

# SAILPLANE & GLIDING

August—September 1967



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# SAILPLANE & GLIDING

OFFICIAL ORGAN OF THE BRITISH GLIDING ASSOCIATION

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Cover photograph: René Comte demonstrates his Diamant at the National Championships.  
Photograph by Charles Brown.

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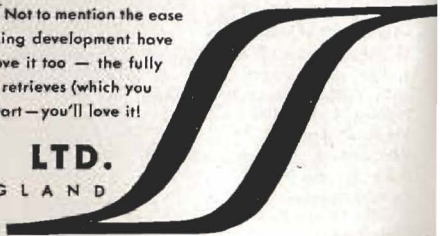
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# THE NATIONAL CHAMPIONSHIPS

LASHAM, 20th - 29th MAY, 1967

BY A E SLATER AND RIKA HARWOOD

IT was not the fault of Mr. J. P. Mallalieu's Department that he was late in turning up to open the National Championships: he is Minister of State for the Board of Trade, but the traffic jam at Ascot which delayed him on Saturday, 20th May, was the responsibility of the Ministry of Transport. However, Ann Welch was at last able to announce that the Minister was "on his final glide, 3½ minutes out".

As he came to rest alongside the High Table in the big marquee, Philip Wills explained that, among the ships and trade and other things the Minister was responsible for, somewhere in a far top corner was Gliding; he would, in fact, see a glider "which will put up our exports a bit".

Mr. Mallalieu explained that among the things he did not control was not only traffic but the weather. He did not even control gliding, apart from having to settle disputes with ATC: gliding, he said, "is controlled by the British Gliding Association, that wonderful body of genuine amateurs". But one subject for which he had special responsibility was aircraft noise (laughter).

Mr. Mallalieu then presented the Churchill Award to John Simpson, who intends to use it to study the sea-breeze front; he will make a film and observe the phenomenon from a two-seater sailplane as well as from the ground.

The Minister having declared the Championships open, Ann Welch took over to the strain of "Happy Birthday to You", and proceeded to explain the new "Cat's Cradle" distance task—or rather, advised everyone to tackle the task of reading the small print of the

Rules. As usual with new rules, there were ways of frustrating their intention, and she added: "I've discovered a lot of gamesmanship, but I'm not telling." She warned everyone that, as last year, the borders of controlled airspace would be patrolled; then welcomed Dick Schreder, who had come from America to fly an HP-14 *hors concours* (applause).

The weather was unsuitable for setting a task at present, but there would be another briefing at 1 p.m., and meanwhile "Pat Menmuir will give you a brief run-down on the gales".

*The wind, Pat said, was blowing 20-25*



*John Simpson receiving the Churchill award from the Minister.*



Pat Menmuir giving the forecast on the opening day.

knots on the ground, gusting to 35, and up aloft it was 35-40 kt. Showers were expected, but most of them would be further north. Cloud base 2,500 ft.; tops 8,000 ft. and occasionally 12,000 ft.; thermals good but broken by the wind. Tomorrow we would be under the influence of a wave depression over Southern Ireland and as to Monday and Tuesday: "We always save the best weather for later on, as you know."

Ken O'Riley, asked about the dropping zone, said something about a "dripping zone". Philip Wills added a warning about Airspace, and also about observing the proper courtesies to farmers after landing on their property; he suggested dropping them a postcard afterwards—thus increasing the sales of BGA postcards.

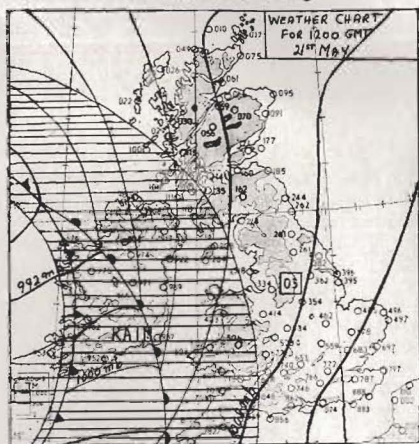
We were sorry to hear that Harold Drew, vice-chairman of the Championships organisation, was away ill with jaundice.

The 1 p.m. briefing was postponed to 2.30 and that in turn was cancelled. Two or three thunderstorms passed over in the afternoon, and Dick Schreder managed to soar under the base of one cu-nim.

## Changes in Entry List

As usual, there were alterations in this list after the version published in our last issue (p. 202-3) had gone to Press. The corrections have been incorporated in the Final Result (pages 290, 291).

## Sunday, 21st May



At the 09.30 briefing the forecast was not very promising. A depression was to reach Ireland by midday, crossing the British Isles during the next 24 hours, with a warm front approaching from the S.W. Winds 200° 15-20 knots, backing and tending to freshen. 8/8 strato-cu turning into cumulus by mid-morning. By 10.30 cloudbase was expected to rise to 2,000-2,500 ft. (all heights a.s.l.), tops to 5,000-6,000 ft., with moderate broken thermals. A slight improvement was possible during the next hour but cloud would increase again and rain was expected to reach Lasham between 13.00-14.00 hrs. Along the route conditions would improve, with a chance of showers in East Anglia, but these would be few and far between.

With this difficult weather situation it would be necessary to get pilots away as soon as conditions would allow. After going through the essential details of briefing quickly Ann Welch set a race to Swanton Morley via Thame airfield, total distance 233.5 km. X=30 km., Y=66 km. Designated start. This task was

set for League 1, and the same task, if any, for League 2 if their launch was not held up too long by relights for League 1 (League 2's task was subsequently cancelled at 13.30).

As nobody had bothered to rig before briefing, there was now a frantic hurry to get ready—rather reluctantly—to be on the grid by 10.30. Pilots scarcely believed that they might have to take the air as they waited patiently on the grid and watched the unpromising sky rush by. The "snifter", however, did not come down as fast as they all expected, and even reported finding 3 knots lift over Alton at 1,500 ft. Obviously as soon as cloudbase reached 2,000 ft. they would be sent on their way. Just before noon the order to launch was given and the 1967 Nationals had begun.

Towing was not easy, nor was it pleasant, as the air was extremely turbulent, but the tug pilots did a very good job and 38 minutes later the 42 gliders of League 1 had all been hauled into the air. John Williamson had a bit of a mishap on take-off with his HP-14 (described by him elsewhere), but some bits of metal were unbent and rejoined within 40 minutes, in time for him to join the relight queue, which was led by Wally Kahn.

The strong S.W. wind backed unexpectedly far to become S.S.E., so pilots did not need to give first priority to counteracting any tendency to drift towards the edge of the Control Zone, where a patrolling aeroplane was watching for them "in case".

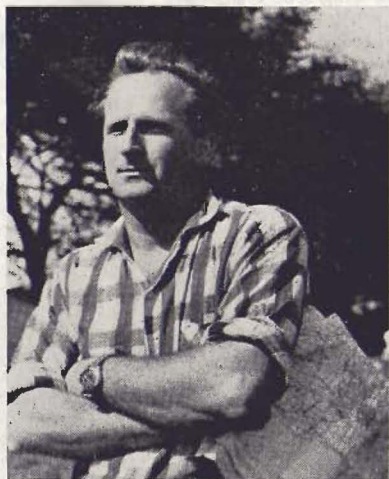
This was as well, because they needed all their attention for keeping airborne on this first leg. For example, George Collins, though he got 2 knots lift under a cumulus for a start, sank at 6 to 8 knots in a downdraught on his way to the next one, so failed to reach it. Ian Strachan ran out of thermals in company with Dick Schreder at Basingstoke, then, after returning for another try, did so again at Reading.

First to arrive at the goal was Andy Gough, and, as it later transpired, he made it in the shortest time—2 hrs. 54 mins. (12.11 to 15.05), giving an average of 80.4 k.p.h. (49.96 m.p.h.). He deserved his success for his persistence in keeping on track; he always looked straight ahead for the next thermal source instead of being tempted into deviations.

While Andy Gough's maximum height was 3,500 ft., Humphry Dimock spent most of his time between 1,000 and 1,500 ft. and only twice rose above 3,000. Wally Kahn, on the other hand, reached 4,500 ft. (immediately after a sink to 800) and only one pilot exceeded this with 5,000 ft.

Of 25 pilots who rounded the turning-point, nine reached the goal. But many drifted too far to leeward, and a few of these even fetched up by the coast at King's Lynn, 24 miles W.N.W. of the goal. Whether they could reach it from there against the wind depended on "penetration". For instance, David Innes and Simon Redman, each with an SHK, managed to make Swanton Morley against the wind, whereas of two Ka-6 pilots who also reached King's Lynn, Peter Dawson had to land there and Tony Deane-Drummond found 4,000 ft. insufficient to get him more than part of the way to the goal—if he had just reached the finish-line, he said, he would have pulled off speed and re-crossed it going backwards in the correct direction, south to north.

David Innes, on the other hand, used the technique of flying straight ahead



*David Tunes, one of the four pilots chosen to represent Britain next year in Poland. Unlike the others, he will be flying in World Championships for the first time. (See page 300.)*

but slowing up as he crossed each thermal. He was, in fact, lucky to have reached King's Lynn at all, because he had forgotten to pull in his wheel all the way to Thame; however, after that, where the situation demanded fast glides between thermals, he realized his performance was not what it should be, thought a bit, and hit on the cause. Before that, Wally Kahn had tried to tell him about the wheel but was on the wrong wave-length, whereupon another competitor, who shall be nameless, joined in with "Don't tell him—let him land." David and Wally reached the goal, but the other pilot didn't—perhaps some moral could be drawn.

The wind was not the only trouble in making Swanton Morley awkward to reach; for several competitors it was difficult to find. Wally Kahn started his final glide to the wrong aerodrome, realised it when he was down to 1,000 ft., but managed to get back to 2,000 ft. and then made sure he had the right place by asking his fellow competitors on the radio the right sort of questions to which they could answer "affirmative". Another pilot found it by mere chance, as he landed there without knowing where he was!

Nicholas Goodhart, unlike nearly everyone else, found no difficulty getting to Thame, but later drifted over the Fens, where thermals were "few and far between", and he found himself crossing the same canal several times (Andy Gough complained of seeing a canal that wasn't on his map). Nick, through caution, started his final glide unnecessarily high, but nevertheless made second best speed.

Gerry Burgess, with a Dart 15, was the only Standard Class pilot to reach the goal. He had missed briefing because, after hearing the B.B.C. forecast, he was convinced there would be no task, so went back to sleep.

Bernard Fitchett, the youngest pilot at 20, and flying in Nationals for the first time, missed the goal by only a couple of fields, to the disappointment of those watching at Swanton.

John Williamson made a good effort in landing 6 miles short in a machine, the HP-14, which he had hardly flown before.

When Peter Scott landed, he found the landowner to be the owner also of



*Some fatherly advice for Bernard Fitchett.*

a piece of marshland in Kent, which Peter had coveted for a bird sanctuary. So he did a deal there and then. Before this, he had done one-and-a-half turns of a spin for the first time in his life; his stall was not merely due to turbulence, he thought, but to the fact that he was approaching a thermal through air that was (in obedience to theory) rapidly accelerating towards its centre, and so continually depriving him of air-speed. The severe turbulence not only sent another pilot into an incipient spin, but made field landings extremely tricky; yet no-one suffered damage.

Brennig James had an adventure on the way home; being stopped by an overtaking car after a quick get-away from traffic lights, he was told that his trailer doors were open and "something" had fallen out. Inspection of the trailer revealed that the something was nothing less than the fuselage! Three-quarters of a mile back they picked it up from the gutter—virtually undamaged.

#### Leading results

Reached Goal		k.p.h.
Gough	SHK	80.4
Goodhart	Dart 17	67.8
Kahn	Dart 17R	66.9
Garrod	Dart 17	66.6
Burgess	Dart 15*	65.8
Burton	Dart 17R	62.4
Innes	SHK	62.2
Stone	SHK	60.5
Redman	SHK	55.3

Scoring Distance		km.
Fitchett	Ka-6E*	201.5
Donald	Ka-6E*	201.5
D.-Drummond	Ka-6E*	194.5
Williamson	HP-14	193.0

\* Standard Class.

### Monday, 22nd May

The warm front which had moved over the country the day before was still with us at the 9.30 briefing. The depression west of Northern Ireland, with associated fronts, was clear of the British Isles. Strong to gale force south-westerly winds over the U.K. were indicated. Squally showers with a possibility of thunderstorms, lightning strikes, cu-nims, hail, in fact everything under the sun, were forecast. Surface wind  $210^{\circ}$  22 knots, gusting up to 30-40 knots.

After this little lot had sunk in, League 2 pilots were pessimistically awaiting the fate that might be in store for them . . . Free Distance! This indeed it was; however, Ann immediately said that she would not send League 2 off until cloudbase reached 2,000 ft. over

Lasham, and advised pilots to delay rigging till 10 a.m. at the earliest—"There might be some weather then." League 1 was to be re-briefed at noon, but even before this both tasks were cancelled, the only scores that day being made at the bridge tables.

The briefing marquee began to get rather wet.

### Tuesday, 23rd May

At 9.30 a.m. the depression was filling and drifting slowly north-eastwards. Unstable south-westerly airflow over England and Wales, with showers—particularly in minor troughs, which were expected to swing west-to-east across the country, first reaching Lasham by noon. Showers becoming less frequent after 15.00. Wind speeds generally less than on Monday, with a tendency to a gradual veer in direction from  $240^{\circ}$  to  $260^{\circ}$ . A slight possibility of wave activity and strong broken thermals, isolated thunderstorms, etc., were forecast.

League 2 was again offered Free Dis-



A film was scheduled to be taken during the practice week on competition flying. Needless to say, this week was a complete wash-out too, and they ran behind schedule. Here the camera is being fitted to the Skylark 4.

tance, but after first going 170 km. to Rearsby (Leicester). Nick Goodhart wanted to know "which side of the turning-point to pass if you don't know where you're going beyond it?" The answer was: "Photograph it." Gliders were to wait on the grid from 10.30 till cloudbase had risen to 2,000 ft. Then, exasperatingly, several times League 2 were at the "go" stage when a large shower would loom up. When the trough did arrive, there were two of it; then, instead of clearing the air, the second one was followed by one cu-nim after another, each of which the met. man presumed to be the last.

Finally, pilots became so frustrated that a lot of chit-chat went on over the radio. One announced gaily that he was flying from Upavon and climbing in a cu-nim at 1,000 ft. per min. and didn't anybody from Lasham want their Gold C. height?! It took some pilots quite a while before they were convinced that this was a practical joke. Another pilot was heard to demand to be served with a cup of tea in the cockpit. Others managed forty winks therein.

League 1 had been to briefing after briefing during this time, and at one of these they had been set a race to Bicester and would take off immediately after League 2 had been launched. Their task was, however, cancelled at 15.30 after some of the pilots had already taken matters into their own hands and de-rigged.

As for League 2, shortly after one pilot had said "Nobody can accuse the

task-setters of not trying", the task was cancelled; the time—16.10. Of course, no sooner was this done than the sun broke through and quite a number of pilots had local soaring flights. The latest landed at about 19.30, feeling a lot better after his first opportunity to fly during the meeting.

The briefing marquee was getting wetter and muddier.

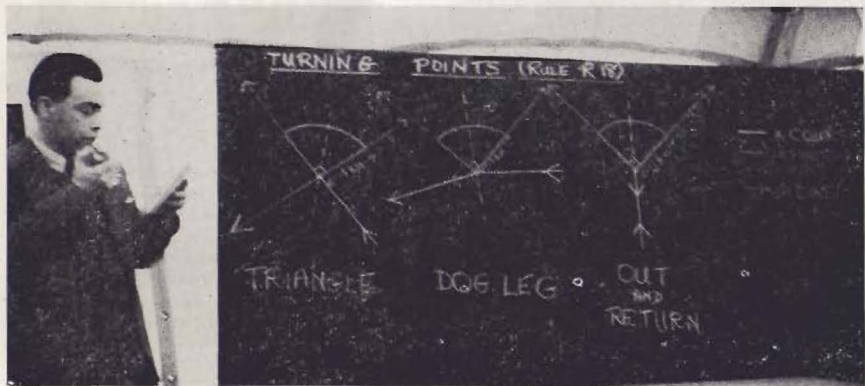
### Wednesday, 24th May

*Rain. At the second briefing at 10.30 . . . More rain. At 11.30 . . . Rain, rain, rain.*

After all had sung "Happy birthday, dear Wally", Dick Schreder was invited to tell us something about the historic American Nationals last year. There, pilots complained of too much flying. Dick averaged approximately 7 hours each day over a nine-day period. After he had talked for some 20 minutes off the cuff, a lot of pilots must have felt they would give anything to take up his invitation to fly in the American Nationals at the end of June.

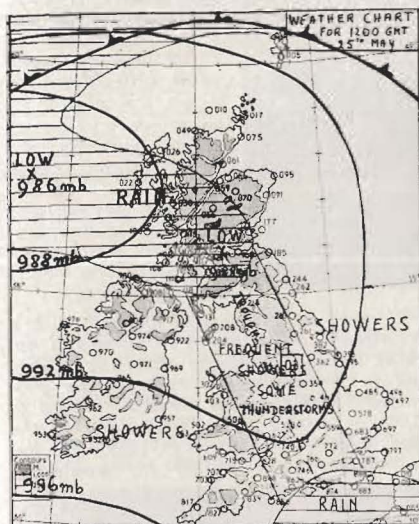
By now our own Nationals were becoming historic in a different way. League 1 had had about  $3\frac{1}{2}$  to  $4\frac{1}{2}$  hours' flying, and League 2 none, with 5 days gone.

Sawdust and sand appeared in large quantities to cover the floor of the briefing marquee, and small trenches were dug to drain away the puddles.



Roger Barrett explaining the photographic evidence rules.

Thursday, 25th May



"Stop me if you've heard this before, but there's a depression." After this introduction to the 9.30 met. briefing, we were told that it had developed a "wave" which was approaching Cherbourg, and a trough stretching northwards from there was crossing the country and could be expected about noon, when there was a risk of general rain and frequent showers affecting the extreme south of England. Further north, showers had already started, and thunderstorms were likely to brew up north of latitude 52°. Cloud-base, at only 1,500 ft. during briefing should lift to 2,500 ft. over southern England. A south-westerly wind would blow 25 knots at 2,000 ft., and thermals would be moderate to strong.

Whatever the weather, the organisers would have to try to pull something out of the hat. If not both Leagues, at least League 2 must be given a task, and would have to start as early as possible.

League 2's task was Free Distance with pilot-selected start—first take-off at 10.30. X=30 km., Y=60 km. (remember these figures). League 1, to be briefed at 10.30, were to follow immediately after League 2, also on Free Distance. After five days of no flying, crews had become rather lazy about rigging, but

now it was all hands on deck to be ready and out on the grid in time. There was no time to send the "sniffers" up, even to check cloudbase.

Ken Wilkinson was first off at 10.35, followed by Ron Sandford and Chris Wills at 10.42 and 10.48. This bright period lasted about half an hour, and the first seven take-offs were still airborne. However, the next 20 launches or so almost accompanied their tugs back to earth, and the landing area was strewn with gliders.

Chris Wills, however, had contacted a thermal soon after release and was well away into cloud, so he was able to reach better weather to the north. He carried on in good style till he reached The Wash, where he sank rather low, and at this point he had to decide whether to turn north or south. He nearly chose south, but then thought that a lot of others, who he mistakenly imagined to be doing as well as he, would be making for Norfolk, so he might do better by going north. Having made this choice, Chris then recognised, seen dimly through rain, a sea-breeze front, so he joined it and proceeded to fly up the Lincolnshire coast, sometimes at only 800 ft., to a landing near Louth, 267 km. from Lasham (166 miles), after five and a half hours in the air.

But those other imaginary pilots got nowhere near Norfolk. Only one other competitor, Chris Simpson, had managed to get beyond the Oxford region. After a launch at 11.28 he had many ups and downs between extreme limits of 7,500 ft. maximum and 700 ft. minimum, till, north of Thame, he was surprised to catch an 8-knot thermal which took him to a landing north of Huntingdon, 147.5 km.

Ron Willbie was down near Abingdon (64 km.) and Ray Foot at Abingdon (59.5 km.). It only needed four pilots (10 per cent) past "Y" to make this a contest day. But however hard the scorers tried to stretch the map and shrink the rulers, no more than 59.5 km. could be measured for Ray, and so, after 6 days, League 2 was still without any contest. Nor, of course, did Chris Wills gain official recognition as the day's winner, though, if he had been, only 100 points would have been allotted him.

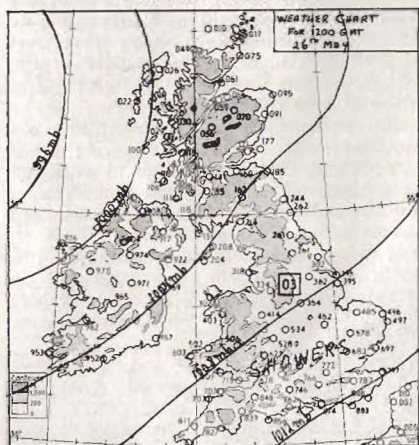


*League 1 competitors watch Anne Burns selecting her take-off time on 25th May.*

Just before 15.00, League 1 were launched, but only 6 pilots landed out, most of them because they failed to scrape back to Lasham. There were 92 contest launches for League 2, and 71 for League 1.

The briefing marquee had duck-boards on top of the sand which covered the sawdust, which covered the mud; but the mess was greater than ever.

### Friday, 26th May



The depression was a little further away to the north-west of Ireland, with again an unstable south-westerly, 20-25 knots, blowing over the country. Today, however, no troughs or thunderstorms were expected, but a few showers were likely over the proposed task routes. Over southern England some cirrus was also a possibility, but our ever optimistic

met. man said it was associated with a jet stream, not a warm front, so did not think it would seriously affect the moderate to strong broken thermals he promised 5-6/8 cumulus cloud with base at 2,000 ft. lifting to 3,500 ft. later in the day, with tops to 8,000 ft.-12,000 ft., but no higher than 15,000 ft., would be covering the route.

It was Philip Wills's turn to be greeted with "Happy Birthday dear Chairman".

Task for League 2: Distance along a line, N. to Thame (66 km.), N.E. to Tibenham (161.5 km.), then S. of W. to Madley (227.5 km.). X=30 km., Y=60 km. Designated start. On grid 10.15.

Task for League 1: Race to Rearsby, 170 km. X=30 km. Y=60 km. Designated start. On grid behind League 2.

The by now somewhat disillusioned



*. . . duckboards.*

League 2 pilots were thinking in terms of getting a good launch time, hoping that a good share of luck would be with them—to protect them from too many showers early on—hoping also that the turning-points would not be hidden by cloud or rain—no Airway problems, and the thousand and one other things that could happen on a day like this. Getting round Thame would be a great help, as the second leg had a good downwind component. On the whole, their fears were well founded, as many of them came up against this sort of situation.

Launching started at 11.23, and, with the crosswind and turbulence to contend with, the first few pilots told the Director over the radio that towing was too fast in these gusty conditions. This was soon put right and tug pilots were briefed to watch their speed.

The five pilots who rounded Thame before 13.00 did best, as a shower at

12.55 brought a number of others down in quick succession.

Although David Ince (Thame 12.45) sank to 500 ft. over Aylesbury and again at Henlow, he reached the fringes of some cumulus and between Bassingbourn and Cambridge climbed to 7,000 ft. After that, however, he flew between only 3,000 and 3,500 ft. as far as Tibenham, trying to avoid the clag around the turning-point by keeping north; but it was no good and he soon landed.

Four others who turned Thame immediately after the shower between 13.12 and 13.45 also got either to Tibenham or nearby. One of these, Peter Neilson, saw the shower at Thame and had enough height to hang back there for a while before turning at 13.45. Dan Smith had the same idea but was lower, so he did not get away with it but drifted downwind and was unable to get back.



Task routes for both Leagues. The free distance tasks on the 26th and 28th are not shown.

Hugh Mettam and Bill Shepard flew straight over Thame at 13.30 without losing much height. Hugh later made a climb to 10,000 ft. near Cambridge, and arrived with Bill at Tibenham at 15.30, where both landed.

Alan Purnell, who was saved by a line of showers near Thame, stayed in good lift at the edge of this line. After turning Thame he went N.W. so as to cross the Airway at a higher level. From Cranfield to Bedford he had to use weak lift till it increased to a good 6 knots, taking him to 6,000 ft., and gaining another 2,000 ft. on his way out. Zig-zagging between Bedford and Newmarket, he used various front edges of showers, and at Tuddenham was climbing again at 2 knots. He then started to hear static interference on his radio and assumed this to be lightning. Two turns later he saw an actual strike go straight down to ground about 2 miles north, and a few moments later, another one to the south. Since the piece of cloud under which he was circling looked exactly like the one from which the strikes came, he waited tensely for the next one to strike him, but went on his way and into his final glide.

Those who had landed out near Lasham were now on their second or third attempts and several could now change their zero scores into a few points. There were 65 launches for League 2.



*Discussing the previous day's events before briefing. L. to R.: Rika Harwood, Nick Goodhart, Peter Scott.*

## Leading results

Jones	SHK	244.0
Carr	Skylark 4	224.0
Ince	Ka-6E	211.5
Neilson	Skylark 3B	205.0
Mettam	Skylark 3B	197.5
Shepard	Skylark 3F	197.5
Scallon	Skylark 4	197.5

League 1, with Anne Burns to take off first, inaugurated the launching at 12.56. The sky was looking more promising, and only four pilots landed back for another launch while the tail end of this League were still on the ground.

Not every pilot bothered to cross the start line, as they were loath to leave their precious thermals. Nick Goodhart, the day's eventual winner, went west of track where there were more sunny patches, but he very nearly came unstuck near Greenham Common. Once he recovered from that, however, he had a climb to 12,000 ft. between Didcot and Oxford, and on leaving this cloud on dead-reckoning climbed to 15,000 and then 16,000 ft. He had aimed to be clear and west of the Airway on clearing the cloud, and he pin-pointed himself as 6 miles south of Gaydon. Crossing the Airway in VMC, he ran into a snow storm over Leicester at 4,000 ft. Despite this, he had no difficulty in reaching Rearsby, although the sky was bleak and devoid of any thermal activity. Nick had taken 2 hrs. 15 mins. for the trip.

John Williamson, who had entered the same cloud about 500 ft. above Nick, was not too certain of his dead-reckoning and broke off his climb at 8,000 ft. Alas, this was not quite enough to get to Rearsby, and he landed 26 km. short. Alf Warming entered Nick's cloud 10 minutes later, so only reached 8,000 ft. before its lift petered out.

Mike Garrod patiently worked some weak lift from 600 to 1,800 ft. near Sywell, but this was the last tit-bit he got and brought him to within 29 km. of the goal.

He was one storm ahead of a gaggle which had to land at Oakley. This one storm was worth an extra 427 points, rewarding him with 4th place for the day, instead of equal 30th for the un-



... muddier inside than out.

fortunate Oakley people. It just goes to show!

Being east of track to dodge cu-nims, Peter Scott found himself looking at the pointing of the brickworks chimneys near Bedford for almost 20 minutes. He was finally rewarded with a climb to 4,000 ft. for starting his final glide.

Mike Fairman landed in the same field as Andy Gough. The latter was just leaving to hurry back to Lasham for a relight. Mike, however, thought he would call it a day and went to a nearby café for tea. To his utter surprise, after

tea he found Andy sitting again in the very same field. It's a small world!

John Delafield, having landed 1 mile N.E. of Benson, was luckier with his relight at 16.29; he climbed to 6,000 ft. north of Basingstoke and then to 11,000 ft. and so doubled his distance almost exactly by landing near Towcester. Thus he was placed equal 11th for the day, instead of 39th.

After a relight at 17.31, and still trying to get away at around 18.00, John Fielden climbed to 7,000 ft. near Alton. From there he reached Benson—2.5 km. better off than on his first effort. It all counts!

Anne Burns had her last climb at Benson to 9,000 ft. and landed near Chipping Warden. As she so rightly said, "One had to do the best one could on a day like this."

League 1 had 48 contest launches.

Gumboots were now all the rage—the briefing marquee was even muddier inside than out.

#### Leading results

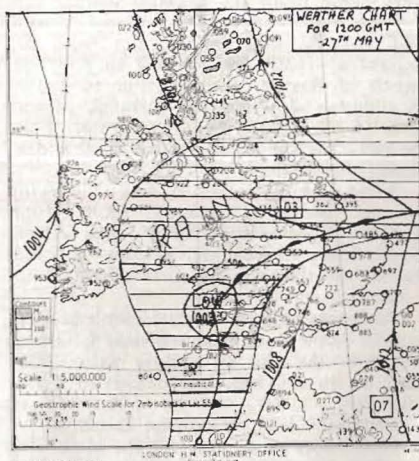
Goodhart	Dart 17	82.5 km/h
Stone	SHK	116 km.*
Williamson	HP-14	114 "
Garrod	Dart 17	111 "
Donald	Dart 17R	110 "
Warminger	Dart 17R	110 "
Scott	Dart 17R	92 "
	Dart 17R	89 "

\* scoring distance.



Dick Schreder and his wife Angie with the HP-14.

Saturday, 27th May



*A depression (what, again?), with associated low cloud and rain, was moving up the Channel, and the expectation in the morning was that it would reach the Thames estuary by evening, thus pushing the wind round from SE via E, NE and N to finish up NW.*

Ann Welch, hardly recognisable in gumboots, long plastic mackintosh and sou'wester, opened and closed the briefing in record time, promising another briefing for League 2 at 14.00, and League 1 could at least go and find shelter from the eternal rain.

But at 13.00 a watery sun appeared and bits of clear sky as well, while a dark mass of clouds to the east was moving away, not approaching, and the surface wind was south, not north.

The depression had, in fact, changed course and its centre was moving northward to the Midlands.

League 2 brightened up like the weather and started rigging in case they had to go off in a hurry.

At the 14.00 briefing, weak to moderate ragged thermals in a 200'/15-20 knot wind were promised, but cloudbase would remain low. Anyone finding it below 2,000 ft. on their launch, Ann said, must release without waiting to be signalled off. Pilot-selected launches could start at 14.45, and actually started at 14.51. Soon small gaggles were floating

around the sky, which in fact had a quite variable cloudbase between 1,600 and 1,900 ft.

The task—Free Distance, X=25 km., Y=50 km. Designated start.

There was, however, some lift about, and as long as one could stay with it and take the risk of landing out a couple of miles away, there was a chance. This chance, when it came, was taken by 25 pilots; some did so early on, and others from their relights. The relights on the whole did better by landing in the Oxford area, whereas the earlier starters did not go so far.

Rika Harwood, who had an agonising time recovering from an embarrassingly low height, was joined by David Ince a little later, but the thermal petered out and they had to resort to "hillock" soaring near Streatley. The hillock could hardly hold a Skylark and a Ka-6, so Rika landed. For the next 30 minutes she watched David scraping along this tiny hill, hardly more than 100 ft. over the ground. If anyone deserved to get up again and away, it was surely David, but he eventually joined Rika on the ground.

The maximum points for the day, 190 (6 pilots had passed Y), were shared by 16 pilots. League 2 had at least had another contest day, though it took 88 launches to do so.

