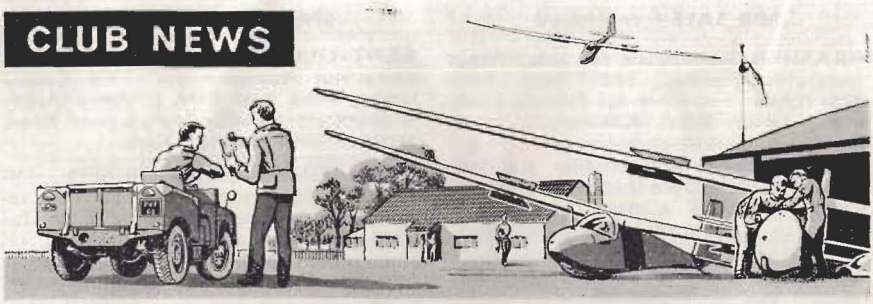
SLOPE SOARING with a radio control model sailplane is a fascinating pastime and a typical phase of aeromodelling. Read about this and other aeromodelling subjects in *Aeromodeller* and *Radio Control Models and Electronics*, the world's leading magazines published monthly, price 2/6 each. Model Aeronautical Press Ltd., 13-35 Bridge Street, Hemel Hempstead, Herts.

"SOARING"—official organ of the Soaring Society of America. Edited by Bennett Muir Rogers. Address: Box 66071, Los Angeles, California 90066, USA. Subscription: $5.00 outside USA; apply to your post office for a form.

"AUSTRALIAN Gliding" — monthly journal of the Gliding Federation of Australia. Editor Peter Killmier. Subscription $3.60 Australian, 30 shillings Sterling or 4.25 dollars U.S. and Canada. Write for free sample copy, "Australian Gliding", Box 1650M, G.P.O., Adelaide.

It will, of course, be understood that the British Gliding Association cannot accept responsibility for the claims made by advertisers in "Sailplane and Gliding".

CLUB NEWS



OUR plea for names and addresses with your copy has been noted by all contributors in this issue. Thank you all for your co-operation and keep up the good work.

Nearly all Clubs seem to have had their fair share of good soaring weather during 1967 and more club pilots have entered for competitive flying than ever before.

Copy for the February-March, 1968, issue should reach me by the 6th December, and that for the April-May issue not later than 14th February, 1968, to be sent to 14 Little Brownings, London, S.E.23.

Wishing you all a happy Christmas and happy landings for 1968.

YVONNE BONHAM (MRS.)
Club News Editor.

23rd October, 1967.

ALBATROSS

AT their September meeting, Plymouth County Council agreed to add financial support to the 50 per cent grant for aircraft and equipment offered by the Department of Education and Science to the Albatross Gliding Club. Thus, after many months of uncertainty, we are pleased to announce that the future of this club seems to be assured.

With the immediate future secure, it has been possible to revise our list of priorities, and non-flying days have found members engaged in the menial but ultimately rewarding task of foraging for rocks to dump on the proposed hangar site. Every rock brings us nearer the day when rigging and de-rigging will no longer be a necessity, and our major aim is to complete the hangar before additional aircraft and equipment are purchased.

Our plans for aero-tows literally crashed, when the Tiger Moth designated as a tug recently encountered a stone wall at another airfield. Fortunately, no one was injured, and the club was equally fortunate that the hook gear, although to hand, had not been fitted.

In common with most other clubs, we can report a very successful flying period during the last six months, with an appreciable increase in flying hours over the corresponding period last year. An influx of new members has enabled us to operate on several occasions for periods of two or three consecutive days, and A and B qualifications have been obtained by our first lady pilot, Sylvia Dyball, and our heaviest pilot—16-stone Alan Cull. On the progress side, founder member Colin Scott has become the first club member to qualify for his Bronze C, and there have been several C certificates and Bronze C legs. Much of the credit for these achievements must go to our CFI Tony Edwards, whose experiences, combined with patience, have enabled members to obtain the best results from a very basic aircraft.

Looking back, it is over two years since the club initiated the negotiations for grant-aid, and it is only through the hard work, perseverance and faith of a few (mainly founder members) that the club has continued so long entirely from its own resources. Now with renewed enthusiasm, we can action the plans which have been in obeyance for so

long, and look forward to much greater progress in 1968.

F.C.S.

BATH AND WILTS

REGULAR readers will probably recall that in the last issue of SAILPLANE & GLIDING I asked for pen pals for young lady members of a French gliding club.

It is a fitting tribute to the international reputation of our magazine when I report that within days of receiving my own copy of SAILPLANE & GLIDING I had enquiries from as far afield as Denmark and from service units all over the place.

I only hope that the motivation was a common interest in gliding!

Many clubs will be interested to learn that although our best ridge is now within the new Special Rules Zone of Lyneham, thanks to co-operation on both sides, we have soared Roundway Ridge on quite a number of occasions recently.

In case others experience the same problem in close proximity to their own air-space, the procedure we have followed successfully is to contact Air Traffic at Lyneham by telephone before flying to notify them that we wish to use the ridge. We then call Lyneham Approach by radio as we approach the ridge and let them know that we are there maintaining a listening watch on their frequency.

It was very apparent that Lyneham Approach kept their aircraft well away from us. From my position above the ridge I was able to watch quite a lot of traffic in and out, but nothing came within six miles of us.

We are also delighted to have aerotows re-established after a long period without. John Graves is back with his completely re-furbished Auster and he is kept quite busy most weekends.

Ron Lynch and Ken Stephens have been informed that they have been granted a Category, bringing our number of categorised instructors to four.

Both are full of praise for the hospitality they received at the hands of Coventry Gliding Club members. We hope that one day we may be able to reciprocate.

K.N.S.

BOOKER

AS somebody once said to somebody else, "You can't have everything", and while the Booker Consortium has bags of flying talent and a plethora of social events we are a bit short of journalistic talent, which is why we do not contribute as frequently as we should. Nevertheless, the Wycombe Regionals, which were held at the end of August, attracted 14 entries, including Chris Wills in the famous Dart 17 No. 1. There was a fair proportion of tasks completed, although we had slight problems with heat haze! We were pleased that five "Booker Boys" managed regional awards, with the premier award going to John Ellis, who won five days out of seven.

Particular thanks go to John Rouse and his merry men, who made continuous late night excursions to keep us going with fish and chips.

BOOKER OPEN DAY: Have you ever seen a glider land, take off again under its own steam and make a 360° turn before landing again? We hadn't until Roger Neaves did precisely this in the Ka-7, thrilling a crowd of nearly 10,000 people at the Open Day. Thanks to the magnificent co-operation of the RAF and U.S.A.F. officer (gliding club member) who flew a T.39 Saberliner over the crowd, there was no shortage of thrills. This was topped up by a really good show of glider aerobatics by leading members. This event was also voted a success and we hope to repeat it again next year. Who wouldn't with 10,000 "5 bob a nob"!

INSTRUCTORS' COURSE: Roger Neaves and John Ellis held a gliding instructors' course, which was attended by eight members. I am glad to say there was a 100 per cent pass. This should help ease the burden on our grossly overworked instructors, particularly in view of the new members resulting from the air show.

Remember, we're a friendly crowd at Booker, so "drop in and see us some time".

G.H.

We announce with great regret that David, son of "Bungie" Baker, was involved in a car crash on his way to Booker on the 1st November. He died in hospital five days later.

COTSWOLD

IT has happened at last, after all the talking, writing and looking at unsuitable sites we are now settling down amid the vast runways and open spaces of Aston Down, so different from our old site at Long Newnton. By the time this report is published we will have completed the work converting the old gun butts into a hangar and club room.

It would appear that not only have we moved on to a fine airfield but we have also inherited some fine thermals, proved by 19 hours' flying by three gliders in one day, all off auto tow launches. All in all it would seem that we are all set to expand in every direction. Already two new syndicates have been formed, and plans are well advanced for the club to purchase a second two-seater.

Certain teething troubles have been encountered (and overcome) changing from winch launch to auto tow.

Chairman Derek Vennard really deserves all our thanks, as it was largely due to his untiring efforts that we are now at Aston Down.

So the scene is set for the next soaring season, CFI Roger Bunker presiding over the current bunch of ab-initio's, aiming not only to produce solo pilots but solo soaring pilots.

Whilst the rest of us draw ever extending lines on the map, and dream away the long winter nights soaring over the Cotswolds, as justification for the short winter days bashing the circuit.

D.G.

COVENTRY

THE weather having decided to get nasty in September, flying revenue has taken a big drop. Some people stayed at home; others have shown more initiative in the shape of a trip to Portmoak with the club Skylark 4, which is to be left there through October, other club members going up as replacement pilots.

Category Tests are the order of the day and with four or five more shortly to be processed we look forward to retaining our high ratio Categorised Instructors to Club Members Trophy for another year with a good spare margin.

Jack Allen, who has worked so hard this year as our site manager-cum-winch driver-cum-chef, is to be seen wandering around with a sort of hang-dog expression now that course flying is over.

Jack is one of our most versatile and willing members and has earned universal respect with the unflinching work he puts in for the club. As he only lives on the other side of the airfield fence he is also one up in the breathalyser game over members who have to travel longer distances!

The end of the soaring season gives one time to make big plans, and we understand the first of these is the purchase of a AS-K13 by Bill Gross, which will be a syndicate machine.

W.F.

