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August—September 1970

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CONTENTS

Dunstable Nationals, 1970	D. J. Birch	258
Comparative Scoring Systems	K. A. Harrison	274
Final Results .. .. .	.. .. .	277
A New Rollason Condor Aircraft Tug	A. D. Piggott	278
Gold in those Deeside Hills	R. C. Stafford Allen	279
First German Motor Glider Championships	P. T. Ross	283
Agricultural Thermals	W. Harper	289
Home and Dry	J. S. Williamson	291
Aviation Art Society	Yvonne Bonham	293
The Long Mynd on May 2nd	Rhoda Partridge	293
Flying and Instructing	R. A. Neaves, Ann Welch	295
Final Results—World Championships .. .. .	.. .. .	298
"Wave" Gliding	J. S. Sproule	301
Gliding Certificates .. .. .	.. .. .	309
International and UK Gliding Records .. .. .	.. .. .	311
Irish Safari	A. E. Slater	311
BGA News .. .. .	.. .. .	313
Entry List for Nationals	T. S. Zealley	317
Book Review .. .. .	.. .. .	318
Correspondence	M. Gee, B. Dalby, J. Gibson, G. Harwood, K. Harrison	318
Club News .. .. .	.. .. .	324
Service News .. .. .	.. .. .	335
Overseas News .. .. .	.. .. .	338

Cover Photograph: (Left) Helmut Reichmann, World Champion Standard Class, and George Moffat, World Champion Open Class. Photo: Courtesy George Uveges.

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Dunstable Nationals-1970.

30th May-7th June



Reported by D. J. Birch

Photo by A. E. Slater

FOR the second successive year the Sport/Standard class National Championships experienced a superb spell of summer weather. Out of the possible nine task days eight were flying days. The organisers did a tremendous job and are to be congratulated on the very efficient manner in which they staged the contest. Mention must be made of the quick and efficient manner in which Robin Harper, aided by his trusty Busicom calculator, computed the results; and thanks are due also to Tom Bradbury, who not only gave very accurate weather forecasts each day but also provided the weather charts reproduced here. The Royal Corps of Signals were a boon and a blessing, not only providing a competent relay system with various TP's but also an effective P.R. service for the numerous spectators on top of the Downs

Saturday 30th May

At precisely 10:00:00 Tom Zealley, Chairman of the London Gliding Club, hosts for this year's National Gliding Championships Sport/Standard Class, mounted the platform of the briefing tent and wished all those present a very warm welcome to Dunstable. He then introduced to the assembled company the Controller, National Air Traffic Control Service, Geoffrey Stallibrass, OBE, and his wife who were guests of the day, after which the microphone was handed to Ken Wilkinson, FCGI, FRAeS, Chairman of the BGA and a director of British European Airways, who was officially to open the contest.

In a short informal speech he insisted that various distinguished personages had been approached to perform the opening ceremony but unfortunately none seemed available (laughter) and he was therefore asked to do the job. He commented that he had once tried to get George Bernard Shaw to perform a similar type of ceremony, and hoped that if he could not get the great man himself he might at least get one of his famous postcards, but in fact all he received was a typed note stating that GBS does not open Jumble Sales, Garden Parties and Sales of Work (laughter). On this note the contest was declared open.

Roger Barrett, Championship director for the third successive year, opened the briefing, stressing mainly the importance of observing air space control regulations and generally reviewing flight safety.

Geoffrey Stephenson, chief task setter for the contest, then produced his first task of the week. It turned out to be a 142.8 km out-and-return to Ramsey, near Peterborough, the gas holder being the dominant landmark. X=20, Y=50 km. Designated start. Hazards on route were then pointed out: Old Warden, where flying machines of a bygone era might be practising for an air display on Sunday, Cardington with its "Balloon on a long piece of string", and Thurleigh with its high-speed aircraft.

Tom Bradbury, this year's Met. man, was then called upon to give us his forecast for day one. An inversion limited cumulus tops to around 6,000 ft. ASL. Bands of thickening upper cloud spreading SE ahead of a warm front would cut off the sun and reduce thermal activity seriously in some places, particularly near the northern turning point. Some lee waves would be seen in late afternoon. Cloud base would be around 3,500 ft. ASL. with visibility good at around 15 to 20 miles. Wind 300°/18-20 knots but increasing later in the day which could prove troublesome to those still airborne.



Chief Marshal John Hands indicated that the dropping zone would be over Edlesborough Church, SW of the field, and followed this by explaining relight and cable brake procedures and airfield boundaries. Robin Harper was introduced as scorer and briefing closed at 10:47:00.

At 12:00 Bernard Keogh flying a K-6E No. 282 was first away from the grid, and within 40 mins. everybody was in the air and working hard, no relights being necessary. First across the start line at 12:21 was Harry Howitt. Very little difficulty was encountered on the outward journey and the turning point was reached by all pilots. Stewart Morison, however, unfortunately failed to recognise it and estimated that he had overshot by 12 miles before he realised it. This proved to be his undoing as he failed to make it back and landed out at Wyton.

John Williamson, flying Slingsby's demonstration Libelle, Competition No. 7, was first heard over the R/T when he announced "Magpie 7 miles Dunstable ETA 5 mins." He was exactly right (must be the calculator he uses) and swept over the line low and fast to arrive home first. John was full of praise for the Libelle, he said "It's a hot ship, I don't think it climbs as well as the K-6E but it is much faster". Steve White crossed the line next in his K-6E and endorsed John's statement, saying, "I was with him in the last thermal but could not hold him on the run in".

The first Dart home was flown by the eventual day's winner Carr Withall. On his return journey Carr said that he was worried about the Met. man's forecast of increasing wind, and bearing this in mind he flew below gliders thermalling 1,000 to 2,000 ft. above him and pressed on; later, however, the same gliders were struggling 2,000 ft. below him. In his final thermal he climbed 6,000 ft. into cloud well to left of track near St. Neots in order to escape the clag which lay right across track where "It looked like the black hole of Calcutta".

The only lady competitor, Angela Smith, completed the task and crossed the line amidst cheers and clapping from the assembled bodies. She had been told by her father Dan Smith, himself a well known glider pilot, to concentrate on-

getting back in preference to speed, as the psychological effect of doing so in her first competition would be very morale-boosting.

11 aircraft landed out, including Tony Deane-Drummond who landed only 3 miles from base. Photographs from Nos. 7, 72 and 470 were considered marginal, while Ian Strachan incurred a small penalty for a photographic error.

LEADING RESULTS

Sport		km/h	Pts
Withall	Dart 17R	56.12	1000
Williamson	Libelle	56.05	998
White	K-6E	55.06	983
Goldsbrough	Dart 17R	54.77	955
Hale	K-6E	49.20	777
Atkinson	Skylark 4	47.80	731
Standard			
Williamson	Libelle	63.07	1000
White	K-6E	57.09	836
Garrod	ASW 15	50.08	636
Wheeler	K-6E	47.05	543

Total kms. possible: 5,720.

Total kms. flown: 5,679.

Sunday 31st May

144 km. triangle. Kettering 57 km. Calvert Brickworks 55 km. Dunstable 32 km. X=20, Y=50 km. Designated start. Two other tasks were set, in case of deteriorating weather conditions, but were not needed.

The weakening frontal zone which had been across the South Midlands earlier this morning was now gradually dying and cloud was breaking up to 1/8. Very shallow cumulus during the latter half of the afternoon giving rather broken and distorted thermals up to an inversion level of approximately 4,000 ft. ASL. of strength 4 to 5 knots. Cloud base was 2,500 ft. at noon and going up to nearly 4,500 ft. later. Winds 300° 18 knots backing to due west at 18:00.

All early morning sleepers were brought to life by Doc Slater piping his way from Bunkhouse to Bathroom and back. His week in Ireland had some definite bearing on the tunes emitting from his tin whistle. He followed this up by serenading us at breakfast with various musical selections on the piano.

Briefing today at 09:30 and for the rest of the week. Carr Withall received an engraved "pot", 6 cans of ale to christen it with and a packet of cigars from the competitions director for his previous day's effort. After the usual



clutch of "church" notices including advice of Elsan disposal, and today, for the ladies, plumbing advice with reference to their loo, it was decided that briefing would be adjourned until 12:00 whilst waiting for the weather to brew.

At noon Tom the Met. assured us that clouds were beginning to break and cumulus was definitely building up promising us a good afternoon's flying. John Hands announced that the dropping zone was the same as yesterday, Edlesborough Church, "hopefully before Evensong" he continued, much to the amusement of all concerned. "The gate is cunningly arranged under the hill where you can't see it, but if you follow the power lines across the hill you can't miss it". A new rule was introduced. If you land on base airfield without crossing the finishing line, you will be deemed to have completed the course, but will be penalised by 30 seconds being added to your time for the day.

Mike Livesay, flying the only Skylark 3F in the contest, was first away from the grid at 13:40 followed 15 seconds later by Angela Smith; Doug Bridson was however first through the gate at 13:59. Most competitors were finding it very difficult to get away from Dunstable area and relights were becoming necessary. At 14:10 the first gaggle took

advantage of a dark patch of cloud which had formed to the NW of the field and were away. Seven minutes later eight gliders were counted working a similar cloud in an effort to start.

Stuart Waller had reached Woburn, but was struggling and worried about conditions in the immediate vicinity, so he decided to return for a relight. This proved a good tactical move as he managed to get away very quickly and moved past Woburn without any further trouble. Other pilots were struggling in this area; John Stanley reported being "Very low Woburn", but he recovered, pressed on and rounded Kettering TP before finally being forced down in the Northampton area.