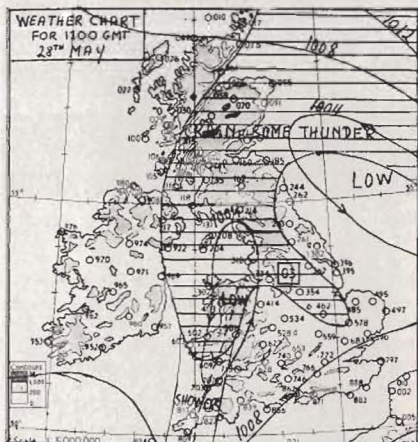
Oh joy, we now had straw to cover the duckboards, the sand, and the sawdust, so the muddy floor of the briefing marquee was decently buried at last.



# Leading results

		(scoring kms.)
Wilkinson, K.	Skylark 3B	40.0
Willbie	Skylark 4	39.5
Snodgrass	Skylark 4	38.5
Jefferson	Skylark 3B	38.0
Ellis	Skylark 3	36.0

Sunday, 28th May



Some areas of widespread thundery rain were expected to move NNE, leaving the task area in a region of strato-cu initially, followed by some showers falling from an unstable layer of alto-cu. Cumulus and cu-nims with violent thunderstorms were on the cards to form by late morning; these might possibly become organised into trough lines during the afternoon. Also patches of low stratus could affect high ground and

coasts in the extreme SW. Surface wind, variable but mainly 180°/12 knots, gusting to 25-30 knots, was forecast, with moderate to strong widely-spaced thermals.

No one relished this forecast! It was to have been Cat's Cradle day. Each League was given 5 turning-points which pilots could take in any order, and repeatedly if they liked, so long as they landed within the polygon enclosed by these points and did not return directly to the point they had last left.

League 1 had a larger polygon than League 2.

Once more the weather spoilt it all. The forecast light wind soon gave way to a strong blast from the south, so it had to be downwind tasks again—Free Distance for both Leagues. X=30, Y=60 km. Designated start. Last launch 18.00.

Not until 14.50 did League 1 start launching. The necessary relights were fitted into every 6th place in the other League, so it was not until 16.07 that the last pilot in League 2 had his first launch.

It was obviously important to try and stay airborne at the beginning as the time available was rather short if one had to allow for short retrieves and relights. This did not affect League 1 as much as League 2 with their later start.

The middle of the flying period was easier than the two ends, according to Tony Deane-Drummond, and Frank Irving agreed that things picked up at 17-17.30 hours due to high cloud clearing away. Tony landed at 19.15 and thought



Great interest was shown in the Diamant. René Comte explains some details of the tail-unit to Nick Goodhart and other bystanders.



*The scene with typical cloudscape on Tuesday, 23rd May, when pilots were on the grid for 6 hours before the task was cancelled.*

he could have kept airborne till 19.30; but a still later landing was by Peter Dawson, who grounded at 20.03 hrs. at Peterborough after a final glide from 3,200 ft. over Bedford.

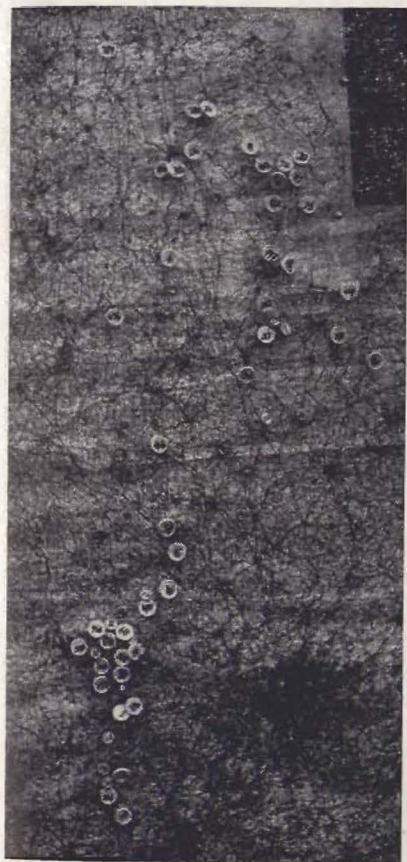
George Burton, the eventual winner, started cautiously after a launch at 15.02. Humphry Dimock, whom he joined at Abingdon, circling at 1,600 ft., departed westwards from there, but George thought Oxford to the north would give better prospects. He soon found a workable cloud which took him to 6,000 ft. This saw him nicely round Bicester, where he met Wally Kahn, who had taken off 12 mins. after him. George then made a series of small climbs in cloud to 4,500 ft. This enabled him to traverse the Airway swiftly just below its base. At Northampton he heard Nick over the radio, giving his position as Bedford, well to the east, but conditions north still looked more promising, and furthermore Leicester Airport (who also use 129.9 frequency) were giving the wind as due south, 7 kts. He therefore continued north. By the time he was four miles south of Bottesford he was down to 700 ft., but the ground falls steeply at this point and he managed to contact a wind-shadow thermal in the nick of time, strong enough to take him back to a shallow cloud with a base as high as 4,000 ft.

At Newark, with time getting on, only weak thermals between 1,000 and 1,200 ft. could be made use of; so with a

final effort he scraped back to 1,200 ft., and from this height made his final glide to west of Scunthorpe. Far to the NW he could see the cu-nims building over the Pennines. He had not encountered any on the way.

Bernard Fitchett (take-off 15.03), after nearly landing at Basingstoke, used a very weak thermal to keep going. He found that after Oxford conditions improved considerably, and he was able to use cloud streets from Oxford to Northampton at a ground speed of about 80 m.p.h. The Corby steelworks came to his aid with a good thermal to cloud-base (he did not do any cloud flying this day) for the last time. At Grantham he caught up with the high cover which had passed through earlier in the day, so he tried to go more westerly where the cover was less intense. The gaps between the cloud streets were, however, too large, so instead he used a very weak cloud street stretching from Cranwell into the "murk", gliding about 30 miles from 2,600 ft. The pilots who had gone in a more north-easterly direction all got caught by the high cover earlier on.

Rocky Stone, on his second attempt (take-off 17.15), had to land near Henley. On the approach he hit a tree and he was lucky to suffer only a broken ankle, cuts and bruises, but the glider was badly damaged. Until today he had been lying in second place overall, but now he was out of the running and lying in hospital.



Landing positions on 28th May.

Leading results		(scoring kms.)
Burton	Dart 17R	233.0
Fitchett	Ka-6E*	217.5
Garrod	Dart 17	214.0
Carrow	Dart 17R	206.0
Burns	SHK	203.5
Donald	Dart 17R	200.5
Delafield	Ka-6E*	200.0

\* Standard Class

League 2 started launching at 15.28 with the additional handicap of a late start. All depended on prompt thermal contact on the first launch and sufficient lift to get far enough to score. An early

landing, other than back at Lasham, meant no chance of a relight before closing time. Consequently, whereas League 1 had 58 launches, League 2 had only 44, and of those two pilots—Ted Stark on his third launch (16.45) and Dan Smith on his second (17.26)—alone managed to score off relights.

Leading results		(scoring kms.)
Greaves	Dart 17R	187.5
Goldney	Olympia 419	=167.0
Lane	Dart 17R	=167.0
Foot	Skylark 3F	152.0
Camp	Dart 17R	151.5
Wheeler	Ka-6E*	145.0
Ellis	Skylark 3	143.5

\* Standard Class

In League 1:

7 pilots flew over 200 kms.

17 pilots flew over 100 kms.

In League 2.:

16 pilots flew over 100 kms.

8 pilots flew over 60 kms.

6 pilots did not score and 1 pilot did not fly.

Monday, 29th May



*A high-pressure ridge should be over the country by noon. During the morning an unstable air mass with scattered showers would cross Lasham. The air would then stabilise as pressure rose, and showers would become more scattered and thunderstorms unlikely. Good strong thermals, and large flat areas near showers, were the day's recipe. Wind at 2,000 ft., 250°/18 kt.*

Instead of a short task to get everyone back for prizegiving, full-sized tasks were set for both Leagues to make up for all the loss of flying time inflicted on them by the bad weather during the Championships. So the main prizegiving was postponed to a future evening at the Kronfeld Club.

However, the winners of all but the last of the Daily Prizes were known, so these were duly presented by our Vice-President, Air Chief Marshal Sir Theodore McEvoy. There were, of course, only three in each League so far—League 1: Andy Gough, Nicholas Goodhart, George Burton; League 2: Ralph Jones, Ken Wilkinson, Colin Greaves. In addition, Chris Wills received a special prize for his magnificent flight on the 25th, which would have won him an official Daily Prize if only someone else had flown 500 yards further.

Prizes to the three meteorologists consisted of "a different kind of liquid", with more taste to it than the one they had so lavishly provided for us.

Roger Barrett introduced Mr. John Ware, who represented the only two Willses who cause no confusion in the Rating List—W. D. and H. O. His firm had already offered two Swallows and four barographs for competition, and scholarships for training instructors, and Mr. Ware carried on the good work by handing P. A. Wills an envelope, the contents of which "would not bounce". (Cheers.)

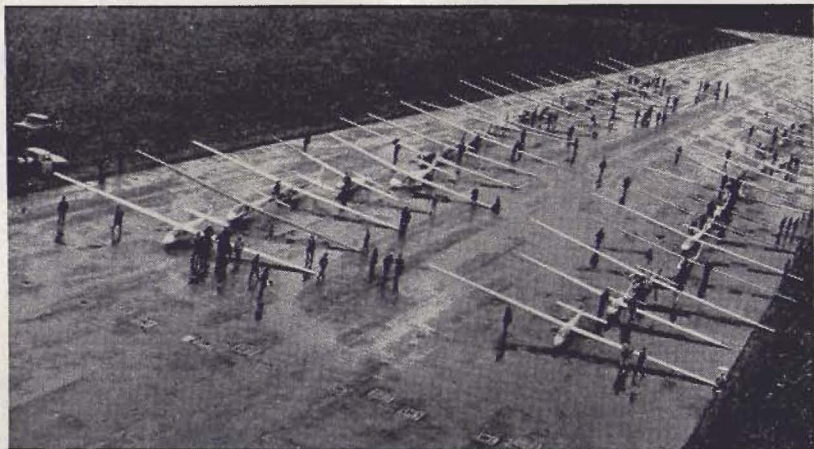
After Philip Wills had thanked the tug pilots, the wives, Harold Drew and all the others who had helped in preparing and running the Championships, Ann gave the tasks:

League 1: a 200-km. triangle via Bicester and South Marston.

League 2: Cat's Cradle, for which suitable weather had at last arrived:

League 2 had to be ready to start on Cat's Cradle by 10.45. Their turning-points (or corners of the polygon) were Lasham, Bicester, Broadway Tower, Keynsham and Andover; total perimeter 307 km. X=30 km., Y=60 km.

By the time launching began at 11.06, showers could be seen building up in the dropping zone, and it was not long before pilots had to pull off between



All photographs used in this article are by "Flight International", A. E. Slater, Peter Smith, Charles, Lagus, and P. H. Guest.

1,600 and 1,900 ft. to stay out of cloud. Some managed to get away by flying right at the edges of the showers; others came flocking down to earth. By 11.41 the 41 League 2 gliders had been launched and 26 were down again. A cu-nim stopped play for 40 mins., so to minimise the time interval between first and last launch, the remainder of League 2 continued streaming instead of being inserted in every 6th place among League 1.

Leigh Hood (take-off 11.29) started well with a climb to 15,000 ft. near Basingstoke. He had intended to go to Andover first but changed his mind to go to Broadway (108.5 km.). Icing was heavy, but as the day wore on, he had to go high to cross the gaps and dodge the storms. He climbed to over Gold C height four times.

Ralph Jones (take-off 11.35), who won the day with 370 km. and landed at 17.40 at Basingstoke, commented later that he was lucky in being able to turn north in an area of sky where other pilots were falling down; thus, in his opinion, an element of luck was involved in a Cat's Cradle (but was it luck?).

Charles Dorman (take-off 12.26), who had gone to Bicester, then to Broadway Tower, could not find the turning-point, so he back-tracked a little and made for Keynsham instead. This was almost into wind, but he managed to contact the edge of a large line of showers and flew straight and level for 15 miles or so, as far as Nympsfield. From there he had no trouble to get to Keynsham, then back again downwind—this time to land near Cheltenham. The potato field caused little damage, but it took him some time to get the mud out of the nose-pitot!

It is interesting to note that 7 of the first 10 places for the day had been launched before 12.00 and were first launches. There were 78 launches for League 2.

#### Leading results

		(scoring kms.)
Jones	SHK	340.0
Hood	Skylark 3f	294.5
Carr	Skylark 4	=255.0
Lane	Dart 17r	=255.0
Dorman	Olympia 463	224.0
Wilkinson	Olympia 419	232.0
Greaves	Dart 17r	243.5

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League 1 (X=30 km., Y=60 km., designated start) had watched League 2's launching "successes" with great interest. Now it was their turn, Peter Hanneman being first off at 12.42. Only four relights were taken. Pilots tended to gaggle more as they caught up the storms and showers in the Oxford area. The radio worked overtime as pilots went into cloud, calling their heights as they climbed, although not all could do so as some were on an RAF frequency. Others found it too dicey and did not go in.

George Burton was the first to turn at Bicester at 14.03, 6 minutes ahead of John Williamson and 8 minutes in front of the main gaggle. They were climbing just under and into a very large cloud near Oxford.

Then came an "incident". Paddy Kearon in an SHK and Tony Deane-Drummond in a Ka-6E collided inside cloud at 8,000 ft. As it happened, Paddy's frequency was being monitored and taped at the time at Lasham, while Tony's end of the story could be heard on 129.9 m/cs.

The tape reads as follows:

"I have been struck in cloud, Whacko"



(Paddy's call sign) "has been struck." Pause. Andy Gough to Paddy: "By another aircraft?" Paddy: "I don't know—I have seen nothing; all I know is, I have been struck, perhaps by a bird, but it seemed too heavy for that." Pause. "I still have control, I think, but aircraft is vibrating. I am straightening up to come out of cloud." Pause. "I am out of cloud; there is a large dent in the upper surface and leading edge of my starboard wing." Andy to Paddy: "How far out is the damage?" Paddy: "About two-thirds of way out. The wing is still on." Pause. Paddy: "Is there an easy way out of the SHK in case the wing comes off?" Andy: "The main thing is to get your legs from underneath the instrument panel." Another pilot to Paddy: "Be careful, when you jettison the

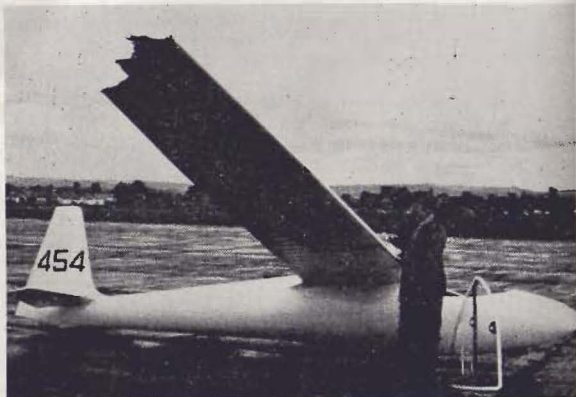
canopy, that the drag on your chute does not pin you in your seat. Suggest you jettison canopy while you still have control." Paddy: "I have slackened straps and can now see that the under surface of my wing is also cut to about halfway back; it gives the impression that it is wagging." Another pilot to Paddy: "Keep your speed low." Yet another pilot said: "On no account open your divebrakes" (This was probably the best advice he could have had.) Andy to Paddy: "You must abandon task and land at Bicester." Paddy: "I don't like having to do that." Andy: "It might save your bloody life; we can always get another SHK—but not another Paddy Kearon." Pause. Paddy: "I didn't know you cared, Andy."

A safe landing was made by Paddy at Bicester, and shortly afterwards he took off again in a Ka-6 belonging to Bicester to be towed back to Lasham, where he released at 16.55 in the dropping zone to do the task all over again! An hour later he had to land at . . . Bicester!

Tony Deane-Drummond had heard a loud bang and at first thought it might have been lightning. He had straightened up a few seconds before. David Carrow asked him if he could see damage, but Tony said he could not see as it was dark, and had to wait until he was clear of cloud. The glider was under control although (clear of cloud now) he could see some 3-4 ft. of his wingtip missing. He nevertheless decided to continue the task and turned at Bicester at 14.15. Later in the flight he made another

▲ Paddy Kearon in his SHK.

▶ Deane-Drummond's glider after landing at South Marston.



climb—to 14,000 ft., but still had to land at South Marston with five other pilots. They had all stood off to the north to avoid a large storm, but the air was completely dead after this storm. Tony will now never know if he could have turned South Marston with a full-span wing.

Later, Tony, a Major-General, commented to Paddy, an Air Commodore, that he thought it was carrying Inter-Service rivalry too far.

George Burton, who had climbed to 9,000 ft. over Blenheim Palace, with Peter Scott following him in the cloud 500 ft. below, decided then to keep north of the cu-nims. Then from Fairford he could see wet runways at South Marston. On hearing that David Carrow, Wally Kahn and others were going to wait north of South Marston to let the storm go through, George decided to go through the storm and get on with it. He turned South Marston at 2,500 ft. just after the storm, and pressed on for higher ground near Lambourn. Now down to 700 ft., he was confident of finding lift as the conditions looked normal again. He was soon at 4,000 ft. and had no more trouble to Lasham. Peter Scott hit one of the storms and had heavy icing, which, with heavy rain, brought him quickly down.

John Williamson gained 35 minutes on George Burton by climbing to 14,000 ft. on the second leg, and so could turn South Marston before the storm.

Nick Goodhart had seen a lot of lightning around Brize Norton after coming out of a cloud at 12,000 ft. He lost height to 5,500 ft. at Fairford. He turned South Marston, got low over Membury, and from there had a difficult time to Lasham. With 6 miles to go he hit sink and was down to 600 ft. at 4 miles out. Then he hit rising air, and without circling, flying at 55 knots, got back to 800 ft. with  $2\frac{1}{2}$  miles to go—enough to see him across the finish line.

Anne Burns also had plenty of troubles on this trip. Water in the pitot had frozen, her instruments failed, and lightning struck through her foot. Rather shaken, she pressed on, found the final leg hard work with no obvious thermal source to go for, but made Lasham after all.

The excitement of the day was still not

quite over. Alf Warminger, who was making a long final glide and still unsure of reaching Lasham, flew the last few miles as if he was sitting on eggs, hardly daring to move. He managed it, but too low to put his undercarriage down, nearly one hour after the others had got there. A very fitting end to the 1967 Nationals.

Leading results		Minutes
Williamson	HP-14	181.5
Goodhart	Dart 17	212.4
Schreder	HP-14	215.2
Gough	SHK	217.1
Innes	SHK	219.5
Burton	Dart 17r	236.7
Hanneman	Ka-6*	243.0
A. Burns	SHK	246.5
Warminger	Dart 17r	302.3

It is conceivable that, had the 83 pilots been at Lasham during this period for a holiday, very few, if any, would have bothered to rig and fly on any day except perhaps locally on the last one. The Directors, however, compelled them to fly and so succeeded in getting five days of flying, four of them Contest Days.



*"Frankly I'm dog tired of these Championships."*

# NATIONAL CHAMPIONSHIPS RESULTS 20th to 29th MAY, 1967

## LEAGUE 1

Final Place Open Standard	Pilot	Comp. No.	Sailplane	Contest Date, Daily place in brackets, followed by daily St. Cl. placing where applicable				Total points
				21st	26th	28th	29th	
1.	H. C. N. Goodhart	6	Dart 17	936 (2)	1000 (1)	852 (10=)	946 (2)	3734
2.	G. E. Burton	367	Dart 17R	912 (6=)	457 (10)	1000 (1)	918 (5)	3287
3.	D. S. Innes	432	SHK	912 (6=)	500 (8)	809 (15)	937 (4)	3158
4.	A. W. Gough	25	SHK	1000 (1)	154 (36=)	837 (12)	940 (3)	2931
5.	M. P. Garrod	261	Dart 17	931 (4)	635 (4)	918 (3)	421 (20=)	2905
6.	Anne Burns	19	SHK	677 (18)	423 (15)	872 (5)	908 (7)	2880
7.	1. P. Hanneman	278	Ka-6MD1	707 (17/5)	437 (13/2)	618 (21/7)	912 (6/1)	2674
8.	C. C. Donald	140	Dart 17R	749 (11)	629 (5)	859 (6=)	418 (22)	2655
9.	2. J. Delafield	372	Ka-6E	738 (14/4)	449 (11= /1)	859 (6= /2)	537 (9/2)	2583
10.	J. S. Williamson	515	HP-14	740 (13)	651 (3)	118 (35)	1000 (1)	2509
11.	3. A. J. Deane-Drummond	454	Ka-6E	746 (12/3)	397 (16/3)	854 (8= /3=)	491 (10= /3=)	2488
12.	D. D. Carrow	20	Dart 17R	715 (16)	303 (21=)	884 (4)	491 (10=)	2393
13.	4. B. Fitchett	390	Ka-6E	772 (10/2)	217 (29/7)	934 (2/1)	428 (19/8)	2351
14.	W. A. H. Kahn	4	Dart 17R	932 (3)	208 (30=)	702 (18)	491 (10=)	2333
15.	P. M. Scott	477	Dart 17R	569 (20)	508 (7)	734 (16)	421 (20=)	2232
16.	H. R. Dimock	366	Dart 17R	550 (21)	208 (30=)	831 (14)	491 (10=)	2080
17.	A. H. Warminger	44	Dart 17R	247 (27)	525 (6)	425 (25)	872 (8)	2069
18.	5. P. Dawson	345	Ka-6CR	590 (19/6)	368 (18/4)	545 (24/8)	346 (28= /9=)	1849
19.	6. P. G. Burgess	404	Dart 15	927 (5/1)	292 (23= /6)	105 (36/11)	491 (10= /3=)	1815
20.	7. R. A. E. Dunn	264	Ka-6E	406 (22/7)	177 (34/9)	854 (8= /3=)	305 (34/12)	1742
21.	8. J. S. Fielden	200	Dart 15	393 (23/8)	103 (39= /11)	833 (13/5)	328 (31/11)	1657
22.	A. J. Stone	336	SHK	905 (8)	663 (2)	56 (39)	—	1624
23.	J. Cardiff	272	Dart 17R	719 (15)	480 (9)	133 (34)	251 (38)	1583
24.	J. D. Spottiswood	86	Olympia 419	172 (28)	449 (11=)	636 (20)	237 (39=)	1494
25.	S. J. Redman	427	SHK	884 (9)	237 (27)	0 (41)	363 (26)	1484
26.	R. A. Neaves	197	Skylark 4	157 (29)	169 (35)	852 (10=)	270 (35=)	1448
27.	J. D. Jones	409	Dart 17R	50 (35)	292 (23=)	713 (17)	388 (25)	1443
28.	M. J. Smith	436	Dart 17R	111 (31)	228 (28)	616 (22)	358 (27)	1313
29.	9. I. W. Strachan	263	Ka-6E	17 (36/11)	186 (33/8)	657 (19/6)	437 (18/7)	1297
30.	D. B. James	470	Dart 17R	374 (25)	388 (17)	191 (29)	337 (30)	1290
31.	N. W. Kearon	27	SHK	376 (24)	106 (38)	567 (23)	237 (39=)	1286
32.	P. A. Wills	1	Dart 17R	278 (26)	431 (14)	24 (40)	439 (16=)	1172
33.	10. C. W. Bentson	15	Ka-6E	77 (34/10)	309 (20/5)	279 (27/9)	439 (16= /6)	1104
34.	M. Bird	68	Dart 17R	103 (33)	292 (23=)	155 (30=)	409 (23)	959
35.	E. J. Meddings	80	Olympia 419	107 (32)	303 (21=)	94 (37)	393 (24)	897
36.	E. G. Shephard	58	Dart 17	0	208 (30=)	304 (26)	307 (32=)	819
37.	E. Jerzycki	966	Dart 17R	0	323 (19)	155 (30=)	270 (35=)	748
38.	11. C. Pennyquick	125	Ka-6CR	142 (30/9)	3 (41/12)	139 (33/10)	461 (15/5)	745
39.	G. T. Collins	171	Olympia 419	0	252 (26)	146 (32)	270 (35=)	668
40.	S. F. E. Wills	121	Dart 17R	13 (37)	103 (39=)	215 (28)	307 (32=)	638
41.	12. M. C. Fairman	177	Foka 4	0	154 (36= /10)	77 (38/12)	347 (28= /9=)	577
Hors Concours Below 17								
	R. E. Schreder (U.S.A.)	514	HP-14	0	208 (30=)	717 (b.16)	942 (b.2)	1867

# LEAGUE 2

Final Place	H'cap	Pilot(s)	Comp.	Sailplane	Contest Date.	Daily place in brackets	Total points		
Open	Std.		No.		26th	27th	28th	29th	
1.	95	R. Jones	90	SHK	1000 (1)	0	778 (8)	1000 (1)	2778
2.	95	P. D. Lane	349	Dart 17r	830 (8)	0	893 (3)	750 (4)	2473
3.	100	V. C. Carr	438	Skylark 4	966 (2)	55 (14)	539 (18)	790 (3)	2350
4.	100	D. H. G. Ince	75	Ka-6c	912 (3)	88 (11 = )	669 (12)	453 (16)	2122
5.	95	C. M. Greaves	24	Dart 17r	287 (13)	0	1000 (1)	715 (7)	2002
6. =	100	F. D. Cretney/ N. Wilkinson	87	Olympia 419	155 (27 = )	100 (8)	707 (10)	718 (6)	1680
6. =	100	L. S. Hood	52	Skylark 3F	110 (36)	111 (7)	548 (17)	911 (2)	1680
8.	100	D. S. Scallon	328	Skylark 4	852 (5 = )	0	640 (13 = )	180 (32)	1672
9.	100	F. W. L. Shepard	190	Skylark 3F	852 (5 = )	0	315 (25)	467 (13)	1634
10.	100	C. A. P. Ellis	9	Skylark 3	155 (27 = )	171 (5)	807 (7)	420 (21 = )	1553
11.	100	P. J. Neilson	101	Skylark 3a	884 (4)	0	228 (30)	430 (19 = )	1542
12.	100	R. A. Foot	150	Skylark 3F	194 (23)	0	854 (4)	477 (12)	1525
13.	100	G. Barrell	16	Skylark 4	228 (17)	135 (6)	687 (11)	441 (18)	1491
14.	100	A. D. Purnell/ D. C. Kerridge	411	Skylark 4	728 (10)	0	303 (26)	459 (15)	1490
15.	2.	N. W. Smith	355	Ka-6c	155 (27 = )	0	770 (9)	563 (10)	1488
16.	3.	H. H. Wheeler	433	Ka-6c	202 (18 = )	0	807 (6 = )	464 (14)	1473
17.	100	H. S. Mettam	160	Skylark 3F	852 (5 = )	0	82 (34)	446 (17)	1380
18.	4.	D. M. R. Riddell	173	Foka 4	508 (11)	12 (15)	393 (20)	420 (21 = )	1333
19.	95	G. W. Camp	92	Dart 17r	265 (14)	0	826 (5)	209 (31)	1300
20.	100	A. W. Doughty	91	Skylark 3F	200 (22)	0	640 (13 = )	415 (23)	1255
21.	100	R. Rutherford	41	Skylark 4	181 (26)	0	366 (22)	689 (8)	1236
22.	100	L. P. Goldney/ J. Evans	72	Olympia 419	131 (35)	0	938 (2)	158 (34 = )	1227
23.	100	R. T. Willbie	368	Skylark 4	202 (18 = )	188 (2)	595 (15)	152 (36)	1137
24.	95	J. C. Riddell	95	Dart 17r	808 (9)	9 (16)	0	316 (28)	1133
25.	95	C. R. Simpson	108	Dart 17r	147 (31 = )	88 (11 = )	236 (29)	573 (9)	1044
26.	100	K. G. Wilkinson	445	Skylark 3F	192 (24 = )	190 (1)	582 (16)	77 (40)	1041
27.	5.	C. G. Dorman	12	Olympia 463	242 (15 = )	0	—	727 (5)	969
28.	95	R. A. Sandford	257	Dart 17r	192 (24 = )	0	299 (27)	430 (19 = )	921
29.	100	D. C. Snodgrass	189	Skylark 4	147 (31 = )	183 (3)	424 (19)	158 (34 = )	912
30.	100	G. S. Neumann	317	Skylark 3	202 (18 = )	95 (9 = )	354 (23)	163 (33)	814
31.	100	I. Paul	2	Skylark 4	242 (15 = )	0	212 (31)	352 (27)	806
32.	100	D. A. Smith	42	Skylark 3B	78 (38)	0	259 (28)	354 (26)	691
33.	6.	C. Wills	211	Ka-6c	319 (12)	0	0	368 (25)	687
34.	95	F. G. Irving	466	Dart 17r	147 (31 = )	0	388 (21)	107 (38)	642
35.	100	J. B. Jefferson	37	Skylark 3B	136 (34)	180 (4)	183 (32)	111 (37)	610
36.	7.	E. Stark	451	Ka-6c	202 (18 = )	0	169 (33)	234 (30)	605
37.	8.	K. R. Aldridge	57	Std. Austria	108 (37)	0	0	494 (11)	602
38.	100	Rika Harwood	65	Skylark 3B	155 (27 = )	88 (11 = )	0	277 (29)	520
39.	9.	M. P. Seth-Smith	111	Olympia 460	0 (40 = )	95 (9 = )	0	378 (24)	473
40.	100	V. Tull	415	Skylark 3F	6 (39)	0	351 (24)	102 (39)	459
Hors Concours									
Below 40		J. Everitt and others		Capstan	0 (40 = )	0 (b. 40)	0	124 (b. 36)	124



BY DAVID INCE

**D**URING a recent visit to West Germany it proved possible to call in on Martin Schempp at Kirchheim-Teck and spend half a day going round his factory and making a detailed examination of the Cirrus.

The second prototype, which has a conventional tail, was almost complete and has since flown. On 8th June the Cirrus order book ran to 34 aircraft and, incidentally, 58 SHK's have been sold. Cirrus production, just starting, is expected to rise to three aircraft per month by 1968. It will be flown by Rolf Kunz for Germany in next year's World Championships and in addition it will probably be flown by Swiss, Italian, American and Canadian pilots. Signor Orsi, of Varese, Italy, is buying the first two prototypes.

The Cirrus made its competition debut at this year's principal contest in Germany from 29th April-7th May. It was flown by its designer, Klaus Holighaus. That the contest was won by Rudi Lindner flying a special 17-metre Phoebus, and that Holighaus, with relatively little experience on the Cirrus, came equal 2nd, is perhaps some measure of its future potential. On the 14th June Holighaus failed to complete the 500-km. triangle by 10 km.—at 1:44 it hardly bears thinking about. Which leads one on to the design philosophy—the thick wing offers high aspect ratio combined with low structural weight, which in turn results in excellent climbing performance. Indeed, Holighaus claims that he found it so good that he flew throughout the contest with 100-140 lbs. of water ballast, which he did not find

necessary to jettison even late in the day.