DERBY AND LANCASHIRE

RAY STAFFORD ALLEN dropped in to see us recently. He brought his own Capstan, No. 333, with him and a quick count of two-seaters on site revealed the following score: three Capstans, one K13, one T-31, one Kranich and the Harbinger! The K13 sets a new trend in its very smart colour scheme of brown and yellow.

The Derbyshire autumn weather seems to have killed off cross-country flying, but wave flights are beginning (7,000 ft. recently) and the pundits are preparing for the long trek north to Portmoak in search of the big stuff.

Our Wills Swallow is pronounced as the best Swallow we have, and it's not just "in the mind" either.

Plans are afoot for new extensions to the premises, the object being w.c.'s, baths, showers and a new entrance hall.

As we have a hill-top site, landings in the bottom fields, and on the moors are always on the cards, but a precedent was set recently (by an instructor who wishes to remain nameless) when he landed a Capstan in the public car park, fortunately empty at the time! R. H.

DEVON AND SOMERSET

FIRSTLY, apologies to Bill Nill for getting him recorded as Mill, and to Alastair Milne for not reporting his 77.5 kilometres Silver ride to Bere Regis. Apparently his office colleagues are highly suspicious of Alastair's stories

unless they see them in print in SAILPLANE & GLIDING.

Now that the fine frenzy of certificate and competition flying has abated, attention has been concentrated on properly organised training courses on Saturdays and Sundays. We are well blessed with both Junior and Categorised Instructors and hope to convert some of the former into the latter after a visit by John Everitt.

A great improvement resulted from the re-instatement of the proper gearbox and drums in the winch. This allows faster cable retrieves and doubles the launch rate with two cables instead of the temporary arrangements with small drums and single wire. It is pleasing to note the healthy regard for safety rules when operating two cables. The extra minute taken to "clear" the pegged-down cable with the winch driver is well worth the trouble and ensures not getting one's wires crossed. The Capstan is now back in service as good as new.

On Saturday, 30th September, the club held a Bar-b-q and the roasting sheep turning on its spit all afternoon was quite something. I was assured it was not the one on which Ken Jenkins landed, but was acquired legitimately. We tried to enlist the services of Michael Bentine in a "dratting" session during the evening, but he was engaged elsewhere and we had only Mrs. Bentine's letter on the dangers of "nurdling" to assist us.

Finally, a sincere thank you to Mrs. G. Tregonning, better known as Gerry, whose excellent catering efforts are much appreciated.

A.E.R.H.

DONCASTER

THIS year, for the first time, the annual Battle of Britain Display at RAF Finningley, included flying and static displays by Doncaster and District Gliding Club; the display also included some of the worst flying weather South Yorkshire has seen in many years, with visibility barely a quarter mile, and a steady drizzle falling. Bill Bailey in the club Skylark 2 and John Stirk in a syndicate Skylark 3F performed their aerobatics beneath the 600 ft. cloudbase, while bedraggled club members dispensed gliding propaganda to the public from under the sheltering wing of a T-21.

However, the effort proved worth while, as the resulting interest in gliding has filled our flying membership to capacity, and a waiting list has had to be started.

Four of our members, including the writer, recently visited Portmoak with the club Skylark 2, and sampled much of the well-known SGU hospitality, but none of the well-known SGU wave, as the wind remained stubbornly in the east all week; predictably, on return to Doncaster, the disgruntled wave soarers were greeted with westerly winds, and definite signs of wave over the airfield, just out of reach from a winch launch, and with the tug vanishing southwards for its C. of A.!

The — at times — uncertain future of our airfield now appears to be a little more settled, as Doncaster Town Council has recently agreed to the re-opening of the old airport for business and sporting aviation.

R. P. H.

We announce with great regret that Jack Bower, the Club Chairman, died on 29th October in a London hospital at the age of 47. He had done a very great deal for the Club.

DUMFRIES AND DISTRICT

DESPITE exceptionally high rainfall (sometimes 2 inches in 12 hours) and generally bad weather, we have made several trips to a new site at Kirkgunzeon, which has a ridge "Full of Western Promise".

Our T-31 was on display at the Scottish Air Show at Prestwick during the last weekend in September, and among the huge crowd that came to see us, we found one or two potential members. Our Olympia 463 continues to show its paces and some good flights have been recorded.

Our congratulations go to the winners of the W.D. & H.O. Wills Swallows. We worked hard in our club and are better for it: our thanks to Ryan Fenion and CFI Ian Steel for a good try.

A Merry Christmas to all clubs, and a Happy New Year.

G.P.

ESSEX

WITH the rapid approach of autumn and our AGM we have been doing a little stock-taking. In the past 12 months the club fleet has been doubled with the acquisition of a T-21 and a Skylark 2. Our faith in the pulley launching system has been justified. Cross-country mileage has been trebled and our total flying time has been increased by over 50 per cent.

Two Silver C's, several Silver C legs and some 20 Bronze Cs have been flown. Our good friends from Kent, Redhill and Handley Page have enlivened our skies with their Darts and Skylark 4s, while Peter Guest has added his own gay splash of colour with a Foka 4.

This has been a happy year for the club, notable not so much for its flamboyant achievement as for good solid advancement. Those of us who have been with the club from the beginning can, metaphorically speaking, relax for a few moments and admire the sunrise; aware that there is another hard day ahead of us but aware also that we have the strength and will to meet, and overcome, whatever difficulties may yet await us.

J.W.R.U.

KENT

AUGUST and September did not yield an abundance of good soaring days for us, but Sunday, 20th August, produced our best flight of the year and one starting from "airways-bound" Challock at that. Ron Cousins (17R) declared an out-and-return to Chilbolton, Hants., for his Diamond goal and landed at Redhill on the way back—a near miss, but it showed that Gold distance and Diamond goal flights from Challock are not as unobtainable as we used to believe. In fact, we are sure next season will prove this.

9th September was declared a "race to Firle" day to improve the season's fastest time of 80 minutes for this 67-km. flight. Ron Cousins cut this down to 63 minutes, with Mike Honey close behind in 65 minutes.

Three more five hours were achieved on 1st October, by Margaret Harris, John Wilson and Bob Graves, who thus completed his Silver C.

The holiday courses finished on 7th October after a very good season—all courses from the end of May onwards were fully booked and only three of the twenty-five weeks were seriously affected by bad weather.

We deeply regret reporting the fatal accident to Harry Bell in the club Swallow on 24th September—the accident is still under investigation.

The CFI's Thursday evening clubhouse sessions of lectures, slides and films recommence in November, following their success last winter.

M.H.

LONDON

THE big events of our year, the London Regionals and the Dunstable Air Display, are reported on other pages. The organisers of the display are still recovering after their magnificent efforts, and we are all wondering if they can stand the strain of another one next year. One of the big problems is, can we think of anything new to include in the display.

Once again, we have broken records in launches and hours flown. Membership is rising, and to cope with the demand for training, the fleet is being modernised in stages. We now have two K 13 two-seaters in operation, we shall have a third early in the New Year. With the Capstan and our old faithfuls, Dragonfly and Butterfly, we should be able to do still better next year.

For next season, the flying field will be larger and the gulley-filling operation is still continuing. Ownership of a sizeable hole in the ground is apparently an excellent way of making money these days—they actually pay us to let them fill it in with rubble. We take the fees in kind whenever possible.

Indoors, the sleeping accommodation has been much improved by the fitting out of four-bed cubicles in the old dormitory, while in the dining room there has been a transformation. The walls are now luxuriously panelled and the ceiling papered. Further improvements to the club workshop and M.T. Garage and the private owners' workshop are under way and should be completed before the winter really establishes its grip.

During the winter, we expect our usual crop of visitors from other clubs.

They often arrive "out of the blue", having been towed from their home site to a convenient point upwind of us, and then dash for the hill. Others come by road with trailer, and stay for some time. Either way, they will probably find the air pretty crowded, and should brush up a bit on the hill-soaring rules before rushing in. One day recently when the hill was working, the Manager and Chairman of the club were visiting Luton Airport to discuss proposed extensions to their air traffic controlled space. At the airport nothing moved — not a single aeroplane took off or landed, but the radar screens showed a huge gaggle of gliders strung out between Dunstable and Ivinghoe Beacon. It was pointed out at the time that London Gliding Club actually has rather more "aircraft movements" in the year than Luton Airport does.

M.S.

MIDLAND

ON Sunday, 17th September, the Club held its AGM, rather later in the year than previously because of a change in accounting date. Bob Neill, who for the last fourteen years has so ably served the Club as Chairman, retired from that position. Roger Thwaite, who has served on the committee since the foundation of the Club, did not seek re-election. All Club members, whether they be past, present or future, owe a very considerable debt to both Bob and Roger for their untiring efforts over many years. Our thanks are also due to the other retiring committee members.

Keith Mansell was elected as Chairman, with Bob Neill as Vice-Chairman. Alan Parkinson is our new Treasurer and Marjorie Hobby, Robin Bull, John Jefferson and Alan Jones the new general committee members.

During the AGM weekend, John Jeffries brought an AS-K13 for demonstration purposes. Although the weather could have been better, sufficient flying was possible for us to confirm our order and we now look forward to the delivery of this machine.

On Sunday, 1st October, following an aero-tow to 4,250 feet from nearby Sleap, Ric Prestwich reached a height of 22,500 feet in wave. This season has shown that there are very much better wave conditions than hitherto had been generally appreciated. At this time of the year we can only hope for a winter wave season as good as last year's.

K. R. M.

NEWCASTLE AND TEESSIDE

OUR routine training programme has been going steadily ahead and we have had our usual share of A, B and C certificates.