The Army observers reported that they were unable to identify the first three aircraft round the first TP as they were too high, but they were later established as being Wally Kahn, John Williamson and Ron Cousins. Northampton proved to be the "dead" area on the second leg and seven pilots were sunk. Barry Goldsbrough proved once again what a good pilot he is when he extricated himself from a position ("down to 500 ft. over a lake in the middle of some woods") which lesser mortals would have regarded as hopeless. Stuart Waller, still playing his own personal tactical game against the elements, decided that he

would fly toward the centre of the triangle in an effort to miss the Northampton sink. Once again he made the right decision on a leg which forced 20 aircraft down including that of Withall.

John Williamson, Mike Garrod, Wally Kahn and Stuart Waller were all observed going around the second TP with plenty of height in hand. The final leg with its tail wind component proved easy in comparison with the other two, and of the eleven aircraft which rounded the Calvert Brick Works nine got back to base. Ian Strachan was perhaps the unluckiest pilot of the day, he got within half a mile of base but just could not find that extra 100 ft. needed to get him across the road and into the airfield.

John Williamson repeated yesterday's performance in crossing the line first, but in the Sports class was beaten on handicap by Stuart Waller and Steve White.

LEADING RESULTS

Sport		km/h	Pts
Waller	K-6E	42.59	1000
White	K-6E	42.06	992
Williamson	Libelle	39.52	955
Kahn	Dart 17R	38.50	940
Goldsbrough	Dart 17R	37.46	925
Standard			
Williamson	Libelle	44.91	1000
Waller	K-6E	44.36	991
White	K-6E	43.81	983
Garrod	ASW 15	43.55	973

Leading Results 2 days

Sport		Standard	
White	1975	Williamson	2000
Williamson	1953	White	1819
Goldsbrough	1880	Garrod	1615
Atkinson	1640	Waller	1457
Kahn	1621	Deane-Drummond	1220

Total kms. possible: 5,760.
Total kms. flown: 3,295.

Monday 1st June

A 211 km. triangle or 148 km. out-and-return was set after a delayed briefing at noon. This was then changed on the grid to a 109.6 km. out-and-return to Pitsford Reservoir at 13:30. By 15:00 the very weak front which had settled over Dunstable had still not cleared and the task was cancelled.

Tuesday 2nd June

341 km. triangle. Cirencester 100.5 km. Melton Mowbray 138.5 km. Dunstable 102 km. X=20, Y=60 km. Designated start. First launch 10:45. First off grid John Glossop in his ASW 15.



Carr Withall. Photo: D. J. Birch



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At briefing pilots were informed that the "Competition High" was now centred over the UK. The front which caused the cancellation of yesterday's task was now moving away. Inversion still high, 5,000 ft. over Salisbury Plain. Cloud base 2,500 ft. at 11:00 rising to 4,000 ft. in early afternoon. Thermic conditions giving 4 to 6 knots should be general. Visibility hazy but improving. Wind 10 knots.



Official "snifters" report 2 to 4 knots at 10:15 with cloudbase 2,700 ft. and with first take off at 10:52:30 the tug pilots once again did a magnificent job, everybody being airborne within 45 minutes. All pilots seemed to be affected by the same urgency and very few were wasting much time over Dunstable. The immense task ahead was obviously providing the stimulus to go.

The first leg to Cirencester proved to be the easiest of the three, and it was not long before confident reports were flowing back over the air waves. Carr Withall was making exceptional progress, Aylesbury 11:26, Oxford 12:00 and eight miles from the first TP at 12:50. Barry Goldsbrough, Wally Kahn, David Lilburn and Angela Smith were also pressing on rapidly. Early pilots to negotiate the Cirencester turn were Carr Withall, Stuart Waller and Mike Garrod.

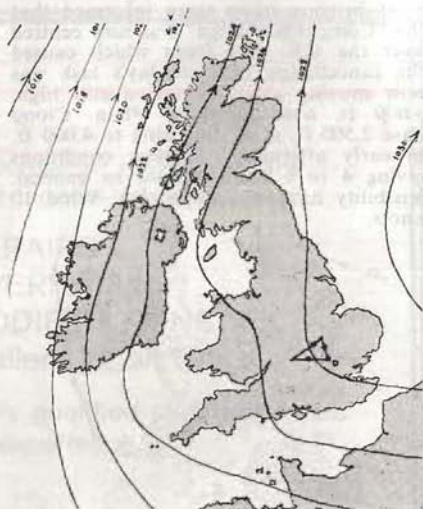
The first indication that the weather was deteriorating came at 13:40 when Wally Kahn mentioned that "It looks bad ahead". At this precise time Ian Strachan was at Little Rissington at 3,500 ft. and climbing. Meanwhile Carr had arrived in the Gaydon area at least half an hour ahead of anyone else and had run into the early stages of the bad patch that Wally mentioned. From here on he fought a losing battle and had to land near Leicester. He was joined shortly by Tony Deane-Drummond, Wally Kahn, Steve White and Ron Newall who all landed in the same Leicester district. Ian Strachan arrived in this same section with slightly improved conditions breaking through. For a long period, however, pilots encountered difficulties and here more victims were claimed before the weather improved. It was a case of the slower pilots coming off best at this point, but they had their troubles to come.

Several pilots announced more than once that they would probably just make the second TP. Stuart Waller was one of these, but twenty minutes later he told his crew that he had rounded the turn and conditions seemed to have improved. John Williamson today had his first taste of landing out during the competition when he put down near Corby. John Stanley made thermic contact at Wellingborough and climbed to 5,500 ft. before setting off home. He reached Bedford with 2,300 ft. reading on the altimeter and decided to press on for home, but unfortunately encountered heavy sink and just failed to make Dunstable, landing at Ampthill. A very creditable performance. "Zot" Zotov also did well and reached Bedford before having to retire. The Sutton Bank plumbing contractor Fred Knipe had an expensive night in the bar because of his good performance; he landed at Bletchley and found he had collected his Gold C for distance. Well done Fred.

Jack Harrison, low over Husbands Bosworth, spotted stalwarts of the local council burning rubbish, at which moment he also espied Fred Knipe's crew arriving on the scene. Jack immediately radioed them to ask the local worthies to stoke up the fire; this they obligingly did and Jack managed a further fifteen minutes before he was finally forced to call it a day.

Stuart Waller said that once he had reached Daventry he got a good climb to nearly 7,000 ft. which took him to Newport Pagnell whence he commenced his final glide. He was first to arrive at base with a flight time of 7 hours 11 minutes 16 seconds. Ian Strachan, the only other pilot to complete the course, said that out of his eight hours flown today four hours had been pure luck, and it was Fred Knipe who provided him with his best break when he saw him in a thermal at Corby. He managed to latch on to it and climbed slowly to 6,800 ft. During the course of this climb he spent longer flying on instruments than he had ever done before in a glider. From this height he commenced his final glide and arrived home with plenty of height to spare.

Later the Met. man explained why the weather had turned sour. The High had split in two thereby creating a large col over the task area with the dead area in the col lasting much longer than expected.



LEADING RESULTS

Sport		km/h	Pts
Strachan	K-6E	41.88	1000
Stanley	Skylark 4		942
Waller	K-6E	45.54	914
Knipe	K-6E		910
Zotov	K-6E		881
Standard			
Strachan	K-6E	41.88	1000
Waller	K-6E	47.44	900
Knipe	K-6E		888
Zotov	K-6E		861

Leading Results 3 days

Sport		Standard	
Williamson	2624	Williamson	2719
White	2571	White	2401
Waller	2489	Waller	2379
Goldsbrough	2477	Garrod	2291
Atkinson	2281	Strachan	2121

Total kms. possible: 13,299.

Total kms. flown: 8,965.5.

Wednesday 3rd June

203.6 km. Equilateral record breaking Triangle. Chipping Norton 70 km. Kettering 76 km. Dunstable 57 km. X=30, Y=60 km. Designated start.

A promise of banks of cumulus developing around 11:00 with thermals building up to 5 knots was given by Tom the Met. At present an inversion with a lid of 6,000 ft. coming down to 5,000 ft. in the afternoon with blue thermals after 15:00. Wind 5 knots backing to SE and freshening in the late afternoon. Cloud base around 4,000 ft.

Pre-breakfast rigging seemed to be the order of the day. 07:30 saw eighteen crews hard at work assembling, preparing and polishing their various machines. The general feeling amongst the pilots was that a short task would be preferable to compensate for yesterday's phenomenal (for this country) distance, and also to give more pilots a chance to complete the course.

Briefing brought the news that Stuart Waller, yesterday's first arrival back at base, had been penalised for taking his photographs of the second TP in the wrong sector and he was therefore relegated to third position for the day. He was presented with a special compensatory prize by the contest director—a Kodak booklet entitled "How to take better photographs". (Much laughter from the assembled company).

Roger Barrett re-iterated cloud warning procedure as yesterday it had been reported that one K-6E had seriously broken this rule, also an unofficial complaint of infringement of airways space brought a stern warning from John Furlong. By 11:40 John Cardiff acting as "snifter" was aloft and reporting "Boiling up nicely near Hemel Hempstead", and ten minutes later, "Cu building up, getting 1 to 2 knots over Dunstable Vauxhall works".