On a theoretical basis the cross-country cruising speed of the Cirrus is shown to be better than the BS-1 for achieved rates of climb of up to 3 m./sec. In practice it seems about equal to the BS-1 on the glide at about 140 km./h.—better below this speed and worse above. Finally there is the point that, with no flaps to adjust, it is impossible for the pilot to throw away performance as a result of continual small errors in speed/flap relationship. Measured rate of roll through 90° at 1.4 Vs appears to be between 4 to 4½ seconds.

The Cirrus is the third German plastic sailplane to go into quantity production, the first two being the Phoebus (manufactured by Bölkow) and the Libelle (manufactured by Glasflügel)—although Schempp-Hirth built the first two Libelle prototypes. Cirrus, however, is unique in using a rigid foam plastic as a sandwich filler between inner and outer layers of glass-fibre instead of the more usual balsa plank construction, which is also used on the AS-12 and many of the Akaflieg specials.

In point of fact, the first prototype was built using balsa because this was the only reasonable way to produce a first-off and to achieve a master for the manufacturing of production tooling.

Glass-fibre moulds are subsequently produced by "casting" them on to prototype wings and fuselage. Martin Schempp admits that tooling cost is high compared with wooden aircraft manufacture, but he is aiming to break even with 100 Cirrus, and for quantities in excess of this figure he believes that

plastic sailplanes are highly competitive. He is satisfied that ten years of German experience with plastic structures has demonstrated their integrity and fatigue life—he believes that some early failures were due to lack of understanding and adequate quality control, particularly in the curing process—in short, that the day of plastic structures has arrived. In terms of static strength the Cirrus wing has been loaded to the equivalent of nearly 15 g. without any plastic failure, and it is claimed that there is no loss of mechanical properties up to 60°C.

The aircraft itself is perhaps not quite so elegant as the SHK—although this is largely a matter of opinion, but the first thing that really strikes one is the sensible, comfortable and roomy cockpit and the excellent all-round view. It was interesting to discover that the Cirrus canopies are made in Switzerland, as are those of the AS-12; and that the optical qualities are equally outstanding.

Internally, many SHK features such as in-flight rudder pedal adjustment, airbrake, parachute and undercarriage retraction controls were in evidence. By a cunning roller-blind arrangement it is possible to adjust the tension of the canvas seat-back in addition to varying its angle. One gained the impression, however, that with a reasonable thickness of seat cushion headroom might be somewhat limited. In view of the otherwise generous amount of space in the cockpit, this would be a pity. Other features include: a nose air intake for cockpit ventilation which, surprisingly, incorporated an open forward-facing pitot tube and static vents on each side of the cockpit close to the instrument panel. Immediately to the rear of the cockpit is a welded steel tube structure which carries the single retractable wheel and the wing mounting pick-up point.

Rigging is undoubtedly better than the SHK—although the manufacturers claim that this can be done easily with only three people, it may be open to doubt. However, there is only *one* loose component involved in rigging the whole aircraft—the main wing pin!

The tailplane attachment is particularly neat; it slides into a slot in the fin, engaging three spigots in the process, and when fully home locks automati-

cally in position. Locking is indicated by means of a short external wire rod moving in a slot. This lock is also the means of unlocking the tailplane when de-rigging. Elevator connections are automatic.

The tailplane is thin and features a small elevator of only 30% chord, similar to that first seen on the D-36. According to calculations 20% chord would have been adequate.

The fin and rudder have a thick profile, particularly towards the base. This has allowed the landing parachute (not used above five metres) to be housed in the bottom of the rudder. The latter is hinged on its starboard side.

One modification still to be incorporated in the second prototype is a large tailwheel some eight inches in diameter which will be sunk into the bottom of the fuselage.

The wing structure is simple in the extreme. Sandwich top and bottom skins, a massive all-glass-fibre main spar and a single glass-fibre rear spar—there are no ribs. Glass-fibre tubes in the D-nose in each wingroot can carry water ballast totalling approximately 70 kg. Considerable effort has been made to reduce lower to upper surface leakage via the airbrakes: these have been segregated fore-and-aft into entirely separate compartments for the upper and lower DFS paddles respectively. In addition, each of the paddles is fitted with a fairly sophisticated spring-loaded seal. Ailerons are upper-surface hinged without any form of aerodynamic balance.

And so finally one comes to the price, which is quoted as 29,400 DM for 1968 delivery, including tail parachute but less instruments—a somewhat daunting sum, but then this is a formidable aircraft.

One further thought for prospective customers—water ballast 100-140 lbs., a steel tube structure in the centre of the fuselage with stowage space above, and there is a proven two-cylinder four-stroke engine already available, which Martin Schempp is actively considering for the next stage of Cirrus development.

Max. L/D of 1:44, minimum sink around 1.7 ft./sec., and a retractable power plant for self-launching and retrieving seems to suggest the prospect of a new dimension to our sport, but this is another whole subject in itself.

# THE FREEDOM OF THE HILLS



BY

ANTHONY EDWARDS

HE switched on his sealed barograph, strapped on his knee-pad with its stop-watch, and squeezed himself into the cockpit, threading his legs around the oxygen cylinder and wedging himself into the gap between a bulging map pocket and the radio. In the pocket was a calculator, regulation maps, a pad of landing certificates, an air-law booklet, and evidently a good deal more besides. From the floor he retrieved his special sealed camera for photographing turning points, strapped himself in, and started his cockpit check. Two of the three variometers were working—evidently a satisfactory proportion—and everything else seemed in order. He touched the undercarriage and flap levers as if to say “this time there’s going to be no confusion”. Then he tested his radio and finally closed the canopy firmly.

Everything was ready—or was it? He went through the paper-work in his head: maps and insurance inspected by the contest organisers, and indemnity signed—yes; certificate of airworthiness—yes; private owner group membership and competition number tax paid—yes; gliding certificate and competitor’s licence—in his wallet; radio licence, barograph calibration chart, compass card, parachute log card—yes; daily inspection book completed and signed—yes; goal declaration form completed

and landing certificate ready—yes; launching ticket—now what had he done with that? He opened the canopy and undid the straps. . . .

A little later he was launched on a flight whose purpose was to arrive at the goal having had as little flying as possible, thereby ensuring him the maximum number of marks (worked out according to a rather complex formula), which would in turn ensure him a good rating (worked out according to a very complex formula), which should get him a place in a competition whose chief purpose. . . .

The other day I bought a bunjey—or, to be more correct, half a bunjey. It was either half a barograph or half a bunjey, and I settled for the bunjey. A single strand of brand-new bunjey, ringed at each end, with all the promise of the day’s first cumulus. A bunjey that would lead us to places that have never been soared before, views that have never been seen, challenges that have never been met. A bunjey that symbolises the friendship that stems from competing together against the elements rather than separately against each other.

Laurie Vandome brought it in from his Land-Rover and laid it on the floor. The floor, I should mention, of my house in Aberdeen, situated barely a dozen miles from the nearest 1,000-ft. contour. We looked at it, and marvelled that such a

diminutive coil could hold enough energy for our needs. We put a map on the floor beside it, and surveyed the hills—Bennachie and Tap o' Noth, Suie and the Hill of Fare, Cairn William and Corrennie Moor—and over all we could practically see the long white lenticulars that so often dominate the Aberdeen air.

The day after Laurie and Peter James had arrived we raised the Olympia 463's trailer into its mountain-climbing position by inserting three-inch blocks above the axle for extra ground clearance. I built this 5-cwt. trailer with mountain tracks in mind, keeping it as light as possible, and making the last four feet of floor rock-proof from below. This paid off when it was suspended by its ends across a burn, the water gurgling beneath its wheels. But its lightness was a worry in strong winds, for unladen it bounced clean into the air at every corrugation in the track. So if one day you find a trailer full of rocks coming down a mountain, don't laugh.

The following day dawned bright and clear, with a thirty-knot south-westerly forecast. We decided on a tour of inspection of the possible launching sites, but took the Olympia along just in case. . . . First we went to Tap o' Noth, a whale-back of a mountain with a good sheer S.E. face (800 ft. by 2 miles) and a small N.W. slope, of which more anon. The S.W. point of the hill rises conically to a vitrified fort at 1,851 ft., and half-way up I had found a bunjeypoint on an earlier survey. But before we reached this spot we had to cross a sloping field up which the wind was blowing with such enthusiasm that there was only one thing to do—rig. Laurie laid out the bunjeypoint with loving care, and in no time it was being stretched tight by the Land-Rover before my very eyes.

Alas! I suddenly realised that we had not chocked the wheel, but just at that moment Peter released the tail, and with a single bound the Olympia was airborne. I pulled back to gain height, levelled out, released, and turned towards the Tap 650 ft. above me. In one short sweet traverse of this conical outcrop I was at the top, to the surprise of a Forestry Commission fire-watcher. A few more beats and I was at 3,000 ft. in the lift of a hill which the stream-

lines should definitely go round, not over. Along came a scudding Scottish cumulus, and I tucked myself into its thermal. March, in the North of Scotland, and a steady 8 knots up until cloudbase at 6,000 ft. I know it sounds silly, but there it was.

I pulled out my map. Not one marked with airways, mind you, because there are none within a hundred miles. They do say there is a Purple one occasionally, but it merges imperceptibly into the heather of the hills. To the North I could see Caithness, seventy miles away, and would have seen more had there been any. To the East, Buchan rolled in vivid colours to the sea, and into the wind the Grampian's mass of cumulus seemed almost to outshine the sun himself. Let's go into cloud! Am I within 5 n.m. of a gliding site? But I *am* a gliding site! Am I bonded? Well, there's only one thing we bond in Scotland, and I have none with me. The cloud enveloped me, as was inevitable with 8 up, just as I remembered that anyway the Turn & Slip was on holiday. So out I came, and moved into the clear air between the cumuli.

In my southern foolishness I had supposed that this meant Instant Down, but instead I rose steadily between two quite normal-looking clouds, until at 8,400 ft. I cleared the tops to find the most brilliant sky I have ever seen.



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There was not a hint of a lenticular anywhere. I sat up there in the sun, taking colour slides with a non-regulation camera, and pondering the chances that I was the only aircraft over the twenty thousand square miles spread out beneath me. When, to bring to a close a very pleasant flight. I landed in a field, I happened to walk back along the landing run; there lay the ten-foot length of holding-back rope. Peter really *had* let go!

That was the day, so it is said, that they had to put the gliders away at Portmoak because of the wind.

When we returned to Aberdeen we found that John and Pat Griffiths had arrived with a Skylark 4 in tow, completing the party. So on the morrow we hurried up to Tap o' Noth, to find a very gentle breeze blowing up the field, which began to die even as we rigged the Skylark. For launching the "bomber" in these conditions we added an old bunjey beside the new one, making three strands in all, and chocked the wheel very carefully. John had discovered some old clothes line that had rotted sufficiently to break when the check-rope came taut, but apparently not before.

The more we talked, the less the wind blew, but soon each of us was (erroneously) under the impression that the others thought John should be launched, and John himself was strangely silent. So was the wind. But the bomber was despatched with quite a creditable launch of the hop, skip and jump variety. As I stood watching poor John turn along the hill in the lifeless air a solitary snowflake settled—on the nape of my neck.

\* \* \*

The next day brought a brisk sun-bearing north-westerly, and we hurried down to Glenesk to try another of my reconnoitred sites. But alas, the gliders never saw it, for the access was from the south-east, involving a thousand-foot climb to the crest of the hill, and the snow defeated us. An alternative track looked promising until it met Laurie's Burn (its Ordinance Survey name!), and the more Laurie's face lit up at the challenge, the more the trailer-owners' faces sagged. When Laurie

started talking about several days' civil engineering, and Stuart Waller, the rest of us adjourned for lunch. A marvellous day on, but not over, the hills.

\* \* \*

So when the following day delivered up a light north-westerly, with low cloud and snow showers, we headed back to Tap o' Noth to try to launch off the heather round the corner from the first site. It happened that the Olympia, by now christened "Cockleshell", was first up the track, but when the bomber tried to follow, the trailer stuck in the mud, being that much heavier. Then Laurie's Land-Rover itself stuck, and by the time Laurie had extricated it by a process involving an infinite array of tiny pulleys and much enjoyment, it was clear that if we got the Cockleshell alone airborne we would be lucky.

One advantage of the delay was that at least it gave the Tap time to come out of cloud, and rather late in the afternoon I was catapulted off to try the N.W. slope—a mile long but only 250 ft. high (except just where the fort is),

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with a larch forest at its foot, and beyond that an emergency landing field. On the far side of the field the ground drops steeply into a narrow glen. I had no intention of following it. It turned out that the wind had just enough strength to keep me at the level of the ridge, though well below the fort itself. So for half an hour I plied up and down, level with the launch point, unable to climb the conical hill. Sometimes I could see over the whaleback on to the splendid S.E. slope—what a clutching hand it must have been offering!

\* \* \*

During this time I had been watching a snowing cloudmass approach, and it soon became obvious that I would have to abandon my beat. Not knowing whether the glen in front contained any fields, I was hesitant to try an offered line of escape on to the hill that guarded its entrance, but the alternative was to land, so in the end I took the plunge. The hill worked, the glen would not have done. But the cloud now stretched a snowy finger out even to this haven, and I looked for a further escape route.

I need not have worried, for just before the opaque curtain of snow arrived, the Cockleshell was lifted up towards the cloud. I went with the lift, passed over the first hill, and was soon carried out over the blessedly-large fields to the south-east of Tap o' Noth. The cloud carried me at 3,000 ft. under its advancing edge (Turn & Slip still on holiday), until I was within reach of Bennachie, a splendid mass of isolated hill four miles long, with 1,000 ft. north and south faces. I flew to its welcoming slope, but could not relax for long—the snow was catching up with me, and soon I had to flee to Cairn William, four miles further on. There I had the mortifying experience of seeing the east end of Bennachie—now out of reach—stay clear of the hanging cloud, whilst the darkest mass headed straight for me. The game was up. I tried to hitch another lift, but the cloud was tired, and I fled round the end of Cairn William to a field near Monymusk, seventeen miles from Tap o' Noth. The distance is no matter; the intense enjoyment of this type of flying derives from the unique and lonely harmony of sail-

plane and sky and hill. I would sooner be sixteen feet above the heather than sixteen thousand—I have tried both in Scotland.

By now it will be wondered whether inviting John to Aberdeen was merely a ruse for getting more people to help launch the Cockleshell, and the next two days only helped to confirm this suspicion. For on the first of them the wind blew from nowhere in particular, and we had to be content with finding a new site for a north wind, two miles west of Bennachie, and a mud-free approach to Tap o' Noth. Both these explorations paid dividends. On the second day a passable northerly brought sunshine and scattered snow showers, but John was mildly indisposed, so with heavy heart (or stomach, as the case might be) we went out with Cockleshell alone. The new site west of Bennachie proved a dream, even though it was only at 999 ft., atop a two-hundred-foot slope. It finally brought home to me that on this sort of expedition one must look for launching fields near the *bottom* of large hills. Let the wind do the work.

A couple of beats over the launch point, and I tiptoed across to Bennachie. This massive hill is not very steep, and it was delightful to arrive half-way down and saunter across its heather-smooth slope. In time I was high enough to pull out my sandwiches and my camera. Another sparkling day revealed hill upon hill to the south and west, and field upon forest to Aberdeen and the sea, each hedge and bank and road being etched in a dusting of snow. West of Bennachie, past the launch point (where I could see Laurie toiling with the bun-jey), another north-facing ridge continues the line, the whole forming a broken escarpment twelve miles long. I exploited three-quarters of it, but at the far end my courage failed me, and I hitched a lift back to Bennachie in a passing thermal.

\* \* \*

By now strong cloud streets were forming, even if cloud-base was occasionally very low, and I drove down one to the south, past Cairn William, and on to the Hill of Fare thirteen miles away. This splendid hill, which is asking to have a gliding club put on it, kept

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me amused for twenty minutes, and then I carried on another ten miles south-east to the Hill of Durrus. Alas, the television engineers beat me to it, for the hill is topped by a monstrous piece of ironmongery. This soon began to get on my nerves so I retreated upwind on another cloud street, crossing back over the River Dee.

\* \* \*

Deeside (Scottish Deeside, that is—not the hunting-ground of the famous and late-lamented Deeside Gliding Club renowned in the annals of auto-bunjee lore) is undoubtedly one of the finest stretches of country in Britain. Seen from 2,000 ft. (going up) in early spring, through air of transparent clarity, it is incomparable. Castles and fine houses, farms and forests, hills and river, lie in perfect relationship to each other. From the tidy outskirts of Aberdeen the eye can trace the shining river past meadows and towns until it is lost in the snow-covered highlands, its upper reaches cradled between hills of ever-increasing grandeur. Cover this scene with sunshine and cloud-shadow and view it from a silent cockpit: it is indeed incompar-

able. Reluctantly I turned from admiring the fields to analyzing them, and shortly landed beside the river, at Milltimber.

With a score of six-and-a-half hours' flying to the host, and two minutes to the guest, with one day left for play, we needed some exceptional conditions. In the event we could not complain, for the fickle wind backed to the south-west, and blew strongly enough to make ground-handling difficult. John went off first bounce from the field at Tap o' Noth, and was soon beating along a local wave between six and seven thousand feet. Unfortunately it was rather a grey day, so he missed seeing the country at its best. Lenticulars, though not text-book ones, were scattered around the sky, but the air was rough and hostile. I was launched an hour later with such acceleration that I released the bunjee under tension, leaving Laurie and Peter a fine tangle. As I explained later, I was only trying to coil it up after the camp's last launch. . . . However, I could do no better than John; perhaps we were at the bottom of something big. But at least John had three hours' flying, and we landed together in a very strong wind just before the rain came.

\* \* \*

Why did we bother to put in so much effort for a mere 11½ hours' flying? What is it that makes us dream of the hills even as we flash across a competition finishing line? It is many things, but principally it is the freedom. It is the freedom of complete independence and self-reliance. To explore, to experiment, to pioneer, to enjoy the hills whether over them or on them (or, on very muddy days, in them). To share in the satisfaction of operating independently with methods now so rare that they have not been scrutinised, dissected, codified and ossified by committees. To meet the challenge of flying in unknown places and soaring untried hills. To experience the unique pleasure of gliding with the minimum of equipment and without the diversions of badges and records and competitions.

These have their place. But I can vouch that whatever other flying I do this year, none will equal these hours wrung out of the Scottish hills, hours that will never find their way into the Annual Statistics.

# BGA NEWS

## World Gliding Championships

The following pilots were selected to make up the British Team to go to Poland next year. Nick Goodhart, George Burton, John Williamson, David Innes, with John Delafield, Mike Garrod, Rocky Stone and Andy Gough as reserves. Ann Welch has agreed to act as Team Manager.

## Awards

Roy Hubble, CFI of the Kent club, was awarded the Royal Aero Club Bronze Medal for his contribution to gliding.

Arthur Speechley, Secretary of the Oxford club, is to receive the Torch Trophy Award to acknowledge his services to gliding. The object of the Trust is to encourage voluntary work in sport at club and local level. Congratulations to both.

## Airspace News

1. The Chairman asks everyone to live up to our excellent record and complete the Air Traffic Census forms (19th-26th July) and return them in the envelopes supplied.

2. A complaint has been received from Aldermaston that, during May, one glider landed on their site, and another just outside it. No police action is threatened in these cases, but our main weapon of our high standard of self-discipline is blunted, and we shall all suffer if such events recur. Please ensure that they do not.

3. Airway AMBER 25: From the 29th June, 1967, the lower limit of Airway AMBER 25 has been raised from FL 55 to FL 65 as follows:

- (a) between 11 n.m. south of Rexham and 35 n.m. south of Knighton and
- (b) between 17 n.m. south of Glamorgan (Rhoose) and Berry Head VOR beacon.

## The SBAC Private Flying Loan Fund

The Fund was created in April, 1961, by the Society of British Aerospace Companies in conjunction with Shell Mex and B.P. in substitution for the Kemsley Flying Trust, itself at that time in process of liquidation following the retirement of Viscount Kemsley.

Following the pattern of the Kemsley

Flying Trust, gliding clubs—established and new—as well as syndicates were able to complete loans on simple extended repayment terms at a very moderate interest rate to help with the purchase of gliders and essential purposes.

Since the formation of the Fund, sixty gliding clubs and syndicates have received loans totalling £49,653, which has all been used for the purchase of aircraft, essential flying equipment and for site development.

Unhappily it has been decided that the Fund is to cease operation forthwith, and this means that no more loans will be made. All existing loan contracts will, however, be allowed to run their course.

The loss of the valuable facilities generously applied will be greatly missed in the gliding movement, in particular by new clubs as well as the small clubs ready for expansion and in need of gliders and field equipment. Whatever the reason for withdrawal of the Fund, the gliding movement here records its very grateful thanks for the great measure of help afforded to it by the Society of British Aerospace Companies and Shell Mex and B.P. through the Private Flying Loan Fund.

## Certification of Glass-fibre Gliders

The BGA Technical Committee has decided that, so far as structural integrity is concerned, glass-fibre gliders will only be regarded as acceptable for certification if they have obtained a full German Certificate of Airworthiness or if documentary evidence is provided to the effect that the structure has been successfully subjected to the static and dynamic tests required by the German airworthiness authorities.

This ruling relates only to the integrity of the primary structure, and the BGA Technical Committee reserves the right to investigate other engineering features and the flying characteristics. It also relates to all types of glider using glass-fibre reinforced plastic as the main load-carrying material of the primary structure, whether they are manufactured in Germany or elsewhere.

F. G. IRVING, *Chairman,*  
*BGA Technical Committee.*

## Skylark 3's and 4's

Some folk may not be aware that it is possible to rig a Skylark 3 or 4 with

the ailerons incorrectly connected. What happens is this:

One tip is fitted and the aileron is deflected fully downwards.

Now if the other tip is offered up with the aileron fully deflected downwards also, the rockers of the aileron control, instead of mating together, can form an "X" with the pads back to back. The main pin can be inserted without difficulty.

To prevent possibility of mis-rigging carry out the following checks:

1. Assemble both tips with the ailerons neutral.
2. When assembled check that the droop is normal.
3. Check by operating the control column that both ailerons are working normally.

It is worth noting that a cockpit check does not reveal this mis-rigging immediately. It is possible to move the control column with the ailerons incorrectly rigged, and the only indication that the pilot gets is that the movement in one direction is limited.

R. STAFFORD ALLEN,  
*BGA Chief Technical Officer.*

## THE BRITISH GLIDING ASSOCIATION

*requires a*

### DEVELOPMENT OFFICER

This is a new and challenging post to develop gliding.

Duties include:

1. Fostering the development of clubs by giving advice and assistance on finance, organization, administration, sites and facilities.
2. Liaison with Government Departments, Sports Council and other bodies in conjunction with the Chairmen of the relevant BGA committees.

We are looking for someone with drive, administrative experience and sound judgement. Experience of gliding and club operation desirable.

Starting salary: £1,500 p.a. plus expenses. Prospects depend on the future of British gliding.

Applications should be marked 'Confidential' and addressed to the Secretary, British Gliding Association, Artillery Mansions, 75 Victoria Street, London, S.W.1.

## National Ladder

Arthur Doughty heads the list with 2,000 points, which has grown from 41 to 61 pilots for the month of April. The number of clubs taking part have increased from eight to twelve for the same period.

## CHAMPIONSHIP AWARDS

**LONDONDERRY CUP.**—To the outright winner in League 1. **NICHOLAS GOODHART**, Dart 17.

**FURLONG TROPHY.**—To the outright winner in League 2. **RALPH JONES**, SHK.

**KEMSLEY CUP.**—To the pilot flying a club glider who has the highest placing in League 2. **DAVID SCALLON**, Skylark 4, 8th place. (Surrey and Hants. Gliding Club.)

**FIRTH VICKERS TROPHY.**—To the winner of the team championship in League 2. **DAVID CRETNEY** and **NORMAN WILKINSON**, Olympia 419, 6th place.

**EON CUP.**—For competition among pilots of whichever type of glider is numerically the strongest in League 2. Awarded to the pilot of the glider of that type having the highest placing. **VIC CARR**, Skylark 4, 3rd place.

**CENTENARY TROPHY.**—To the competitor in League 2 who is under 30 years of age at the start of the Championships and who scores the most points on any two days. **LEIGH HOOD**, Skylark 3F, 6th place.

**L. DU GARDE PEACH TROPHY.**—Awarded to the highest placed pilot who is flying in the other class from the outright winner in League 2. **DAVID INCE**, Standard Class, Ka-6E, 4th place.

**SLINGSBY TROPHY.**—For competition among pilots of whichever type of glider is numerically the strongest in League 1. **NICHOLAS GOODHART**, Dart 17, 1st place.

**PAN-AM TROPHY.**—Awarded to the highest placed pilot who is flying in the other class from the outright winner in League 1. **PETER HANNEMAN**, Standard Class, Ka-6MDI, 7th place.

**MODEL OF KA-6E.**—To be presented to the pilot flying a Ka-6E in either League who has gained most points in the 1967 National Championships. **JOHN DELAFIELD**, Ka-6E, League 1, 9th place.

**1967 B.G.A. General Regulations:**

# **"The only acceptable camera is the Kodak INSTAMATIC 25"**



**The Kodak 'Instamatic' 25 camera has been specified by the British Gliding Association as the camera to be used in competition gliding. This is why.**

It's easily loaded. The film is in a cartridge which simply 'drops-in' to the camera. It only 'drops-in' one way, so you can't misload. There's no film threading—no fumbling. It has a double-exposure prevention device, so you can't take 'two-on-one'. You have a choice of either black-and-white prints, colour prints or colour slides. The large, eye-level viewfinder lets you compose your picture easily, instantly. It's light, compact and easily stowed away when not in use; a pocket will do. The 'Instamatic' 25 camera is rugged, reliable, inexpensive. It costs just 53/1d. (case only another 9s. 10d.) KODAK make it.

## **Kodak**

'Kodak' and 'Instamatic' are trade marks.

## DUTCH NATIONALS—21st May to 3rd June

By MENNO MANTING

**T**WENTY-FIVE pilots entered on 22 Ka-6's and three Sagitta's had been selected to fly in this Championship. For the first time there were five new Ka-6E's amongst them. Launching, as usual, was carried out by winch, and take-off was organised from two separate strips, each being serviced by four cables. Average release height was 1,400 ft.

The Championships were held at Terlet and the organisation consisted of the Terlet staff and some volunteers. Meteorological services were supplied from the nearby Air Force base at Deelen.

"Designated start" was introduced, and the opening of the startline followed 30 minutes after first take off. It proved to be a successful contribution and helped to create a fair chance for pilots to begin their task under equal local conditions.

Points were scored on seven days and a further two days had to be cancelled as less than eight pilots covered the minimum of 60 km. Our regulations had been adapted to the English system on devaluation of a 1,000-point day (if more than eight but less than 16 pilots covered 60 km.). However, this rule was never applied.

On the whole we were lucky with the weather—fronts passed Terlet as a rule during the evening or night, leaving us more favourable conditions during the day.

**Day 1—21st May.**—Thermals moderate, wind S.W. 20 knots.

**TASK:** 108-km. triangle—Epe, Lochum, Terlet. Eight pilots went round the triangle twice and 22 completed the task. First: Aart Dekkers, followed by Ed van Bree and Jan Kater.

**Day 2—23rd May.**—Conditions improving towards the west. Thermals moderate, wind light westerly.

**TASK:** 111-km. race to Seppe. Eight pilots completed the task. First: Ed van Bree, followed by Joop Jungblut and Jan Kater.

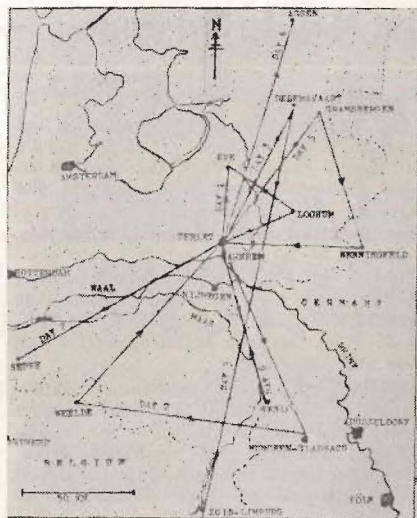
**Day 3—26th May.**—Good thermals, wind S.W. 25 knots.

**TASK:** Distance along a broken line; Dedemsvaart, 65 km. downwind, and Zuid-Limburg, 180 km. into wind. Jaap van Steinfoorn came first with 135 km., followed by Réparon, 134.5 km. Third, Jan van Melzen.

**Day 4—27th May.**—Thermals moderate; light S.E. wind with spreading alto-cu approaching Terlet.



*Menno Manting handing the winner's trophy to Ed van Bree, Champion for the fourth time in succession. Is this a world record?*



**TASK: 110-km. race to Assen.** The weather turned out better than forecast, although before noon it was difficult to leave the site. Twenty-one pilots completed the task. First: Aart Dekkers, time 1 hr. 56 mins., followed by Réparon with only 50 secs. more. Third, Arie Breunissen.

**Day 5—28th May.**—Thermals moderate, wind light S.E.

**TASK: 212-km. triangle.** Gramsbergen, Wenningfeld (Germany), Terlet. Soaring started much later than expected and thermals were restricted by an inversion at 2,200 ft. No one completed this task, but the first three for the day, Joop Jungblut, Frits Seyffert and Chris Rab, landed near the second turning point.

**Day 6—29th May.**—Strong thermals during the afternoon, wind S.W. 20 knots.

**TASK: Out-and-return to Venlo, 156 km.** The wind was rather less than forecast and 17 pilots completed the task, which turned out to be a perfect race with some dramatic and spectacular final glides. First: Aart Dekkers (2 hrs. 34 mins.), followed by Ed van Bree, Jan van Melzen, Jungblut and Réparon.

**Day 7—30th May.**—The forecast promised strong thermals with a chance of local showers and a light N.E. wind.

**TASK: 307-km. triangle.** München-

Gladbach (Germany), Weelde (Belgium), Terlet. It looked as if this was going to be the day, and pilots crossed the starting line under ideal weather. Approaching the first turning point, pilots found a large thunderstorm developing, and this, together with the dreadful Ruhr smoke, soon turned into pea-soup conditions, and many pilots were forced down, some of them at the turning-point without being able to see the markers. A small group managed to get round this point and two of them nearly reached the second turning point.

First: Joop Jungblut, with Jan Vermeer closely following. Third, Réparon, and Sanders fourth.

#### Leading Final Results

		Pts.
van Bree	Ka-6E	6395
Jungblut	Ka-6CR	5951
Dekkers	Ka-6CR	5587
Réparon	Ka-6E	5256
Seyffert	Ka-6CR	5067
Kater	Ka-6CR	4656

\* \* \*

#### Dutch Team for Poland

The best three pilots of the 1966 and 1967 Nationals will compete in a further selection/training session. A final decision will be taken towards the end of October on which pilots will represent Holland at Leszno.

The following pilots are competing for a place in the team: van Bree, Jungblut, Dekkers, van Melzen and Réparon.

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**CHANGE OF ADDRESS:** Alan E. Slater, Editor of SAILPLANE & GLIDING, has moved to 9 Fitzwilliam Road, Cambridge, Cambs.