The weather this summer has been rather unkind to us, in spite of what will undoubtedly be regarded as a "good" summer. All the best days seem to have occurred mid-week, and most of the rain, low cloud, and general murk seems to have invaded Carlton Moor at the weekends. This has meant that our year-end figures are not as good as they might be, and whilst our Treasurer is not exactly miserable, he is not smiling as much as he did last year!

We are now preparing for the winter session, and our first C. of A. has already been done. The newly-formed social committee is preparing to keep us all entertained in the long, dark nights ahead, and has already made its presence felt.

Looking even further ahead, we hope to have a new two-seater next year, an order having been placed for a K 13. This should do much to ease the burden on our hard worked instructors and T-21, in addition to providing us with another aircraft for the solo pilots to fly.

Lastly, a sad note. Our Chairman, Ian Paul, has been forced to resign as a result of a change in his employment necessitating a move away from the area. Whilst we all wish Ian every success in the future, we shall be very sorry to see him go. He has earned the highest praise for his untiring efforts on the club's behalf, and he will be sadly missed at Carlton.

B. W. B.

NORTHUMBRIA

I JOINED the club recently when the Cheviots Club closed down, and I am very impressed with the number of active pilots, and the size of the fleet, at Hedley Moor.

The Olympia 2 which we brought from Acklington has been added to the fleet of T-21, Eagle, Capstan, Ka-7, Tutor, Jaskolka and Skylark 2.

We are negotiating with the Sunderland Flying Club, to convert our pilots to power, and their pilots to glider flying, and we hope to have half-a-dozen qualified tug pilots shortly. R. S.

OUSE

THE Ouse Gliding Club, Rufforth Airfield, York, goes from strength to strength. In six years it has made remarkable progress. Its members come from a wide area of Yorkshire, from Beverley and Hull in the East Riding to Huddersfield and Halifax in the West Riding. Some get up at 6 a.m. on Saturdays and Sundays to be at Rufforth by 8 a.m.!

The reasons for its success and popularity are a very fine team spirit, a progressive outlook and a comradeship which has to be enjoyed to be believed.

This summer its fleet of gliders — a T-21, a Capstan, two Swallows and a Skylark — have been well used. Good heights, durations and distances have been recorded. Many visits have been paid to other clubs. Trailers — including private owners' trailers — have covered long distances.

Hard work behind the scenes is done by officials, committee members and "key" men. Visitors are impressed — and say so! This is encouraging and stimulating. Targets are set high, meetings and social events are well patronised and the general feeling is, "We really are going places".

Our mobile control "tower", converted from a double-decker bus, and well-publicised in the Press and on television, is a valuable asset (see below).

We look back on a busy, happy summer season — despite the mixed weather in September and October. Now we are enjoying our winter flying. Strange as it may seem, many of us love our winter flying. There's a bite in the air, and roses in our cheeks. And we feel — literally — on top of the world!

A. H. S.

PERKINS

THANKS to the soarable conditions prevalent during the first four full months of operations, 1967 may prove to be the best for a few years from the



The Ouse Club's "control tower" on the top floor of its renovated double-decker bus. Fired by this example, Bannerdown Club are souping-up theirs.

club attainment point of view. Four members went solo and got their A and B, three members gained their C's, six completed the two half-hour duration legs for their Bronze C, and another four obtained the first. In the Silver C column, one distance, two height and one five-hour duration are also recorded.

A steady 15 m.p.h. westerly airstream, and a combination of ridge and thermal activity on 2nd September enabled us for the first time to work the 350 feet escarpment on the edge of the airfield, fondly known to club members as "Sir Roger's Ridge". Unfortunately, owing to blustery conditions earlier on in the day, by the time the wind had dropped sufficiently, only four qualified pilots were left to enjoy this site soaring experience, taking it in turns to spend 20 minutes or so in the Olympia "tacking" up and down over Harringworth and the adjacent Seaton Viaduct.

Several notable cross-country flights have been made, John Baker took the Skylark 2 to the Boston area early in the season, but not early enough to miss the Sunday holiday rush from Skegness with the retrieve. It was third time lucky for Hayden Haresign, who flew the "Oly" to Cranfield, gaining sufficient height in the process to complete two legs in one flight for his Silver C. We are pleased to record that Doug Phythian had time to sit back and enjoy a solo out-and-return to Spalding in the "Oly", during his marathon instructional session on the two training weeks in July (when he sat in the left-hand seat of our T-21 for something like 300 flights).

Whilst on the subject of cross-country flights, we must mention the determination of our Latvian member "Ozy" Ozols, who even though he missed the distance requirement by about 25 miles, had the great presence of mind to land in a field alongside a telephone kiosk . . . adjoining a pub (it is difficult to decide which he spotted first). It is reported that after persuading a gang of marauding cowboys and indians (after all, it was the school holidays) to guard the aircraft, he in his excitement, ran into the pub, asking the location of the village kiosk, when told it was the red object alongside the front door he had just run through, he retraced his steps, picked up the receiver and ordered a double whisky! J. V. L.

SCOTTISH

WE have found that East winds no longer necessarily augur "bad days" as the lee wave produced by Bishop Hill has been explored on several extensive flights to heights of 6,500 feet. Meanwhile, a sortie was made by our CFI with three SGU instructors to the Cairngorm Gliding Group at Feshie. There the boys renewed acquaintance with the pleasures of handling a T-31, this time on a hill site.

On the home front the painting of the Tiger hangar has been completed, our main hangar doors have been re-grooved to facilitate handling, and the inevitable ash spreading is progressing.

The end of September has closed a run of nineteen very well-supported courses for this year, eighteen were ours and one was for the Essex Club. A sizeable contingent from Lasham is currently at Portmoak complete with Super Cub, club and syndicate gliders. Chris Lovell has claimed their first Diamond height of the visit, but why he broke off his climb at 22,000 feet in 8 knot lift is another story. October has also brought 5-hour legs to one of their pilots, one from Glasgow University Club and Bob Rothnie — one of ours.

November is programmed to give the Barrs, Charlie and Betty, their annual holiday. A well earned break from this year's constant catering activities. The series of Saturday night ground tutorials is now under way and is of benefit to more than ab-initios and newly solo pilots.

Wedding bells have just been ringing for two Club couples: Jeanette Campbell and assistant secretary Alan Cameron, also instructress Valerie Wyles and George Peddie. We wish them well.

N.B. In the October issue of S. & G. it should have been Tom Docherty who rounded the turning point at Turriff.

M. B. R.

SWINDON

THE last few months have seen the bar prospering as a result of numerous celebrations of C's, Bronze C's, etc.

These have been achieved mainly by this year's new members, whose enthusiasm seems to have paid off, particularly their ability to get up early in

THREE COUNTIES AERO CLUB LTD.

Blackbushe Airport, Camberley, Surrey
(ON A30 TRUNK ROAD — 45 MINS. FROM LONDON)

Special Courses for Glider Pilots to obtain Private Pilot's Licence

Normal Courses for Private Pilot's Licence
Night Flying – Instrument Flying – R/T
Board of Trade Approved Course 35 hours
Residential Courses available
Grill and Licensed Bar

C.F.I. Derek Johnson
Executive Manager, G. D. D. Freeman
YATELEY 2152 (Management) 3747 (Operations)

DONCASTER SAILPLANE



SERVICES

LINESIDE, TOWNEND, YORK RD., DONCASTER
Telephone: ODO2. 65381

for

C of A's and repairs by experienced engineers
Friendly, efficient and RAPID service
Fibreglass moulding and repairs to Ka6 etc.
Instruments, materials, trailer work
– COME TO DONCASTER –

WE ARE AS CLOSE AS YOUR NEAREST TELEPHONE

the morning. Not that the old hands have been idle, however, Jack Purchase having notched up our first Gold C height.

The volunteer wives were called upon again in the fund raising field, and did an excellent job organising a barbecue in June, and a jumble sale in September. A word of caution here to other organisers, be sure that all you sell is jumble. One of our members is now minus his camping gear.

Our tow-car fleet has been supplemented, although perhaps not improved, by the addition of an F-500. What a ride! Does anyone possess a spare workshop manual for the above or the F-100? We could certainly use one.

We have a new and rather unique winch under construction which should prove very useful on our local ridge. Dave Schofield is the "genius" behind this, backed up by our invaluable mechanic, Doug Rawlings.

E. J. W.

UNIVERSITIES OF GLASGOW AND STRATHCLYDE

THE club is a joint venture between the University of Glasgow and the University of Strathclyde and membership is open to all students, graduates, members of staff and employees of both universities and also to those whose skills make them of special value to the club.

Strong support from a number of bodies has enabled the club to collect almost £2,000 worth of equipment to date, including a Scheibe Specht, an Olympia 2B, a twin drum self-propelled diesel winch, a seven ton Dennis lorry for general haulage, a tractor for cable retrieval, signalling equipment and trailers for both aircraft.

The airstrip is the property of Strathair Ltd., and the club shares its use with both Strathair and the Scottish Parachutist Club — the mixture of powered and unpowered aircraft on one site has been no problem so far. Aero-towing has been available to our members and some thermal soaring has been done during the past summer.

UGSGC would be only too happy to accommodate visiting clubs and they are asked to contact UGSGC Chairman Bill Scott (University of Strathclyde, Glasgow BELL 4400, ext. 267) or Vice-Chairman Peter Bower (University of Glasgow, WES 8855, ext. 326).

Reg Curwen is CFI and Graham Nisbett and Dean Caswell are our instructors.