Stuart Waller flying K-6E No. 125 was first in the air at 11:56 but Ron Sandford in a Dart 17R was first through the gate at 12:10. Very few pilots experienced any difficulty in getting away from base; the weather was brewing up nicely as predicted and it was not very long before pilots were instructing crews to "roll". A report from John Cardiff who was still out at 12:20 indicated that 6 to 8 knots were to be found. Most pilots were passing Bicester at between 3,500 and 4,000 ft. and the first TP was reached at 13:12 by Ron Sandford, so far no reports of anyone going down. Wally Kahn was heard over the R/T asking to be observed at the turn as his camera had jammed.

Second leg was not proving difficult, Banbury being passed over at approximately 4,200 ft. to 4,500 ft. Stewart Morison was reporting very regularly "Bluebird going well". Barry Goldsbrough was the first to indicate that he was encountering difficulties, with the terse report that he was at the second TP but down to 700 ft. Carr Withall, however, who rounded the second TP two minutes behind Barry, confidently informs his crew "Go home" as he is at Wellingborough with 4,500 ft. on the clock. Meanwhile Barry has recovered and is passing Wellingborough at 1,000 ft.; thirteen minutes later he has climbed a further 1,000 ft. and is pressing on.

During the final stages of the triangle pilots were experiencing strong wind conditions which made final glide judgments difficult. First to arrive back however was Mike Garrod in his ASW 15 at

15:44 followed three minutes later by John Williamson in the Libelle who made his usual spectacular approach. Carr Withall made an even more spectacular finish, crossing the threshold at approximately 10 ft. and just nosing over the line. He was not the only pilot to arrive in such a fashion, Stuart Waller effecting a similar type landing away from the line and thereby losing 30 seconds for his misjudgment.

The most breathtaking landing was made by John Evans in his Olympia 419 who glided over the marquee at zero feet causing those on the ground to move rather rapidly out of his flight path.

We heard once more the voice of Stewart Morison who finally reported that he was about to land on Leighton Buzzard golf course; you might say he was well and truly bunkered, Angela Smith again completed the course and was given a "Well done" from Roger Barrett as she crossed the line.

John Williamson today has taken the lead in both classes and began to look unassailable, particularly in the Standard class. On the whole the weather turned out better than the forecast.

LEADING RESULTS

Sport		km/h	Pts
Williamson	Libelle	57.52	1000
Withall	Dart 17R	56.52	965
Watson	Skylark 3F	56.02	948
Livesay	Skylark 3F	55.47	929
White	K-6E	55.36	925
Standard			
Williamson	Libelle	65.37	1000
Garrod	ASW 15	61.91	889
Deane-Drummond	LS 1	60.42	841
Watson	K-6E	58.36	775



Tony Deane-Drummond ready to roll. Photo: D. J. Birch

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Leading Results 4 days

Sport		Standard	
Williamson	3624	Williamson	3719
White	3496	Garrod	3180
Goldsbrough	3355	White	3153
Waller	3271	Waller	2994
Withall	3008	Deane-Drummond	2645

Total kms. possible: 8,120.
Total kms. flown: 7,891.5.

Thursday 4th June

175.5 km. goal race to Long Mynd. Y=50, X=100km. Designated start. High moving NE toward Norway and Low toward Bay of Biscay. Winds very strong at 2,000 ft. 100° 32 knots in West later. Cold sea air along east coast also expected. As Tom said, "Any cu you may see is an illusion as there is a double inversion". Thermals at an average rate of 2 knots and they will be rather broken at inversion level.



John Hands gave a very detailed briefing on today's aero towing as the wind was creating extreme turbulence near the hill. "Towing might be a bit hairy" he said, and in fact two pilots, John Evans and "Zot" Zotov, were ditched by their respective tugs at about 100 ft. in this turbulence. In the case of John Evans it took some considerable time to get his glider back to the grid for a re-light.

First take off at 12:45 and by 12:53

the first gaggle had crossed the starting line and were getting away as rapidly as was possible. Pilots were soon expressing delight with the conditions, and some went so far as to say that although they were rough they were the best they had ever flown in. The average height pilots were flying at for the first 75 minutes was 5,000 ft. and everybody was making the most of the weather, the excellent visibility and a 30 kt. tail wind. Carr Withall made an extremely fast run up to Kidderminster, but here he managed to get down 800 ft. which lost him the chance of completing the task at over the magic 100 km/h.

Ian Strachan was the first arrival at the Mynd, closely followed by Wally Kahn, Bunny Hale and John Williamson. As John Williamson started at least 20 minutes after Ian and had clocked a speed of over 115 km/h, which turned out to be the best speed of the day, he consolidated his position at the top of the classes. Only five pilots averaged over 100 km/h. on handicapped times. The slowest time of the day was 70 km/h. All but five competitors completed the task, and some of the final glides, according to our man on the line, were as hairy as some of the morning's take-offs.

Gabrielle Seth-Smith had a very unfortunate accident whilst travelling up to the Mynd to collect her husband. Her empty trailer jack-knifed, turning over both the Land-rover and trailer several times. By a stroke of good luck, however, the following car was carrying a nurse able to administer first aid, particularly to Gabrielle's co-driver Jill, who had sustained nasty cuts about her face and was taken to hospital where she was kept in overnight for observation. By

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coincidence the doctor who attended her at the hospital turned out to be a glider pilot.

Martin Seth-Smith was inundated with offers of car and trailer, and was therefore able to continue flying for the rest of the competition. Although his wife, Gabrielle, was very badly bruised she continued to help him to the best of her ability.

LEADING RESULTS

Sport		km/h	Pts
Williamson	Libelle	101.8	1000
Hale	Skylark 3	97.5	908
Kahn	Dart 17R	97.1	899
Bridson	K-6E	96.8	893
Morrison, Simon	Dart 17R	95.6	867

Standard		km/h	Pts
Williamson	Libelle	115.7	1000
Garrod	ASW 15	110.0	958
Deane-Drummond	LS 1	104.6	919
Bridson	K-6E	100.8	891

Leading Results 5 days

Sport		Standard	
Williamson	4624	Williamson	4719
White	4288	Garrod	4138
Waller	4037	White	4009
Goldsbrough	3947	Waller	3841
Kahn	3856	Deane-Drummond	3562

Total kms. possible: 7,020.

Total kms. flown: 6,392.5.

Friday 5th June

Alternate tasks set today. 240 km. out-and-return to Melton Mowbray or 210 km. out-and-return to Markfield. X=25, Y=50 km. Designated start.

Air more unstable with inversion higher than yesterday. Wind 090 23 knots backing to 080 18 knots. Thermals up to 8 knots. "If you have to use less than 4 knots you are unlucky" stated the Met. man. On the whole it promises to be a good day, the only trouble anticipated will be west of track where an occasional shower will cause a temporary clamp. Cloud base above site 4,800 ft.

At 10:20 the official thermal hunters reported they were rising at a steady 4 knots. Thirty minutes later 8 knot thermals were the order of the day.

First away at 11:00 Stewart Morison. The take-offs were on the same run as yesterday, the hairy one toward the hill, which was creating its usual turbulence. Today Tony Deane-Drummond was ditched by his Tiger tug, causing the tow rope to backlash so violently that it smashed a hole in the undersurface of the LS-1's T-tail. This could well have



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Angela Smith



Simon Morison



Steve White
(Photo: A. E. Slater)



*A family study.
Robert, Boel and
John Williamson*



Ian Strachan



Len Barnes

Stuart Waller



(Photo's by Anne Ince)

caused a very serious accident if the tail had been of the conventional type and the rope had wrapped itself around the elevator. All was well in this particular instance and the hole did not impair the glider's flying or handling characteristics and Tony was able to relight.

The start line soon settled down to its normal routine again and at 11:22 Tony Watson was first through the gate.

Thirteen of the day's field elected to go to Markfield, either by choice or because they were drifting downwind. Amongst those who chose Markfield were Barry Goldsbrough, Mike Garrod, John Glossop, Barry Dobson and Carr Withall. The rest of the field went across wind to Melton Mowbray. Of those who went to Melton, ten managed to get back to base, whilst five returned from Markfield. By 13:25 a number of pilots had announced that they had rounded their respective TP's and were on their way back.

Barry Goldsbrough encountered good strong lift near Leicester and rose to 6,500 ft. Generally speaking pilots considered that the outward legs were the easiest. Ian Strachan, however managed

to get a good climb over Desborough to 7,500 ft. on the way back, whereas John Williamson struck a bad patch when overdevelopment occurred and came down to 1,000 ft. before he was able to recover. Barry Goldsbrough also ran into trouble ten miles from home and had to struggle to make it back.

The mythical award for today's unlucky aviator must surely go to Jack Harrison, who literally landed just outside the field, 2 km. short of distance to be precise. Bill Fay whose call sign is Lulu, amused everybody with his cryptic message "Lulu getting low low".

Once more, master glider pilot John Williamson crossed the line first, followed six minutes later by Tony Watson. Among those who fell by the wayside today were Steve White, Tony Deane-Drummond and Wally Kahn.

LEADING RESULTS

		km/h	Pts
Sport	Williamson	Libelle	49.35
	Watson	K-6E	49.16
	Goldsbrough	Dart 17R	48.77
	Barnes	K-6E	44.24
	Strachan	K-6E	43.63

Standard	Williamson	Libelle	56.08
	Watson	K-6E	51.21
	Garrod	ASW 15	49.34
	Glossop	ASW 15	48.72
	Barnes	K-6E	46.08

Leading Results 6 days

Sport			Standard	
Williamson	5624	Williamson	5719	
Goldsbrough	4936	Garrod	4967	
Waller	4875	Waller	4496	
Garrod	4703	White	4192	
White	4505	Strachan	4059	

Total kms possible: 8,238

Total kms flown: 6,391

Saturday 6th June

133 km. triangle. Calvert Brick Works 32 km. Pitsford Reservoir 46.5 km. Dunstable 54.5 km. X=40, Y=80 km. Designated start.