# HP-14 EXPERIMENTAL

By JOHN WILLIAMSON

THE HP-14 made its flying debut in this country only a fortnight before the Nationals. Briefly test-flown by the BGA No. 1 Test Group and then by Derek Piggott at Biggin Hill, it was handed over to me on 11th May. The weather at Bicester was appalling. We pressed on with the fettling and dealt with minor snags as they cropped up. At last, three days before the Nationals, the weather cleared up enough for us to fly.

Interest in the new "tin-ship" centred around the use of the flaps which extended over 70% of the span. The concept is simple and attractive. The flaps have a triple rôle. In addition to slowing down the basically fast wing section for circling in small thermals, they also provide approach control and they limit the speed to  $V_{ne}$  in an emergency. To do this they are designed to operate between 10° up and 90° down.

When I took her over, however, the prototype, No. 515, was fitted with a direct-drive flap lever which gave flap movement down to only 60°. A 5-ft. diameter tail-parachute was fitted for approach and speed limiting, since 60° flap is virtually useless for these functions. After ten rather damp circuits I was happy with the parachute approach technique. The 'chute deployed equally well at any speed between 38 and 80 knots. The deceleration was smooth but firm, and the nose had to be put down at about 30° to keep the speed safe. Repacking was simple and the device behaved impeccably.

Next day it became soarable, and in spanking conditions which suited her well, "515" won the 98-mile race to Worcester and back. Friday was dud and we arrived at Lasham with 11 flights and 7 hours on type. Dick Schreder arrived at Lasham early on Saturday with the second prototype, No. 514, which had been completed the night before. He invited me to test the effectiveness of 90° flap for approach control. I was so impressed that I agreed to have "515" modified overnight in time for a possible task next morning. In this way I could do away with the parachute and some com-

pensating ballast in the nose to lighten the ship by 30 lbs.

The new system was a rack-and-pinion requiring 4½ turns over the full range of flap movement. Approach with full flap is impressive. A 45° dive is needed to keep the speed up to 50 knots. The technique is to keep the nose aimed at the desired round-out point and then control the speed with the flaps. If overshooting, lower the nose and wind down more flap to prevent build-up of speed. If undershooting, wind up flap a little and raise the nose to improve the glide ratio. Above all, the speed must not be allowed to drop too far in an attempt to stretch the glide with a lot of flap on. On belatedly raising the flap, the glider sinks rapidly and there is no escape from the undershoot. At the speeds used (45-55 knots) on a normal approach, the flaps are light and easy to use. The approach really steepens at about 70° of flap, so that although it takes three turns to get that far, thereafter all approach adjustments are made with the last turn of the handle. On rounding out with full flap, the HP-14 will float on and on, ground effect keeping her airborne right down to 25 knots. Quickly raising the flaps a couple of turns after round-out causes her to sit firmly so that the wheel brake may be used. With a little practice the ship can be brought down a lot shorter than the SHK or even the Dart, to touch down at a much lower ground-speed—a good point in rough fields.

## GLIDER FINANCE

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

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



*The HP-14  
Experimental.  
Photo courtesy  
"Flight International".*

There is always some speculation about the behaviour of a V-tail glider in a crosswind. "515" gave no trouble at all and I feel sure the steerable tail wheel will also help in this respect. The earlier parachute modification had resulted in a fixed wheel for me. It was noticeable on two days when the wind was directly across the Lasham runway that the two HP-14's kept straighter than most on take-off. In this context I owe it to the aircraft to explain the severe ground loop I experienced on the first contest day. In all the rush to get the flap mod. done, that well-known aviation engineer, Murphy, helped with the rigging. The pre-flight cockpit check did not reveal that one of the automatic ruddervator connections hadn't. The control surface could be pushed upwards and it then moved back to neutral under gravity. The stick/rudder mixing system is such that if one ruddervator is disconnected all control movement, under flying loads, can be fed to the free rod, and no control surface movement results. I attributed the initial swing to the wing tip holder, but when airborne and still swinging to the right I released. "515" ground-looped across an intersecting runway, leaving a 20-yard skid mark on the tarmac. I am convinced that most gliders would have been wrecked. As it was, the protective wing-tip plate was torn off and the aileron mass balance damaged, the tail wheel was wrenched askew and jammed, and the spun aluminium nose cone was flattened on the underside. Within the hour the wing tip was

pop-riveted back on, the tail wheel straightened and the nose cone ignored, and we joined the last row of the launch grid for the race to Swanton Morley.

As is common with prototypes, "515" was heavier than expected. This was partly due to the stringent ballast arrangements required because so little test-flying had been possible. At a wing loading of more than 6 lbs. per sq. ft., I was at some disadvantage in weak thermals against some of the others. The flaps up, straight-and-level stall speed was 41 knots IAS (position error not known), and at 45° of bank she could not be circled comfortably at less than 50 knots; 15° of flap pulled this down to an acceptable 45 knots. More flap put the sink up and was usually not worth while. In turbulent conditions, however, I found it useful, when suddenly losing airspeed, to ease out another 10° or so to hold off the stall until the next gust edge arrived.

With the flaps up between thermals, the HP-14 felt right at 70-80 knots, the fuselage lying almost level at these speeds. Optimum cruise speed for 5-knot thermals is 90 knots, and at this speed the "515" ran away from everything except the most persistent SHK. When cleaned up in production, I feel sure the consequent reduction in drag will result in an aircraft well ahead of anything we have seen in this country so far.

I took advantage of one high tow to test the effectiveness of the flaps as speed limiters. At 110 knots, initial application of flap caused a nose-up trim; and as

the air loads decreased, full application could be made at 90 knots.

Diving as steeply as I dared (I had forgotten that loose articles would tumble around my feet!) the speed did not go above 65 knots. I was confident that I could thus cope with any inadvertent attitude in cloud. In the event I found cloud-flying straightforward, although with no trimmer there was not the comfortable "on-rails" feeling of previous Slingsby gliders.

My final incident with "515" came up the Friday of the "Possibles" Contest,

2nd June. The first turning point of our 500-km. triangle was obscured by low stratus. I turned back to the nearest breaks, five miles away, and descended below cloud tops through a hole just large enough to contain a 50-knots circle. The hole revealed only a town and a railway station. Cloudbase was 300 ft. above ground level and the fields were not large. The wind, forecast to be 10 knots westerly, was, in fact, 5 knots easterly, but I couldn't see that. HP-14's make very neat round holes in sheep-netting fences—and don't come to much harm in the process!

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## OSTIV AT STUTTGART, 4th—5th MAY, 1967

By FRANK IRVING

THE OSTIV Sailplane Development Panel is a group of people concerned with glider design and/or airworthiness in their various countries. They meet from time to time under the benevolent and efficient chairmanship of Lt-General C. W. A. Oyens (Netherlands) and from their deliberations emerge such works as the OSTIV Design Requirements for Sailplanes, which is rapidly becoming a genuine international standard. The projected "Sailplane Designers' Handbook" was perhaps a little too ambitious, and is currently in a state of suspended animation. Other activities of the Panel tend to be more controversy-provoking: the mention of a mini-standard-class (now dropped) produced wild enthusiasm in some quarters and a lot of no-enthusiasm elsewhere; and proposals for changing the standard-class rules are regularly put to C.V.S.M. and equally regularly rejected. It is certainly a stimulating committee, as befits one containing four or five celebrated designers together with airworthiness representatives from all the major gliding countries.

The Stuttgart meeting in May was primarily educational, being devoted to displaying the current German state-of-the-art in the manufacture and testing of glass-fibre gliders. We had a paper from Dr. Eppler on manufacturing methods, another from Herr Schatt on airworthi-

ness, and visits to "Glasflügel" (manufacturers of the Libelle and the BS-1) and "Wagon und Maschinenbau A.G." (manufacturers of the Phoebe).

Like any other material, glass-fibre resin has both advantages and disadvantages. It is mainly celebrated for the accuracy of contour which can be achieved together with such a superb surface finish that the final product is of wind-tunnel-model quality. And, although all the manufacturing processes involve skilled hand labour, the number of components is small and there seems to be an overall saving in man-hours compared with wooden construction. Against this, whilst the material is strong, its density is fairly high and its stiffness is low. So, to confer adequate resistance against buckling without an

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excessive weight penalty, a sandwich construction usually has to be used. The low stiffness also implies that attention must be paid to aeroelastic problems. Other snags are that glass-fibre structures may require a considerable reserve of static strength to deal with fatigue, current resins soften at lower temperatures than one would like, and control and inspection during manufacture is not particularly simple. Finally, damage cannot be repaired by buying Messrs. Bloggs' "Jalopy-Bodge" glass-fibre repair kit and proceeding as for Austin Seven bodywork. Damage to, say, the undercarriage attachments is likely to cause serious bother. On the other hand, the machines are said to be appreciably more resistant to minor damage than those of conventional construction. So, whilst one achieves a superb shape and finish, glass is by no means the ideal structural material, and its use does not automatically imply good detail design. Some features of these machines seemed unnecessarily difficult to inspect and maintain, and we saw examples of the use of glass-fibre in situations where metal would have been much more practical. Equally, there were some ex-

cellent examples of design (most of the wing/wing and wing/fuselage attachments, the nice big tailwheel of the BS-1, the rudder mechanism of the Libelle and, if you like a spring trimmer, that of the Phoebus).

Herr Schatt's paper was prepared for the Working Group for Flight Safety of D.V.L. (German equivalent of A.R.B.). It reviewed materials and their properties, methods of construction, testing (static and dynamic), flutter, and details of production and primary inspection of manufactured gliders. It was an impressive paper which indicated that despite considerable gaps in the knowledge of material properties, and known disadvantages of the materials, D.V.L. are honestly doing the best job possible at the present state of the art to ensure airworthiness.

For example, the standard loading test for a prototype wing is:

- (i) Static test up to the "limit load" (i.e. proof load).
- (ii) Fatigue test. This is based on a desired life of 15 years at 200 hours and 200 launches per year. A scatter factor of 3 is assumed, so the actual test simulates 9,000

hours of flight. The loading is programmed to represent launching, gust loads and landing.

- (iii) Static load test to design ultimate load at room temperature.
- (iv) Static load test to design ultimate load at 54°C.
- (v) Ultimate load test with the critical loading at 54°C.

The distinction between (iv) and (v) is not very clear in the written report. I think (iv) refers to design ultimate, whereas in (v) they actually break it.

When questioned, Herr Schatt admitted that they would like to know more about the properties of glass-fibre structures and was far from complacent about the current situation.

"Glasflügel" is a little works (about half the size of Slingsby's) which makes the Libelle and BS-1, whereas "Wagon und Maschinenbau" is a subsidiary of Bölkow, about one-and-a-half to twice the size of Slingsby's. They make Phoebe assemble the Bölkow Junior, overhaul other Bölkow aircraft, and had just pushed out a prototype which looked rather like a 4-seat Kittiwake.

The latter organisation is a small but

entirely professional aircraft factory, and appears to be much more tightly organised than "Glasflügel" in terms of inspection procedures and bits of paper. We got the impression that "Glasflügel" worked in a less formal manner, but with fewer people and being concerned only with gliders (and industrial fans), the final results were much the same. The final evidence at "W and M" was an optical inspection device enabling one to see the whole interior of a completed wing.

All of the three types had very similar wing structures. The skin is a glass-fibre/balsa/glass-fibre sandwich. Each side of the sandwich consists of two layers of unidirectional cloth and the balsa is about 6 mm. thick. The "spar booms" are fairly wide and consist of arrays of rovings and they all have two shear webs, again glass/balsa/glass sandwiches. The top and bottom surfaces are made in separate female moulds, one surface having the shear webs attached, the other having glass-fibre channels into which the webs fit. The two surfaces are assembled like a plastic model.

Fuselages are built in somewhat similar fashion, except that the BS-1 is simply a glass-fibre tube (not a sandwich) stiffened by bowler-hat section "frames" of glass-fibre.

### Impressions

1. The primary structures are carefully designed.
2. Some details are of a lower standard.
3. The structural testing of prototype is as thorough and trustworthy as the present state of the art permits.
4. Inspection of production components is difficult, but not impossible, and much depends on the skill and honesty of the individual workmen.
5. In practice, the possibility of producing an unsafe aircraft, from the point of view of the primary structure, seems extremely low.
6. The whole process requires a large amount of know-how, most of which can only be gained the hard way.
7. Minor repairs are quite difficult and major repairs will be expensive jobs for the factory; as designed at present, much of the mechanism cannot be inspected or renewed without cutting holes in primary structure.

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# SELF-TAUGHT

By N. E. JOHNSON

*After one of Dr. Brenning James's outlandings during the Nationals, he was surprisingly greeted by a man who had taught himself to fly on cheap, second-hand gliders, yet had made no contact with the gliding world apart from reading this magazine. Here is his story.*

I HAVE always been interested in anything that flies, and having a brother that likes it too helps a lot—but you could never get him off the ground.

I had my first glider, a Tutor, about two years ago, March, 1965; it was advertised in your *SAILPLANE & GLIDING*. Devon and Somerset Gliding Club had it for £50, I had to knock a trailer together to fetch it that Sunday. We did over 400 miles but it was worth it. The wings were uncovered, so I had to buy fabric and re-cover them, but it gave me a chance to see how they were put together.

I went on to an airfield where people went to learn to drive, but I think they enjoyed it as much as I.

The first day I never got off the runway; I just tried to keep the glider going in a straight line. I ended up in corn on the side of the runway, and how many times I ended up in the bushes I could not try to remember.

The next Sunday we went, I told my brother—he was driving the tow-car—to go a bit faster. We started off and the next thing I knew I was up in the air and I don't mind admitting it—I really held on to the side of the glider, and where it went I let it go, in the bushes and corn; but I soon got the hang of it, and was soon flying high enough to turn and come back.

I flew that glider for months until—the last flight of the day—I hit a pile of concrete. It was nearly dark, and it smashed into pieces. I got out with only a bump on the head. I thought that day was the saddest of my life; I had no instruments, so I did not know ever what speed I was doing. So I put it down to that, and looked for a second glider.

I think that was advertised in one of

your magazines also. I went to Old Sarum, near Salisbury, for that one, but in the meantime I had built a new trailer, so I had no trouble there. This was also a Tutor, so I had a few spares. This one I stripped down and checked it through, I was getting good at that now, having repaired the first one so much.

The runway I had been using had since been taken up, so I had to find somewhere else and, as you know, it can be very hard.

I have been threatened with everything you could think of, but in the end I found a farmer who let me go on an airfield as long as I kept out of his corn; when learning to glide by oneself that can be a job also. This 'drome was also being taken up. I flew from there many weeks until—the second flight of the day—the tow rope broke. I was about 200 feet up and, just going up, could not turn round and land or carry on as there were diggers and lorries up there. So I flew out over the crops, but went a bit too far and tried to stretch the glide, and stalled it in the corn, doing more damage than if I had landed in there. It smashed the glider to pieces. Another sad day—not having any instruments again.

The glider I have now is a Kirby Cadet. I have no airfield yet but go in a field which is not very big so I have a pulley tied to one tree in the corner with the tow-car facing the glider on take-off. But this is not very successful. Once I was trapped in the cockpit by barbed wire with bleeding fingers and half the hedge down. But my glider was OK so I did not mind. It was tow rope trouble again and instruments, not knowing height and speed. But we do very well, I think, considering I only pay about £50 a glider, and most of the repairs we do are patching, and I must mention broken seats, I am very good at knocking the bottom out of them, I have had so many things happen, I just can't think of them.

I think gliding is just about the best sport there is, even in my little way, but more so I think because I taught myself and scared myself many times. But as long as I get scared, I know I am safe, and know I am not getting too confident and careless.

I have also got seven children—five boys, and they are just as keen on gliding as I am, and they help me a lot.

# CU-NIM CHAMPIONSHIPS

By NICHOLAS GOODHART

02, 14, 01, 29, 26, 16, 10, 58, 01, 15. What have these figures got to do with the 1967 British National Gliding Championships? Robin Harper's nightmare after scoring the Cat's Cradle task? Ian Strachan's latest handicapping extravaganza? The code for determining your 1968 Rating List position? The vital statistics of the latest high-performance glider? No none of these things; the figures are simply the daily rainfall totals in one-hundredths of an inch. They total 1.72 inches. This must be a record for a Nationals and it's one we never want to see approached again.

But, of course, the reason for all the rain was high cumulus or cumulonimbus development, and this certainly added a good deal of spice to the days on which we were able to fly. The other thing it did was to necessitate a great deal of careful map-reading to make sure one did not contravene the Controlled Air-

space regulations. The fact that it was necessary to set tasks which traversed the airways system introduced an unwanted element of luck; if the cu-nim was in an airway, and the dead space in the FIR, one was defeated. If the opposite was the case, one could make good progress.

It was, in fact, this situation of cu-nims in the FIR and clear in the airway that enabled me to get to Rearsby on Contest Day 2. A climb to 16,000 ft., starting near Didcot, followed by a lot of careful dead-reckoning navigation, brought me out, after 40 minutes on instruments, five miles west of Amber One near Edgehill at 11,000 ft. Amber One itself was completely in the clear and, despite the heavy icing, the height in hand was sufficient to glide clear across to Bitteswell, where another cu-nim was building strongly.

It is of interest that the achieved glide ratio with ice was about 19:1 at 50 knots indicated. Obviously, if a way of shedding the ice could be invented, it would be very valuable indeed. Without ice I would have been able to do 75-80 knots along the same glide path.

The lucky break of finding the airway clear was the main reason I got to Rearsby, and the big points lead this gave me was the decisive factor in the Championships.

With the large amount of cloud-flying being done, the risk of collision in cloud was excessive; this factor was clearly apparent to all pilots, even disregarding the fact that there actually was a collision. Fortunately the fact that most pilots had good radio enabled a commonsense method of avoiding collision to develop rapidly. In future Championships (and indeed in everyday local flying where there is a probability of two gliders in the same cloud) we must ensure that there is a specified channel and a specified altimeter setting for exchanging height information.

On the ground the Championships was organized with the skill which we pilots, who have all the fun, have come to take almost for granted. Task setting, met.,



Nick after landing at Rearsby.  
Photo courtesy of "Leicester Mercury".

*Nick on final glide.  
Photo courtesy  
"Flight International".*



marshalling, towing, food, caravans, scoring, crowd control, guest organization, daily score sheet printing, etc., etc. —all go on so unobtrusively that one

might be lulled into thinking they happen without effort. But one knows otherwise and to all these selfless individuals who did the work, many thanks indeed.

---

## SAFETY PANEL NEWS — The first 180 days

**F**ORTY-EIGHT accidents have been reported so far this year. At this rate, it looks as though we shall achieve the magic ton. The BGA is offering no prize to the pilot who has the 100th accident!

One encouraging fact to emerge from an otherwise dismal picture, is that no new ways of breaking gliders have been discovered. This means that at least we can concentrate on known failures of technique.

Ten accidents have happened to pilots with under 5 hours' experience as P.I. This is, of course, our old bugbear—lack of supervision allied to sub-standard basic training. There is no substitute for good basic training with proper follow-up instruction which must be done on a two-seater of good performance.

It is pleasing to note that more clubs are operating high-performance two-seaters. What is now needed is their use

for checks, checks and still more checks, so that self-taught imperfections can be picked up and eliminated.

Swallow gliders are featuring more and more often this year. I hope to be able to say more about this ubiquitous trainer at the end of the year, but for the present will confine myself to the remark that brake and elevator control

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must be sensibly taught if porpoising and heavy landings are to be avoided. If pupils are allowed to approach at 60 knots plus, surprising phenomena are likely to occur! From personal experience I believe that one of the greatest weaknesses of our instructors is the lack of standardisation on approach techniques.

A tragic double fatality in a T-21 has pointed the need for considerable caution when flying less sophisticated gliders in strong wind-gradient conditions. Of flying in strong winds, the only thing to be said is: "When in doubt, leave them in the hangar."

Several shock ropes have come into contact with various parts of gliders, and the Technical Committee are recommending a change in length of these ropes. This is just one illustration of the "share your experience" principle. Many faults in technique and design would never be discovered if accidents were not reported.

Instructors instructing have been responsible for fewer accidents than normal. An indication that we are improving? To those instructors who have come to rest in a cloud of dust and plywood, I would console with the thought that flying training is as good a way as any of sailing close to the wind, and that even in the best regulated circles training accidents will happen.

This, however, does not absolve us of our responsibility to try and keep training accidents to a minimum.

Winch failures (including cable breaks) are still exacting their toll—seven, to be exact. Two of these happened to pilots with over 200 hours as P.I. This seems to indicate a tendency amongst experienced pilots to press on in the hope that the winch will recover power. Unfortunately these accidents tend to be expensive, for there is seldom an answer to flying too slowly near the ground. People tend to run out of ideas!

Far too many pilots are taking off with airbrakes unlocked. I have gone into print about this already, but will reiterate that there is no substitute for careful, complete cockpit checks.

Two gliders have been victims of poor ground-handling, the resultant blowing-overs proving yet again that if correct ground handling procedures are ignored or allowed to become sloppy, the

supreme penalty will be paid. Of all the accidents, blow-overs are the most inexcusable and must directly be attributed to lack of supervision by people who should know better.

The problem of misreading altimeters has arrived to plague gliding just as it has plagued power-flying in the past. Pilots have pulled off aerotows at 1,000 instead of 2,000 ft. and have caused themselves considerable embarrassment. Before rushing off to design expensive altimeters that require electricity and other scientific wonders to operate them, it is worth remembering that gliding is a sport in which judgment is often worth more than technology. If a pilot releases at 1,000 ft. there is no problem *if he can make it back to the field*. Using this fact as a basis, we can develop a technique to minimise the risk of being out of gliding range when pulling off. It is recommended that instructors teach their pupils not only to find the airfield before pulling off, but decide if the angle looks reasonable. If it is, then the site is within gliding range. Of course, if the pilot always releases at 1,000 ft. because he cannot read the altimeter, there is a remedy. I will leave it to our readers to work this out! Tug pilots can help to minimise the risk of outlandings by remaining within gliding range of the site during the whole of the climb.

A very dexterous crew have discovered how to rig a Skylark 4 with the tip/centre-section bell-cranks overlapping, thereby effectively halving the number of ailerons. Skylark 3's can also be treated in this way. Ray Stafford Allen has issued a note on this (see page 300).

At no small cost it has been proved that tugs and loose coils of launching cable do not mix. All tug operators are recommended to keep a careful watch on those spare lengths of cables and long bits of wire removed from snarl-ups.

ROGER NEAVES,  
Chairman, Safety Panel.

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## NEW AWARD

THE BGA are pleased to announce that W. D. & H. O. Wills will be presenting suitably inscribed medallions to the first three pilots to complete a 500-km. triangle flight starting in the United Kingdom.

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# ELECTRICAL BONDING

By FRANK IRVING

AS most readers will know, a sad accident occurred last year in which a pilot, flying a Skylark 4, lost his life after being struck by lightning. Since then, it has become mandatory to fit gliders having B.G.A. Certificates of Airworthiness with a simple form of bonding if the cloud-flying category is to be retained. Moreover, a glider fitted with this bonding has now suffered a lightning strike: it was damaged, but the pilot received only a very slight electric shock. This seems to be a good opportunity, before the Cu-nims of late summer appear, to explain the effects of lightning strikes and the objects and limitations of the present approved system.

Probably the best document on this subject is Reference 1. It is mainly concerned with the protection of the occupants of the glider, and it explores the matter with a wealth of experimental and theoretical detail. Briefly, its findings are as follows:—

If a potential difference exists between various parts of a human body, a current will flow which will produce various physiological effects, depending on the intensity and duration of the current. Ideally, the current should be so low that the pilot is quite unaware of it; but at the worst, the maximum effect should fall short of exciting reflexes or paralysis of muscles so as to cause temporary loss of control of the glider. The currents and times involved are of the order of milliamps and milliseconds. Obviously, if large currents occur, permanent damage to the body can be caused.

Voltages can be induced in the following ways:

- (i) Electromagnetically. If a large and varying current (due to a lightning discharge) passes through conductors in the glider, a voltage will be induced in the pilot himself. A typical lightning flash would involve a maximum current of 100,000 amps., the duration of the flash being about 10 microseconds. Shielding the pilot by 8 conductors disposed symmetrically around him would usually

limit the induced voltage to an acceptable value.

- (ii) Electrostatically. If the pilot is insulated from the glider, and the latter becomes electrostatically charged with a high voltage relative to earth, there will be a potential difference between the pilot and the glider, depending on the various electrical capacitances of the pilot-glider-earth system. If the pilot then touches the glider, he will receive a shock. The screening mentioned above just about suffices to reduce this effect to an acceptable level.

- (iii) A further effect can be produced as a result of a lightning flash close to the glider, when a current passes through the pilot as a result of the rate of rise of voltage during the development time of the discharge (about 100,000 v. in a few milliseconds). This also depends on the capacitance of the pilot with respect to earth. The efficacy of the above screening in this case is not very well established, and the only real protection consists of covering all the surfaces of the cockpit with a conducting substance.

Another effect, not mentioned in Ref. 1, is that various metallic parts of the glider, if insulated from one another, can achieve different potentials, either by induction or by electrostatic charge. Large potential differences can therefore exist between, say, the control column and the rudder pedals, since the associated control runs are often independent. A particularly grave danger can occur during a winch launch when the pilot, holding the stick, achieves some very high potential and then takes hold of the release knob, which is connected to earth via the winch cable.

All of the above relates to protection of the pilot. If possible, one would like to protect the structure of the aircraft as well. Both Ref. 1 and British Civil Airworthiness Requirements Section D propose broadly similar measures: a "main earth" system of conductors is

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run along the fuselage and across the wings. "Stricker plates" at the extremities of the machine, and all significant metal components, are connected to the main earth system. Section D provides a more elaborate earth system than that proposed by the Polish authorities, but with appreciably less screening for the pilot. The main earth conductors specified in Section D seem remarkably small (flat copper strip with a cross-section of 0.009 sq. in.). A rough calculation suggests that, even more remarkably, such a conductor should take 100,000 amps. for about 30 microseconds. This calculation is very rough indeed, and provides little guidance about effects on the adjacent structure. The mechanical forces on the conductors are likely to be very large, and the copper would be on the verge of melting. Incidentally, the heat input reaches the staggering figure of 450 megawatts per foot.

Putting BCAR-type bonding into a typical single-seat glider in the course of construction would involve a weight penalty of about 12 lb. and would probably cost £35-£40. (The Polish weight estimate for the Bocian is 22 lb.) Installing similar bonding in an existing glider would be an extremely difficult and cost-

ly exercise, and the BGA Technical Committee felt that it would not be generally acceptable as a mandatory modification. It was, therefore, decided to concentrate on an inexpensive and simple form of bonding which would provide a useful measure of protection to the pilot only.

The type of bonding finally adopted consists simply of connecting together all the control runs which end at levers or knobs in the cockpit, together with any other significant metal parts with which the pilot is likely to come in contact (e.g. the instrument panel). So far as the slow build-up of electrostatic potential is concerned, the pilot and all control levers, etc. will be at the same voltage, and he is therefore unlikely to receive a shock from this source (nor from the winch-launch case mentioned above). It also provides some measure of screening, since the pilot is partly surrounded by interconnected push-rods, cables and the instrument panel. However, as Faraday cages go, these components only produce a rather porous one. So there will be some measure of protection against voltages induced electromagnetically, but not very much, and considerable protection against electrostatic charges or

other potentials arising from effects in which the times involved are milliseconds rather than microseconds.

The glider structure and control runs are not afforded any significant protection by this system. It will not, for example, prevent the aileron cables fusing. The intention, however, is that the pilot should remain capable of taking emergency action (such as baling-out) should the glider be damaged, and that he should not suffer painful or disabling shocks in less extreme circumstances. The one recent occurrence suggests that the bonding of the Dart successfully achieves these aims.

It is by no means clear that even BCAR-type bonding would prevent damage to the glider in the event of a direct strike by a major discharge. Getting in the way of 100,000 amps. seems likely to cause some bother, even if it goes through the earth system rather than through control cables. The danger of loss of control would doubtless be appreciably reduced, but the high temperatures attained by the conductors might well lead to other damage. All this, however, is in the realms of speculation.

To summarise, the BGA Technical Committee has tried—apparently with some measure of success—to provide reasonable protection for the pilot at an acceptable cost. But large electrical storm-clouds are inherently dangerous: they can cause serious damage to large aircraft, and the Technical Committee certainly would not claim that the present bonding renders flight in such clouds completely safe. We have simply tried to reduce the more drastic effects of a strike, and pilots who wish to avoid a nasty fright and the possibility of damage to the machine should avoid such clouds.

Of course, there is nothing to prevent an owner installing really comprehensive bonding to give more complete protection, and the Technical Committee will be very happy to provide detailed advice to anyone wishing to do so.

**Reference:** J. ZIELINSKI: "The Protection of a Glider against the Effects of a Lightning Strike and Atmospheric Electricity." OSTIV Publication V (in French).

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(Sequel to: *It Ain't All Gliding*  
Feb.-Mar. issue, page 28)

### *Diamonds Are Forever*

No falcon struck me from the air,  
For far above I flew  
In Golden Heights—my home was there  
Safe was my heart from you.

In single splendour, waves I rode  
On Silver Journeys far afield,  
To no man was allegiance owed  
For no man to my heart appealed.

Yet you, whose warmer methods used  
The thermal bubble's power to flit  
From cloud to cloud, had me bemused.  
One glance from you and that was it!

And now my skill I pass to those  
Who queue to fly the Twenty-One  
From circuit-bashing that I chose  
I get the same amount of fun.

And if, my love, my tongue is rough  
As leaden-fisted turns you make,  
Do not despair or take the huff—  
Instruction's habit's hard to break.

No further glories now seek I.  
On gems my thoughts no longer linger.  
No trophies from the F.A.I.  
Can match the diamonds on my finger.  
"Mag"

### RESPONSE

*Oh for the Wings of a Dove!*  
Ah! Got you! Now there's no escape.  
I shot a racy line.

You fell completely for my charms.  
Please change your name to mine.

Together, side by side, we'll fly.  
In summer skies we'll play.  
Now no more solo stuff for us  
And only *one* will pay.

But what is this? You've hours galore!  
While I have but a few.  
And when we fly, why, you're P.1  
And I am *poor* P.2.

Alas, Cruel Fate! that I should fall  
For one whose log informs  
Of multitudes of flights in charge  
Through Rain and Hail and Storms.

And should we fly in Tandem  
In Blaniks or Ka-7's,  
I'll have a back seat pilot  
To nag me through the heavens.

With a "Watch your speed, you go too  
slow."  
And, "Now your turn is slipping."  
Until from my poor fevered brow  
The sweat is quickly dripping.

Then I will pine for days long past,  
When all alone I flew.  
The old 2B obeyed my hand  
And talked not back like you.