The Club is always keen to see new faces and anyone interested, or wanting any information, is invited to contact any of the above — this past session has been of considerable success and it is to be hoped that our members can look forward to further progress in the coming year.

Congratulations to David Hunter, who recently gained his A and B certificates.

M. W.

YORKSHIRE

OUR roving competitors returned reasonably rewarded. Barry Goldsborough won the Western Regionals in his immaculate Sky, with David Lilburn placed 8th. David also flew his "4" into 6th place at Husbands Bosworth.

John Isaac and H. Hill have completed their Silver C's, while Doug Keyworth prolonged his first trip in the Skylark 2 for some 5 hours. Doug was one of the two unlucky pilots eliminated from the "Win a Swallow" competition due to a paperwork fumble, but is not letting this hold him back.

The Pennine lee waves manifested themselves again on the 2nd September and lifted David Lilburn (Skylark 4) to some 8,000 ft. late in the day. A second highly successful visit was made by the Brough branch of the R.Ae.Soc. on 20th September, when the weather permitted aero-towing, winching and provided thermals.

We are now taking stock at the end of a very hectic year. With the exception of the private owners' hangar and new trailer park, every project programmed has been achieved. The way that the grass has taken to the airfield has been acclaimed with a mixture of wonder, admiration and awe by visitors and members alike. Would that the new airfield surface induces a better accident rate next year: 1967 has been, frankly, disappointing; although that seems to have been a national trend.

November should see the arrival of the Fred Knipe and Andy Coulson Ka-6E, in lieu of their previous 18 metre

mounts. It will be the second Ka-6 on the site, and we shall watch with interest its performance in the waves, which have long been filled with the Skylarks and more recently Darts.

A revised board of Directors has recently been appointed and we wish them every success in helping to bear "the Pundit's Burden". We recently welcomed Miss Swanson, who has taken over secretarial duties from Mrs. Isaac. A special vote of thanks should be given for Mrs. Isaac's prodigious effort in setting up a new and highly efficient secretariat. M. J. C. W.

* * *

SERVICE NEWS

BANNERDOWN

SINCE our last report the August Inter-services Comps. have come and gone, with Bill Bailey filling 14th spot, flying a Ka-6CR. Mick Garner has soloed and John Boyes achieved his C. During flying and after we have heard the odd comment about "getting on the ridge"! True there is a gully and the odd bowl or two but the only local ridge which works is the Fosse way "spine" carrying the Bannerdown road to Bath; it needs a lot of penetration to reach and fine judgment when to leave.

On the deck, activity has continued with the installation of a reconditioned diesel in one winch and an overhaul of the mobile "upflinger". The picture of the Ouse double decker in last issue of S. & G. was a spur and challenge to our bus crew, who are working hard on ours. The crew includes les Girls, who are i/c the lower deck amenities and are at present knocking up a (soft) bar counter and sink unit. P. H.

BICESTER

AFTER many years as Vice-Chairman, Squadron Leader N. Maygothling has handed over to Squadron Leader D. Langford, AFC. Norman is retiring from the Service and we shall miss his valuable support to the often overlooked and not so rewarding aspects of gliding.

We are pleased to welcome Group Captain W. Beringer, the new Station Commander of RAF Bicester, who has taken over the post of Chairman. Our new Vice-Chairman is already a familiar figure on the field, especially in the tug aircraft; I am sure we shall see our Chairman actively taking part whenever he can find the time from his many other activities.

Sons of well known figures in the gliding movement appear in our recent achievements, namely Andy Gough and Sean Kearon. The latter has obtained his Bronze C and young Andy is within an ace of doing so — more will be heard of both in the future.

Recent additions to the glider fleet includes a second Ka-8 and Ka-6E. Flying activity continues at a high level and this will no doubt be reflected in the annual statistics. A. E. B.

CHEVIOTS

I REGRET to report that the Cheviots Gliding Club has closed down due to lack of support. This is a pity after all the hard work that was done by instructors and members. Also the club proved the Chillingham Ridge to be an excellent soaring site and it is hoped that some other club will use this in the future.

However, five "Cheviots" members refused to be grounded, and Instructors Jack Little and John Clark, and pilots Fred Hinchley, Steve Bigglands and Ray Selkirk, bought the club's Olympia 2B from the RAFGSA and moved lock, stock and barrell, to the Northumbrian Gliding Club at Hedley Moor. This syndicate is called the "Cheviots Gliding Group" to keep the old name going, and until our C. of A. when the Olympia will get a new coat of paint, the RAF roundels are still airborne on a glider every weekend over Northumberland.

R. S.

EAST MIDLANDS

OUR SHK and Ka-6E arrived at the beginning of the soaring season and all our qualified members have enjoyed the type of flying which these machines are capable of. Far more cross-country flying has been done this year than ever before, and these two aircraft have certainly proved their worth in this direction.

Our Ka-8 has proved itself to be a really worthwhile club aircraft. It does not have any vices and is robust, capable of taking quite a lot of punishment without complaining. Its soaring characteristics are excellent, although the penetration is not quite so good.

For the past two years, John Delafield has been our CFI and has done a magnificent job. He has gained the respect of us all and everyone has been only too pleased to help him carry out his task. We congratulate him on his promotion and wish him the best of luck in his new post.

Dick Feakes has now taken over as CFI and we wish him equal success in this difficult, time-consuming task.

Throw away the winch. This has been the cry of many people in recent years and we have decided to take the plunge. Already we are searching for two auto-tow vehicles with which to make the best use of the runways at Swinderby.

R.J.L.

FENLAND

FENLAND provided the largest single club entry at the recent Junior Inter-Service Championships. No less than six pilots and their crews attended, and the Chief Timekeeper was also provided. We would like to congratulate our ex-CFI on winning overall.

Many ladies join the club, but few stay the course, so we were all very pleased to see the wife of a member solo in August.

Our bar member, Mick Steward, has retired on leaving the RAF. The bar is now run by Jack Hawkins.

The club Ka-6CR has been returned to the Centre to be sold after good service for several seasons—we hope to receive a Ka-6E in the spring.

The club AGM will be held at Marham on 24th November at 2000 hours.

R.G.J.

MOONRAKERS

OUR absence from these columns does not indicate inactivity; by the end of July we had already flown 1,000 hours and 6,000 miles cross-country, so the club records will be well broken this years.

The season started well with a task week in April, during which almost 2,000 miles soaring were logged, and George Lee, a visitor from Colerne, did a 315-km. out-and-return for his Gold distance and Diamond goal.

Anne and Einar Enevoldson return to the States in December. We are almost as sorry to see Einar's Phoebus go as we are to lose Anne, our most efficient duty pilot. We hope to see them again, either here, or in some of their *real* thermals back home.

P.G.H.P.

PHOENIX
(Brüggen, Germany)

ON 28th August, Mike Flint and Ian Bishop succeeded in completing their Silver C by carrying out duration flights. Colin Browse, who has taken over as Treasurer, has recently gained his Bronze C.

We have had several first solos in the past few weeks. Tony Dawson, Pete Dawson's eldest son, gained his A and B only three days after his 16th birthday and in his first Swallow flight gained his C. Stella Errington, one of the four extremely keen school teachers flying

COSIM & COOK

Variometers & Compasses

PURNELL AUDIO UNITS

Navigational Grids

fitted to old and new Cook Compass

Multiple (4 Tube) Air Connectors

for speedy instrument panel rigging

BURTON TOTAL ENERGY UNITS

For ½ and 2 litre Capacities

IRVING VENTURIES

& Water Traps

COSIM BEST SPEED SCALE HOLDERS

COSIM NOSE PITOTS

BAROGRAPHS CALIBRATED

Leaflets from

Cobb-Slater Inst. Co. Ltd.

"COSIM" WORKS, DARLEY DALE, MATLOCK, DERBYS. DE4 2GG.

Telephone Darley Dale 2538

with us from Krefeld, and Jan Bishop, the club Secretary, are the two most recent lady members to go solo.

Dennis Bowley and Ian Bishop returned from Bicester last month as newly fledged assistant instructors.

Chris Foot, Ken Phipps, Dave Searle and Gus Paterson, four of our keenest members, have now returned to UK and by the time this is in print Mo and Pete Dawson, Jan and Ian Bishop, Dave Vickery and Steve Carr will have joined them. Pete Lane is coming to Brüggen in November to take over as CFI from Pete Dawson, who took over the club from him three years ago!

Phoenix has a good list of achievements for this year: 11 A and B certificates, 10 C's, 9 Bronze C's, 3 complete Silvers, 1 complete Gold and a total of 7 Diamonds—5 gains of height, 1 distance and 1 goal flight. Seventeen cross-country flights have been made, giving a total of 2,437 cross-country kilometres. Pete Dawson's comment on Nimbus' statement in the last S. & G. that they are "the foremost Service gliding club in Germany" was "Let's have a look at the annual statistics!" We consider ourselves on par with the other Service clubs in Germany and the top GSA clubs at home! J.B.

TWO RIVERS
(Laarbruch, Germany)

THE only reason that we have been out of print for so long is that the club pencil went u/s in June.

On the personal achievements side, Pete Young completed his Silver C in July with a 5 hours in the Swallow. He followed this up with an out-and-return trip in the club Skylark 2, Laarbruch-Dorsten-Laarbruch (118 km.) on the August Bank Holiday Monday. The same day, Leigh Hood declared Kamen and return (205 km.) but landed 5 km. short of Laarbruch after covering 200 km. in the other Skylark.