The air slightly more moist than expected but should burn off by mid-morning. Cloud base will rise to 4,000 ft. by early afternoon. Wind 070 17 knots veering to 090 20 knots in west.

The penultimate day of the contest dawned with quite a heavy mist enshrouding the Downs immediately leading to speculation amongst the pilots as to the nature of the day's task. However, before briefing had been completed the sun was beginning to break through and any thoughts of a short task disappeared with the morning mist.

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Again a warning was issued with regard to prohibited air space, particular mention being made of Luton SRZ/SRA and Ambers 1 and 2 which might possibly be infringed during the day's flying. Time on grid decreed as 13:15 with last launch at 18:00.

Ron Sandford was first through gate at 13:59:27, but between 14:00 and 14:15 very few pilots seemed to want to leave the Dunstable zone and a stack of gliders was building up. Mike Garrod decided to land for a relight. Later it was said that everybody was waiting for John Williamson to make his move; this was an entire fabrication, however, as John had already gone.

At 14:18 there was a sudden surge toward the gate and, in the space of four minutes, nineteen gliders set course, nearly causing Terry McMullen's pencil to burst into flames with the sudden onslaught of work.

It was not long before reports began to filter through, indicating that the weather was not brewing up at all, and that the going was far from easy. Bernard Keogh was moving along quite well and reached the first TP after twenty five and a half minutes' aviating. Two minutes later John Evans reported "Round TP at 2,300 ft. climbing slowly". At this moment Barry Goldsbrough had

just announced that he was coming back for his third and final relight. John Glossop also returned for a relight.

The big gaggle which had left Dunstable had now broken up, and although the first TP was being rounded a fair proportion of gliders was very low. Tony Deane-Drummond's message, "Just maintaining height", was very typical of reports now being received. Mike Livesay announced at 14:47 he might have to land in the TP area, but fortunately was able to report seven minutes later "Out of hole and climbing toward TP".

Bernard Keogh, though first at Calvert, was down to 800 ft. at Finmere, a few minutes later he was down to 600 ft. and finally forced to land on the airfield, later to be joined by Wally Kahn. Buckingham was proving a bogey and 9 pilots had to land there, including Angela Smith.

At 15:10 a message was received from Stuart Waller to the effect that he is at 2,700 ft. but has been blown off course to Banbury, which is in fact 15 miles off track. Ian Strachan is finding difficulty in getting away from Silverstone district in which he has spent fifty minutes. The later arrivals in the Buckingham area seemed to be faring better than the earlier arrivals and are passing over the township at approximately 3,500 ft.

Steve White and Tony Deane-Drummond have both found the same thermal and are making full use of it, even though they are in cloud: Steve being 800 ft. higher, the K-6E holding its own against the LS-1. Steve levels out at 5,000 ft. and sets course, shortly reporting that he is clear of cloud and approaching Northampton.

Tom Gaunt returned to Dunstable for a relight at 16:23.

Stuart Waller is now back on course and is west of Northampton at 2,000 ft. In the meantime the news has arrived that John Williamson is down just short of the second TP. Once more Steve White has contacted lift and is climbing steadily, at 16:48 he reports 7,500 ft. clear of cloud and heading home. Jack Harrison, Fred Knipe, Wally Kahn and Bryan Kelly have all returned and are awaiting relights. At 17:26 Steve White announces he is four minutes out and at 17:30 touches down.

The scramble for relights is continuing, and the last two are Stewart Morison and John Stanley who take off less than eight minutes before the gate is closed. These two decide to work together and manage to get to Quinton Green before landing together in the same field. They described the flight as one of the most enjoyable they had ever flown.

One pilot, who shall remain nameless managed to double her score from three to six points by making full use of her relight.

Of the starters only one, Steve White, finished the course. Well done Steve.

LEADING RESULTS

Sport		km/h	Pts
White	K-6E	40.86	230
Atkinson	Skylark 4		175
Strachan	K-6E		157
Garrod	ASW 15		146
Goldsbrough	Dart 17R		139

Standard		km/h	Pts
White	K-6E	42.56	334
Garrod	ASW 15		252
Strachan	K-6E		226
Deane-	LS 1		205

Drummond			
Dobson	K-6E		188

Leading Results 7 days

Sport		Standard	
Williamson	5684	Williamson	5829
Goldsbrough	5075	Garrod	5219
Waller	4948	Waller	4605
Garrod	4849	White	4526
White	4735	Strachan	4285

Total kms possible: 5,320

Total kms flown: 2,671.5

Sunday 7th June

The final task of the 1970 Sport/Standard competition. 103 km. out-and-return Sywell. X=20, Y=60 km. Designated start.

The present unstable air should settle when the inversion, which at briefing is at 2,000 ft., breaks about 13:00; after that cu's should pop off quite regularly starting at 3 knots and building up to 5 or 6 knots in cloud. These should go on until around 18:00. Freezing level 11,000 ft. Visibility hazy.

Visual observation being required at the TP today, instead of normal photographic evidence, is of course to enable the organisers to get the results out *post haste*. First launch 12:30 and final launch one and a half hours after each pilot's final take off. Dropping zone Dunstable cross roads.

At 12:10 Frank Pozerskis became airborne as first official "snifter"; fifteen



minutes later he was joined by John Cardiff, and it was not long before they were both reporting lift at 2 to 3 knots.

Len Barnes flying his K-6E was first away, but Jeremy Wheeler was first through the gate at 13:21. The Met. man's predictions were being proved right and there were no relights, everybody is observed working hard. It was not long before Jeremy Wheeler was at 5,800 ft. at Bletchley and five minutes later he had risen a further 1,200 ft. Such was the trend on the first half of the first leg, plenty of height and fast easy going. Toward the latter half, however, pilots were beginning to experience a little difficulty. John Williamson said that it was quite difficult "chugging along with the K-6E's". On the return leg it was a different matter, John found a thermal just to the SE of Sywell which took him to 8,000 ft. and then it was straight in.

John Glossop was finding great difficulty in getting any height in the Sywell area, but managed to climb away. Bernard Keogh unfortunately is not quite so lucky and was forced to land at the TP.

John Williamson is once more first to scorch over the line, as has become his habit during the last week. Everybody else is still making good use of the weather, except, of all people, Ian

Strachan who gets caught out, and his laconic message, "landing in the same field as yesterday", is received at 15:23. Ron Cousins reports that he is "low over the wet area near Olney" and he estimated later that the process of recovery lost him fifteen minutes that day.

Many competitors are now able to build up good heights for the final glide, Martin Seth-Smith being one of these who report 8,000 ft. at Northampton, while numerous others are reported around the 5,000 ft. mark. Next to arrive home was Mike Garrod who wins the day on unhandicapped time. He also reckons he could have been home five minutes earlier if he had found a sympathetic thermal around Northampton.

From 15:20 gliders in steady succession are crossing the line and by 16:16 Peter Williams becomes the last man home.

LEADING RESULTS

Sport		km/h	Pts
Williamson	Libelle	68.84	1000
Garrod	ASW 15	67.86	966
Zotov	K-6E	63.78	826
Hale	Skylark 3	59.96	694
Watson	K-6E	57.80	619
Standard			
Garrod	ASW 15	78.91	1000
Williamson	Libelle	78.23	980
Zotov	K-6E	66.44	637
Deane	LS 1	62.06	509
Drummond			
Watson	K-6E	60.20	455

Total kms. possible: 4,120

Total kms flown: 4,041

Leading Final Results

Sport		Standard	
Williamson	6684	Williamson	6809
Garrod	5815	Garrod	6219
Goldsbrough	5666	Waller	5047
Waller	5553	White	4811
Zotov	5356	Zotov	4755

Total kms possible 8 days: 57,597

Total kms flown 8 days: 47,327

Prizегiving

Philip Wills CBE, President of the BGA and glider pilot extra-ordinary, presented the trophies, John Williamson taking both major awards. They were The Furlong Trophy for the outright winner of the Class (the National Sports/Standard Class Champion), and The PAN-AM Trophy for the winner of the Standard Class (using unhandicapped scores).

The Schleicher Trophy for the highest placed pilot flying a K-6E (using unhandicapped scores), went to Stuart Waller, the popular Nympsfield aviator.

The Centenary Trophy for the pilot under thirty years of age at the start of the Championships (using handicapped scores) was won by Steve White, a BEA Trident first officer who flies glider-wise at Booker.

A special award was made to the only lady competitor, Angela Smith, who besides flying in her first Nationals has been besieged by BBC TV cameras, newspaper men and Womens magazine reporters. Well done Angela.

One other award was made, of rather a special nature, and it was made to a very surprised John Furlong who was presented with a Silver Salver in recognition of his services to the London Gliding Club over so many years.

John Williamson, in a short amusing thankyou speech, paid tribute to the London Gliding Club and their organising of the Championships and said that nothing could be faulted except perhaps for one small thing which he hoped he might be able to put right. Whereupon he produced from his pocket a wash basin plug with chain and handed it to Roger Barrett who promised that it would be put to use.