Oh woman! STOP! Instruction's power  
Has gone right to your head.  
There's but one craft that we can share  
And that, my sweet, is (censored).  
"Mac"

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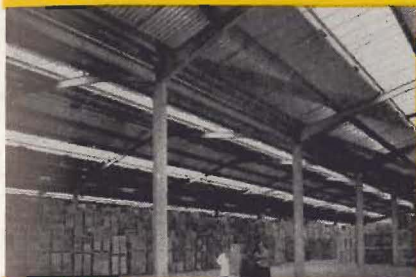
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## COOK COMPASS MOUNTING MODIFICATION

By "CHUCK" BENTSON

**M**OUNTING a Cook compass can be a problem, and the location usually selected, for want of a better one, is on the side of the canopy above the pilot's elbow. Disadvantages of this location include separation from instrument area, obstruction, and difficulty in judging angle of tilt accurately. Consequently, many pilots require an additional conventional compass.

If a mirror is mounted on the gimbal at an angle of 45 degrees to the face of the compass, the compass can be viewed horizontally instead of vertically, and can be mounted at the top of the instrument panel, or on the front of the canopy, where it will be more free from magnetic influences. The minimum mirror size is 1.75 ins. x 2.5 ins. The mirror should be directly above the dial of the compass, at 45 degrees, and as close as possible. The mirror may be mounted by bonding to a piece of aluminium shaped to suit the particular type of gimbal fitted to the compass.

In my experience, the location of the compass on the front of the canopy, with the top of the mirror just below the horizon, seems to be most satisfactory. The advantages of this modification are:

- (a) The compass is most easily seen and scanned.
- (b) The angle of tilt can be very accurately judged, the compass at eye level, ensuring accurate readings for coming out on course or setting course.
- (c) The indicator needle is seen to rotate in the same direction as the aircraft is turning.
- (d) When flying in a southerly direction, the points of the compass appear in the normal sense, i.e. South, ahead; East, to the left; West, to the right.

I did not find it particularly disturbing that the numbers on the dial appeared as mirror images, and soon learned to read them quickly. It would be better if the instrument were fitted with a mirror image dial so that it would appear normal when viewed in the mirror; also, North could be arranged to appear at the top of the presentation by reversing the pointer and dial.

I have found that the mirror mounting as described above greatly enhances the usefulness of the Cook compass, and I believe that with this modification more pilots would find the Cook compass completely satisfactory as a primary instrument.

---

## A THOUGHT OVER THE KNITTING NEEDLES

By AUNT MATILDA

**I**N my opinion fox-hunting is on its way out—probably within the next twenty years. Further to this (and for everyone's sake, don't let's start a correspondence about it) one basic reason for its being on the way out is not that the Great B.P. is concerned about any possible cruelty to the fox, but because people who hunt foxes are considered to be a Privileged Class: and nothing could be a greater crime than that nowadays. Unluckily for the ordinary common or garden fox-hunter, their image has been ruined by a minority who con-

sider their superiority when mounted upon the Noble Beast sufficient to enable them to ride over the countryside regardless of crop damage and to insult those humble peasants who get in their way.

Now, Glider Pilots, let us have a little think about this and examine your consciences. You, too, all of you, are a privileged class. (Cries of Rhubarb, Rhubarb, My Old Man's a Dustman, etc.) Let's get that quite straight. You are lucky enough to have a full complement of limbs, you are not in your

dotages, and you have enough brains to master a simple Theory of Flight and read what the A.S.I. says, even if you don't understand the Rating System. As well as this, you have sufficient money. I know you will all immediately fall off your seats laughing at this idea, but let's face it, an awful lot of people cannot afford to glide—I mean, they really do not have sufficient lolly, not just that they just bleat about it like you lot. Further to this, an even greater number of people never have had the opportunity and good fortune to become acquainted with any flying machines, much less those extraordinary beasts without engines.

So at some time, as you break the speed limit along the back roads with your trailer and glider (which you can't afford, of course), someone is going to ask you: "What have you got in that big box?" There you are, the big glamorous Master of the Air in your little cotton flying suit, your head stuffed with lofty ideals about breaking records, and you confront this wretched nignog, doubtless a Sunday driver with all his sticky kids, and to amuse your crew and demonstrate what a witty lad you

are, you answer: "An eight-legged polo pony", or "a boa constrictor", or a "giraffe lying down on its side". And everyone laughs gaily except the enquirer and his sticky kids, who realise someone is taking the mick out of their dad—who does not wish to again display his ignorance and so keeps quiet. But you, brother, have made an enemy—not a friend.

For years and years instructors have emphasised to their pupils the importance of being polite and courteous to farmers. Strange, then, that only last week a farmer should have said to me: "If you know of any of those bl . . . y glider pilots you can . . ." (unprintable). But don't let us think only of the landowners, first priority though it may be. Let us also consider the man in the street and future public opinion. Do you know anything about crocodile hunting? Of course not. Why, then, expect every citizen to know about the subtleties of your chosen sport? For your own sakes, give a courteous answer: be helpful, kind and *smile* . . . with 'em, not at 'em.

MANNERS, GENTLEMEN, PLEASE (AND LADIES)!

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**T**HE club always has a comparatively quiet time during the summer months, but this may be because some do not appreciate that we are open every weekday evening, 6-11 p.m. Wednesdays is club night and there is always a talk or a film show—as will be seen from the list opposite. We are always pleased to see visitors to London from home or abroad. The annual subscription is still £2 and overseas and country membership

(for those living 40 or more miles from Hyde Park Corner) £1.

An interesting evening is promised for the 23rd August when Roger Barrett, Chairman B.G.A. Flying Committee, will lead a discussion on competitive gliding in the future which he has entitled "Wither Gliding Competitions". This will be an opportunity for everyone to air their views.

A date for your diary is Wednesday, 4th October, 8 p.m., when the club's annual Wine and Cheese Party will take place. Tickets will be 10s. at the door and all are welcome.

\* \* \*

### AVIATION ART SOCIETY

The Society exhibited at the Biggin Hill Air Fair, the Nationals and the R.A.F.A. Annual Flying Display at North Weald.

At the preview at Biggin Hill Sheila Scott presented a picture on behalf of the Society to the C.O. of R.A.F. Abingdon. The painting, by Norman Hoad, depicted the start from Abingdon of Beryl Markham's east-west crossing of the Atlantic in 1933. Among those present were Edgar Percival, who designed the Vega Gull in which she flew.

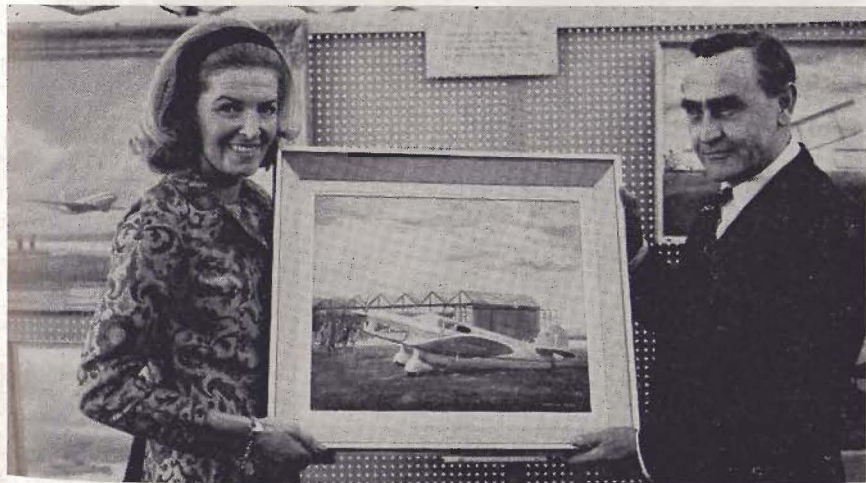
The Society's annual exhibition and competition in the Kronfeld Club will this year be held from the 25th October to the 11th November inclusive.

For those interested in exhibiting—paintings have to be in by Tuesday, 10th October, and entry forms the week previously. Exhibitors must be members of the Society: annual subscription £2.

Y. C. B.

### Diary of Lectures and Film Shows Wednesday at 8 p.m.

- July 26 Training Experiences with a Powered Glider. Peter Jeffers and Peter Ross.
- Aug. 2 Films: The Air Force Missile Test Centre, Airlift Hawaii and Vietnam.
- " 9 Feature Film:  
(see posters).
- " 16 Film: The Captive River. Story of the building of Kariba Dam.
- " 23 "Wither Gliding Competitions". Discussion led by Roger Barrett.
- " 30 Rolls/Bentley Pageant 1964 Muloorina. Land speed record attempt by Donald Campbell.
- Sept. 6 Air Touring to Portugal with Luton Flying Club; arranged by John Argent.
- " 13 Feature Film:  
(see posters).
- " 20 Aviation Problems in Film Making. Sq. Ldr. Hamish Mahaddie (previously cancelled).



*Sheila Scott presenting the painting to the CO of RAF Abingdon, Group Captain R. Adams.*

# "POSSIBLES" COMPETITION

By ANN WELCH

THE original idea of the "Possibles" Competition was to enable the contenders for the British Team to fly against each other in the same type of aircraft. This now proved impossible to arrange in the short time available, and so pilots continued to use their own gliders.

The Competition was held immediately following the Nationals at Lasham. Although little or no new information on pilot capability came out of the contest, it enlarged the rather small sample of 1967 performance, which was all that was possible in the Nationals weather, and confirmed previous knowledge.

The weather for the "Possibles" was a great improvement on the previous week, everyone being able, at last, to discard gumboots. There were four task days, the first allowing a 300-km. triangle to be set. Twelve "Possibles" flew the task, as well as two *hors concours* pilots. Of these fourteen, thirteen completed it. The only pilot to land out was John Williamson in the new HP-14. He ran into heavy sink on the final glide and ground to earth only two fields short. Had he got in, he would have beaten the U.K. record by seven minutes, and the next nearest competitor by 17.

The next day provided a 200-km. Out-and-Return. As conditions turned out, this could have been bigger, although the weather area available precluded a 500-km. triangle. All pilots completed the course with flight times between 2½ and 4 hours.

On 2nd June the forecast held out a real chance of a 500-km. triangle, and this was set, the course being Lasham, Corby Town, Sleep airfield, Lasham. Unfortunately a mass of rotten air moved in much more extensively than expected from the East Coast and, literally, put a tongue out across the first leg. John Williamson and David Innes nearly reached the first turning point, but had to land in very poor weather. So that was the end of the first 500-km. contest attempt.

On the last day, the weather showed every sign of reverting to its previous

enfeebled variety, although a reasonable period of thermal activity was expected. The course set was a flat triangle of 240 km.: Lasham, Wylde Bridge (west of Salisbury), Guildford Cathedral, Lasham, the gliders passing close to base on the second leg. The weather did not brew properly, so the first turning point was withdrawn to Andover airfield. In almost drifting conditions everyone set off in a relaxed mood since the task was just going to provide some pleasant flying, rather than prove much competitively. Four out of the sixteen pilots flying on this day completed the course—John Williamson, now in a Dart 17, with fastest time. The others were John Cardiff, Colin Donald and Andy Gough.

The "Possibles" Competition then ended with the meeting to select the British Team.

Organizationally, the "Possibles" Competition was very interesting. It showed that a competition of up to fifteen gliders flown by experienced competition pilots can be run completely by only three people apart from tug pilots. The division of labour works as follows:

- Person 1. Obtains met., sets tasks, gives briefing, controls launching, logs take-offs, and assists in start and finish line timing.
- Person 2. Prepares briefing boards and turning-point information, sets up and is responsible for timing of start and finish lines, and provides scorers with log sheets. Assists if necessary in organizing retrieves.
- Person 3. Assists in marshalling take-offs, develops and assesses turning-point photographs, works out and produces daily and final scores, and takes retrieve messages, if any.

This is, of course, only practical with (a) pilots who are willing and able to marshal themselves in the right order, when everyone has radio; and when photography is used for obtaining evi-

dence of rounding the turning point, and (b) organisers working well as a team. There were other reasons why the "Possibles" Competition, in spite of its high-key nature, was fun. In the Nationals, with 80 gliders, the organizers have, of necessity, to run the thing on a formal basis. Changing the task at short notice, asking some pilots if they consider that the right moment to start has come, and avoiding controlled airspace corners with "unwritten" extra turning points are impractical, and could result in some unfairness in a big competition. In a small expert contest they provide no problem, and give extra flexibility to get the best from the weather.

Such a competition tends, also, to have a higher proportion of closed circuit tasks, which reduces retrieving. Since crews were short in the "Pos-

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477 P. Scott -  
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Shown round school  
by headmaster  
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sibles", it was agreed that all trailers should stay at Lasham until the gliders landed. This worked very well, with crews driving for each other's pilots where this helped. The stay-at-home rule was relaxed on the 500-km. day, so that there should be no risk of the next day's flying being compromised. In the event, this did not matter. Having crews at base also helps communication between everyone, due to the extra quantity of radios on the field.

Arising from the unusually high quantity of cloud flying which the 1967 Nationals produced, the "Possibles" Competition was run with common altimeter settings, and as far as possible a common cloud-flying frequency. For the future a single cloud-flying frequency is essential. Apart from reducing the actual risk of collision, which is small, it will enormously increase peace of mind, which in a major championship is important.

In any gliding competition the best possible met. arrangements are those which the Met. Office kindly provide for the Nationals. If this cannot exist, the next best is to be able to telephone a gliding met. man at his office after getting the general picture from the BBC. One knows by then the questions to ask. We were most grateful to Peter Wickham for this arrangement.

I would like to end by thanking Rika Harwood and Ray Stafford Allen for making up such a fine organizational team, Pete Dawson for being the universal retriever, the Lasham staff instructors for their great co-operation, and finally those Lasham members who were longing for a launch at the same moment as the "Possibles" were getting airborne.

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# LIGHTNING AND COLLISION IN CLOUD

By PHILIP WILLIS

THE Thursday evening before the start of practice week for the Nationals, Justin arrived at home with the Dart trailer and a face of doom, announcing that, to get his Diamond height, he had gone into what seemed a decaying cum-nim somewhere near Banbury, and at 21,000 ft. the only lightning flash in the cloud had struck the machine.

Possibly because this last winter we have all had our controls bonded, he himself had only received a slight shock, and Kitty and I were so relieved to have him back that the damage to the Dart was almost a pleasure. The lightning had struck the tip of the metal web of the metal/wood bonded spar, about 5 ft. from the wing-tip, burning a hole through the ply bottom surface of the wing, ran to the opposite wing-tip, and burnt its way out through an identical hole in the ply at the same point there.

This left me without a pair of wings for the Nationals, but that is another story, illuminated by the sportsmanship of Ron Cousins, who provided me with another pair.

Then ensued the worst and wettest fortnight in gliding history, on the last day of which the Army, in the shape of Tony Deane-Drummond (Ka-6E) and the Air Force (Paddy Kearon flying an SHK) collided with each other in a cum-nim north of Oxford. Damage to the Ka-6E was relatively slight, but with its wing sheared through well aft of what it has instead of a spar, the SHK was only by a miracle brought to earth in one piece.

Lightning strike and collisions in cloud — two of the most dramatic hazards of high-performance gliding. We had better look at them a bit more closely.

Within the past six years I can recall at least six cases of lightning strike in cu-nims in this country. In these, five aircraft were damaged, one destroyed, four pilots fairly seriously shocked, one killed.

The curious thing is that, prior to that, I cannot remember any cases of this sort in this country at all, but I conclude this is simply because only in

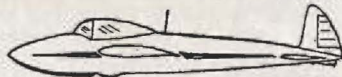
the last few years has there been any sufficient number of flights in cu-nims for the actuarial consequences to show themselves.

I must do some wildish guesses here, but I should be surprised if during this six-year period there had been more than an average of 100 flights a year in cu-nims. If this is so, the risk of a damaging strike in these clouds is of the order of 1%. This risk is reduced in a metal aircraft, and by bonding the controls in a wooden one, but nothing can avert catastrophe in the event of a direct strike. Although the single fatality we have experienced is insufficient to form any conclusions as to the order of *catastrophic* risk, it seems to me that this sort of *general* risk figure is altogether too high, and nothing can be done about it except to keep out of cu-nim.

Coming to cloud-collision risks. I think we have had two such collisions since the war, one aircraft lost, no casualties. In this time there have certainly been tens of thousands of cloud flights. So the risk is *much* smaller than that of lightning-strike in cu-nim. But in this case it is possible to reduce it still further by sensible use of radio, and the BGA is working on a scheme which, if practicable, will soon be promulgated.

I have written these notes in a hurry, to catch this issue of S. & G., so I have not had time to check my figures as I would have liked. But I am anxious to get the general picture over without delay, as I believe it to be.

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## ACROSS THE GANGETIC PLAIN AT 76 Km/h

ON the second day of the First Indian National Gliding Rally, the Met. predicted ground winds 10 kt., likely to go up to 19 kt., in the afternoon; at 2,000 ft. 330°/25 kt; 5,000 ft., 310°/30 kt., 10,000 ft., 290°/28 kt. The Task Committee decided on Free Distance.

Maps started coming out and A. K. Sunderajan (Birla, Kartik I) and V. B. Gupta (Delhi, Kartik II) declared Sultanpur as their goal, while the other three, V. V. Nanda (Kanpur, Ka-7), F. J. Ghaswala (Ahmedabad, Kartik I) and myself (Deolali, Kartik II) declared I.I.T. Kalyanpur Airstrip, Kanpur, as our goal. I was the last to take off, at 11.15 I.S.T.

At 11.46, cable was released at 1,000 ft. (300 metres) and immediately I encountered 0.5 to 1 metres lift which took me to 800 m. in 25 mins. It was hard going, and during this time I had drifted to Badarpur, about 15 km. from Safdarjung. Meanwhile Ghaswala had also joined me and now we were just tail-chasing each other and allowing ourselves to drift with the wind. The lift died out and we started heading towards Faridabad. Height got lost rapidly and I was down to 500 m. before I could encounter lift and climb back to 800 m., only to come down again.

I was down to 300 m. this time when I saw ripples in a wheatfield on the other side of the River Jamuna and noticed a kite soaring rapidly over it. Immediately I dashed towards it, crossing the river at probably the lowest possible height that so far anyone has done, and caught that God-sent lift at 250 m. The lift was a fairly good one, about 2 m. per second, but very rough, and in 15 mins. I was at 1,600 m. and crossed the Mat branch of the Upper Ganges Canal and struck the main railway line near Wair. A series of good lifts, followed by fast dashes at 60 m.p.h., saw me bypass Aligarh two hours after my take-off.

From Aligarh I started keeping myself between the Cawnpore branch of the Upper Ganges Canal and the G.T. Road, and was making fairly good progress when about 15 km. before Mainpuri I

started feeling sick. I was in a severe downdraught and was down to 300 m. A field was kept in sight when I struck a powerful thermal. Relieved, and feeling on top of the world, I climbed to 2,000 m. and then the next hour saw me working a number of good thermals and dashing between them at 80 m.p.h.

From Mainpuri I had started following the Canal, but when it bifurcated and started going too much off my track, I left it and once again started a compass course of 120°. After I had completed four hours of flight, a severe 6 m. per sec. downdraught brought me down once again to 300 m. from 2,900 m. As the last few thermals were very good, I had not bothered to take a thermal till I was down to 2,000 m. and from this height, when I started looking for one, I could not find any. My only consolation was that I had crossed 300-km. line for Gold C distance leg. However, at 300 m. a dust devil was encountered and up I went in -1 to +6 m. per sec. rough lift. The lift took me to 2,000 m. After one more thermal I saw the hangar and I.I.T. Compass 10 km. away and made a straight dash for it from 1,600 m. at 60 m.p.h.

Flight over, a feeling of joy and an anti-climax were experienced. It was Sunday and there was no one near by. After some time a Chokidar was seen and I called him to come and help me to take the glider to the hangar. A call was sent to Area Control, Delhi and Delhi Gliding Club through Kanpur Flying Control, and then I was taken to the visitors' guest hostel of I.I.T. by Mr. J. W. Olcott, the American test pilot attached to I.I.T. and an official observer of the Aero Club of India, who also signed my landing certificate.

The flight of 379 km. was completed in 4 hrs. 58 mins., giving an average of 76.30 km. per hour. It gave me Gold C distance and a Diamond for goal—also second place in the Free Distance contest, first place going to A. K. Sunderajan, who landed near Rai Bareilly, 20 km. short of his hoped-for 500 km.

DINESH CHANDRA

# HOW GLIDING BEGAN IN TANZANIA

By COLIN PENNYCUICK

I WENT to East Africa to see the wild beasts and birds in the Serengeti National Park, but this proved to be less easy than I thought. Covering the 4,000-odd miles to Nairobi took 12 hours, but the further 200 miles to the Serengeti took 5 days as it turned out; not, of course, plodding across the wilderness, but waiting for an aeroplane, staying luxuriously meanwhile with Tony Hyde, the C.F.I. of the Nakuru Gliding Club. I was not sorry to get in this way an unlooked-for opportunity to visit this celebrated club, the hospitality of which is well known to S. & G. readers from the accounts of various visitors.

I went up there on a Saturday and met Bim Molineux, who was wheeling out his brand new, immaculate Ka-6, which he had only had for 3 weeks. I paid it a few well-deserved compliments, and to my amazement he strapped me into it and launched me. You can't be more hospitable than that. It was 4 p.m. and Bim apologised for the state of the sky, which, he said, could hardly be considered soarable. The cumuli had flattened out and there was no sunshine within reach of the winch launch. However, I found some weak lift at 800 ft. above the ground, and after some careful scraping it built up into a brisk thermal. I seemed to get no nearer cloud-base and became suspicious of Bim's vario, but when I eventually got there (at 14,500 ft.) I found I was going up like a rocket—it just took a long time because it was so far to go, even with the ground being at 6,000 ft. I cruised happily around at 13,000 ft. plus for an hour or so admiring the scenery, and eventually fumbled my way down shortly before sunset. After this promising introduction to East African gliding I had to decline a pressing invitation from Brian Hopkins (now Tony Hyde's successor as C.F.I.) to stay, and get on a nocturnal bus back to Nairobi to catch my aeroplane to the Serengeti.

According to the original plan, the ex-Nakuru T-31, which was being bought by Hugh Lamprey, the Director of the Serengeti Research Institute, was to have

been aero-towed over there the week-end before I arrived, but they had to do an aero-towing experiment, which went all right, and then they landed, and there was this ditch, and, well, I went to see the Insurance broker in Nairobi, who was very helpful and said everything was being done that could be done; but it was a fact that there was no T-31 in the Serengeti. This was not a bad thing as it turned out, as I spent a busy three weeks learning the names of the various beasts and birds, especially the vultures and other thermal soarers. I also weighed, measured and de-rigged a few, and learned how to move around without getting eaten, which is very important in the Serengeti.

After Hugh had had a chat with some of his influential friends, the sawdust



*Two lappet-face vultures in a thermal. Owing to their wing loading, their circling radius is about half that of a Ka-6. Their span would be between 8-8½ ft.*



*Hugh Lamprey during a breather in the Rift Valley—shortly before the wheel fell off the trailer.*

began to fly in Nairobi, and about 7th January or so we learned (to our carefully concealed astonishment) that the T-31 was once again airworthy. Very regrettably, however, no tug was available to bring it across the 200 miles of prickly wilderness separating it from the Institute's base at Seronera. There was nothing for it but to go and fetch the thing ourselves, which was feasible as the Nakuru Club had rashly offered to lend us their trailer. At five in the morning on the 8th we boarded a Land Rover and set off along the road, which may sound a straightforward thing to do, but I should explain that the term "road" in East Africa has a somewhat wider meaning than is usual in the British Isles. Roads vary from the tarmac kind which you just belt along, through dirt tracks to chains of slithery sandpits which you negotiate, mostly sideways, in four-wheel crawler.

We picked up the glider at Wilson Airport, Nairobi. I asked if everything was there and examined it suspiciously. Struts? Yes. Wires? Amazing quantities. There were about the right number of pins, all with safety pins. Were there any instrument panels, I asked. Ah yes, they said, the instrument panels—well, they were in Nakuru, but could they send

them? We would get them in a week. I would only be there another week, I pointed out, so we all reflected on this sad fact and eventually we shrugged philosophically and set off.

For 40 miles we sped along the tarmac, in holiday mood, after which our road left the main road to cross the bottom of the Rift Valley, which is about 30 miles wide at that point. This was one of the worst bits of "road", roasting hot, and marked by tall columns of dust, at the bottom of each of which was a vehicle yawing slowly from side to side in the sand, mostly in bottom gear. We bumped and crawled painfully across, greatly hindered by a light following wind, which engulfed us in our own dust cloud whenever we slowed down a little too much, so that we were forced to accelerate blindly into the opaque murk in order to get out of it. The sun was setting as we started up the slope at the far side of the Rift Valley, congratulating ourselves on having passed the worst.

It was then, as night fell, that the wheel fell off the trailer. It did this by wriggling around on the studs until the holes were so enlarged that the nuts just went through them, and then it fell off. We had to admit defeat, and, after propping up the axle, removed the hub with

its tormented studs, so that Hugh could take it and the wheel back through the sand bath to Nairobi.

Glider pilots are always being accused of greater devotion to their gliders than to their wives, but how many of you have spent a night with a T-31 in a derelict trailer in lion country? I was left behind to fend off the Masai, who also inhabit this area, and are apt to borrow useful things like tyres without permission. None came as it turned out, and I spent the night and much of the following day inside the trailer sheltering from the sun and dust, which I afterwards regretted when I learned that the Masai usually investigate any unfamiliar object by sticking their spears through it. Hugh returned about 3 p.m. the day after the wheel fell off, by which time I had nearly finished the iron rations (a bag of nuts), and greedily devoured the sandwiches and orange pop which he brought. The Ford people in Nairobi had done a magnificent piece of surgery on our hub and wheel, which we fitted back on and found as good as new. Once again, as night fell, we clambered up the Rift Valley escarpment and pressed on into the night.

The going was somewhat better and we made good time to Narok, after which I took over. We had a nasty moment when two rhinos appeared in the headlights, one of them cavorting about just beside the road. The road was quite good here, but surfaced with loose gravel, and when I saw this rhino I stupidly hit the brakes, causing the Land Rover and trailer to start snaking. Hugh said very clamy, "Keep going straight" and at that the Land Rover straightened out, more in response to Hugh's will power than because of anything I did with the controls. The rhino luckily pivoted round to point away from the road just as we passed, and if it charged us it missed.

We went through Keekerok, the last place in Kenya, at about 10 p.m., after which the "road" degenerated into a rutted track. We raised a ragged cheer as we passed the notice board marking the frontier, making Hugh's T-31 the first glider to enter Tanzania\*, and also

\*Well, we think it was the first. Indignant denials should be addressed to the Editor.

the Serengeti, which begins at the frontier. We stopped for refreshment at the source of the Bolagonja River, a fine spring set about with trees, and crashed through the bushes, torch in hand, to fill our water flasks. The place smelt strongly of buffalo, which made me rather nervous, but Hugh knew somehow that there weren't any around. Further on we were delayed momentarily by a lioness who insisted on walking rather slowly in front of us up the middle of the road, and another time Hugh, who had taken over again, stopped and whistled up a leopard, which came right up to the Land Rover in the light of his torch.

We arrived safely at Seronera at 3 a.m. on 10th January, which was a very significant day in the history of Tanzania. When we woke up we got the T-31 out and rigged it on Seronera Airstrip. As the Scientific Council of the Serengeti had met a few days before, the admiring crowd which assembled to watch contained a number of distinguished persons, including the Director of National Parks, the Chief Park Warden and two professors from overseas. Seronera Airstrip is a mile long, and we had laid out 1,200 ft. of fencing wire as an auto-tow line. To the upwind end of this we attached a Toyota (a species of Japanese jeep), and to the other end the glider. The Toyota was driven by Hans Kruik, a Dutch zoologist known for the dash and precision of his bush driving in pursuit of the fleet-footed hyaena, on which he is the leading authority.

The sky was nicely sprinkled with cumuli, and the only flaw in the scene was the absence of an instrument panel.

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Luckily I happened to have brought a Cosim in my luggage, which I had taped to the bottom of the hole where the panel should have been, and also an altimeter, which I stowed down the side of the cockpit where I hoped I would be able to get at it. I did not consider the lack of an A.S.I. a serious drawback, what with no speed-to-fly scale on the Cosim.

The launch was a little slow, but once I got airborne I went up all right, leaning over the side to watch the Toyota's progress. There was no time to fish the altimeter out of the bilge to check my launch height, but Hugh said it looked about 700 ft. On the way up I noticed a dust devil to one side of the run and about half way along, so immediately after release I turned and made for it. I found weak lift and circled carefully, getting about 2-3 green on the Cosim. With persistent scraping the eminent gentlemen below dwindled into little specks like everybody else, and soon I was at 12,500 ft., having to duck out from under the clouds to avoid getting sucked in. I stayed up a couple of hours, cruising about the local area and having no trouble keeping the T-31 above 11,000 ft. I soon got frozen (being dressed as a tropical zoologist) and when I was sure everyone must be impressed by my ability to stay up, I thankfully came down to get warm.

After this highly satisfactory inaugural flight we spent much time and trouble improving the launching system. We lengthened the wire to 1,800 ft., and finding we could not get the full height out of this on the airstrip, we extended the run for another mile into the bush from the eastern end of the strip. Hugh pioneered this route at full throttle, with the glider (and me) attached, deftly avoiding various difficulties which are not mentioned in the B.G.A.'s notes on new sites. The more obvious hazards, like trees and termite mounds, are easily dodged, but there is an animal called the warthog which digs vertical-sided pitfalls for the unwary, about two feet deep, and wide enough to hold one, or possibly two, warthogs. I never did find out what the warthog does with the earth, as these holes never have mounds beside them, and if you are driving flat out the easiest way to find them is by falling into them, which causes you to stop instan-

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taneously. The other animals, mostly antelopes of various kinds, giraffes, hyaenas, ostriches and so forth, just stand around on the run, but mostly step aside to let you pass. We had no lions on the run while I was there, although there are plenty around, but I gathered the thing to do is to look them straight in the eye and keep going. Fortunately the occasional itinerant elephants which come to push over the trees mostly stay along the Seronera River, nearly three-quarters of a mile from our run, which is just as well, as an obstreperous elephant on the run could cause a very poor launch.

Nimble avoiding all hazards, we got our launch height up to 1,200 ft. a.g.l. (the ground is at 5,000 ft.), and Hugh did some lengthy soaring flights. One evening we did some dual in order to get him his Bronze C. The first circuit went all right, but the second launch was rather hurried as there was a cum nim approaching. As we went up the launch I saw that the rain was about a mile away, and part of the cloud was over us. We got a splendid launch, the best we had ever had two-up, and after release I

was surprised to see the altimeter shoot up another 200 ft. when I tapped it. I mentioned this to Hugh, who said the green ball appeared to have stuck at the top of the tube, and then I noticed that the ground seemed to be receding in rather a striking way.

Now, getting sucked into an African cu-nim in a spoilerless T-31 with no oxygen or parachutes is not my idea of a good idea. "Let's get out of this," I said. This seemed a straightforward plan at the time, and Hugh turned and drove away from the storm at 60 knots (we had an A.S.I. by this time). After about two miles of this hectic progress, with nose down and wires shrieking, we had gained about another 50 ft., and I was getting nervous in case we suddenly flew into turbulence at this speed, which is rather fast for a T-31. I decided to try another tactic, and, taking over, I applied 70 degrees of bank and full top rudder, and stalled it. We gyrated lopsidedly for a bit and at last the altimeter began unwillingly to unwind. At 800 ft. I deemed it safe to head back towards the airstrip, and, of course, we didn't make it. Hugh neatly sidestepped a nasty rash of warthog holes, and landed very smoothly on an animal-free piece of ground. We lugged the glider back to the airstrip through the rain, and kept further away from cu-nims after that.