On the second Saturday in September, Neville Ward landed at Venlo airfield (Holland) on a Silver distance attempt in the Skylark 2. Vic Leighton, our gallant barman, was more successful in his quest for at least 15 magic minutes in the Swallow. The next day, Ian Smith just missed a gold height with a climb to 10,000 feet overhead Nijmegen in his Skylark. The other Skylark completed a modest 70 km. trip to Wesel and return. The month finally wound up with a 52-km. flight to Raesfeld on the 23rd September, by Terry Brown in the Skylark 2 for his Silver distance.

It has not all been on the side of the soaring pilots, of course, during this period. The two-seaters have been kept busy by our bunch of flat-bottomed instructors from dawn (well, sometimes) to dusk churning out potential Swallow-pilots. Pete Young, Terry Brown and Neville Ward attended Instructors' Courses at Bicester and returned with assistant instructors ratings. This gives us three Categorised and five assistant instructors.

What of the future? We expect to operate very soon a pulley-launch system, complete with a massive 6-foot pulley-wheel and a very American automatic Buick. The few tentative trials we have had produced launches, in light winds, up to 2,300 feet. Then we have had the offer from both the Laarbruch Flying Club and the Afcent Flying Club of aero-tows, their charges being approximately half those of "civilian" prices.

Finally, we would like to say how much we regret seeing one of our neighbouring RAFGGA clubs, Nimbus G.C. at Geilenkirchen, having to cease operations. This fine club has been our friendly rival for many years, and there are very many people in the gliding world who started their gliding at Nimbus, and who will be sorry to hear this news. Needless to say, the closure is through no fault of theirs, but as a result of "streamlining" of British Forces in Germany. "PUNDIT".



OVERSEAS NEWS



We would be pleased to receive news for this section from every country in the world where soaring is done.—A. E. SLATER, *Overseas News Editor.*

ARGENTINA

AN invitation to a British pilot to take part in the 1968 Argentine National Contest, to be held from 28th January to 11th February, 1968, at Pehuajo (Buenos Aires), has been extended by the Federation Argentina de Vuelo a Vela. Apply to BGA for details.

AUSTRALIA

GOVERNMENT SUBSIDIES to gliding clubs will increase by $1,000 this year, as the $3,000 previously distributed on the basis of club membership will increase to $4,000, while the $3,000 given on the basis of gliding certificates earned will remain the same. In addition, $1,000 goes to State Associations for running State instructor and ground engineer courses, $2,300 for the National Gliding School, $2,300 for Gliding Federation of Australia administration, and a Design and Development grant of $2,000. The total Government grant has gone up from $12,000 to $15,000 (about £6,000 Sterling).

There are 61 gliding clubs in the country.

Australian Gliding.

BELGIUM

GAND (GHENT) RALLY.—Weather was poor for this four-day meeting in mid-August and only two contests were flown. On the 12th a 150-km. Triangle was set via Chateau de Beloeil and Menin; only Henri Stouffs in a Ka-6E and W. Gross of Germany in a Libelle got past the first turning-point. Jean Delmotte landed on the property of the president of the Royal Belgian Aero Club, Prince Antoine de Ligne, who signed his landing certificate. Next day E. van Bree from Holland (Ka-6E) managed 78 km. of a 97-km. Triangle and won the day and the whole competition. A. Dekkers (Holland, Ka-6E) was 2nd in total points, L. de Dorlodot (Belgium, Ka-6E) 3rd, and J. Vaneecke (France, Edelweiss) 4th.

Conquête de l'Air.

CANADA

WITH the season drawing to a close, let us take a look at what has been achieved. 1967 has been Canada's Centennial year; it is 100 years ago that the Dominion of Canada was established. Gliding and soaring have been on the scene for less than a quarter of that time, and it is no more than right that some of the Centennial flavour should have found its way into the movement this year. There was some assistance with the Nationals, even though not as much as we may have hoped for; there was the Skyway Air Services Centennial award offered for a sailplane flight crossing the Rocky Mountains from their base—a cash prize of $1,000. Pity the conditions for this were so unrealistic as to make it almost certain no one would claim it.

On the competitive flying side the year has been somewhat on the wet side—literally. Starting with the Nationals.

which were almost completely rained off and produced a longest flight of less than 200 miles, through the record-breaking set which produced far less record improvements than usual during the season, to cross-country flying as a club activity —all suffered from more than a normal amount of water from Heaven.

Despite these disadvantages the number of persons taking part in our sport increased quite appreciably. This is largely due to more attention to soaring by the mass publicity mediums: we have had the Walt Disney movie "The Boy Who Flew With the Condors", the feature "Sailors of the Sky" in the *National Geographic* (a US illustrated monthly circulating in the middle-class public), and the article "Sky is Their Limit" in the *Readers' Digest*, a magazine which needs no introduction. We have even had a TV commercial based on soaring, under the possible headline "Wings Go Better With Coke". The result is that all two-seaters in the country have been working overtime.

Several new clubs have been established during the year. The total increase in club membership will be revealed eventually by the official statisticians, but at a guess it would be of the order of 20-25 per cent. What other activity can show such growth?

Looking forward to next year, we can see nothing but promise of further growth. With a greater number of the public being exposed to the pleasure and excitement of soaring, there is certain to be a continued influx of new members. Also, any year now we may see the past investment in the movement's future come to fruit—the introduction flying programmes to the Air Cadet League, which have been going for some time now. This year's programme in Alberta exposed near to 2,000 youths to soaring, and some smaller pilot programmes have probably been conducted at other centres. Even though air cadet introduction flying does not produce any appreciable immediate return, it exposes youth to soaring during the most impressionable years. This creates a favourable atmosphere among the air-minded public, and the youths who have had a flight or two as part of his Air Cadet activities will remember it in later life, perhaps resuming soaring when they can afford it.

The sky is not the limit.

ONTAERO.

RECORDS.—John Firth set a new National goal-and-return record on 6th May by flying an HP-11 from Pendleton to Shawinigan and back, 270 miles. The previous record, 233 miles, was set by Charlie Yeates in 1966.

Not yet officially confirmed is a goal-and-return record of 280 miles set a little later by Dave Webb in his HP-11, from Hawkesbury to St. Casimir and back.

Free Flight.

CZECHOSLOVAKIA

COINCIDENT with the Feminine Contest at Rana, reported in our last issue (p. 441), which it appears was primarily to decide the feminine champions of Bohemia and of Moravia, an international inter-club "comparison contest" was held, the participants being Rana (Czechoslovakia), Wroclaw (Poland) and Dresden District (E. Germany). This was the third meeting of its kind and 22 pilots took part, including the 12 in the women's contest.

GIVE *WEATHER* FOR CHRISTMAS

The popular monthly magazine of the Royal Meteorological Society

To help you solve your Christmas gift problems we offer 13 months of WEATHER for the usual annual subscription of 30s. post free.

Just send 30s. and your friend's name and address to *Weather*, 49 Cromwell Road, London, S.W.7 and we will despatch the December 1967 issue on 15th December, with your greetings and a note about your gift of *Weather* for 12 months of 1968.

Forthcoming articles on Winds for the Olympics, A Monsoon ocean, Tornadoes, Automatic weather stations, Global cloud mosaics, Waterspouts, etc. and every month your own Long range weather forecasts and Weather log.

The Dresden team were Heiner Schmidt and Klaus König, each with a Libelle-Laminar, Monika Warstat with a Foka, and Manfred Warstat, also known as "Charlie", who flew *hors concours* and finished second. The overall winner is not stated.

Aerosport.

DENMARK

NATIONAL RECORD.—Kjeld Dahl set up a new national and local record for goal-and-return on 25th July by flying 319 km. from and back to Skrydstrup in a Ka-6CR. It is now officially recognised as beating the previous record of 307 km. set up by Jorgen Friba in an Olympia in 1957.

Flyv.

FRANCE

NATIONAL CHAMPIONSHIPS. — These were held at Bourges from 28th July to 6th August. Participants were 15 leading pilots from the 1966 Championships, 40 who did well in the Regional Contests during May and June, and 13 from the three Regional Contests held by the Air Force.

Entrants were divided into two Categories according to the performance of their machines. The first Category of 29 entries included Edelweiss, Ka-6E, B and CR, Austria, Vasama, Zugvogel 3B, Foka 3 and Zug-Avia. The second Category of 28 entries included Mesange, Fauconnet (both in large numbers), two Fauvettes and Wa-22, 21 and 20. They had different tasks except on the last two days.

Tasks were:

29th July: 1st Cat., 208-km. Triangle; all but 3 got round. Cartry (Edelweiss) made best speed, 75.3 km/h., but his turning-point photos were unsatisfactory and Stouffs (Ka-6E), who took 11 min. longer, was official winner. 2nd Cat., 169-km. Triangle, Tavernier (Mesange) won at 61.8 km/h.

30th July: Cat. 1, 273-km. Triangle, won by Girard (Edelweiss) at 72 km/h.; 23 got round. Cat. 2, all got round a 162-km. Triangle; winner, Metge (Mesange) at 60 km/h.

Thunderstorms next day; no tasks.

1st August: Cat. 1, 201-km. Triangle. Best day of the Championships; Cartry averaged 87 km/h. and Penaud, Girard and Geskis all exceeded 80. Cat. 2, 165-km. Triangle; all but four got round; Metge won at 62 km/h.

Next day, 1.2 inches of rain from a thunderstorm.