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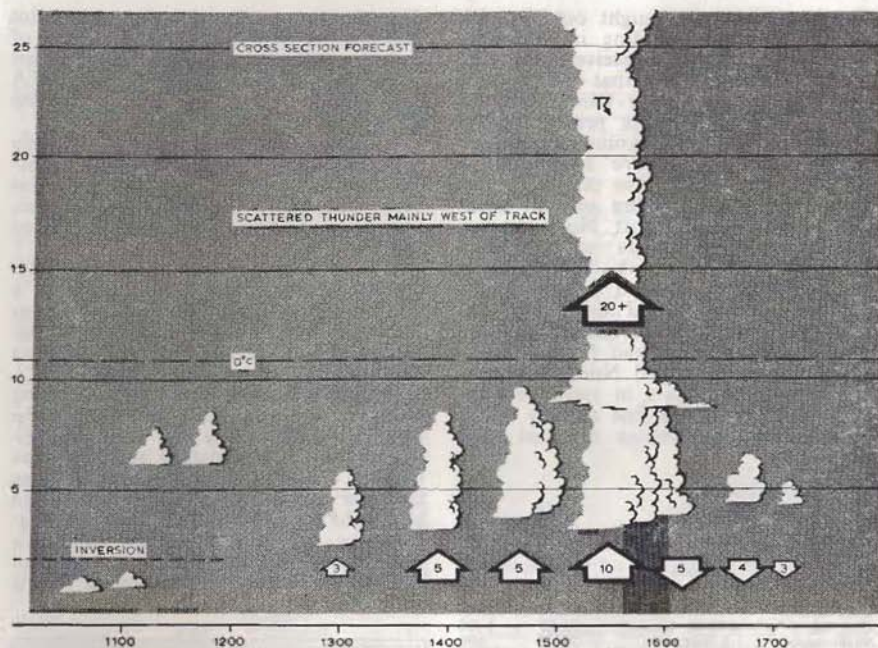
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Cross-section of weather chart on 7th June

John then urged all pilots to buy a good meal for their crews at the first opportune moment in recognition of all the hard work they have put in this week. Finally he thanked his wife for all the backing she has given and also his son, Robert, "who came along to carry the pots".

Philip Wills thanked everybody in a

short speech, mentioning in particular the tug pilots (cheers) without whom the competition could never have been held. Robert Williamson presented a bouquet to Mrs Kitty Wills.

The final word came from Roger Barrett who thanked everybody and announced that the bar takings for the previous night's party were an all-time record.

COMPARATIVE SCORING SYSTEMS

By JACK HARRISON

The accompanying table shows the final results for the Sports class when scored by the BGA Placing System (2-1-0). For comparison the Placing System total points have been scaled up so that points on both scoring systems are directly comparable, i.e. total of maximum daily points on Standard scoring

is 7230, total of maximum daily points on place scoring is 578, so a factor of $\frac{7230}{578}$ is used.

It can be seen that there are only minor differences in overall positions using place scoring. In nearly all cases the changed position occurs for the same

reason, i.e. on a particular day a pilot achieves a speed relatively high to that achieved by the winner, yet does relatively badly compared with all the other pilots, and achieves a low daily place. For example, Waller has gained a position in the overall results, now being equal third to Goldsbrough. On contest days three and five Goldsbrough got nearly 600 points on Standard scoring, yet was placed about halfway down the list, thus being awarded relatively less on the place scoring.

A basic argument can be put here. What should be the basis of scoring? Should it be how well a pilot has done relative to one other pilot, namely the winner (standard scoring) or should it be how well a pilot has done relative to all the other pilots (place scoring)?

Comp. No.	Standard Scoring Total Points	Standard Scoring P'tion	Placing System Total Points	Placing System P'tion	Placing System Total
7	6684	1	518	1	6500
151	5815	2	478	2	5990
61	5666	3	450	3=	5630
125	5553	4	450	3=	5630
109	5356	5	445	5	5570
390	5161	6	406	6	5080

68	4927	7	385	9	4820
389	4613	8	381	10	4770
133	4611	9	405	7	5070
379	4484	10	398	8	4990
4	4439	11	337	13	4220
266	4320	12	366	11	4580
53	4259	13	327	14	4100
494	4149	14	304	18	3800
3	4069	15	340	12	4250
26	4017	16	313	15	3930
388	3775	17	307	16=	3840
29	3743	18	259	21=	3250
112	3725	19	307	16=	3840
318	3625	20	271	19	3400
407	3450	21	256	23	3210
315	3327	22	259	21	3250
455	3314	23	264	20	3310
108	3269	24	249	24	3120
257	3269	25	243	25	3050
263	3173	26	236	27	2960
368	3169	27	238	26	2980
264	2892	28	210	28	2630
418	2719	29	206	29	2580
356	2628	30	170	32	2130
72	2514	31	180	30	2260
470	2410	32	129	36	1610
111	2382	33	130	35	1620
24	2360	34	144	34	1150
52	2353	35	179	31	2250
102	2272	36	169	33	2110
436	2060	37	108	38=	1350
313	2048	38	124	37	1560
355	1673	39	108	38=	1350
282	1442	40	84	40	1070

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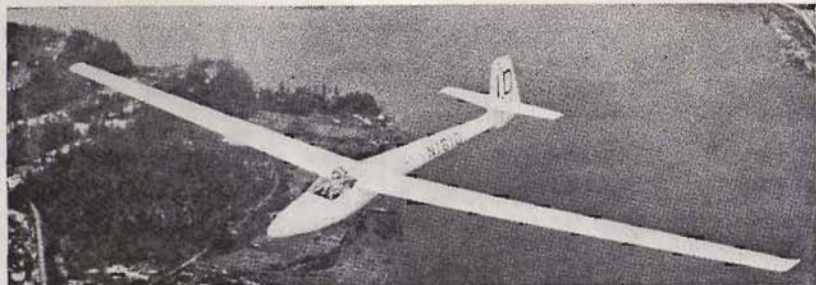
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FINAL RESULTS. Sport-Standoff Class

Pos.	Pilot	H'Cop. % Sailplane	Day 1 1000	Day 2 1000	Day 3 1000	Day 4 1000	Day 5 1000	Day 6 1000	Day 7 230	Day 8 1000	Total Points	Srd., Class Order
1	Williamson, J. S.	88 Libelle	998(2)	955(3)	671(10)	1000(1)	1000(1)	1000(1)	60(17)	1000(1)	6684	1(6809)
2	Garrad, M. P.	86 ASW-15	599(11)	925(5-)	614(16)	851(7)	845(7)	869(6)	146(4)	966(2)	5815	2(6219)
3	Goldsbrough, J. B.	90 Dart 17R	955(4)	925(5-)	597(18-)	878(6)	592(22-)	989(3)	139(5)	591(8)	5666	
4	Wallier, R. S.	96 K-6E	575(13)	1000(1)	914(3)	782(10)	766(13)	838(8)	73(16)	605(7)	5553	3(5047)
5	Zatov, D. V.	96 K-6E	629(10)	596(12)	881(5)	765(13)	789(9-)	754(14)	114(8-)	826(3)	5356	5(4755)
6	White, S. A.	96 K-6E	983(3)	992(2)	596(21-)	925(5)	792(8)	217(39)	230(1)	426(16)	5161	4(4811)
7	Whitall, C. L.	90 Dart 17R	1000(1)	500(14-)	543(26)	965(2)	630(18)	750(15)	75(14)	464(15)	4927	
8	Strachan, I. W.	96 K-6E	512(18)	723(11)	1000(1)	510(22)	789(9-)	891(5)	157(3)	31(39)	4613	7(4338)
9	Hale, R. J.	100 Skylark 3	777(5)	421(17)	689(8)	773(12)	908(2)	251(36)	98(11)	694(4)	4611	
10	Dabson, B. F.	96 K-6E	493(19)	489(16)	755(6-)	591(15)	774(12)	837(9)	130(6)	415(18)	4484	9(4008)
11	Kahn, W. A. H.	90 Dart 17R	681(7)	940(4)	532(29)	804(9)	899(3)	289(32-)	0(-)	292(25)	4439	
12	Atkinson, G. B.	98 Skylark 4	731(6)	909(8)	641(13)	588(16)	643(16)	363(26)	175(2)	270(27)	4320	
13	Deane-Drummond, A. J.	88 LS-1C	234(32)	913(7)	541(27)	849(8)	789(9-)	302(31)	122(7)	509(10)	4259	6(4559)
14	Watson, A. J.	96 K-6E	275(26-)	150(35)	474(35)	948(3)	605(20)	996(2)	82(12)	619(5)	4149	10(3911)
15	Knipe, F. H.	96 K-6E	231(33)	542(13)	910(4)	411(27)	761(14)	583(18)	13(30)	618(6)	4069	11(3735)
16	Bridson, D. S.	96 K-6E	594(12)	221(33)	509(33)	534(19)	893(4)	784(12)	114(8-)	368(20)	4017	13(3447)
17	Wheeler, J. H.	96 K-6E	661(8)	322(27-)	520(31)	620(14)	639(17)	382(24)	99(10)	532(9)	3775	12(3472)
18	Glossop, J. D. J.	86 ASW-15	228(34)	808(10)	592(23)	471(23)	562(26-)	858(7)	69(16)	155(31)	3743	8(4233)
19	Harrison, K. A.	100 M-1005	523(16)	378(20)	603(17)	186(34)	860(6)	648(16)	26(27)	501(11)	3725	15(3122)
20	Newall, R. W. B.	96 K-6E	515(17)	310(29)	596(21-)	436(26)	590(4-)	827(10)	0(-)	351(22)	3625	14(3235)
21	Livesey, M. H.	100 Skylark 3F	272(30)	372(21-)	554(24)	929(4)	598(21)	368(25)	38(23)	319(23)	3450	
22	Morrison, S. A. J.	96 K-6E	525(15)	78(39)	668(11)	774(11)	867(5)	274(34)	40(21)	101(33)	3327	16(3014)
23	Lilburn D. W.	96 K-6E	403(21)	907(9)	659(12)	557(18)	67(39)	212(40)	23(29)	485(13)	3314	17(2907)
24	Simpson, C. R.	90 Dart 17R	366(23)	386(19)	597(18-)	312(30)	592(22-)	775(13)	78(13)	163(30)	3269	
24=	Sandford, R. A.	90 Dart 17R	456(20)	294(30)	597(18-)	579(17)	559(28)	310(30)	0(-)	474(14)	3269	
26	Stanley, J. H.	98 Skylark 4	369(22)	362(23)	942(2)	454(24)	497(31)	400(23)	52(18)	106(32)	3182	
27	Barnes, L.	96 K-6E	573(14)	155(34)	512(32)	858(21)	55(40)	903(4)	48(19)	416(17)	3173	19(2664)
28	Kelly, B. T.	96 K-6E	226(35)	229(32)	617(15)	530(20)	78(38)	813(11)	27(26)	372(19)	2892	20(2472)
29	Smith, Angela	96 K-6E	275(26-)	352(24)	629(14)	341(29)	568(25)	464(20)	6(31)	84(34)	2719	18(2692)
30	Gaunt, T. R. F.	100 K-6CR	268(31)	372(21-)	545(25)	192(33)	562(26-)	610(17)	29(25)	50(36-)	2628	22(2344)
31	Evans, J. A.	96 Oly. 419	185(39)	334(25)	755(6-)	362(28)	310(34)	355(27)	3(32)	210(29)	2514	
32	Morison, S. M.	90 Dart 17R	120(40)	500(14-)	441(36)	102(40)	486(32)	228(37)	39(22)	494(12)	2410	
33	Seth-Smith, M. P.	96 K-6E	215(37)	411(18)	533(28)	266(31-)	469(33)	258(35)	0(-)	230(28)	2382	21(2382)
34	Spottiswood, J. D.	90 Dart 17R	326(24)	119(36)	492(34)	162(37)	547(29)	353(28)	0(-)	361(21)	2360	
35	Williams, P. W.	100 Skylark 3	217(36)	81(38)	667(19)	168(36)	648(15)	465(19)	47(20)	50(36-)	2353	
36	Cousins, R.	90 Dart 17R	655(9)	322(27-)	223(39)	266(31-)	166(35)	350(29)	0(-)	290(26)	2272	
37	Foy, F. W.	90 Dart 17R	275(26-)	333(26)	434(38)	155(38)	615(19)	224(38)	24(28)	50(36-)	2110	
38	Howitt, H. V.	96 K-6E	197(38)	291(31)	521(30)	437(25)	88(36-)	418(22)	34(24)	62(35)	2048	23(1920)
39	McLuckie, R.	100 K-6CR	322(25)	93(37)	DNF DNF	136(39)	540(30)	289(32-)	0(-)	293(24)	1673	24(1550)
40	Keogh, B.	96 K-6E	275(26-)	0(40)	440(37)	170(35)	88(36-)	452(21)	0(-)	17(40)	1442	25(1408)