The reasons for my visit to Seronera in the first place were ornithological, and I was disappointed to meet only one or two birds on my first soaring flight. Later I watched Hugh soaring along with various vultures, a secretary bird, and a lanner falcon, which he identified for me by radio, and in due course I soared with various vultures myself. If the vultures wanted to gain height they took no notice of us, and went past us up the middle of our circle, but often they would formate on us. Sometimes they flew behind or to one side of the glider, and a favourite place was a few feet above the wing, looking over the pilot's shoulder—at the variometer, I suppose.

The vultures have wing loadings about a third that of the T-31, and their aspect ratios are around 7 or 8. This combination is forced on them, I suspect, by the need for adequate take-off performance, and in soaring both wing loading and aspect ratio are unduly low. They are very good at sitting in narrow cores, even

several thousand feet above the ground, but are only about as good as a T-31 in a straight glide. Various species of vultures and other birds habitually soar up to cloudbase (usually 5,000 to 7,000 ft. a.g.l.) but when searching for food they often cruise about in straight lines at about 500 ft., putting their feet down, presumably to act as airbrakes, when they fly through lift. They have an amazing ability to maintain height a few hundred feet up without circling, and there is an eagle called the Bataleur which specialises in this, and seldom goes up in thermals in the conventional way. All vultures are indefatigable scrapers, and will circle doggedly in any scrap of turbulence as low as 50 ft. As soon as one gets away in a decent thermal, others usually appear like magic from all sides and join it, showing some, but by no means absolute respect for the established direction of circling.

One other thing—I don't think they smell thermals. I dissected a few, and if they had a sense of smell I don't think they would be able to smell anything except themselves. The Serengeti thermals are not particularly smelly anyway.



*Rüppell's Griffon vulture, showing the low aspect ratio, rectangular, tip-slotted wing typical of thermal soaring birds. Span about 8 ft.*



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# GLIDING CERTIFICATES

## DIAMOND GAIN OF HEIGHT

No.	Name	Club	1967
3/53	L. S. Poulton	Midland	19.1
3/54	C. Slack	Phoenix	18.2
3/55	C. C. Foot	Phoenix	18.2
3/56	P. E. Dawson	Phoenix	18.2
3/57	R. Kirkland	Eagle	21.2
3/58	E. J. Morris	Odiham	21.2

## DIAMOND GOAL

No.	Name	Club	1967
2/220	L. S. Poulton	Midland	7.12.66
2/221	G.B. Atkinson	Leicester	9.5
2/222	D. C. Austin	Phoenix	7.5
2/223	J. H. Wheeler	Eagle	25.4

## GOLD C COMPLETE

No.	Name	Club	1967
168	L. S. Poulton	Midland	19.1
169	J. N. Stevenson	Scottish	2.1
170	C. Argent	London	12.3
171	G. B. Atkinson	Leicester	9.5
172	D. C. Austin	Phoenix	7.5
173	J. H. Wheeler	Eagle	5.4

## GOLD C GAIN OF HEIGHT

Name	Club	1967
T. Slack	Phoenix	21.2
K. L. C. Phipps	Phoenix	21.2
A. V. Hartfield	Eagle	21.2
R. C. Cosser	Imperial Col.	2.1
M. T. Hill	Midland	22.2
H. Dyce	Fulmar	25.2
G. D. Preddie	Scottish	2.1
Mrs. R. Partridge	W. Wales	28.2
S. B. Marshall	Scottish	4.2
K. J. Byatt	Airways	18.3
G. B. Atkinson	E. Midlands	18.3
M. J. W. Harper	Bristol	18.3
E. A. Staton	Midland	23.3
J. T. Morgan	Bannerdown	11.5

## SILVER C COMPLETE

No.	Name	Club	1967
1929	A. R. Milne	Scottish	2.1
1933	J. E. U. Wallace	S. Command	7.10.64
1934	I. Farmer	East Midlands	23.2
1935	V. S. Davenport	Fenland	5.3
1936	D. R. Hodgson	Fenland	1.3
1937	C. Flogdell	Fenland	1.3
1938	G. C. Collins	Coventry	16.3
1939	E. A. North	Aldershot	14.3
1940	A. J. Brooks	Bristol	18.3
1941	H. Johns	Swindon	19.3
1942	W. Fearon	Wycombe	3.4
1943	A. R. A. Maitland	Midland	20.3
1945	A. McGinn	Bannerdown	23.3
1946	G. A. Hunter	Fenland	3.3

1947 J. A. Lynch	Bath	19.3
1948 A. B. Milne	Scottish	30.3
1949 J. Pignot	Wrekin	28.3
1950 P. C. Bray	Bristol	15.3
1951 B. T. Kelly	Bicester	31.3
1952 P. B. A. Thompson	Surrey	1.4
1953 S. K. Marsh	Midland	19.3
1954 B. W. D. Coutts	Bannerdown	1.4
1955 M. F. Meek	Southdown	24.3
1956 C. Brookfield	Chilterns	25.3
1957 W. E. Shackie	618 G.S.	1.4
1958 F. Turner	Dorset	16.4
1959 A. V. Arnold	N.W. Ireland	18.12.66
1960 A. Machin	Cleveland	24.3
1961 A. W. Maunton	Wrekin	22.3
1962 D. V. Steunor	Thames Valley	16.4
1963 A. Baggalay	Handley Page	22.4
1964 E. R. Belbin	Booker	18.4
1965 C. W. D. Watson	Cranwell	23.3
1966 E. Ainscough	Midland	29.3
1967 J. Cawthorne	Bicester	21.4
1968 D. A. Bowley	Phoenix	29.4
1969 W. I. Kyte	Moonrakers	16.4
1970 R. G. Hatton	Kent	26.4
1971 R. Larkinson	Staffordshire	22.4
1972 R. Combe	Shape (France)	15.8.66
1973 G. F. Bailey	Bath & Wilts	29.3
1974 C. P. Hopkins	London	3.5
1975 J. D. Beckett	Bicester	30.4
1976 P. S. Bryan	611 G.S.	22.4
1977 G. D. Butler-Madden	Fenland	11.5
1978 E. N. Baker	Thames Valley	9.5
1979 J. McIntyre	Nimbus	10.5
1980 B. H. Latimer	Thames Valley	2.5

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# WESTERN REGIONALS

## Nympsfield 17th-25th June

THE 33 competitors at this year's Bristol Club competition were only able to fly on two days out of a possible nine—and one of these was a 125 maximum-point contest! A succession of troughs and fronts that advanced, slowed and eventually stopped over the Cotswolds brought impossible gliding weather in the middle of flaming June. Pilots and crews took to hydrogen ballooning, golf, bird-watching at Slimbridge and increasing the bar profits of the Lulsgate Arms.

Day 1—18th June—TASK: 140-km. Triangle, Broadway Tower, Faringdon Folly, Nympsfield. X=25 km., Y=50 km.

From a clear blue sky at 13.00 developed unforecast cu. cover which spread to 8/8 whilst most competitors were still on the first leg. Ralph Jones

(hors concours in a SHK) and Tony Gaze (Dart 17R) pair-flew from about halfway round the triangle and eventually landed at Aston Down—just 8 miles from the finish.

Day 2—21st June—TASK: 116-km. Race to Husbands Bosworth. X=30 km., Y=60 km.

A 20-knot westerly and a front due to reach the middle of England by 15.00 gave the opportunity for a race to the Coventry Club's site.

Thermals were strong but rather difficult to use up to about 2,000 ft. above site. Higher than that and up to cloud base (about 3,700 ft.) conditions were very good—as Ralph Jones showed by finishing in a time that was 30 minutes better than the next man! Barry Goldsborough, flying a Sky, finished highest amongst the pilots who were seeking a

## FINAL RESULTS: WESTERN REGIONALS

Place	H'cap %	Pilot(s)	Sailplane	Date (June)		Total Points
				18th	21st	
1.	95	R. Jones (Hors Conc.)	SHK-1	125	1174	1299
2.	115	J. B. Goldsborough	Sky	33	1000	1033
3.	100	J. A. Findon	Dart 15	117	803	920
4.	95	F. A. O. Gaze	Dart 17R	125	777	902
5.	100	R. Q. Barrett	Dart 17R	—	836	862
		E. Hull		26	—	
6.	95	C. G. Day	Dart 17R	5	777	782
7.	95	M. H. B. Pope	Dart 17R	19	759	778
8.	100	D. W. Lilburn	Skylark 4	17	734	751
9.	100	D. W. Corrick	S.d. Austria	19	721	740
		R. H. Perrott				
10.	105	J. S. Wade	Olympia 463	1	701	702
11.	100	J. L. Smoker	Skylark 4	23	668	691
12.	95	E. J. Chubb	Dart 17R	—	644	670
		W. E. Malpas		6	—	
13.	95	R. H. Prestwich	Dart 17R	41	570	611
14.	100	R. W. Brighton	Dart 15	—	576	604
		R. C. Stoddart		28	—	
15.	100	M. B. Hill	Ka-6CR	2	—	569
		F. J. Purchase		—	557	
16.	100	A. J. Watson	Ka-6CR	0	270	270
17.	100	H. Drew	Skylark 4	—	207	212
		Ann Welch		5	—	
18.	120	J. Webster	Olympia 2a	3	171	174
19.	105	B. A. Davies	Olympia 463	0	131	131
20.	120	M. J. Gibbons	Olympia 2a	—	—	37
		D. W. H. Roberts		4	33	
21.	100	K. R. Mansell	Dart 15	17	0	17
22. =	100	M. Wood	Skylark 4	8	0	8
22. =	100	J. M. Hancock	Dart 15	—	0	
		R. R. Trott		8	—	8
24.	95	F. W. Fay	Dart 17R	6	0	6
25.	100	C. D. Duthy-James	Skylark 3F	0	0	0

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rating.

On 23rd June all competitors were despatched, with trailers, to Husbands Bosworth, while the organisation flew over in the tugs all set to start Part Two of the task—Cat's Cradle distance towards the north, and the forecast—good weather!

Gliders were positioned for a desig-

nated start, but the snifter sniffed to no avail under  $7\frac{1}{2}/8$  stratus. Reluctantly crews derigged and 24 trailers completed the return leg to Nympsfield.

Thunder and lightning provided an appropriate ending on Sunday, 25th June. The results (which will count for rating purposes) are as shown:

ROGER BARRETT.

## **WIN A SWALLOW COMPETITION**

### **Semi-Finals Results for North and South Competitions respectively**

<i>Centres</i>	<i>Pilot</i>	<i>Gliding Club</i>	<i>Examiners</i>
Portmoak	T. Snoddy	Ulster & Shorts	R. Neaves
Sutton Bank	P. S. Oglesby	Ouse	J. Delafield
Husbands Bosworth	M. C. Barker	Derby & Lanes	V. Carr
Meir (Staffs.)	R. Brown	Lincolnshire	J. Hands
Nympsfield	T. Gore	Worcestershire	P. Minton
Dunstable	D. West	Imperial College	J. Ellis
RAF Locking	T. Webster	Dorset	G. Collins
Booker	D. Wyllie	Surrey & Hants	R. Hubble
RAF Upavon	P. R. Luckett	Kent	M. Bacon
Perranporth	N. Ellis = 1st	Cornish (they tossed	J. Williamson
	J. Daniel = 1st	and Ellis won)	

Finals and prizegiving will be held at Lasham from 28th-30th July.

## BOOK REVIEW

**GLIDING: A Handbook on Soaring Flight**, by DEREK PIGGOTT. Published by Adam and Charles Black, London, 1967 (2nd Edition). Price 30s.

THE revised edition of Derek's book, like the first, is quite excellent; it is a measure of its excellence that many of the chapters written ten years ago are still entirely valid and have needed no alteration. It would, indeed, be alarming for many of us, schooled in the Piggott tradition, if we discovered at this stage that Derek had suddenly developed profoundly different views about circuit planning, turning, landing, etc. For the most part, it is reassuring to find, the earlier chapters are reprinted just as they were, with occasional minor alterations of wording and a few brief additional paragraphs.

Important changes have been made in some of the later sections. Modern theories about thermals are incorporated, with an interesting diagram on page 141 that might, perhaps, have been better supported in the text. There has been some essential revision of the instrument chapter, and, of course, the J.S.W. glide calculator is given a well-deserved page. The paragraphs on lightning have also been changed, but the dangers were by no means ignored in the earlier edition, so again the alterations are mainly of emphasis.

There is no chapter, nor appendix, on powered training; perhaps it is too early for this, though it won't be surprising if the next edition has to be quite different. It is, however, not too soon for chapters on the technique of flying with flaps, parachute airbrakes and the use of radio. These are absent. It is therefore probably no longer quite true to say the book contains "everything the glider pilot should know". It remains a thoroughly dependable standard work, well produced with many new photographs, and will undoubtedly enjoy a continued success.

M. S.

**Svæeflyve Hanbogen**, by P. H. NIELSEN, P. TRANS and P. WEISHAAPT. Published by Flyv's Forlag, Copenhagen, 1966.

THIS "Sailflying Handbook", sponsored by the Royal Danish Aero Club, is a full-blown book of 350 large pages printed on high quality paper. It starts with a lavishly illustrated review of sailplanes of various types, including a two-page detailed drawing of the Dart reproduced from *Flight*, and notes on internal structural details. It goes on to cover aerodynamics, navigation, club organisation and equipment, safety, instruments and the many other aspects of gliding.

Meteorology gets the longest chapter with 56 pages, and includes tephigrams. One looks especially for the writer's ideas on that controversial subject, the structure of thermals; he draws a continuous airstream from the ground up to and into a cumulus cloud, but in a section on clear-sky thermals he refers to them as "bubbles" with a short life of 10 to 15 minutes. Evidently a disciple of Georgii, he also classifies "high thermals", "evening thermals", "wind thermals" and "ocean thermals".

The bibliography starts with *Cloud Reading for Pilots* by Ann Douglas (now Welch) and includes books by Ludlam and Scorer, Piggott, Stafford Allen, Wallington, and Lorne and Ann Welch.

A. E. S.

## CORRESPONDENCE

### PROFESSIONALISM

Dear Sir,

I feel impelled to point out some fallacies evident in a recent letter from Mr. D. Carey (S. & G., April, 1967) regarding his attitude to private owners (P.O.'s);

I admit to having joined this exalted class recently, after six years of working towards it, so undoubtedly I am prejudiced, too.

Of course, P.O.'s spend more time in the air, having paid for it. However, they generally require of a club the minimum of effort—usually one launch with luck. The wear and tear that club equipment and personnel undergo is almost entirely the result of training procedures which involve hundreds of circuits and logging retrievals.

In some cases, P.O.'s are to some extent subsidised by the effort of club members. Generally, it's the other way round. P.O.'s generally form the backbone of clubs (even the BGA!); they provide instructors, experience and incentive. The true "average solo pilot" that Mr. Carey writes about is all too often a person who rolls up at the week-end and unfortunately misses out, but at this stage his club activities cease. A nucleus of devoted souls run most clubs, and do all the work. This nucleus almost always includes P.O.'s (who have the biggest stake in the well-being of their club), along with the most enthusiastic of the club solo pilots. In many cases, the *average* week-end pilot's contribution to club activities is a moan that an aircraft wasn't made available to him at his leisure.

I am sure that, taken as a whole over *all* the people who require club effort expended on them, the P.O. most frequently returns to the club value for effort expended. I also realise that some hard-working solo pilots do get a raw deal. Mr. Carey, in his enthusiasm to capitalise on class distinctions, has forgotten the large number of people who join clubs, dabble at training, dabble at soaring, and grumble all along that life hasn't been made easier for them, whilst making no effort to bring this about. Ours is a sport requiring dedication and some sacrifices, which is unfortunate. But until this situation changes, Mr. Carey's efforts might well be directed more usefully towards eradicating the tremendous wastage of voluntary effort inherent in club operations (as he said previously: S. & G., Oct., 1965), instead of trying to merely make money out of many who provide that effort.

Many people can easily become private owners if they are prepared to make some sacrifices, unless, like Mr. Warren (S. & G., Dec., 1966), they refuse to settle for anything less than a Sigma or HP-11. I get weary of people who won't fly an Oly 2 because it is so inferior to a Dart. Olympias *have* done Gold C's (I did my 300 kms. in one and it was a piece of cake, with the right weather), and I have heard of people who have actually worked overtime, and given up smoking, to get into any Oly syndicate! The answer to many grumbles can often be found in the argument of the grumblers.

*Australian National University, Canberra*

J. D. PICKETT-HEAPS

## OUR LOVE OF FREEDOM

Dear Sir,

I believe gliding enthusiasts are endowed above the average with a love of freedom. The British movement has until recently contrived to maintain a corresponding freedom in its administrative organisation, with a minimum of bureaucratic regulation and interference, whether from inside or outside. This is now changing.

Some people will justify the changes by pointing to changes in the design of modern gliders, changes in the attitude of and affluence of modern glider pilots, or even changes of Government! It is my contention that none of these factors really justifies those changes in the organisation and practice of the sport of gliding which stultify freedom.

Bureaucracy is not a monopoly of Civil Servants. Many of us must admit to an inner urge to orderliness (though it's frequently unsatisfied). When it comes to human affairs, orderliness can only be assured by regulation—and this is where the clash with freedom occurs: Designated Start is more orderly and efficient than Pilot Choice. Safe standards of pilotage or aircraft airworthiness are more easily achieved by the adoption of uniform instructing or inspection methods; these must then be enforced by regulation—in ever greater detail, from braided copper bonding wire to Bronze C aerodynamics exams. If efficiency is the sole criterion, an organisation will be better and stronger if it is finally controlled from the centre

—even a “National Centre”.

For most people these problems really resolve themselves into the question of where to draw the line. As with art, a better line will be drawn if one stands well back and views the particular question in the perspective of gliding as a whole. Many detailed regulatory requirements, while appearing desirable in the immediate close-up context of the specialist problems they're designed to remedy, are seen as tiresome, time-wasting and nit-picking bureaucracy when examined in the sunlight of the big practical gliding world outside.

Please let us strive to retain our freedom, even if this involves some inefficient amateur fumbling.

*London Gliding Club, Dunstable*

TOM ZEALLY

### GLIDING HAZARDS THIS SIDE OF THE IRON CURTAIN

Dear Sir,

Now that Great Britain stands on the threshold of joining the Common Market, it's timely perhaps for glider pilots to be informed of some of the risks that can await them the further side of the Channel in an entirely different world of administrators.

On Thursday, 27th April, 1967, at 13.40 hrs. local time, a member of the Golden River Aviation Club, finding thermal conditions promising, set off in a club Breguet Fauvette from Wevelgem airfield on a 50-km. distance flight to complete his Silver C. A northerly 15-knot breeze sped him on his way, and some three hours later he touched down without mishap 200 kms. further, close to the Paris-Lille auto-route near Senlis, which lies 45 km. to the north of Paris. He dutifully informed the French Gendarmerie and the French Customs of his presence, and settled down with a pleasant feeling of accomplishment to await events, which were not long in forthcoming, though along some rather unexpected lines.

A phone call from a French Excise Officer in Paris ordered the Gendarmerie at Senlis to arrest and imprison the pilot, to confiscate and impound the glider and to wait their arrival. Our young club member was taken to and put into Senlis jail, where he passed the night and the better part of the following morning, deprived of his tie and belt as a common malefactor and with nothing to sleep on but a hard plank. Food was provided after insistence through the kindness of a gendarme's wife.

Next morning he was taken in front of the magistrates and charged as a contrabandist for introducing into France undeclared merchandise in the form of a glider. He was released pending trial of the case seven weeks later, and the glider remains confiscated in the meantime.

*Golden River Aviation Club,  
Wevelgem Airfield, Nr. Courtrai, Belgium.*

A. W. GODFREY

### THE TEAM FOR POLAND

Dear Sir,

The method for selection of the team disclosed in S. & G. for June/July can by no process be described as democratic. The system outlined is a closed shop. Members of Parliament are elected by the franchised, not by a small group of M.P.'s.

It is time that justice must not only be done, but must be seen to be done, and everyone knows of ways of influencing or channelling a voting system of the type described. I had hoped that my letter to S. & G. would have been published in this issue.

It is not a matter of making a better choice; how the remainder of the team is selected is immaterial, or their order of precedence. Any of our top pilots are capable of winning the contest. It is precisely for this reason that the reigning National Champion should have a flying place in the team, whoever it happens to be. The overriding point is that it has happened! What objection can there be to making the Champion an automatic selection?

*Newbury, Berks*

J. E. CRAMP, A.S.L.A.E.T.

## POWERED TRAINERS AND THE SCHEIBE "MOTORFALKE"

Dear Sir,

I should like to express some opinions regarding powered sailplanes to readers of *SAILPLANE & GLIDING*, with particular reference to the "Powered Trainer Co-ordinating Committee Report" appearing in the April-May issue.

Firstly, concerning powered sailplanes in general. A special classification for sailplanes with engines was first established by the German authorities in 1956-57, and this has facilitated development in Germany. We at Scheibe Flugzeugbau GmbH have been interested in this development and, having built about 100 powered sailplanes to date, can speak from some experience.

Emphasis can be placed on soaring performance, through retractable power plant or the like ("pure" sailplane with power), or alternatively more on the powered flight regime, with the limiting case being the light aeroplane capable of soaring; between these, the whole spectrum of intermediate forms is also available, e.g., practice sailplane with power plant. Our hitherto existing Motorspatz and Motorfalke types are laid out more or less in the latter direction, while our new SF-27M, developed in co-operation with A. Obermeier (Illerschwabe), is decidedly a high-performance sailplane with engine.

It is our point of view that the powered sailplane should be designed to soar, and also to do some things the plain sailplane cannot, such as:

Launch itself.

Fly as long as, as high as and as far as necessary to contact atmospheric lift, and if this is not found to fly anyway.

Retrieve itself from overland flights.

Fly in and out from under airways or other areas with restricted operating altitude.

Self-launching and self-retrieving capabilities imply the emancipation of several helpers who would probably rather be soaring themselves, elimination of equipment such as winch or aeroplane which burn fuel at a much more rapid rate than the powered sailplane and a saving in the time needed to set all this ancillary machinery into motion. Even without this support, the degree of utilisation possible, i.e., the number of flights and flight hours which can be flown per day, is considerably greater for the powered than for the unpowered sailplane. In short, a successful powered sailplane design allows more *soaring* at lower cost.

Fortunately, a few firms such as Nelson in the U.S.A., Survol in France and Solo-Hirth in Germany have been interested enough in this problem to produce engines specifically intended for powered sailplanes. Experience in Germany with the Hirth F-10 engine of 26-28 h.p., developed by Solo in 1960-62 and built by Hirth-Benningen, has been quite good since its introduction in 1962. The F-10 powers the Motorspatz, Motorfalke, Krähe and SF-27M.

In their report, the Committee compared various hypothetical or still untried powered trainer designs ("ideal project", "Eric Reed specification", R.F. 5) as well as several light aeroplanes (Beagle Pup, Condor, Jodel D-117, Boelkow Junior), but arbitrarily dismissed the Motorfalke with the comment "unacceptable climb performance for ab-initio training". We challenge this exclusion as absolutely unwarranted. The fact is that the Motorfalke is the only machine considered which has actually been shown in practice to have suitable flying characteristics, including ability to take-off satisfactorily from most airfields, for use in training gliding pilots. It is true that the Motorfalke, with a rate of climb of 250-300 f.p.m. with two occupants, falls far short of the 500 f.p.m. called for in the "ideal" trainer specifications; however, *climb angle* is, after all, the more significant parameter from the point of view of safety, and in this respect the Motorfalke compares very favourably with the light aeroplanes, such as the Junior, being considered. (The sine of the climb angle is equal to the rate of climb *divided by the airspeed* and, with a wing-loading of 5.5 lbs./sq. ft. (compared with around 13 lbs./sq. ft. for the Junior), the Motorfalke flies at sailplane speeds.) The Motorfalke has the low induced and parasitic drag of a sailplane (wing aspect ratio over 15 compared with about six for the Junior) and is some 300 lbs. lighter at gross than the Junior; quite obviously, a rather more

startling difference in *glide* angle, to say nothing of sink rate, would become evident the instant the engines were switched off (or failed!).

In our opinion, one stands to gain considerable advantages by utilising a "powered trainer", i.e., a powered sailplane; however, one should strive in training to fly the trainer as much as possible without engine—to soar—and it should therefore have good soaring characteristics. It is our judgment that the engine power and climbing reserve should *not* be too great, so that the utilisation of lift remains of interest to the pilots. Our own view is diametrically opposed to the Committee's admittedly "surprising" conclusion that "the overall trend becomes progressively less favourable the closer the aircraft's characteristics approximate to those of a glider". In fact, we find nothing whatsoever among the results presented in Appendix 2 to support this conclusion. True, Col. 7, Fig. 2, gives smaller values for "Power Flying Time Required Hours" for the aeroplanes, but these figures were derived by the arbitrary procedure of "assuming six hours' total flying, power and gliding, in each case, and deducting gliding as aero-tows at 20 mins. each". In other words, the Committee in deriving these figures supposedly revealing the estimated effects on training efficiency of differences in flying characteristics of various possible trainers, did so on the premise that these differences would not affect the number of flight hours required. We can find little justification for this or many other assumptions upon which the Committee's conclusions were based.

The inexplicable exclusion of the Motorfalke is especially peculiar considering that it is the only aircraft meeting the low airspeed requirement of the "ideal" specification, and that it has the glider flying characteristics which the Committee concludes are "essential" for teaching almost all *ab initio* exercises. While the Committee was apparently very well informed concerning the R.F. 5, we wonder if it was aware that the Motorfalke is priced at less than £2,000 ex-works, including instruments. Had they been fully advised of the facts, their "value analysis" would undoubtedly have shown the Motorfalke to be the "best buy" as a powered trainer for gliding, certainly among aircraft now flying.

In contrast to speculations about designs and procedures which are still untried, a substantial body of supporting fact concerning the Motorfalke has already been gained since delivery began in 1965. Results of a questionnaire returned by 30 Motorfalke owners in autumn 1966 confirmed that a substantial proportion of flight time had been spent gliding without power. Some 9,000 flights had been made up to that time, mostly self-powered (the Motorfalke can also be winch-launched with the engine stopped). With about 4,600 flight hours, approximately 2,900 were with and 1,700 without engine assistance. Some 300 pilots were estimated to have participated in the flights.

A new version of the Motorfalke, with modified configuration and converted VW engine, is now being developed at Scheibe Flugzeugbau. This machine will have a higher rate of climb and will incorporate other improvements making the aircraft still more ideally suited for use as a powered trainer.

Dachau, West Germany

EGON SCHEIBE

THE CHAIRMAN OF THE POWERED TRAINER CO-ORDINATING COMMITTEE comments as follows: One welcomes Herr Scheibe's comments because they reflect views based on experience, of someone who is making a very significant contribution to the cause of the motor glider.

Much of what he says concerning the wider issues is strongly supported by an article which will appear in the next issue.

On the question of the report and its exclusion of the Motorfalke:

1. At this stage my committee is only concerned with the selection of a suitable "self-launching" aircraft for glider pilot *ab-initio* training—nothing more.
2. We have good reasons, based on our own practical experiences, for the rate of climb requirement.
3. The final paragraph of Herr Scheibe's letter suggests that in spite of his criticisms he does not altogether disagree with our findings. May we please have more information from him soon about the new VW-engined Motorfalke?

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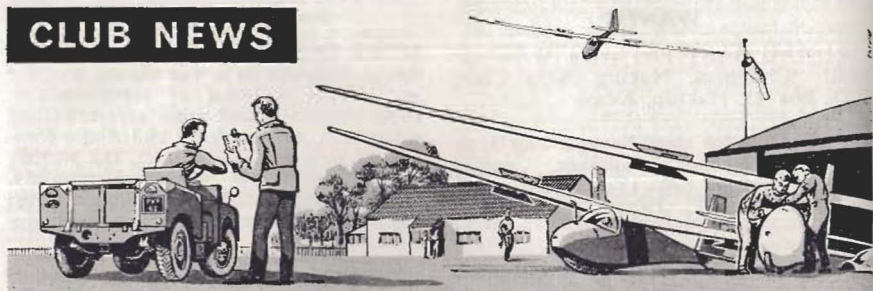
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## CLUB NEWS



**C**lub News this issue concerns itself with news of what has been going on in and around the clubs whilst the Nationals were going on at Lasham. We would like to have more photographs in this section, so if you have anything suitable we would like to see it.

Copy for the October-November issue should reach me, typed double spaced on foolscap, not later than 16th August. Copy for the December-January issue by the 18th October at 14 Little Brownings, London, S.E.23.  
19th June, 1967

YVONNE BONHAM (Mrs.)  
*Club News Editor*

### ALBATROSS

**A**T the time of writing, the future of the club is still in the balance. We have a firm offer of 50 per cent financial aid from the Department of Education and Science, but are awaiting a decision on the 25 per cent local authorities proportion of the total.

We have been flying from our present site for nine months and, as anticipated, it has become obvious that we cannot extract the maximum value from our ridge unless the Club expands. At Easter we were faced with the frustrating experience of seeing our sole T-31 remaining airborne for average flights of 10 minutes (from 650 launches), leaving an idle winch with no other aircraft to launch. The club's first C flights were made over the Easter weekend, by Ray Morecroft and Fred Sloggett, and although such flights might not seem outstanding events to other well-established clubs, they have inspired the Club Committee to seek a speedy solution to the problem of increasing our flying potential.

At the May Committee Meeting, discussions centred around the possibility of purchasing a T-21 or similar aircraft on a syndicate basis, and also methods of erecting a portable-type hangar, which has been offered on a rental basis by a

firm of scaffolding specialists. If these projects are actioned at our June meeting we anticipate a rapid increase in our airborne time, as we shall double our aircraft availability and no longer have to carry out the daily task of rigging and de-rigging.

To improve our launching facilities, Bill Dyer, our Treasurer, who holds a current PPL, has purchased a part interest in a Tiger Moth which is soon to be fitted with a hook. It will be based at Roborough, but we look forward to regular visits by it to our site.

On the social side, we have introduced a monthly get-together at various local inns. Since our clubhouse is at the site, about 25 miles from most members' homes, and does not possess a bar, these local gatherings are proving most popular (especially with the landlord of the selected rendezvous).

We were honoured to receive a visit from John Williamson on behalf of the BGA Instructors' Panel, and regret that he chose a day when the little green men also decided to call. We can, however, confirm that they were not Locking gremlins, as they arrived well before John. Everything happened that day to make it one of those we try *not* to remember. The tractor broke down, the winch became highly temperamental and,

as an encore, the aircraft developed a puncture. It must be difficult to introduce John to something new in gliding, but we certainly can claim fame in this respect, as it was the first time he had ever helped to repair a puncture on a T-31. It was with a sense of achievement that we eventually saw John airborne, and proved that we do occasionally fly from our site. We enjoyed having John with us, and greatly appreciate his sound advice regarding our future aims.