3rd August: Cat. 1, 221-km. Triangle; all got round but one pilot who was "en mauvause forme physique", but times varied from 2 hr. 41 min. to 4 hr. 19 min. Labar (Edelweiss) won at 82.4 km/h., and Cartry, Penaud and Mercier exceeded 80. Cat. 2, 168-km. Triangle, won again by Tavernier at 60 km/h.

4th August: Both Categories had a 315-km. Triangle via Dierre and Orleans. In Cat. 1, 21 got round, Girard winning at 74.7 km/h.; but in Cat. 2, "C'est l'hecatombe!" and only one, Schreder (Fauconnet) made it.

5th August: Same Triangle, completed by 47 competitors. Winners, Labar at 83.7 km/h., Tavernier at 65.

Leading Final Results, Category 1:

Penaud	Edelweiss	5704
Girard	Edelweiss	5581
Mercier	Edelweiss	5300
*Stouffs	Ka-6E	5231
Gombert	Edelweiss	5119
Labar	Edelweiss	4887

*Belgian, *hors concours.*

Category 2:

Tavernier	Mesange	5374
Delort	Mesange	4930
Jansen	Fauconnet	4723

Aviasport.

FRANCO-GERMAN AERO CLUB. — This Club is being started, according to its statutes, "to facilitate for its members the practice of aviation and in particular of soaring flight, and to develop ex-

Dunkeswell Light Aircraft Limited

Senior Inspector Approval C's of A
Major or Minor Repairs
Glider Trailers for Sale

Dunkeswell Airport
Honiton,
Devon.
Tel. Honiton 2350

changes with the glider pilots of Germany and other foreign countries." Its office is at Asnières, 5 rue Henry-Say.

WASSMER PRODUCTS.—Wassmer-Aviation has transferred its activities at Issoire from the town to the aerodrome. The glider department will produce about four Wa-30's for every one Wa-22A. The Super-Javelot has regained some popularity owing to the desire of clubs to replace their old training machines with something more modern, robust, and with airbrakes.

As to plastic types, the sailplane Squale (Wa-26) will not be all-plastic except in a final version not yet defined. It will meanwhile be produced in series, it is hoped by late summer 1968, with wooden wings and a moulded fuselage. The retractable wheel will be retained. Its performance cannot be calculated from the flights made so far, but is expected to be between that of the Ka-6E and Edelweiss. If hopes are realised, it has a good chance of selling at the announced price of 30,000 F. (£2,160 approx.).

Air et Cosmos.

WAVE SITES.—At Issoire, during the last winter season, 210 pilots took courses, including 37 British and a Brazilian; maximum height attained was 7,400 m. (24,400 ft.).

Fayence Soaring Centre has been awarded the Otto Lilienthal Diploma by the German Aero Club.

NATIONAL RECORDS.—Jean Lamaire in Edelweiss, 500-km. Triangle at 74 km/h. on 24th July from Angers. Same day and place, Michel Mercier, Edelweiss, 300-km. Triangle at 78.9 km/h., but with insufficient margin over previous record. Labar, Edelweiss, 300-km. Triangle at 86 km/h. on 26th July, also with insufficient margin.

But on 27th July six pilots beat the 500-km. record of Lamaire, three of them with sufficient margin for an official record; Jacques Mattern at 85.8 km/h., J. Girard at 85.4, and Labar at 83.4.

MILITARY CHAMPIONSHIPS. — For the first time the Championships of the Armée de l'Air were split among three centres. Winners: at Dijon-Darois, 2nd Cl. Jarnet (Ka-6); at Romorantin, Adj. Notton (C-30S); at Saintes, Lt. Delvigne (Ka-6E).

NORWAY

PROMPTED by a few "expert" remarks recently about Norway's (and the rest of the Scandinavian countries') unsuitability for thermal soaring, I should like to give a little inside information on the matter.

In 1963 at the National Championships at Haslemoen, five out of seven participants covered more than 300 km. on the distance day. In 1966 at the Scandinavian Championships at Gardermoen, three out of nine covered more than 500 km. on one occasion, landing in Sweden (the rest reaching 250-410 km.). These tasks both had a dog-leg to a turning-point to the north before releasing the pilots southwards.

On a good soaring day between May and the end of August, cloudbase at 2,000-2,500 m. is quite normal, giving *average* climbs of 2-5 m/s. Cloudbase at 3,000 m. is encountered now and then, and on a special occasion, a climb of 12 m/s. in *dry thermal* was experienced by a pilot doing his Silver C cross-country flight.

In July, I decided to try my luck at the Goal Diamond, having completed the Distance Diamond last year. During my one-week stay at our soaring centre at Notodden, where I did instruction work in the Blanik, I had two days off trying for the Diamond. On the first flight I turned back after 100 km. as the cumuli dissolved further along the route. The second time I reached the turning-point and completed the task, taking 5 hr. 20 min. to do so. Cloudbase started at 2,200 m., working up to 2,500 m. Thermals now and then reached 4 m/s., average being 2 m/s. The trip involved crossing mountainous areas of up to 30 km., but as the technique here is to "get high and stay high", quoting a famous person, a field was always within reach. My final glide started 45 km. out at 2,200 m., and as a peak of 800 m. was right in my way, the speed was kept low on the Austria SH at the beginning, turning her loose when I was safely across.

The best thermal conditions are ex-

perienced in the south-eastern part of the country, as the westerly wind which normally blows, is cleared of its moisture content when reaching the mountains at the west coast. The intense heating which then takes place on the many southerly-facing hills and mountains produces excellent thermal sources. Apart from this, any wind blowing will normally produce sufficient hill lift for local scratching.

We have some waves too, mostly in autumn and winter. But the really "big fish" is so awkwardly positioned that no flying has been done there. It will mean using some frozen lakes in the middle of Jotunheimen, the largest and most sparsely populated mountain district in southern Norway, as a base camp, and spending at least three weeks there in the winter to be sure of getting results. Heights in excess of 10,000 m. will then surely be reached, but one is most certainly sure of a very rough life in the meantime. Up to now, the greatest heights have been reached over the lake Selbusjoen near Trondheim (7,000 m.), and any member of the flying club of the Technical University in Trondheim who is a glider pilot and hasn't done at least some wave flying isn't worth his salt. This wave is set up when a southerly wind is blowing, and then the sky may be filled with Lenticularis in every direction. As the "low" then usually is centred just outside the west coast moving north-east, one has to be quick to grasp the opportunity before the gaps are closed.

At Fagernes right in the middle of southern Norway, a soaring camp is arranged every Easter. 60-70 pilots share 10-15 gliders and many a Silver C duration leg is flown on the ridges surrounding the town. Swedes and Danes have found their way too; some bring their own equipment. Last year we experienced 7 m/s. *thermals* and wave flights up to 5,000 m. (release in hill lift), but of course conditions are not always like this. At least we have the advantage that the airfield is a frozen lake 1 mile across and a couple of miles long, giving unrestricted over- and under-shoot opportunity even for the most unpolished landings. Wives and children may be sent ski-ing in nearby hills or up on the mountain plains, together with the "normal" winter tourists.

As the better sailplanes are slowly creeping into our country, we can take full advantage of the more remote mountain areas where thermals are stronger, without fear of not reaching a landing field.

BIRGER W. BULUKIN.

GLIDER FINANCE

Finance for your glider or aircraft purchase can be arranged by telephoning or writing to *COLIN DONALD (B.G.A. Instructor).*

Burghley Finance Company Ltd.
50 BURGHLEY ROAD,
PETERBOROUGH
Telephone: Peterborough 5787

POLAND

WAVE SITE OPEN TO VISITORS.—For foreign pilots who are interested in soaring in Poland, an Altitude Soaring Centre is open at the Aero Club of Jelenia Gora. This place is situated in the south-west corner of Poland, just north of the Karkonosze Mountains.

The Centre offers altitude wave soaring, with opportunity for attempts on altitude legs for Gold C and Diamond badges, as well as aerobatic training. No cross-country flights are laid on.

Types of sailplanes available are: Bocian, Mucha 100A, Mucha Standard, Foka, Jastrzab, Jaskolka.

Weather conditions suitable for lee-wave soaring happen most often in the autumn-winter season (October-February); one may be successful, however, in other seasons also.

The costs of living and flying at the Jelenia Gora Centre are (presumably in US dollars): $3 per day for board and lodging; $8 per flying hour, aero-tows included; aerobatics, $4 per flight, dual or solo—altitude of release 800-1,200 m. (2,600-4,000 ft.).

All dues must be paid in the currency of the pilot's country or in dollars.

Taking into account rather difficult flying conditions in the region of Karkonosze Mountains' lee wave, pilots who

want to fly there must be experienced: for altitude flying, not less than 100 gliding hours. These pilots should also possess a certificate of special low-pressure medical test up to an altitude of 5,000 m.

Every pilot flying in our country must have a licence (ICAO—Glider Pilot) recognised—at the request of the Polish Aero Club—by the Ministry of Transport, Central Civil Aviation Administration, in Warsaw. This procedure takes at least one day; in order to arrange the matter, the pilot must contact us personally, or he may send his licence (or its photostat) previously to our Aero Club and then travel directly to Jelenia Gora, where the recognised licence will be sent in the meantime. In any case the licence should clearly state the validity of the medical examination of the pilot according to international standards.

The production of an accident insurance policy from the pilot's country is also required before the pilot is allowed to fly.

Address of the Aero Club of Jelenia Gora (office): Aeroklub Jeleniogorski, Jelenia Gora, ul. Bartka Zwyciezcy, 1, Poland.

Training centre and living quarters: Internat Szybowcowy, Jezow Sudecki k Jeleniej Gory, ul. Kreta 27, Poland.