DNF = Did not fly. 0 = Did not score. - = No daily placing. = Equal.

A NEW ROLLASON CONDOR AIRCRAFT TUG

By DEREK PIGGOTT

THROUGH the kindness of Norman Jones, of Rollasons' and Tiger Club fame, some tests have just been completed on the latest version of the Rollason Condor fitted with the Rolls Royce Continental engine of 130 h.p.

The extra power from the new engine has transformed the Condor, giving it an outstanding take-off and climb performance and making it a very handy towing aircraft. Gliding Clubs looking for a new tug aircraft would do well to see the Condor in action, as it is quite capable of towing any two-seater glider.

The standard, lower powered, model is in use in a large number of flying clubs as a basic trainer, and the latest version includes all the refinements and improvements resulting from intensive club use over the past three or four years. It should, therefore, be free from minor snags often associated with a new type. Apart from the wing tip end plates at first sight it appears to be just another Condor. In the cockpit, the layout has been cleaned up and the handbrake resited and improved.

With the glider in the normal tow position the tug pilot can clearly see the glider without the need for a mirror. The view all round is good except for directly over the nose in the full climb attitude. It is thus necessary to turn occasionally during the climb to check for other aircraft or gliders ahead.

Even in a prolonged climb the engine temperatures kept well within limits. This is most important because on towing operations the engine gets the worst possible treatment. First it is running at full power, at low speed, and somewhere near the upper limits for cylinder head temperatures for the climb; then suddenly the engine is throttled well back and the aircraft descends steeply. This causes rapid cooling and often distortion or even cracked cylinder heads.

On the Condor the cowlings lend itself to the possibility of a shutter to restrict the cooling during the descent. This would be an attractive modification for

any towing aircraft and is now being investigated by Rollason engineers.

A push-button self starter saves tedious propeller swinging, and makes it practical to stop the engine between launches if there are delays at the glider end.

The Condor is a simple machine to fly, with no problems or vices. There is very little tendency to swing on take off (or landing) and the acceleration is very rapid even with a two-seater on tow. After leaving the ground the nose has to be raised surprisingly high to keep down to 65 knots (IAS) and it is immediately obvious that the rate of climb is good. Towing a Skylark 4 took exactly three and a half minutes to reach 2,000 ft. from a standing start. With the K-13 with two pilots (total cockpit load of 390 lb.) and stable conditions the time was 3½ minutes.

The particular Condor tested was not fitted with flaps, but the latest version is and the flap will be useful for increasing the rate of descent and shortening the landing. In practice the turn round time is as good as most standard tugs and the lack of flap no real embarrassment on an airfield site.

Apart from towing, the new Condor is exhilarating to fly as a two-seater trainer and sensational for solo flying. The climb solo is almost similar to a winch launch and I measured it from releasing the brakes to over 1,000 ft. on one minute climbing at 70 knots. This makes it fun to fly and I enjoyed every minute.

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GOLD IN THOSE DEESIDE HILLS

By RAY STAFFORD ALLEN

SOME time ago I heard stories about a wave in the Aberdeen area, and last November I had to go up there to see some Inspectors. I stayed in Aberdeen for four days, and every day there were lines of wave clouds in the sky. This set me thinking, and I decided that when the opportunity offered I would take a glider up there to see what I could do in the way of getting my Gold height. I had tried this at Portmoak three times and on each occasion the wave had not appeared for me, so this had given me a slightly suspicious mind where waves are concerned.

When, this spring, I found that I had to make another trip up north, I began to make plans. I discovered that a friend of mine, Lynn Brown, who holds a Silver C and is also interested in getting her Gold height was going up to Scotland with her parents. They had fixed up to go and catch salmon on the Dee quite close to the Deeside Club's site at Aboyne, so we decided to take my Capstan up there and investigate this wave story.

Site familiarisation

The end of April saw the Capstan up at Aboyne and raring to go. The first day that we flew there was calm, and though we had several tows from the Club Auster there was no lift at all, but it did give us an opportunity to get well acquainted with the area around the site. The site itself is simply an 800 yard strip, 40 yards wide and there is a hangar on the field. The club has only been on this site for about a year, and in this short time they have done wonders. The strip had to be cleared of bushes and levelled, quite a formidable job.

Our first day there was Thursday, 30th April, and on Friday the weather was unkind and we could not fly. Saturday was a club flying day and lift was absent again. The real day was Sunday, 3rd May, when the wind was south-westerly but blowing at only some 5 to 10 knots. The first tow failed to find anything much in the way of lift and we landed back after about half-an-hour in the air.

About lunch time however, John Milne said that there was a wave working to the northwest of the Club site, over the two Lochs, for the benefit of those who are familiar with the site.

By this time there was a lot of cloud about, and it seemed to be arranging itself in lines across the wind which was encouraging. Our tug pilot towed us upwind, and for some considerable time on the tow we were steadily sinking as we passed under one of these lines of cloud. Emerging into the clear air upwind of this line of cloud, we ran into good lift and I released at about 2,000 ft. above site. Clearly there was wave lift around, but beating up and down the upwind face of the cloud line did not produce anything really spectacular.

Wave ahoy

I could then see that there was a lovely wave cloud about a mile downwind and a short confab with Lynn in the other seat decided us to go and try this. The down wind dash lost us much less height than I had expected, and as we approached the wave cloud, we ran into the proper stuff. The vario rose to 3 then 4 knots and finally to about 6 to 7 knots. Then I noticed the other Capstan (the ex BGA Coach Capstan which now belongs to Alan Middleton) sitting what appeared to be miles above us. The air was characteristically dead smooth and we rose steadily up through the gap between the lines of cloud out into the crystal clear air above.

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Wave at Aboyne

*Photo:
Ray Stafford-
Allen*

Up to 13,000 ft.

All the way up, above the cloud line, there were layers of lenticulars marking the position of the wave, so station keeping was quite simple. I had expected that it would become very cold, but at no time did this happen. The Capstan has a lovely big canopy and the sun was brilliantly hot, so much in fact that even at the top of climb I found the air outside the cockpit was surprisingly warm. Putting a hand out through the DV panel, I would have guessed that the temperature was scarcely down to freezing point.

Another thing which struck me very forcibly was that I had heard stories of having to increase speed to keep station in the wave, but this wave was of different stuff. To my surprise I found that I could fly as slowly as though I was hill soaring, and far from having to head out into the wind and increase speed, I was flying more or less parallel to the cloud line.