Now that the holiday season is in motion, may we once again extend a warm invitation to all gliding types who may be on holiday in South Devon. Our site is bordered by outstanding coastline belonging to the National Trust, and even if you only view it from ground level, it is well worth a visit.

F. C. S.

## BATH AND WILTS

AT the fifth AGM our Treasurer announced that he reluctantly advised the committee to increase fees for the second year in succession in order to keep our heads above water.

Continuing its programme of expansion the club had experienced a year of heavy outlay on equipment and also suffered a hard knock by being unable to sell the Kranich through it being declared unairworthy because of glue failure. Herein lies an object lesson for other young clubs. Don't buy cheap aircraft, it rarely pays off in the long run.

Our second soaring week of the year, held to coincide with the spring holiday, proved a great success. The recently acquired Skylark 3F is turning out to be a very good buy and is putting in a lot of hours and consequently bringing in valuable revenue in the form of soaring fees to earn its keep.

During the week a number of Silver and Bronze legs were flown. The greatest ill-luck befell Alan Musselwhite when after nearly four hours in rough thermals in the 3F he suffered air sickness and had to land.

Yet another syndicate aircraft has put in an appearance in the shape of the ex-Swindon Grunau. Its present owners wish the previous ones to know that it has already been up to 5,000 ft. and achieved a number of good flights, one of almost

two hours. Everything else apart, it feels right to have a Grunau on the airfield again.

K. N. S.

## BLACKPOOL AND FYLDE

OUR absence from these pages has not been due to a decline, far from it; we are steadily developing the club, which is in sound health. A regular Newsletter contacts our members from Blackpool to Burnley, and Lancaster to Manchester; we have block memberships from both these universities. We cannot fly from Blackpool (Squires Gate) any longer, the grass areas have been covered with obstacles, and commercial operations leave very few interludes. We have settled at Samlesbury airfield all the year round, thanks to the generous co-operation of British Aircraft Corporation. The number of flying days per year has risen steadily, also the proportion of thermal soaring days.

Sunday, 11th June, was a good example, one member did both his Bronze flights within three hours, and our Olympia explored 10 miles of sea breeze front over the M.6 at Preston between 18.30 and 19.00 hours. Waves have only been used on one occasion of east wind, although wave clouds appear frequently from all directions. Regular contacts would surely be made if we could gain access to one of the many promising hills of North Lancashire. Pendle, Longridge and Fairsnape remind you irresistibly of Portmoak; we have our scouts out.

Meanwhile, the treadmill turns, and so far this year we have sent off three first solos, got three C badges, two Bronze legs and five Bronze C completed. One of our young men who progressed quickly to solo and C badge has since gained his PPL on an ATC Flying Scholarship, and is now at the College of Air Training, Hamble. We are encouraged to believe that our hard work has worthwhile results.

K. E.

## BRISTOL

SINCE a certain remark in the last issue a more determined effort has been made to fly to Long Mynd. Roy Gunner missed it during our task week



*A Nymphsfield trailer comes to the rescue of a Tiger Moth which had to land when its engine cut.*

in May but achieved Silver distance, landing further north. In June a visitor, N. Gaunt, from Sutton Bank, flew from Nymphsfield to The Mynd, landed to collect the Pot, and flew back. The next day D. R. Carson did the north/south trip, so we can expect more "pottery" no doubt.

On the ground, improvements are evident by the tarmac floor of the old hangar and the completion of the steel erection of the new hangar. About one-third of this project is now completed—only 1,700 man hours to go!

It would not be out of place to finish with a warning to members and visitors about the Lyneham Special Rules Zone. This SRZ is a mere 10 miles south-east of our field. Full particulars of the extent of the Zone and Area, together with procedure, were published in the last issue of S. & G. Infringement of the regulations could severely jeopardise the future of our sport.

T. R. G.

## CORNISH

AT the moment (June) our enthusiasts are digging the foundations for our new hangar. It was fully intended to have this complete by now but it seemed to take a long time to decide if we were eligible for a grant. Apparently one cannot get a grant unless one has a 28-year lease and the local authority, much as they are willing, are unable to grant a lease for this period on what is actually publicly owned land. However, we are going ahead, from our own resources, with a steel framed building clad with

asbestos with sheet steel sliding doors. If anyone feels they may benefit from our experience they are welcome to drop us a line.

The courses are going extremely well and we are enjoying marvellous holiday weather.

In the clubhouse we have yet again re-organised, refurbished and redecorated the bar and we have a fortnightly social evening to look after the profits.

The Blanik and Olympia 419 have, both together with the Swallow and 463, been keeping our members afloat.

J. M. H.

## COTSWOLD

OUR Chairman, Roger Bunker, has retired to take up the duties of CFI and the club presented him with an inscribed lighter to show its appreciation of his untiring work on our behalf. If he thinks he is in for a rest cure now, however, he is mistaken. It would be best to dispel a vicious rumour at once about Roger. He was not chosen as CFI just because he has a leather helmet. Seriously, though, he brings a unique knowledge of spinning to the club, and it was just unfortunate that his last attempt was in a Ford Anglia.

The new Olympia and Ka-7 are doing splendid service. The one having been christened "Max" to pair up with "Min" the T-21, and we are thinking of calling the other "Overdraft" for reasons not too difficult to imagine.

The "Quinney" Tiger Moth has been along to give us a taste of aerotows, and we would like to record our thanks

to all the Worcester club members for their kindness in allowing us their field for a Saturday excursion.

We are, at present, actively chasing a new site, as we are being pushed from Long Newnton by airspace and hangar problems.

D. A. V.

## COVENTRY

THE weather having suddenly decided to get more seasonable in the last few weeks, there has been a mad rush of Gold C attempts, and we are pleased to say that Alwyn Findon's flight in his Dart 15 to Grimsby on a dog-leg via Kidlington, brought him success.

Sunday, 11th June, saw the departure of four pilots on Gold distance flights for Plymouth, but when most were thinking it was "in the bag" the sea breeze did its worst and all fell short this side of goal, the furthest distance being achieved by Reg Ludgate in the club's Skylark 4, about 15 miles short.

On 3rd June we were host to the Husbands Bosworth Steam-traction Rally—an annual village fête held this year for the first time on a corner of the club's field, and as the weather was kind, with a very large attendance, we feel this was a very successful exercise in public relations, which we would like to repeat next year. Much beer was consumed in the evening by a private Skylark 4 syndicate, who had rigged their aircraft at the Rally and had become hoarse in extolling the joys of gliding to hordes of spectators and little boys!

Four potential instructors were packed off to the Mynd in June to join in with some local members there for a week's course in instructing.

B. F.

## CUMBERNAULD

NOW that the summer is really with us we are settling down to a serious training pattern at our new site. Some very interesting local thermal flights have been made and in a recent spell of north-westerlies wave has been contacted as low as 1,000 ft.

Our first solo at this site took place on 11th June in our newly acquired Prefect (ex-Coventry Gliding Club) and our congratulations go to Mike Cowie on obtaining his B certificate. We are

looking forward to quite a few first solos later this year.

Membership is rising and a club course is being run in July with thoughts of another one in August with possibly aerotow facilities.

T. J. G.

## DERBY AND LANCS

A FURTHER phase in the field improvement plan is in progress—trenches, trenches, everywhere—it looks like the Western Front in 1916. Drain pipes are being laid, and are being covered by a layer of stones to give better field drainage. After pulling stones out of the field for 30 years, we are now beginning to stuff a few back in. Revenge is sweet!

On the mechanical side, the Thornycroft twin-drum is back in action, and the Bedford twin-drum now seems to be banging on all six. In addition, we are eagerly awaiting the arrival of the Doppeltrammel . . . Doppeltra . . . Dop . . . the new German winch!. It boasts fluid drive, two drums, eight pots, and 240 rampant gee-gees. We shall be able to launch the entire fleet—on one cable—simultaneously!

Our fleet is now complete, two Capstans, two Swallows, a 2B and a 460. The grey T-31, No. 1, has been retained. She was the pride of the training fleet only a year ago, but the arrival of a Capstan caused the dust to rest heavily on her wings for a while. She is in demand every weekend for joy rides, and is regarded in awe by the all-Capstan post-solo pilots who are now beginning to appear on the Swallow list. The conversion phase had its problems, as one Tutor pilot said, "Every time I'm passed out on a ship, it gets sold!" Hangar packing, too, has had its problems . . .

The better weather has brought with it cross-country flying. Alan Beckitt, mounted on the Dart 17R, declared and reached Sutton Bank on 27th March, via Sheffield and Doncaster. Tom Smith, in the Skylark 4, went to Sutton Bank also, on 22nd May. Sefton Hawley completed 80 km. in the Olympia 460 for his Silver C distance on the recent task week for pre-Silver C pilots.

This was held at the end of May and 52 launches, 44 hours 36 minutes flying and six cross-countries were completed.

In fact, anyone wishing for a pleasant week's flying from 22nd to 26th May could not have done better than to come to the sunny heights of Camphill . . . It's a lot safer than landing in these secret Atomic places!

Bar receipts show that a certain amount of drinking has taken place recently. R. H.

## DEVON AND SOMERSET

**W**E have had our first visitor—a yellow Skylark from Booker—and it is surprising how this lessened the feeling of isolation which sometimes creeps over us out here in the wilds.

Achievements for this period comprise C certificates for Chris Slade and Ken Jenkins, Bronze for Arthur Clapp and at last Brian Weare has managed to break out of the magic circle bounded by Merryfield on one side and the Rampisham masts on the other. Having reached Cerne Abbas, this, subject to confirmation, completes his Silver C. He got his five hours in the Eagle—rather like driving a bus in a car rally! Although Pete Stanley shot off to Andover

one sunny day, he omitted to carry that small but vital barograph. Mike Dixon also got his five hours and Mike Fairclough height and distance for Silver C.

The ground crews, if they will forgive the term, have been busy on activities ranging from cesspits to winch gears and it really takes dedication to forego this wonderful soaring weather and stick to the earthy jobs. Not a little credit goes to the Welsh Wizard of lorries and hard-core—Jim Watkins.

The Nationals produced a 20th place for John Fielden of which the club is proud and a little excitement in the matter of his house burning down during the competitions—if you can't set the place alight one way . . . !!

One old friend and ex-club member, Reg Chubb, dropped in on 10th June from Tarrant Rushton in his beautiful Dart 17r. The tenth Commandment was, I am afraid, well and truly broken. The caravanserai has grown amazingly since last writing and the vast improvement in the weather has enhanced the attractions of our new site way beyond our expectations; come and see for yourselves.

A. E. R. H.

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## DUMFRIES

**A**DVERSE weather during the past five weekends has cramped flying at Dumfries, but frustrated members have found employment carrying out various jobs, such as re-constructing the glider trailer, and repairing winches, etc.

We were pleased to welcome a visit from Ray Stafford Allen, who examined Alex Aswell for his Glider Inspection Ticket, which has now been granted by the BGA Technical Committee.

We have also had a visit from Border Television, who made a film at Dumfries for the new outdoor sports programme, which was shown in the Border area on Thursday, 1st June. This, we hope, will bring us a few extra members.

Ryan Fenion has completed the cable welding machine, by using this method of repairing the cables we will be able to do away with tying fancy knots. We hasten to add that the new knots designed by Charlie Park gives us a 500 per cent better performance than the previous knots used.

We welcome back to the club, Ian Slack, who has been in India for the

last 14 months, he has already had his jacket off in the two days he has attended. We would appreciate it if many more members would do the same.

## ESSEX

**S**INCE our last news in the S. & G. the Essex club has grown in leaps and bounds, membership has forged ahead and we are now considering a waiting list for prospective members.

Our fleet consists of a T-21, Ka-7, Swallow and Skylark 2. A great deal of our good fortune can be attributed to our new pulley method of launching; this has proved to be a real boon; cable costs, which were our largest single expenditure, have been cut by well over half, the launch rate has been raised considerably and fumbles down to a minimum, this coupled with aerotows (which for the help and assistance from the BGA we would not have had) has injected a feeling of success that has carried us buoyantly through the long winter months and into what promises to be our most successful summer season yet.

The Skylark, which is our latest acquisition, has been reserved for Bronze C pilots and above, this has resulted in a few of our older members who were quite content to just bash around the circuit falling over themselves to get the necessary qualifications to fly it. Surprising what a little incentive will do.

The clubhouse, which has been languishing somewhat, has had a long overdue facelift, everybody sloshing emulsion about with an abandon not seen since the formation of the club, and a jolly good job they made of it too, it is now worthy of any one who may drop in from a cross-country for a pint and a meal. Put a ring around North Weald on your maps and drop in, you can be sure of a welcome.

K. D.

## GRAUNCHESTER

**G**REAT news from the soaring grounds! A situation which at one stage looked, as we in the flying game say, "dicey" turned out to be a triumph of man over machine. Our CFI who, you will remember, has figured in our correspondence before—we refer, of course, to Alf Turnbuckle—this intrepid pilot has proved himself worthy of his position once again, by gaining his Silver C height in cloud.

Some doubts were expressed about his qualification as a "solo pilot" in as much as the T-31 did take-off on a normal training spin with a pupil. Bad luck, Gertie!

Alf tells us that at 4,000 ft in a cloud the glider took charge and the situation that existed was not as Alf expected it to be. With lightning reactions Alf issued the dramatic command "Abandon ship, and stand not on the order of thy going." You will remember that Alf is a poet.

Grasping the situation and the side of the cockpit, Gertie launched herself into the dank and misty void. The stage was now set. Relieved of Gertie's weight (no hard feelings, Gertie) the glider settled down and Alf found himself once more master of his fate. Moments later, at 10,000 ft., Alf burst once more triumphant into the blue. Unfortunately, the upper winds being what they turned out to have been, Alf found himself, as he thought, temporarily uncertain of his

position. As the altimeter unwound, the temporarily uncertainty became permanent. Again this lightning reaction, Alf realised that the glider pilot's moment of truth was nigh—a field landing.

The scene, dominated by high tension wires and factory chimneys, did not deter him. Summing up the situation at a glance, Alf swung into the approach. Unfortunately, the centre of gravity being where it was—no Gertie, remember, and what Alf maintains were "freak meteorological conditions caused by the curl-over from a nearby Chapel of Rest"—the trusty T-31 entered the tail spin case (we know our jargon). This caused a vertical descent culminating in an arrival on a tombstone in the Garden of Remembrance of Graunchester Urban District Council Cemetery.

Thanks to the fact that the glider was not damaged can be given to old Colonel Todworthy—much mourned grandfather of our Chairman, Major Todworthy, of Todworthy Bros., Gents' Outfitters, Graunchester. Tel. Graunchester 270.

It was upon the wreath placed gratefully by the British Legion that very morning that Alf settled. Nothing daunted, Alf left his bird in the hands of a member of the local constabulary who was looking for his helmet, which had been dislodged by a rotating wingtip.

"I have to find a farmer," said Alf.

"You'll be better off looking for the gravekeeper," quipped the Bobby.

Now we come to the question which must have been in all your minds. "How was it possible to determine the exact height at which the flight became solo?"

Fortunately for Alf, in her unpremeditated exit, Gertie struck the barograph with her foot, leaving a distinctive kink on the trace. Our official observer, Mike Rometer, entered into correspondence with Roger Barrett, of Flying Committee fame.

The period of suspense while the Flying Committee sat was unbearable not only for Alf but for all his pupils too. Finally, the magic letter arrived agreeing that the height gain from Gertie's left foot low point mark indeed had earned Alf the first leg of the coveted emblem.

One question remains. Who paid for the flight? Come clean, Alf.

W. A. R. N.

## KENT

FROM a flying aspect, April and May have not been very exciting; satisfactory for training and circuits and bumps, but disappointing for the lack of good cross-country days.

We had two Silver distance legs on 1st April—Dennis Monckton and Ray Hatton to Redhill, both in Skylark 4's and later in the month Ray got his height, thus completing his Silver C as well as holding top position on the club ladder.

The latest feat was Dave Brown's flight in his Skylark 4 to the Southdown Club at Firle on 10th June, the first time this had been done from Challock. How about someone from Southdown flying up to us?

May 7th produced what must have been a club record—"average time per launch"—day, with 49½ hours from 46 launches, which included two successful five hour attempts.

We are proud to publicize the fact that our CFI, Roy Hubble, was awarded the Royal Aero Club Bronze Medal this year for his contribution to gliding and none of us at Challock would hesitate in underlining this.

The Kent Club was well represented at the Biggin Hill International Air Fair in May, providing both gliders (and pilots) for the double aerotow as well as helping Slingsby's and Derek Piggott with the T-53.

Unfortunately, we end on a sad note in recording the death of Eric Gook on 26th April after a long illness. He achieved so much for the club in his 2½ years with us and as a memorial to him we have introduced the Eric Gook Trophy, to be presented annually to the pilot making the fastest flight to the Southdown G.C.

M. H.

## LAKES

ON the few reasonable weekends in February, March and April we enjoyed good flying in fairly strong south-westerly winds. These have enabled us to use our 1,969 ft. Black Combe ridge to advantage. Nick Carr, John Craven, Ron Hawkes, Pete Redshaw and Gill Scurrah have obtained their Silver C duration flights. Matthew Hall, Ron

Hawkes, Ces Batty and Gill Scurrah have obtained their Silver C gain of height.

Ron Hawkes is now able to instruct each Wednesday afternoon and evening and mid-week flying is proving very successful with enthusiastic members gaining extra valuable experience.

Our Ausier has had its C. of A. which included repainting and is now ready for a busy summer.

The second "home-made" winch is complete and will be in use for the Summer Courses. It uses a petrol V8 engine mounted on a diesel lorry chassis to act as prime mover.

J. G.

## LONDON

MIKE GARROD, who for some time past has been writing these notes, has now handed over to Martin Simons so that Mike can give his energies to the Chairmanship of the Club Flying Committee, to which vital position he was recently elected. Terry McMullin, who has worked nobly in this capacity for several years, felt he was due for some relief. Congratulations to Mike on his election, and also on his excellent performance in the Nationals and selection as a reserve for the British team. Also we congratulate Gordon Camp on his engagement, and welcome John Morris who joined the instructing staff at the beginning of the course season. The club has been recruiting members very rapidly this year, which has kept all the two-seaters, including the new Ka-13, very busy. The Ka-13 is proving very successful both for basic training and cross-country work, and another one is expected to arrive in August.

The continued airfield levelling operations have been speeded up recently by Bedfordshire County Council, who have begun work on road improvements close to the club gate. Large quantities of chalk rubble from their excavations were very sensibly used to help fill up the notorious Dunstable Gulley, so although the club has lost a little land, the advantage is probably ours. It must be confessed that the site looks a bit untidy just now because of all the dumping, but the exposed chalk probably generates good thermals and the long-term prospects are extremely good.

The Club will hold the almost traditional Air Display and Balloon Meet on the Bank Holiday weekend 27th-28th August. Everyone will be most welcome. Visitors who intend to arrive by air are advised to get PPO from Dunstable 63419 or by radio on 130.4 m/cs.

M. S.

## MIDLAND

THE last issue of *SAILPLANE & GLIDING* did not include any Club News from the M.G.C. although our winter wave flying was very well reported. Wave activity is not so prolific as it was earlier in the year but there is still the occasional good one.

Recent weeks have seen considerable activity directed towards site maintenance and improvement. The trailer park has been evacuated, levelled and covered with hard core which, when the job is completed should result in a better aircraft rigging area and much less mud around the place.

The number of private owner groups on the Mynd has now risen to nine with the arrival (a few months ago) of a Dart 15 owned by Alan Jones and Alan Griffiths. Thus the tendency to private ownership continues although on nothing like the scale of some clubs. No doubt our lack of aero-towing is a major factor here.

The ladder competition has proved popular. In the National list, as at 31st March, 11 M.G.C. pilots were included in the 41 listed. This strong representation owed much to the superb wave conditions which we enjoyed earlier in the year.

Unfortunately we had to cancel our own competition, but a number of our members have entered competitions elsewhere.

On a semi-competitive basis, Nick Gaunt flew in from Nympsfield to collect the appropriate collectors tankard from our bar and two days later Dave Carson flew down to Nympsfield to get his Silver distance and to regain the tankard.

Currently, Cambridge University are with us for their usual June fortnight.

On Sunday, 11th June, an RF-4 was seen thermalling over the Mynd. Is this a glimpse into the future?

K. R. M.

## OXFORD

THE very regrettable fatal accident involving our T-21B has raised considerable discussion on the most suitable replacement. Following our Secretary's clever questionnaire distributed to glean certain people's operational experiences on the current two-seat training gliders, the Polish Bocian 1E came out best to satisfy our general requirements and purse. By the time this is in print we hope to be operating this interesting aircraft. In the meantime the gap has been filled by a T-21B on hire from the B.E.A. Club at Booker.

A belated pat on the back must go to John Pratelli and the Dart 17R No. 330 for winning the "1966 Heini Dittmar Wanderpreis" trophy awarded annually to the youngest pilot who soars for more than five hours starting and finishing at Unterwössen, the German Alpine soaring centre—well done, John, the scenery must have been breathtaking.

Recent unmentionable weather has given way in mid-June to really cracking conditions to produce numerous good thermal flights in the locality, together with an 80-mile upwind out-and-return by Nick in his Skylark 4 No. 169 and a 113-mile downwind trip to Dunkeswell by John A. in his Dart 17R No. 330, unfortunately somewhat short of his declared goal, Perranporth, due apparently to the progress of the sea breeze front.

On the same day we congratulated our resident C.O. of Weston-on-the-Green, Fl. Lt. Peter Williams, on soaring the RAF GSA Grunau Baby to gain his C. Afterwards he suggested that he had thoroughly enjoyed the experience, but would not let the bug bite too hard—we shall see!

C. J. T.

## PORTHCAWL AND DISTRICT

THE club is getting settled down and operations at Stormy Down are already more streamlined and a little more professional than our early "fly and find out" period. The T-31 has been put to good use in the past six months and has logged 900 launches. We are now searching for a more advanced two-seater; a Ka-7 is in the offing.

Ivor David and David Raymond visited our friendly gliding club at Minden, Germany. This club has already given us a Grunau Baby and a Cumulus. The Cumulus should be ready for a BGA type test at the end of August after its major overhaul.

The Ball held on 2nd June was a tremendous success and we all thank our dynamic member Jess Emeny for her hard work. The committee members of the South Wales gliding club attended and a great debate on gliding in Wales ensued at the bar before it was broken up by the wives. Some interesting points were discussed relating to the future.

Our T-31 is for sale and we welcome enquiries.

J. A. M.

## SCOTTISH

AT our A.G.M. in May Andrew Thorburn retired as Chairman, due to other commitments he had to decline a Directorship of the club. Andrew's 30-odd years of untiring enthusiasm, initiative and hard work speak for themselves.

T. P. Docherty now bears the onus of the Chair with support from W. A. Shanks as Secretary and A. R. Dick as Treasurer.

The Action Group have replaced the bent cattle grid at the entrance, put warning reflectors on the gate posts and cut a considerable amount of grass. Our second cable laying bus-winch is nearing completion. The Saturday early morning course for beginners is proving most successful. Enthusiasts are ready by 0800.

Three recent social activities produced a remarkable amount of interest and visitors. We held an "At Home" one Friday when it poured with rain and no flying was possible. The coffee evening run in conjunction realised £35.

Numerous aeromodel enthusiasts displayed their radio-controlled craft on another evening when we could not cope with cross-winds.

Our annual Car Treasure Hunt took the form of an economy run this year. Blind flying instruments would have been a welcome addition to weight as cloud base came down to meet us on occasion.

M. B. R.

## SOUTHDOWN

THERE have been several good cross-country flights and a lot of local soaring has been done by our ever-increasing band of Olympia 463 pilots. Wave has been contacted on a number of occasions in a S.S.W. wind, Chris Hughes and Ian Agutter being the most notable exponents.

We have had many new members in the last few months and their keenness for an early start is very encouraging. The T-21 list is longer than ever and in fairness to ab-initio members the committee has decided not to accept more new members for the time being. A waiting list has been started and is growing.

The plans for the new clubhouse, a Terrapin building, have finally been approved and permission for building has been granted by the local council. We now have the financial arrangements to complete and building the foundations can begin.

We hope that the clubhouse will provide the basis of an active social side to the club, which up to now has been sadly lacking.

P. C.

## STAFFORDSHIRE

WE have been visited recently by a number of disasters—the loss of our T-31 on Easter Saturday being the worst. It was left facing into the wind with only one rather light person on the wing tip and nobody in the cockpit, a gust of wind got under the raised wing, snatched the T-31 out of the hands of the unfortunate person on the wing tip and threw it over a couple of cars parked nearby. When arriving at the field shortly afterwards the other gliders on the field all had one wing into wind, one person in the cockpit, one lying on the wing tip and one on the tail, which must have made a distinct change from the usual pastime of glider pilots standing about talking. I often feel that it is a pity that Trappist Monks do not run a gliding club and that members of other clubs could visit it to see how remarkably efficient it was—but I am always considered to be a bit anti-social.

The other disasters which have occurred have been with our winches,

two differentials having seized up on our diesel winch and two clutches having burnt out on the Jaguar-engined petrol winch. However, the Technical Committee, in between doing cross-countries, seem to find and fit clutches, differentials and automatic gearboxes with extreme rapidity and an enormous amount of hard work. The latest mod. of an automatic gearbox to the petrol winch has been giving launches of 1,500 ft. in the Capstan.

Three cross-countries have been done recently, all in the Club's Olympia 2s. The last of these was marred to a certain extent by the use of a sledge hammer in the de-rigging with consequent damage to the superstructure.

Frank Townsend's cross-country to Rearsby via a height of 6,500 ft. was a highly commendable first cross-country for two legs of his Silver C.

We now have a T-21 as a replacement for our T-31 and when the winch problems are finally sorted out we hope to enlarge the scope of our training programme.

R. B. L.

## SWINDON

THE progressive trend in the club's activities has been maintained over the past few months, both in the flying and social spheres.

The annual Dinner-Dance, held at the end of March, was a very successful evening. Our guest speaker was "Nick" Goodhart, who enlightened us on the new Lynham Special Rules Zone, now established on our doorstep and with which we are now learning to live. Also during the evening trophies were presented to Fred Butcher and Eric Winning for club achievements in 1966.

The May task week, although not blessed with particularly good weather, produced some good flights, Dan Ford getting a well-deserved five hours, and Jack Purchase a very near miss to Gold C Distance.

We would like to bring to the attention of all power pilots that prior permission must be obtained from Air Traffic Control before visiting South Marston, since the airfield is now in regular use by Messrs. Vickers.

E. J. W.

## YORKSHIRE

THE spring waves brought Gold heights to Joe Provins, Dart 15, on 23rd March and Fred Knipe, Skylark 4, on 30th April. On 4th June, Barry Goldsborough and Mike Wilson added bars to their Gold heights in wave, and their radio transmissions homed on the Carlton-based Dart 15, which then also exceeded 10,000 ft. David Lilburn later achieved 9,000 ft. before setting off on a northerly cross-country.

Chris Riddell, flying in the Nationals, made what is believed to be the longest cross-country by a Yorkshire club member in the U.K. by magically transforming a Cat's Cradle into a dog-leg, and landing at Rufforth, within sight of the Bank, after covering 351 kms.

Recent welcome visitors include John MacKenzie, in the Burns' SHK on 17th May, from Lasham; Tom Smith in his Skylark 4 from Camphill on 26th May and Dick and Mrs. Schreder by car to a very successful Cheese and Wine Party on 13th May. The Avro Gliding Club spent a week at the Bank in early June, as did I. Vesty from Leicester, who, having missed his Clacton-on-Sea Diamond declaration by some three miles on 7th June, repeated the flight successfully on the 9th in his Ka-6.

David Pietsch, from Australia, has recently joined the Staff as Second Assistant Instructor. At 18 he holds a Gold with two Diamonds; we all hope he gets his height at the Bank.

M. J. C. W.

## SERVICE NEWS

### ALDERSHOT (Odiham)

THE year started in February with Howard Jarvis going solo, and Jim Morris picking up a Diamond height at Issoire. March brought Eddie North a duration flight on the Dunstable ridge which completed his Silver C.

Have you ever noticed that the best spur in a predominantly male club is to get a girl (especially a pretty one) creeping ahead? No sooner had Heather Davenport got her first leg of the

Bronze C when this was followed by Tony Boston and Bill Barnard, and several others who gained their C certificates.

The cadet course at Netheravon with Ted Shephard running it produced several solos.

Dennis Dillon from the East Midlands Club had a nice reward while at Odiham for the Nationals. Having serviced the Chipmunks to go out on patrol he winched us all one morning and then when flying himself gained his C.

Our launches this year are already up on last year and we hope to keep this pace up, especially when our second winch becomes serviceable again shortly.  
J. E. M.

## BANNERDOWN

WELL, we were warned. Our local countryman said, "In January if the sun appear, March and April will pay full dear". He might have added that May wouldn't be any better either, and certainly the mixture has been the wildest yet. The uncertainty of it all is the spice of our sport and in the circumstances the record for the period was not too bad with 788 launches for 156 hours.

George Lee, who took part in Transport Command unofficial task week for aspirants at Bicester, showed his tail to the field in an out-and-return to Shoreham, he was second in a sortie to Wincanton via Devizes in the Olympia 419, and finally again in the 419 he headed the field in an out-and-return to Winkley, collecting Gold distance and Diamond for goal in the process.

P. H.

## FENLAND

POSTINGS have taken their toll again, first to go was our CFI Lemmy Tanner, who is now at Spitalgate filling a staff gliding post. Colin Elliot has taken over with Geoff Barrell as his deputy. Derek Butler is now our Treasurer.

Secondly, Laurie Rowe, our tame engineer, is off to the Ministry and has handed over as technical member to Bill Wales. Our thanks are due to both departed members for their hard work and enthusiasm while with the club.

We have at last moved into our new clubhouse which, thanks to the workers, is clean and well decorated, furthermore cheers all round, the bar is open again, we have a lot of first solo's to catch up on!

The aeroplane stakes are up and down. The loss of our Olympia 28 and 460 has been partly offset by the receipt of another Ka-6Cr.

Geoff Barrell was our representative at Lasham, being placed 12th in the second division. His retrieve team were heard muttering something about "weather" and "bar".

Flying has continued steadily over the past two months, very few days have been lost to weather. The winches are to be seen very early these days; our best effort recently was 139 launches in some 11 hours.

R. G. J.

## FULMAR

THE club was pleased to learn of the award of the MBE in the recent Honours List to our CFI, Lt. B. G. Gunter, who is the station Motor Transport Officer.

We take this opportunity of congratulating our former CFI Dave Innes on winning third place in the Nationals and gaining a place in the 1968 British World Championship team.

The club lost the services of two instructors, Hugh Blake and John Eatwell through postings, and Sarah Wilson was most reluctant to leave us just after she had converted to the Skylark 2.

H. D.

## HUMBER

FROM the memories of the old White Rose Club a new venture has been born at R.A.F. Lindholme—The Humber Gliding Club. We have been beset by the usual troubles that affect embryo gliding clubs but progress, although slow, has been steady. Two aircraft are being flown, a T-21 and a Grunau 3, and our Tutor, now undergoing a face-lift, should soon take to the air.