All correspondence about flying at Jelenia Gora Centre should be sent, however, to the Polish Aero Club: Aeroklub, Polskiej Rzeczypospolitej Ludowej, Warszawa, Krakowskie Przedmiescie 55, Poland.

Information leaflet sent by
E. B. JERZYCKI.

EDITORIAL NOTE.—This is the site where the world's first wave-soaring flight was made in 1933. The mountain range which sets up the waves was known in English as the Giant Mountains.

RHODESIA (Salisbury)

FEVERISH efforts are being made to have everything ready for the 1967 Rhodesian National Gliding Championships, being held once again at Warren Hills. By the time this appears the comps. will be old hat, and a full report will appear later.

The hot weather has arrived with a vengeance, and midday temperatures have already peaked the 90's, in marked contrast to the extended winter conditions of the last few months. From 10 a.m. or earlier until dusk the thermals are bubbling, and cloud-base seems to be on the up and up (like our membership!), and the possibility of Gold height in clear air is very promising. Many flights are ending in the near dark, and many are the curses of the bar flyers waiting for the hangar doors to close.

Gus Tattersall's Vasama syndicate were rewarded to see their machine fly for the first time since the start of her overhaul—just in time, too, for the Comps.

Jenny Gough, whose father, John Small, was one of the original members of this club, was the first woman pilot to go solo for over 5 years. And she has been the first woman to go solo in the Tutor.

Jimmy Harrold in his 463 has flown in twice recently from Marandellas, and last time he did not take off from Salisbury until well after 4 p.m. when thermal activity is slowing down. He made it back, however, so it does give some idea of our present conditions.

Ted Pearson has wrecked his trailer (with his Austria inside) on his way up to Rhodesia, so unfortunately this champion is out of the running this year.

MIKE MCGEORGE.

SOVIET UNION

WORLD RECORDS.—The four records (two-seater goal and distance, feminine two-seater goal and distance) reported in S. & G. for Aug.-Sept., p. 366, are described in greater detail by A. Vinokurov in *Krilya Rodiny*.

Over Moscow region passed a cold front, and the pilots, knowing that good conditions should be behind it, prepared for a mass attempt on records. A 7 o'clock telephone call to the met. office revealed that an enormous area of cold air was moving at great speed from north to south. At 9 a.m. clouds began to form, and by 9.50 the conditions were good enough for the gliders to start. Corrected figures are:

Kuznetsov and Barkashov in Blanik, 920 km. distance in 8 hr. 50 min., to Stepyanovka; Zaitser and Khartnayenko

to the same place, their declared goal, in a Blanik. Gorokhova and Koslova in a Blanik, 865 km. in 9 hr. 42 min., landing at their goal, Kolarovka, also near the Azov Sea (feminine goal). Pavlova and Folomyeshkina to the same place (feminine distance).

Yuri Clyepoi in an A-15 landed 30 km. from Taganrog, also near the Azov Sea. He had flown 837 km. in 8 hr. 38 min. He is claiming the National distance record. (It seems that at one moment he had thought that he might fly to Astrakhan, which would have been the world's distance record.) Georgii Orlov, who had started with Clyepoi in another A-15, landed after 570 km.

The pilots afterwards described how rows of cumuli stretched almost to the Azov Sea; lift was of the order of 3-5 m/sec., and sometimes 6-7 m/sec. A 15 m/sec. wind (33 m.p.h.) had helped, and they had flown at 170 km/h. between thermals. They have dedicated these flights to the 50th anniversary of the Revolution.

UKRAINE CHAMPIONSHIPS. — The final Spartakiad of the 15th Ukrainian Championships took place at Dnepropetrovsk. The 33 pilots flew Blaniks solo. The tasks were:

1. 102-km. Triangle; Vachasov from Karkov won with 1 hr. 29 min. 2. Twice round a 102-km. Triangle; won by Pilipchuk from Lvov with 3 hr. 30 min. 3. 206-km. Triangle; Durnov won with 3 hr. 45 min. 4. Out-and-return 126 km.; nobody finished because of storms, and many landed just before the home airfield.

Absolute Champion of the Ukraine is Leonid Pilipchuk, 3,037 pts. 2nd, V. Goncharenko (soloist at the Kiev philamonia), 3,035 pts. 3rd, A. Durnov, 2,940 pts. Woman champion, V. Tyrksunkhodczaeva, 2,820 pts. Team contest: 1st, Karkov; 2nd, Kiev; 3rd, Lvov.

RUSSIAN FEDERATION REGIONAL CONTESTS.—There were meetings in the five Zones of the Federation. To the Northeast Zone, Gorky, came 9 teams. Winner was Pyensensk team; leading pilots, Mazin and Popova.

The Northern Caucasses Zone meeting was held at Essentuk, with 7 teams. Winners, Rostov; leading pilots, Clyspichet and Anakhova.

Orel, 9 teams of the Central Zone; winners, Moscow; leading pilots, Africanova and Suslov.

Urals Zone at Orsk, 4 teams; winners, Chelyabinsk; leading pilots, Manacipova and Mitrofanova.

Siberian Regionals at Bernaul, 6 teams; winners, Krasnoarsk; leading pilots, Shumilova and Ivanov.

The winning teams from the Regionals went on to the Spartakiad Final Meeting at Orel.

F. VOYEIKOV.

Pilots who survived the elimination contests of the Russian Federation, two men and one woman from each Region, met at Orel. After a period of gales, rain and hail, flying started on 20th June.

Tasks: 1. Out-and-return 151 km.; 39 took off in Blaniks and 32 finished. The women did best: 1st, Marina Africanova; 2nd, Ekaterina Anakhova; 3rd, Oleg Suslov. 2. 103-km. race; 32 finished; 1st Tororoshchenko, 2nd Luevkin, 3rd Chuvikov. 3. 306-km. Triangle; only 10 finished because too many pilots waited too long before starting; 1st Chuvikov, 2nd Tamara Zagainova, 3rd Eugeny Africanova. 4. 103-km. Race; storms along the course and only 16 finished; 1st and 2nd Mrs. and Mr. Zagainov(a); 3rd Styepenchenko.

Overall winners, Tamara Zagainova of Orel and Chuvikov. Orel won the Team Championship with 10,602 points.

All items condensed and translated from Krilyn Rodiny by C. WILLS.

SWITZERLAND

NATIONAL RECORD. — René Comte, taking part in the American Championships at Marfa with a Diamant, put up a new Swiss national distance record on 11th June by flying to Tucson, Arizona, about 700 km. It was the third best distance of the day.

Aero Revue.

UNITED STATES

THREE DIAMONDS AT 15.—Stephen H. Parker, son of Al Parker, flew the family Sisu 1A 345 miles from Odessa,

Texas, to Farley, New Mexico, completing his Three-Diamond Badge at the age of 15.540 years. He was born on 1st January, 1952, and got his Gold Badge at the age of 14.953. *Soaring*

WORLD RECORD.—Elmer Katinsky, of La Canada, California, flew round a 500-km. Triangle at approximately 76 m.p.h. in a Libelle (fibreglass) on 19th August. He thus beat the previous record of 66.52 m.p.h. set up in 1963 by Boet Dommisse in South Africa in a BJ-3. Katinsky started from Twenty-nine Palms, Calif., at 1.46 p.m. The first leg was the slowest, taking 1 hr. 55 min., and for half-an-hour he was cruising straight ahead at only about 1,500 ft. above the ground. He photographed the first turning-point, a road junction, from 8,000 ft., and then cruised along a line of immense thunderheads at between 100 and 120 m.p.h., or sometimes faster in strong lift. After the second turn he had to avoid a dust storm. His final high-speed glide was from Sheep Hole Mountain, and total time was 4 hr. 11 min. The pilot is a stress and vibration analyst at the Garrett Air Research Co., who supplied the electric timer used during the flight.
S. S. A.

FEMININE RECORD. — Miss Helen R. Dick, of San Diego, Calif., claims a National Feminine Distance record with a flight of 300 miles from El Mirage to Millett, Nevada, on 12th August in a Zugvogel 3B. She did the first 50 miles in dry thermals and later reached 14,500 ft.; and during the flight she deviated to a turning-point at Laws which enabled her to claim a distance of 320 miles for a Distance Diamond. This made her the first woman in the USA to earn all three Diamonds.

The Thermal.



Elmer Katinsky in his Libelle before take-off at the USA Nationals. He finished in 21st place.

MONTGOLFIERE AIR BALLOONS

If you were one of the many thousands of people who visited the Dunstable Air Display this year, you will understand what we mean when we say "BALLOONING IS FUN". You don't need to be told of the beauty of this ancient sport — you know. If you have any feelings for the air at all, you must have wished that you could have been a passenger in one of those gay, graceful, spherical flying machines.

Modern technology and extensive development of old principles have enabled MAB to give you a unique opportunity to participate in pioneering the revival of sport ballooning in this country for as little as £1 per hour: so enjoy the fantasy and thrill of floating through the clouds and purchase your balloon from the people who know.

For further details, write, phone or call:
M. A. BRIGHTON & COMPANY LIMITED,
Blackbushe Airport, Camberley, Surrey.
Telephone: Yateley 2794

TALK BY "WALLY".—Friday, 13th October, proved lucky for members of the Mid-Atlantic Soaring Association and their friends in the Washington, D.C., area. Thanks to Charlie Lindsay, the U.S. team's met. man at the 1965 Internationals, the speaker at the Club's monthly meeting was none other than "Wally" Wallington. He was on a very brief visit to Washington, and Charlie wasted no time in contacting him.