We rose to a maximum of 13,000 ft. above the club site and not having any oxygen equipment aboard we felt this was high enough. We had both been comparing notes as to whether we were feeling any effects of lack of oxygen, and of course it is only too easy to imagine that one is feeling symptoms. I did notice that I was breathing more rapidly than I normally do but otherwise I noted no ill effects. Any movements in the cock-

pit, reaching for instruments etc., do seem to produce a certain amount of breathlessness for a few moments.

At the top of our climb we still had some 3 to 4 knots of climb and I have often wondered since how far this wave would have taken us if we had had oxygen. Lynn felt that she was experiencing some tightness of the chest, so we decided to go down. Going forward into the down part of the wave took us rapidly to the 8,000—9,000 ft. mark, and there we stayed for some time, making two more short climbs to the 12,000 ft. region. The Club has a base radio and I had been talking to them all the time, whilst at the top I had a short chat with Hugh Watkin soaring at 4,500 ft. in Northern Ireland!

Back for barograph

The object of the exercise being my Gold height was obviously "on". So the next step was to dive to the floor, eject poor Lynn, fit the ballast bar, get the barograph signed and sealed and relaunch. This time the tug towed me straight to the wave we had been using and left me in it at 2,400 ft. I was not actually in the front of the line of cloud and I rose rapidly into the cloud. Since there are mountains up to 3,000 ft. around this part I did not feel happy for a few moments, but I steered a compass course in cloud to where I knew the gap was. I resolved that if I

did not find clear air in three minutes I would open the brakes and dive out of the cloud to find my bearings. The cloud got noticeably lighter as I flew forward and very soon I came out of the upwind side of the cloud line into strong lift. The Capstan, flown solo, is a lovely fluffy sort of glider and one can stooge along in comparative silence at 32 knots or even down to an indicated 30 knots. In this state I rose steadily again, though there was one point at 11,600 ft. where I had a panic that I was not going to get the necessary height. I think that I flew too far back, as the glider stopped rising and started to sink down to 11,300 ft., after flying forward she began to rise again, though not as fast as before, but gradually at a smooth 2 knots to 13,700 ft. At this point I knew that I had a clear 1,000 ft. over the required climb, so I decided to call it a day. I was right out of sight of the club site itself, but I blessed the opportunity that I had had on Thursday to get familiar with the district. I was right above the two Lochs

which are such a good landmark some three miles to the NW of the club, and these Lochs were clearly visible through the gap in the cloud lines. The return to earth was quite uneventful, but as you might imagine the champagne flowed later that evening.

The conditions at this site seem to be about the best, from the wave point of view of any in the UK. John Milne tells me that the club has a rule that nobody is allowed to go above 5,000 ft. until he has his Bronze C. This rule, which sounds incredible, has been found necessary since on several occasions pupils with about two solo flights have risen to heights of eight to nine thousand feet.

I am now seriously beginning to think about oxygen installations for the Capstan's next trip up North, but I could not close this account of a most memorable trip without saying thank you to the chaps who made it possible, in particular to Innes Lovie, Alan Middleton and John Milne and all the other club members who helped us in every way.

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FIRST GERMAN MOTOR GLIDER CHAMPIONSHIPS

Burg Feuerstein June 6-14 1970

Fuller



By Peter Ross

This account of the contest for motor-gliders, held in West Germany in June, will give food for thought as to the desirability of a similar event being held in this country, and the possible framework of conditions and rules.

A gliding contest with no de-rigging, no retrieving, and where all competitors complete every task, sounds like an organisers' and competitors' dream come true. With every day a competition day, and all competitors in one class both arriving and departing by air, this was a gliding contest with a difference.

The rules in the unofficial motor glider meeting in 1969, at Leutkirch near Lake Constance, were straightforward. Tasks were set and the winner was the pilot who had used the least engine time. If more than one competitor had used no engine at all, then speed decided the placing.

The advantage of these simple rules was that the winner could not be in dispute, but there was much argument about the relative merit of speed versus use of engine. If one pilot had flown a 100 km. triangle in 90 minutes using six minutes of engine was it fair to say he had done worse than another who had taken 4½ hours but had recorded only five minutes of engine?

This year the rules were strictly in accordance with those for German gliding championships. Barographs with engine-on recorders were mandatory, parachutes had to be worn and photographic evidence was required for TP's. Every pilot who finished scored 1,000 points, less one for each minute by which his time (Tpil) was slower than the fastest time (Tbest), and less a further ten

points for every minute of engine time (Tm).

FORMULA—

$$\text{Daily Points} = 1,000 - (\text{Tpil} - \text{Tbest}) - 10 \times \text{Tm}.$$

EXAMPLE—

if Tbest is 90 mins. and time taken (Tpil) is 170 mins. and engine time (Tm) is 12 mins., then

$$\text{Daily Points} = 1,000 - (170 - 90) - 10 \times 12 = 800.$$

Under this system no pilot can score 1,000 points unless he is both fastest and has used no engine. No points are awarded if a pilot fails to complete the course or makes an out-landing.

This year the venue was Burg Feuerstein, and the period June 6th to June 14th. The Burg itself is a Catholic youth centre in a modern schloss perched on top of a hill in the picturesque Fränkischer Schweiz, and is about 5 km. from the aerodrome of Ebermannstadt. All competitors stayed in the schloss for a remarkably cheap all-in rate.

By Saturday evening Brenig James my co-pilot and I had flown a practice triangle, and with one minute of engine time giving our Falke about 300 ft. of height our best tactic looked to be a worthwhile scratching in pretty weak lift to avoid using the engine. By this time, too, other competitors had arrived, 11 two-seaters and 15 single-seaters, and were all tethered out in the lee of a small wood.

From the Scheibe stable came two Motorfalke (Hirth 2-str. engine), seven Falke (Volkswagen), the new Bussard (SF-25D), five SF-27M single-seaters and one SFS-31 (Milan). The Bussard is in fact the 2-str. Falke, but with 1.4 m. extra span, a Wortmann wing section as on the Cirrus, a feathering propeller, and a larger wheel—Super-Cub type. An old Scheibe Motorspatz had been given a new lease of life with a Fichtel & Sachs air-cooled Wankel engine, and proved to be not unduly noisy.

From the Poppenhausen factory there were six Schleicher ASK-14 single-seaters and a beautifully converted Ka-8 with two Stihl engines fitted in the trailing edge of the wing. Sportavia provided the fuselage of the Milan already mentioned, also one RF-4 and one RF-5.

Sunday 7th June

Weather: 15 knot wind from SE. High cirrus, CB 5,000 ft.

Task (2-str.): 132 km. out-and-return to Amberg.

The first leg was straight into wind and from the regulation start height of 700 m. we descended remorselessly downwards after crossing the line. Re-starts not being allowed after crossing we had to motor, though it seemed positively indecent to be using the engine so soon. We used it in small squirts to do small climbs along the many valleys and take advantage of any hill lift. We took 3 hours 40 minutes and 28 minutes of engine. The RF-5 took only 90 minutes

and 24 minutes of engine. With our long time we were in 4th place.

Monday 8th June

To-day the revised start height was 1,000 m. giving a better chance of finding lift. Using cloud streets we made the first turning point of the triangle Bayreuth-Hersbruck without circling. Gradually the weather deteriorated until we and two other competitors were in a 'final glide' to reach the Straubsee Lake with its large dam high up above the little town of Happburg. We all arrived very low over the lake, swooped round with clicking shutters, and immediately reached for the engine starter cable.

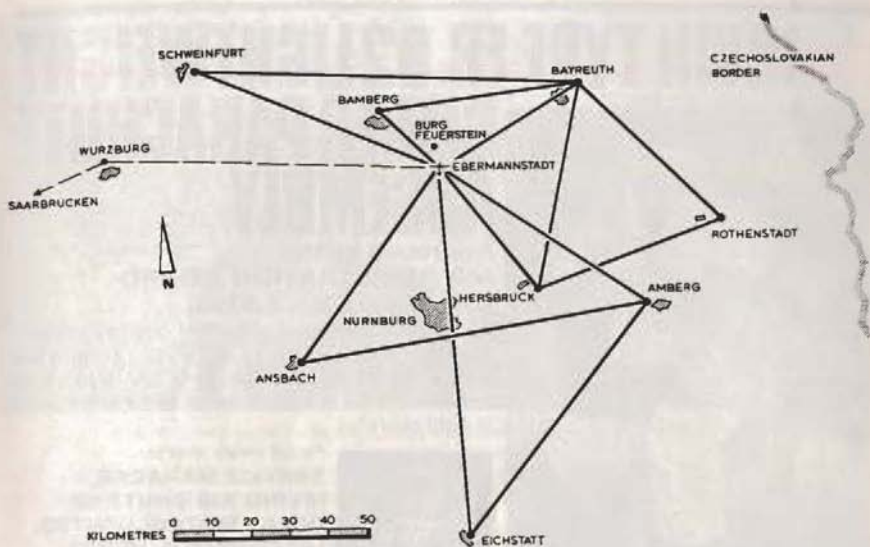
The last leg was under a dead sky, but we had the wind behind us and needed only a few bursts of engine to be able to glide over little castles on top of little hills and so reach home. As Brenning says, navigation at 500 ft. is not easy. The RF-5 had won again, using 38 minutes of engine; we were 2nd with only 31 minutes.

Tuesday 9th June

Weather: wind still SE, but light, and CB only 2,500 ft. The 2-str. task was a 115 km. triangle Bayreuth-Bamberg, but the conditions were almost unglideable, and by the time Bamberg was reached the sky was dark and gloomy. We motored back in a convoy of competitors and again the RF-5 won. We were still 2nd, but the gap was closing and the second place was being contested by Christian Gad in the new Bussard and Rudolf Pfisterer in another Falke.