We are already experiencing the satisfaction that makes all gliding work worthwhile, in that three of our ab-initio members, Bill Pattison, Tom Barnes and Christine Salmon have gone solo. In

addition, we have had one re-solo. Ken Snape, Bill Pattison got his C certificate and Yorky Kitchener his B Category Instructors Rating.

We have already had our first visitor, Jack Bowers, from the Doncaster Club in his Ka-6. He was most welcome, and our CFI, Austin Billington, and Officer in Charge, Sq. Ldr. Roy Salmon, sincerely hope he was the first of an influx of visitors, both with and without aeroplanes.

C. S.

## RAFGSA (Bicester)

**E**VENTS have been rather overshadowed by the Nationals and Team trials, in both of which our C.F.I. Andy Gough put up most creditable performances in the S.H.K.

The expedition to Nympsfield earlier in the year went well, and worthy of mention are the achievements of Bill Martin who went there with about five hours' experience and came away with a further 20 hours, Bronze C and height and duration legs of the Silver.

I had intended to mention in the previous issue that now and then we get wave in the Bicester area and Tom Williams proved evidence of this when he went to 10,000 ft. in early March. Later in the month Paddy Kelly did the three legs of his Silver C on two consecutive days using a combination of ridge and thermal lift.

Our membership figure is well up now and it is hoped that overall achievements will exceed last year.

A. E. B.

## WREKIN

**J**OHNNY MORRIS, our first CFI, left the Service to go to the London Gliding Club. John was in at the very beginning of the club, and under his guidance the club grew to become a very significant member club in the R.A.F.G.S.A.

Many will know that though we only operated for eight months of the G.S.A. year, the Wrekin Club narrowly missed carrying off the Bicester Cup, the R.A.F.G.S.A.'s major trophy, and did get the Founder's Cup. Since then we have gone on building to our present

firmly established position. At the farewell party, several presentations were made, including a portrait of our first soaring aircraft, Olympia No. 26, presented on behalf of all the members by our Chairman, Group Captain H. Durkin. We shall miss John, but wish him all the best in his new position "outside".

Tony Phipps has taken over as acting CFI, and celebrated by taking the Skylark 3 up for his Gold C height—unfortunately the cloud was not as innocuous as the forecast as its appearance suggested, and it retaliated by striking him! Damage from the lightning strike was externally not extensive, and he was able to return to Cosford unscathed, but the aircraft has gone away for a major inspection of the wings for internal damage.

Three attempts have been made at Gold distance, and several at Silver, but the goals eluded us at this time. We are doing a lot of flying, and have just held a successful soaring week for some of the members. "Dinger" Bell and "Abbo" Maunton have been to Bicester, and got their Assistant category, so our P.I. supply is healthy.

H. F. O.

## CRUSADERS (Cyprus)

**T**HE Crusaders Club at one time held a reputation for very little soaring. There is plenty of convection in Cyprus, and occasional wave. Unfortunately, our possible sites have been restricted to the coast and vulnerable to the inflow of sea air. In spring, the stronger north-west winds often form sea breeze fronts over our new site, and so this April we held a camp to exploit their possibilities. Instructors, Tim Oulds, Bill Dickson, Len Barnes and Tony Simms took leave in turn to cover the month. The sea breeze front materialised on a number of days, giving lift up to 5,000 ft. at main cloudbase, curtain cloud at 4,000 ft. and marked turbulence over the strip. With a Swallow and T-21 we flew 142 hours from 1,004 launches. The Swallow averaged 20 minutes flying per launch during the month. Landing out was made impossible by local political disturbances, but your scribe did a 100 km. out, and scrape back, to eastern Troodos.

The clubhouse is improving. Our main

clubroom is built of three trailer caravans, sans wheels, and is now equipped with a bar. We also have a kitchen, workshop and have acquired, and positioned, two more trailers as a bunkhouse. Ron Young constructed the clubhouse, and Anne Barnes and Pat Judd have converted it into a home. Unfortunately, we still have no hangarage and craft have to be de-rigged during the week.

Our membership is about half R.A.F. and half Army. The United Nations force provides a small, but keen contingent from Austria. We now have our first Army Instructor, Ron Young, who has just returned from a successful course at Bicester.

R. P. S.

### EAGLE (Detmold, Germany)

OUR fleet has now increased and consists of a Ka-4, Ka-7, two Swallows and a Ka-6.

Earlier in the year, an R.A.F. Germany expedition to Isoire resulted in a Diamond height for Bob Kirkland and a 5 hours and Gold height for Alan Hartfield. Two visits to the Minden Ridge, more conveniently at hand, have produced two 5-hour duration flights.

On our own site, two courses have been run for ab-initio students from local units. Generally, satisfactory re-

sults were obtained and even more students would have soloed if we had not been hampered on some days by rain or strong cross-winds.

Among other soaring flights and certificates gained the most notable are a Diamond goal flight by Jeremy Wheeler and the completion of a Silver C by Bob MacLagen.

A. J. A.

### NIMBUS (Geilenkirchen, Germany)

IT now being June we can look back on the first part of the year and consider, was it worth it? And the answer, of course, is, as always, a big yes. We already have our second Silver C this year—Jim McIntyre achieving one after much hard work at the Wasserkuppe in thermal lift. Eddie Pratt completed his with 5 hours over Geilenkirchen on 4th June in the 463. Also on the list are six Solo's, two or three C's, four completed Bronze C's and numerous Bronze Legs, Silver heights, cross-country attempts and various other successes; our hours are not inconsiderable too.

We look forward now to the R.A.F. Germany Championships in July, one or two more expeditions and many big, fat thermals.

M. J. W.



*The Nimbus Gliding Club fleet and some of their members standing by.*

## 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*.

### AUSTRALIA

**HONOUR FOR PRESIDENT.**—You will be pleased to hear that Bill Iggulden, President of the Gliding Federation of Australia, was made an M.B.E. in the Queen's Birthday Honours List. No one deserves it more. It was awarded, of course, for services to gliding.

PETER KILLMIER

### AUSTRIA

**NATIONAL CHAMPIONSHIPS.** — These were held in Klagenfurt from 13th to 27th May. Winners were Dr. Alf Schubert with a Diamant in the Open Class and Erich Schreibmaier with a Ka-6E in the Standard Class.

#### LEADING RESULTS: OPEN CLASS

- |                           |          |         |
|---------------------------|----------|---------|
| 1. Dr. Alf Schubert       | Diamant  | 4,582.7 |
| 2. Johan Fritz            | Libelle  | 4,266.6 |
| 3. Rudolf Seiler (Switz.) | Elfe     | 4,092.0 |
| 4. Erich Gehrler          | Diamant  | 4,015.7 |
| 5. Reinhold Sturr         | BS-1     | 3,998.0 |
| 6. Otmar Fahrafellner     | Zugvogel | 3,892.0 |

#### STANDARD CLASS

- |                         |        |         |
|-------------------------|--------|---------|
| 1. Erich Schreibmaier   | Ka-6E  | 5,065.2 |
| 2. Harro Wodl           | Ka-6CR | 4,906.5 |
| 3. Herbert Pirker       | Spatz  | 4,763.1 |
| 4. Ernst Schraffel      | Ka-6E  | 4,613.4 |
| 5. Ing. Adolf Girschick | Ka-6E  | 4,128.7 |
| 6. Oblt. Hans Prader    | Ka-6E  | 3,408.6 |

RENE COMTE

### BELGIUM

**INVITATION TO GHENT.**—We have the pleasure to inform you that we are

organising, as in preceding years, our "Journées de Gand" from 12th to 15th August, with the traditional Reception on 11th August at 20.00 hours. We enclose the regulations similar to those of previous years, and the entrance form which we ask you to return, duly completed, by 31st July at the latest.

We would be happy to meet you, as well as your gliding friends, in the warm atmosphere of our meeting.

GHENT AVIATION CLUB,  
50, Bd. Gust Callier,  
Gand, Belgium.

**NOTE.**—The BGA has several copies of the regulations and the entry form. Particulars to be filled in on the form include, among the usual ones, the companies with which the pilot, sailplane and transport vehicles are insured. The rally takes place at the aerodrome of St. Denis-Westrem.

### CANADA

**THE** final rush of preparations for the Centennial Nationals is evident everywhere as this is being written. The contest starts only a few days from now, and some of the pilots who have longer distances to cover have probably left their homes. The latest word from the organisers is that entries are lagging—like their British cousins, Canadians are apparently not very fast off the mark, but there is no holding them once they start. Some foreign entries are believed to be in, but on the whole the overseas participation promises to be disappointing. Perhaps the distance is too great, or

perhaps Canada is still an unknown quantity.

On the club scene, the most prominent development is the soaring holiday camp planned by the Red Deer (Alberta) Club for the last week of July, which will probably be extended into the first week of August.

Another near-future occasion on the local scene is the official opening of Rockton Gliderport, the recently-built (during the last year) home of Sosa Gliding Club. The club has been operating from the base for nearly a year after a fashion, but everything is completed now and an official opening is planned for 8th July. Let us hope the Man Upstairs does not rain on your parade.

With recent publicity in the *National Geographic* magazine, the *Readers' Digest* and by virtue of the Walt Disney film "The Boy Who Flew With the Condors", shown on national T.V. networks, there has been a significant increase of public interest in soaring, and an influx of new members, even in excess of the training facilities of most clubs.

On the past side, the long week-end type of contest is ever popular here. Two clubs held such on the Victoria Day long week-end (20th to 22nd May), and both report as good turnout as could be expected. The better supported one was that held by the Cu-Nim Gliding Club of Calgary, Alberta, with an entry list of nearly 20 sailplanes—very good for a local three-day contest. The other one, held in the east, was organised by the Gatineau Gliding Club, of Ottawa, ably assisted by Rideau Gliding Club, of Kingston, Ontario, only just over 100 miles from Ottawa. So what, it's a big country! This contest attracted a lower

number of entries, but was graced by the presence of several of the country's top pilots. Good flying was reported by everyone, without any spectacular records being broken—just wait until the Nationals!

The Alberta Soaring Council, a co-ordinating and organising group for several clubs in the province of Alberta, is once again to be credited with arranging to supply familiarisation flights at the Air Cadets' summer camp, and it is thanks to their past activity that the Air Cadet League of Canada is taking a more serious look at glider flying for the boys, even to the extent of acquiring several sailplanes of their own.

ONTAERO

## DENMARK

**SEJSTRUP AGAIN CHAMPION.**—The Danish National Championships took place at the Arnborg centre from 4th to 15th May, starting with excellent weather which gradually deteriorated, so that the four last days were unflyable. However, seven valid competitions were flown.

For the first time, participation was not free; admitted were the first 15 from the rating list, the first 10 from last year's B-championships, and up to five more at the discretion of the Gliding Committee of the Royal Danish Aeroclub. Among these was, for the first time, a foreign guest, Adam Witek from Poland, flying a Danish Foka 4 placed at his disposal by Aksel Feddersen.

The first day, 4th May, a 203-km. Triangle was completed by 27 of the 29 sailplanes with Witek and Ib Braes (Foka 3) both winning at a local record speed of 74.7 k.p.h. Carsten Thomasen (Ka-6) was third, P. V. Franzen (SHK) fourth, Leif Corydon (Vasama) fifth and Niels Sejstrup sixth.

Next day's flying along a line towards Skagen, with a strong easterly headwind component, was won by Franzen (120 km.), followed by H. Lindhardt (Ka-6) (111 km.), Corydon (110), Witek (108), and Braes (100).

A 114 km. Out-and-Return in the afternoon of 7th May was completed only by Sejstrup (32.1 k.p.h.) and Ole Didriksen (Ka-6) (31.8), with Witek third (88 km.).

Next day's 215-km. Triangle was com-



# Gliderwork

**C of A OVERHAULS AND REPAIRS**

HUSBANDS BOSWORTH AIRFIELD  
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pleted by seven and won by Franzen (46.4 k.p.h.), followed by Sejstrup (44.6), Thomasen (44.3) and Ejvind Nielsen (Vasama) (42.2). Witek went down shortly after the first turning-point, while Braes thought it to be a speed event, turned back to Arnborg, landed, lunched and took off again to discover that it was a question of keeping flying.

On 9th May two completed a 309-km. speed event on a broken leg leading 107 km. to the south (Roedekno), then 202 km. to the north to Borup gliding site. A head wind component on the first leg (which only counted for about 225 of the possible 1,000 points) meant that more time was spent on this than on the rest. Joergen Lauritzen (Ka-6E) won with 40.7 k.p.h. and Lindhardt had 40.3, while Ejvind Nielsen was third with 306 km. Several pilots struggled for more than eight hours.

All went down near the first turning-point of the 100-km. Triangle on 10th May, when weather suddenly collapsed. Late in the afternoon things improved; up to 1,700 metres cloud base was found near Arnborg, from which it was possible to glide past the first and second turning-points. The glide ratio of the SHK meant victory (628 points) to Franzen, for 74 km., followed by Skovgard Sorensen (Vasama) (72 km) and Kjeld Dahl (Ka-8) (71 km.). Sejstrup was 8th but still in the lead with 4,530 points, followed by Franzen with 4,193 and Ejvind Nielsen 4,022.

Fighting in dry thermals on 11th May toward Borup, many pilots went into Karup control zone, while those who tried to keep out had to land. Only a few succeeded in evading it and to continue. As there had been several warnings from ATC the preceding days, it was found necessary to do something, and a dozen pilots who next day admitted to have been in the control zone were disqualified, with the result that the few innocent pilots with some result only got a few points, Skovgard Sorensen winning with 87 km. and 214 points.

Another good day was badly wanted to forget this day, but did not come. So Sejstrup won, as in 1959, 1961, 1963 and 1965. This time, however, with a much lesser margin than the more than 2,000 points in 1965.

Witek, who had not flown in Denmark

before the contest, was surprised by the weak and variable conditions and said he learned a lot and would go back and tell about the special conditions. He performed the longest flight in his 3,500 hours' gliding career with a 7 hr. 55 min. flight resulting in 251 km.

On the whole, the five Fokas participating had a difficult time, while the four Vasamas did something better and the many Ka-6's even better. The SHK proved very suited in all kinds of weather. Unfortunately the five Pirats ordered by Danish clubs did not come in time to be compared with other types at this event.

PER WEISHAAPT

### Leading Final Results

1. Niels Sejstrup	Ka-6	4530
2. P. V. Franzen	SHK	4317
3. Ejvind Nielsen	Vasama	4022
4. Carsten Thomasen	Ka-6	3864
5. Adam Witek	Foka 4	3684
6. Holger Lindhardt	Ka-6	3584

## HOLLAND

THE VICTOR BOIN CONTEST was held this year on 29th April, and the traditional Free Distance task was flown from Hilversum. Forty-eight pilots from Belgium, Germany and Holland took part. E. Wesselius (Ka-6CR) and C. Guldmond (Ka-6E) won the day with 254 km., followed by D. Cornelisse (Ka-6CR), 250 km. As the winners are both Dutch, it is likely that this event will again be held in Holland next year.

On 4th May the Aero Club of Nijmegen organised a one-day contest from their site at Malden. The task, twice round a 100-km. triangle, was not completed by any of the 21 competitors. Furthest distance, 151.5 km. by G. Ordelman (Sagitta). Second, A. Dekkers (Ka-6CR) 140 km. Third, E. van Bree (Ka-6E), 96.5 km.

Another one-day contest took place at Gilzeryen on 6th May. The 38 pilots who took part had to fly round a triangle for three hours. Intermediate landings were permitted, but time was counted from the first startline crossing. This event was won by A. Dekkers (Ka-6CR) with 115 km., followed by J. van Melzen (Ka-6E), 105 km. and E. Réparon and T. van Gorp (Ka-6E and Ka-6CR) 100 km.

On 8th May, E. Réparon broke the Dutch out-and-return record with a flight of 305 km. in his privately-owned Ka-6E.

From the U.S.A. we hear that Hetty Amade, once our best woman pilot and still holding Dutch nationality, reached Diamond height at Fremont Sky Sailing Airport.

Six Gold C distances, including two goals, have already been flown this season between 14th March and 21st May.

The Director-General of Civil Aviation opened the new workshops at our Terlet Gliding Centre on 15th April, and many guests and visitors were present to congratulate the Director of the Centre, Menno Manting, and his staff, and the architect, Ed Veugelers, on this magnificent building. There is no doubt that the gliding movement as a whole will greatly benefit.

J. TH. V. E.

## INDIA

IN April we had the first National Gliding Rally at Delhi. In the Rally five clubs—Ahmedabad Gliding and Flying Club, Birla G.C. (Pillani), Delhi G.C., Deolali G.C., and Indian Institute of Technology G.C. (Kanpur)—entered seven pilots. The Rally lasted from 15th to 23rd April, 1967. During the Rally one new All-India Record was established for 200 km. Triangle and the existing record of 140-km. Out-and-Return equalled. One pilot completed the Distance leg of Gold C and Diamond for Goal.

In the Rally, four clubs were flying Kartik gliders and one Ka-7 glider. The Kartik II, which I was flying, is a good high-performance sailplane, with a glide ratio of 1:32, and compares favourably with the Ka-6. The 200-km. Triangle record was also established in a similar glider by Mr. Prem Gupta.

I enclose a report of my flight from Safdarjung Airport to I.I.T. Airstrip Kalyanpur, Kanpur, which gave me 2nd place in the Free Distance competition and also Gold C Distance leg and Diamond for Goal, the latter being more important to me. (See page 328).

Pilots thinking of visiting India have to obtain prior clearance from the Government of India before they can

fly in a gliding club. For this they should apply through the Aero Club of India, "F" Block, Connaught Place, New Delhi-1 (in duplicate).

DINESH CHANDRA

## IRELAND (Dublin)

THE new airfield at Ballyfree, used in the Rothman's International Air Rally and Display, has been made available for gliding; already three safaris have started to explore the possibilities of this new site, which offers ridge, thermal and wave. Our Blanik and Ka-6 took part in the air display and brought us enquiries from prospective new members.

Last month D. Begley and A. McCarthy went solo in the Ka-7. C. Curley flew 47 miles for Silver distance and P. Kilkelly attained 16,000 ft. in the Wicklow wave (well done, Peter). Four of our members are taking a PPL course on our tug "Mike Bravo".

C. GARR

## NEW ZEALAND

INTERNATIONAL TEAM.—Mr. W. D. Jones, President of the New Zealand Gliding Association, has announced the following team to represent New Zealand at the World Gliding Championships in Poland in June, 1968.

A. P. Fowke (Matamata)  
R. C. Reid (Auckland)  
A. R. Cameron (Auckland)  
P. K. Heginbotham (Wellington)  
Manager: J. H. Roake (Tauranga)

In announcing the team, Mr. Jones congratulated the selected pilots, and expressed his confidence in their ability to uphold New Zealand's reputation in the sporting world. He was particularly pleased that, for the first time, New Zealand's four top-ranked glider pilots had been available for selection, and he was sure that the experience gained by the team would be of tremendous benefit to the gliding movement in this country.

A. P. (Tony) Fowke, a Matamata farmer, is the current New Zealand Gliding Champion, having won five out of the seven days at the 1967 National Championships.

R. C. (Ross) Reid was New Zealand Champion two years ago, and finished in third place this year. He is also an enthusiastic yachtsman.

A. R. (Allan) Cameron was second in this year's Championships, and has been in the top placings for several years. He was a member of the New Zealand team in the 1965 World Gliding Championships.

P. K. (Peter) Heginbotham was New Zealand Champion last year, and has competed with success in Australian Gliding Championships on two occasions. He is also active in the administrative side of gliding.

J. H. (John) Roake has been involved in all aspects of gliding, and recently assumed the rôle of Editor of the magazine *Gliding Kiwi*. He has been associated with the organisation of District Gliding Championships on several occasions, and was Director of the 1967 National Championships.

ROSS MACINTYRE

## PAKISTAN

**S**OARING in Pakistan was started by Col. and Mrs. Mikulski, who came to Pakistan from Poland. They demonstrated soaring in Karachi in 1952, and the Pakistan Air Force made gliding part of their training programme—at least for a few years.

Mr. Minoo Marker brought a Slingsby T-21 Sedburgh to his home town Quetta in 1956 and learned to fly on this ship. In 1961 he founded the Quetta Soaring and Flying Club, and since that time about 120 soaring pilots have been trained in Quetta. The spacious hangar was also largely built by Mr. Marker, and in it I saw a new Slingsby Capstan two-seater, two Slingsby T-21 two-seaters, two Olympia 2B single-seaters and one Grunau Baby. They were comfortably spaced, leaving room for addition of future equipment.

The launching method is winch tow, done with a Pfeiffer winch, imported from West Germany. Unfortunately, no tow plane is available. The 1,500-ft. runway permits winch tows to about 500 ft. maximum and due to Quetta's powerful thermal activities many flights of longer duration have been made after winch launches. Several times pilots have succeeded in getting into wave up-currents, reaching altitudes up to 23,950 ft. (7,300 m.).

Mr. S. M. Mumtaz, formerly of the Pakistan Air Force, is fully employed as

Chief Flight Instructor and has accumulated more than 2,000 hours in sailplanes. One of his students, Derrick P. Middlecoat, was the one who flew an Olympia 2B to the highest wave altitude hitherto reached in the Quetta area. If a tow plane was available, the number of wave flights would greatly increase, since lenticularis clouds are a common sight in Quetta's sky.

When I visited the Quetta site, wave clouds were standing all over the sky. The date was 8th April, 1967. But, due to a Government regulation dating from the Pakistan-India war of September, 1965, I, as a foreign national, was not permitted to fly, which really was a pity. The wave clouds were classic and the club ships were equipped with oxygen. Efforts are being made to abolish this rule, which at present prohibits sporting flights by foreign nationals in Pakistan. It appears contradictory in a country which makes efforts to attract foreign tourists. The Quetta site would be well worth visiting from a soaring pilot's point of view. The climate is always very dry, so that summer temperatures rising to 128° F. do not feel as bad as they sound. The thermals are terrific, the cloudbase very high and wave clouds appear very, very frequently. If Quetta were located in the United States, it would be a Mecca for soaring people.

The friendly spirit of the Quetta soaring fraternity was vividly illustrated by the faces looking at me with the same youthful enthusiasm, when in the evening at tea time we all sat round a table in the Lourdes Hotel at Quetta. To my left was the turbaned head of a young student who prepared himself for the Mullah calling in Pakistan's state religion. Even though he had little understanding of English, his eyes never lost their enthusiastic expression, and he laughed with his pals whenever they laughed at some part of my story. There was the eager face of Derrick Middlecoat, a Christian Anglo-Pakistani, and right next to him the handsome face of Chief Flight Instructor S. M. Mumtaz, who again was a follower of Pakistan's state religion. All these young men with love of soaring in their hearts were looking up to Minoo Marker, their soaring friend and sponsor, who belongs to the Parsee Community. I can only wish that

after removal of the preventive restrictions many soaring pilots will visit Quetta, either by car from Europe or flying up on P.I.A.'s excellent airline service from Karachi to Quetta in about two hours. A friendly welcome is certain.

(For correspondence with the Quetta Soaring and Flying Club, contact the Hon. Secretary, Mr. Minoo K. Marker, c/o Marker Alkaloids, Quetta. Accommodation, eight minutes by car from the soaring site, is available at the Lourdes Hotel, with all meals Rs 32.50 per day, or with all expenses included, about \$8.00 per day.)

PETER RIEDEL

EDITORIAL NOTE. — Peter Riedel was among the German soaring pioneers of the early 1920's, and obtained the world's seventh Silver C in 1932. He has spent many years in Canada, and we last saw him in Argentina at the 1963 World Championships. He is now with Pan American World Airways at Karachi.

## RHODESIA (Gwelo)

HAVING seen all the news from the various clubs in your magazine, the Committee have nominated me to bring you up to date with the (gliding) happenings in this part of the world. Perhaps I could give you a very brief history to start with:—

Our club, the Midlands Gliding Club, Gwelo, Rhodesia, was formed in January, 1958. A pranged T-31 was bought from Umtali Gliding Club, rebuilt and flown for the first time in June, 1960. This T-31 is still doing sterling (*sic!*) service, having, during its career with us, had three major prangs.

Other aircraft in the club have included a Kirby Cadet (donated to M.G.C. by Selukwe on amalgamation in 1962 and written off in a prang in February, 1964) and a Wolf (bought from Salisbury Gliding Club in March, 1964, and also written off in a prang in October, 1964).

Currently flying and in good trim we have a Spalinger-18 of Swiss manufacture of about 1939 or 1946 vintage. This is a gull-wing medium-performance machine bought from the Johannesburg Soaring Centre, Baragwanath, in August, 1964, complete with trailer.

Finally, the pride of place in the club's fleet is our Skylark 3B. Since its purchase, complete with all blind-flying instruments, oxygen and trailer in November, 1964, it has earned numerous awards and qualifications. Some of these include nine Silver C's, five Gold C's and five Diamond goals. Our current membership stands, incidentally, at 15, and all the machines are club owned. Special mention must be made of our youngest flying member, Mark Penberthy, who turned 16 years in March, 1967. Mark gained his Silver C in December, 1966, and completed his qualifying number of hours to fly the Skylark on his birthday in March.

Our site is some 3½ miles from Gwelo on a disused ex-R.A.F. aerodrome, complete with clubhouse, workshop and hangar. The main runway has been extended to a length of about a mile.

A recent innovation has been the fitting of one-watt V.H.F. radios into the Skylark and S-18. These, together with the set working on the ground, keep everyone in touch with what is happening in and around the field. It is quite a regular thing, too, to chat with the Salisbury Club pilots whenever they are airborne some 200 miles away. Our club altitude record is currently held by Barry Turner who flew to 17,000 ft. in December in the Skylark. Barry unfortunately missed his Diamond height by only 500 ft. This was due to him having to abandon the attempt when he encountered severe icing conditions. The brakes iced up, and this restricted any further flying in the cloud.

We are waiting for the onset of our hot season (August to November) at the moment. The Limited Class competitions (machines with a glide angle of up to 1 in 27) are scheduled to take place in the first two weeks of October. After this we are hoping to collect remaining Diamonds with 500-km. flights to the Botswana border (Plumtree) and back. Perhaps even a few Diamond height gains may be obtained also. We would be pleased to hear from any other clubs in the world who have T.V. brakes icing problems during gain of height attempts. This bogey has been a real problem and looks like being quite an obstacle if we don't get some satisfactory solution to prevent it.

J. C. M. MOGG

## RHODESIA (Salisbury)

**W**E are nearly into the middle of our winter and the thermals are still bubbling. In fact, on one Sunday recently at 5 p.m. three sailplanes were at 6,500 ft. playing around just under cloudbase! So you can gather that many hours of soaring have been accumulated by the keener types. With clouds still around, cloud-flying practice has been done on many days by many pilots. Cross-country flying has been somewhat limited by the fact that landing fields still have bumper crops in them, or that they are covered in long grass which is mostly over six feet in height!

It is more than evident after six months' operation that we have an extremely valuable asset in the Piper Cruiser/Blanik combination. The Cruiser, which replaced the Tiger Moth, has never looked back, for we have quicker tows, less fuel is used, maintenance is down and therefore utilisation is higher with subsequent benefits to the club. All this helps to keep each tow to 1,500 ft. at 10s. Is this possibly the cheapest unsubsidised aerotow rate in the world?

The Austria of John Saunders is back after its tussle with a ploughed field during last year's Nationals. It is flying as well as ever. We regret to report that the Bergfalke is in hospital, and it will be some time before she has fully recovered! She wasn't looking where she was going one evening when her wing-tip clobbered some long grass.

The whole airstrip is having a face-lift. Widening of the runway and extensions to the undershoot and overshoot areas are well in hand, the object being to make landing and taking off much more comfortable with the peace of mind

that goes with more room, and also to make way for the record entry we hope to have for this year's Nationals.

Perhaps there are a few of you who read these pages who will be in this part of the world so why not come and visit us while you are here, and we will do our best to give you a taste of Rhodesian thermals, as well as Rhodesian beer!

MIKE McGEORGE

## SOVIET UNION

**W**ORLD RECORDS.—Four new world records by Soviet glider pilots were announced on 20th June by Nikolai Golovanov, sports commissioner of the Chkalov Central Air Club of the U.S.S.R.

In a flight to a fixed goal, Anatoly Zaitsev and passenger Vladislav Kharitonenko covered 916 km. in a straight line to break the word record of 702 km. for multi-seater sailplanes held by Soviet pilot Pavel Antonov. They took off from an airfield in Tula region in a two-seater glider to fly to the village of Stepanovka on the Azov Sea coast.

In a free distance flight along the same route and in a similar sailplane, Yuri Kuznetsov and passenger Yuri Barkashev broke the world distance record of 829 km. set by Victor Shevtchenko, U.S.S.R., four years ago.

Excellent results in L-13 two-seater gliders were shown by woman pilot Tatiana Pavlova with passenger Larisa Folomeshkina on a predetermined route and by pilot Isabella Gorokhova with passenger Zinaida Kuznetsova on a distance flight. They covered 870 km. as the crow flies to break the world records of 619 km. held by Soviet pilot Zinaida Solovey.

The details of these record flights are being forwarded to the F.A.I.

*Novosti Information Service*

## UNITED STATES

### Low and Slow

In recent months a fringe organisation comprised in part of individuals within the SSA, and in part of non-SSA members, has begun to take form. Thus far it has no more than two dozen members, most of them scattered about the U.S. The point of mutual interest among these individuals is achieving gliding flight with limited means. Among

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the loosely knit membership, connected at this time only by a newsletter, are people who have designed, built and flown hang gliders of various sorts, replicas or reproductions of machines such as those used by Lilienthal, Pilcher and the Wrights, and primary gliders. An arbitrary cut-off point of  $L/D=10$  has been established for endeavours to qualify for admission, but like much of the rest of the policy of the group, this is not to be taken too seriously.

Qualifications for membership, such as it is, are an interest in simple flying machines (with small velocities in all directions), and the possible payment of a dollar or two per year to defray newsletter expenses. If you want to learn of the work being done, the designs proposed, the gliders built and flown, and the people involved, contact Emil Kissel, 21154 Sullivan Way, Saratoga, California.

\* \* \*

## MOTORIZED SAILPLANES

**C**CROSSING AIRWAYS.—In a list of the uses to which a motorized sailplane could be put, Egon Scheibe (producer of the Motorspatz and Motorfalke) includes, besides the usual ones, a suggestion that the motor could be used for crossing airways routes underneath the lower boundary of the airway.

**ROUND THE WORLD.**—James Bede, a young American designer who has already produced a STOL machine and two ultra-lights, is adapting a Schweizer 2-32 sailplane to take a 210-h.p. Continental 10-380-C motor. The leading edge of the wing will serve as a tank and 2,100 litres will be carried. The wing span is extended to 19 metres. With this machine he proposes to fly round the world in six days via Spain, Arabia, Southern India, Northern Australia and Hawaii. (There is no mention of soaring.)

*Air et Cosmos.*

**MOTORIZED OLYMPIA.**—Ghent (Gand) Aviation Club has fixed a motor-cycle engine on a metal-tube pylon on top of the wing of an Olympia sailplane. It has already made several flights "à l'entière satisfaction de ses utilisateurs". (There is no mention of soaring.)

*Conquête de l'Air.*

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