Over 50 people heard Wally talk about the lee wave and saw some excellent slides from his world travels. It was a most interesting evening, not without humour, and greatly beneficial to us all.
PATRICIA G. WORTHINGTON.

VENUS

SOVIET PROBE SOARS? — The records at Jodrell Bank indicate that after parachuting down through the atmo-

sphere for 1½ hours, the probe fell abruptly silent on hitting the planetary surface. This raises further questions. One Russian statement says that "for several minutes" the probe ceased to sink through the atmosphere, and was apparently "floating".

This might indicate upcurrents in the atmosphere. There could well be considerable turbulence in the hot, dense carbon dioxide gas. But the Jodrell Bank trackers say there was no indication of an irregular descent of the probe.

JOHN DAVY in *The Observer*

WEST GERMANY

RECORDS.—A National record for goal flight of 644.9 km., set up by Ernst Gernot Peter, of Freiburg, on 24th April, has been officially confirmed. He flew from Freiburg in Breisgau to Vias/Beziers in Southern France.

Der Adler.

As pointed out in our last issue, Hannes M. Linke, who set up a world record for the 100-km. Triangle of 136.18 km/h. in the United States on 30th July, is a German citizen.

Bristol Gliding Club

NYMPSFIELD, GLOUCESTER

We offer excellent thermal, hill and wave soaring at a site on the western edge of the Cotswolds, Near Stroud
Fleet includes Skylark II, Olympia, Swallow, Prefect and Dual Training Machines. Aerotowing available.
Comfortable Clubhouse, first-class Canteen, Bunkhouse and Bar.
Summer Gliding Holidays for ab-initio Non-Members.

Write to: BRISTOL GLIDING CLUB
NYMPSFIELD, Nr. STONEHOUSE, GLOS.
Telephone ULEY 342

CORNISH GLIDING & FLYING CLUB

TREVELLAS AIRFIELD, PERRANPORTH, CORNWALL

Gliding courses in modern fleet from May 27th – B.G.A. categorised instructors—fine soaring—lovely coastal airfield – ideal for a different family holiday.

Details with pleasure from:
June Daniel, 25 Daniell Road, Truro

LASHAM

For weekly elementary and advanced courses of all types throughout the year — at all inclusive rates

Full time professional instructors
Modern two and single seaters for training include:
Bocian, T49's and Swallows

Centrally heated Clubhouse and Canteen

For full details of membership of the Lasham Gliding Society or of the Surrey Gliding Club, which is open to all solo pilots of Skylark standard apply:

The Secretary, Lasham Gliding Centre, Alton, Hants.
Telephone: Herriard 270

LASHAM GLIDING CENTRE

INDEX TO ADVERTISERS

Air Touring Shops Ltd.	456
Austria SHK No. 19	512
Beaumont Aviation Literature	471
M. A. Brighton & Co. Ltd.	Back Cover, 534
Bristol Gliding Club	535
British Gliding Association	475
Burghley Finance Co. Ltd.	531
Classifieds	511-513
Peter Clifford Aviation Ltd.	476
Cobb Slater Instrument Co. Ltd.	525
Cornish Gliding Club	535
Crossfell Variometers	486
Derbyshire and Lancashire Gliding Club	536
Devon and Somerset Gliding Club	536
Doncaster Sailplane Services	522
Dorset Flying Club and Aviation Centre	495
Dunkeswell Light Aircraft Ltd.	529
Flug und Fahrzeugwerke AG	504
Gliderwork	526
J. Hulme	473
Paul Hamlyn Ltd.	489
Irving Air Chute of Great Britain Ltd.	488
Kent Gliding Club	536
Lasham Gliding Society Ltd.	535
London Gliding Club	456, 536
Victor Laurence (Merchants) Ltd.	511
Midland Gliding Club	Inside Back Cover
Motoimport	482
Norco Aviation & Industrial Equipment Ltd.	464
Ontaero Co.	474
"Pilot"	468
Rubery Owen Ltd.	472
Sailplane & Engineering Services Ltd.	487
Schempp-Hirth K.G.	494
Alexander Schleicher Segelflugzeubau	499
Scottish Gliding Union	Inside Back Cover
Shell Mex & B.P. Ltd.	Inside Front Cover
Slingsby Aircraft Ltd.	450
Southdown Aero Services Ltd.	458
Speedwell Sailplanes	466
Sportair Aviation Ltd.	509
Stevenson-Ebentheuer	493
Three Counties Aero Club Ltd.	522
"Weather"	528
West Wales Gliding Association	Inside Back Cover
Yorkshire Gliding Club	Inside Back Cover

The Derbyshire and Lancashire
GLIDING CLUB
Camphill, Great Hucklow, Nr. Tideswell, Derbyshire

The Club has three dual control gliders and offers elementary, intermediate and high performance facilities and training. Private Owners catered for. The comfortable Club House, Dormitories and Canteen are under the care of a Resident Steward and Stewardess. At Camphill there are all those things which make the complete Gliding Club.

Write to the Secretary for details of Membership and Summer Courses.

Telephone Tideswell 207

Devon & Somerset Gliding Club Ltd.,
North Hill, Broadhembury,
Honiton, Devon

1968 Holiday Gliding Courses (up to solo standard) 15 Gns. per 5 days course.

"Junior League Weeks" (for "solo" pilots) 5 Gns. plus launch and soaring fees. Better than ever at our new site, Thermal, Ridge and Wave soaring.

Apply Course Sec., 2 St. Peters Close, Horton Ilminster, Somerset.

HOLIDAY COURSES FOR BEGINNERS AND OTHERS

One week or more, April to mid-October

Professional instructors

Modern residential Clubhouse. Licensed Bar

Excellent thermal and ridge soaring in beautiful open countryside

For full details send S.A.E. to:

KENT GLIDING CLUB
CHALLOCK, ASHFORD, KENT
Telephone: Challock 307

LONDON GLIDING CLUB
Dunstable Downs, Bedfordshire
Telephone: OLU 2 63419

WINTER SOARING?

Yes, if you visit the London Gliding Club site. We will provide a cheap winch launch, and the hill lift is free. Come and complete your five hours, or just fly around for a few hours to keep your hand in. There are thermals in January too, if you are ready for them. We even have an east wind wave.

TRAINING FLIGHTS?

Our two superb, modern Ka 13 two-seaters are rarely on the ground, and in support are three other training two-seaters. A third Ka 13 will soon be joining the fleet.

NEXT SEASON

Residential courses begin again in the spring. Write now to the Manager (SG) at the club.

MIDLAND GLIDING CLUB
The Long Mynd, Shropshire
Tel. Linley 206
Ab initio training
Advanced instruction
Ridge soaring thermals, wave flying
Excellent residential clubhouse
Good food Bar
RESIDENTIAL SUMMER COURSES
Write to **Miss. J. Hilton,**
17 Victoria Street, Castlefields, Shrewsbury.

Scottish Gliding Union
PORTMOAK, SCOTLANDWELL, BY KINROSS
Telephone: Scotlandwell 243
THE WAVE SITE
Excellent Hill, Thermal and Wave Soaring in beautiful surroundings
Comfortable Clubrooms, excellent bedroom accommodation, full catering and bar
Seven days per week
Balanced Club Fleet Resident Instructor
Aero Tow Facilities
COURSES FOR BEGINNERS AND OTHERS
JUNE TO SEPTEMBER
Visitors and visiting aircraft welcome
ADVANCED BOOKINGS NECESSARY IN WRITING
Write to the Secretary for further details

WEST WALES
Withybush Airfield, Haverfordwest, Pembrokeshire
The Club is centrally situated for over 70 miles of National Park Coastline offering unspoilt beaches and excellent facilities for open air holidays.
Gliding Holiday Courses open any week Summer and Winter. Launching from three runways by auto-tow, winch and aero-tow.
For the beginner, instruction on side-by-side Slingsby T-21 and Swallow.
For the advanced, high performance training on Capstan. Aero-tows by Tugmaster. Soaring on N, E, W and S facing cliffs. Accommodation is fully licensed residential Clubhouse, with male and female dormitories with new interior sprung single beds.
Illustrated brochure and details from Gliding Secretary, J. Hosker, 7 Alexandra Terrace, Brynmill, Swansea.

DO YOU ONLY WANT TO FLY AT WEEKENDS?
OF COURSE YOU DON'T!
with the
YORKSHIRE GLIDING CLUB
AT SUTTON BANK
it is possible to SOAR on any day of the week, at any time of the year . . . as well as the good thermal soaring conditions that are to be found over the Vale of York in the summer months, excellent hill and wave soaring in the lee of the Pennines can be enjoyed during all months of the year.

The club specialises in holiday courses for beginners and in advanced courses . . full-time, professional instructors are employed.

Visitors from other clubs are welcome . . . launching by winch or aero-tow.

The clubhouse is fully residential and is of a very high standard. There is a licensed bar and catering is provided for all meals . . . centrally-heated bedrooms, each with hot and cold water! Visitors can bring their wives and families to Sutton Bank confidently knowing that they too will have an enjoyable holiday.

The Club is ideally situated for exploring the magnificent scenery of the North Yorkshire National Park.

Modern fleet of training and high performance sailplanes.

For more information write to:
The Secretary,
THE YORKSHIRE GLIDING CLUB,
SUTTON BANK, THIRSK,
YORKSHIRE.
Telephone: Sutton (Thirsk) 237



Find out all about it by reading our advertisement on page 534

BALLOONING IS FUN