The Wankel rotary engine neatly cowed-in on a Scheibe Motorspatz. There has been for some years a Motorspatz on the UK register fitted with a Hirth 4-cylinder 2-stroke engine. Photo: Peter Ross



Wednesday 10th June

A big storm during the night had brought a change in the weather pattern and wind was now 10-15 knots westerly with low cloudbase. Only 3 hours of convection were forecast, but later the weather improved considerably, cloudbase going up from 1,800 ft. to 2,200 ft. Despite the better weather we had enjoyed by starting later than others, the RF-5 was still the winner. We now realised that the formula of the rules seems to favour the 'climb-switch-off-glide' method of progress rather than our tactic of 'progress by thermals and use engine only to avoid landing'.

This day Gunter Brodersen in an SF-27M was the first in the single-seater class, indeed in the whole contest so far, to complete the task without engine, and despite losing points for an out-landing the day before he now started his steady move upwards to the overall lead.

Thursday 11th June

Wind NNW 10 knots, CB 3,000 ft. and expected to rise. 2-str. task again the 115 km. triangle Bayreuth-Bamberg. Previous experience indicating that a

late start was beneficial we let everyone depart before starting ourselves at 13.21. The first cloud worked beautifully up to 3,500 ft. base and we regretted that cloud-flying was 'verboten'. Before Bayreuth we had to use engine to get round a blue patch, but after that it was 6 knots up to cloudbase with prospect of a good run back. The sky was decaying, however, and we had to motor to finish. RF-5 first again, and in the single-seater class Brodersen again had used no engine.

Friday 12th June

This was to be the day of days, and all the 2-str. pilots were determined to get round without motor and beat the RF-5. The task was the 141 km. Bayreuth-Hershbruck triangle, and the weather forecast was wind W/NW 0-5 knots, thermals good to very good, CB 4,000 ft. to 5,000 ft. Once airborne, however, we were surprised to find conditions not so good as appeared. We waited a good hour before crossing the start line, and the bulk of competitors were well away. We made for a line of beautiful cu dead on track. None of them worked! We found ourselves slope soaring at 700 ft. Convinced that the birds were deliber-

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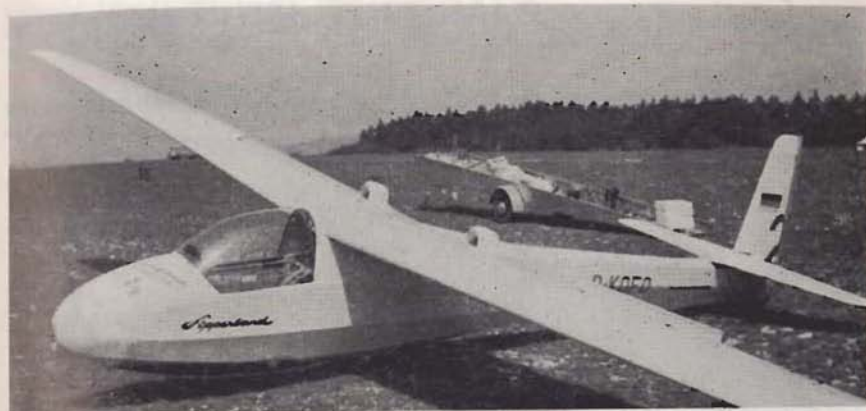
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PETER JEFFERS

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A K-8 fitted with twin 8hp Stihl engines. Photo: Peter Ross

ately circling in sink to fool us, we sadly started up the motor, and after the TP sadly motored home under clouds which would not work, a dead flat look to the sky and a long leg into a 20 knot wind ahead. Sadly, too, we saw our lowest ever placing—ninth. How very important it is to start at the right time! In the single-seater class Brodersen had used only one minute of engine.

Saturday 13th June

Weather: blue thermals and light NW wind. Task for 2-strs. 80 km. out and return to Hersbruck. This was a short task to get competitors back in time to get results out before prize-giving. We had learned our lesson and pushed off in a gaggle, safer and more fun. Although not strong the thermals were coming at regular intervals, and we reached the TP without motor. In view of the formula we discarded any thermal under 4 knots on the way back, and used only 15½ minutes of engine. We crossed the line at 200 ft., flew out into the valley to start the engine, returned and landed. Third for the day, but not high enough to retrieve third place overall which we had lost the day before.

Impressions

What struck us about the contest was the possibility of setting tasks in conditions which would have been impossible for other types of glider; also the lack of complication and expense from

the absence of towing aircraft and the lack of need to make retrieve arrangements. Families and friends sunbathed and visited local swimming pools instead of sweating in traffic jams and juggling with D-marks and pfennings over the German telephone system.

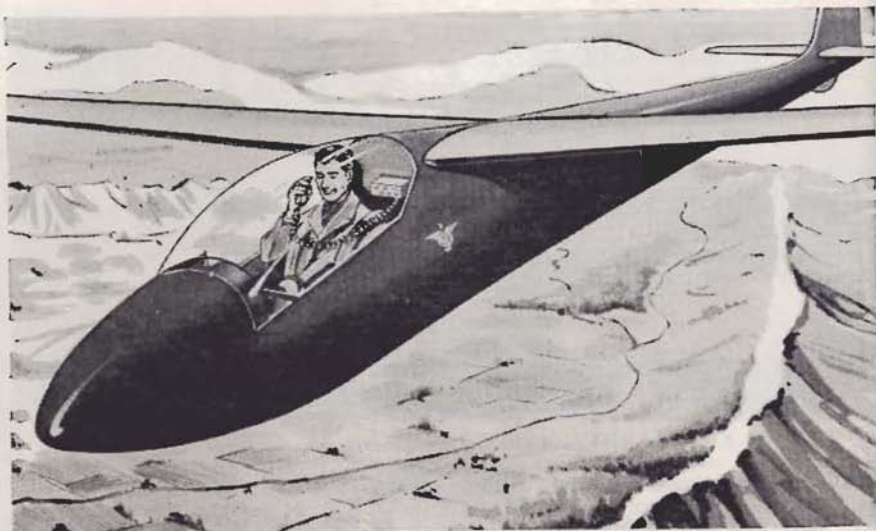
We saw a great deal of beautiful countryside, and our only real complaints are the effect on our bottoms of the 25 hours we spent sitting on the incredibly uncomfortable seats in the Falke, and the effect on our nervous systems from having to make the agonising decision whether or not to switch on—when the ground is fast approaching, but two little birds are circling in strong lift only a half-mile away!

Our thanks go to Seff Kunz and several others for the idea, the organisation and our invitation to compete. Thanks also to Egon Scheibe for producing such a remarkable aircraft—but by next year we hope he will have designed a new seat!

LEADING RESULTS

Single Seaters		Pts.
1	Günter Brodersen SF-27M	5335
2	Rudolf Erhardt ASK-14	4883
3	Werner Neugebauer ASK-14	4680
4	Ernst Gunter Haase ASK-14	4455
5	Manfred Schliewa SFS-31 Milan	4215

Two Seaters		Pts.
1	Pater Hugo Jännichen RF-5	5357
2	Rudolf Pfisterer SF-25B Falke	4913
3	Christian Gad SF-25D Bussard	4730
4	Peter Ross SF-25B Falke	4599
5	Adolf Rietz SF-25B Falke	4053



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AGRICULTURAL THERMALS

By WILFRED HARPER

THERE is little market for the mutilated straw left by combine harvesters, so that during August and September farmers burn it in the field. On a dry light-wind day it's usual to be able to see at least one pall of purple-brown smoke in good corn country. Many pilots have picked up handsome lift from straw fires and, while I have but limited experience, I think it's worth setting down a few thoughts to provoke comment from those who have more.

An average 20-acre field takes in the order of 20 minutes to burn if the straw is dry and there is a little wind. It is lit along one side or in one corner, and the flame front advances in a line at about slow crawling pace. If there has been rain, the burning is very much slower and may take hours and the colour and intensity of the smoke is a fair guide to the strength of the lift.

The strong lift area is fairly narrow, perhaps almost linear close to the ground and parallel with the flame front. The strength of the lift can be well above 10 knots if the fire is a good one, and the sink can also be very strong; there is a sharp division like a precipice between lift and sink. The air travelling down to replace the smokey rising air can produce 20 knots or more shear, which means severe turbulence but, like all lift, its strength depends on the lapse rate. This can be effective for several thousand feet, the top often being marked by a mushroom of cloud.

It has been suggested that the lift is periodic or pulsating; this may be so, but I have not noticed it.

So, if you see a fire and wish to exploit it, consider:—

Has it been dry over the previous few days? Take note of the colour and density of the smoke.

How far away is it? If it is a few miles away, and has been burning for some minutes before you reckon it's worth using, travel there quickly. As you approach, take a good look at the front. If the flames are several feet high, you will soon regain the height which you've traded for speed. If the flames are furtive and puny, you have some hard work ahead, so pull back to best glide angle.

How high does it go? How are you approaching? It is probably a good idea to fly obliquely over the flame front, so as to get bearings on the best lift. Having located it, it is probably best to fly up and down in it if you are near the ground, rather than round and round as in a thermal.

Be prepared to cough and splutter and to have your eyes running, and strap yourself and every other loose thing down.

Before you dive into the smoke, take a good look at the fields around. If adjacent fields are also unburnt straw, it's likely that they too will be fired. The lift from them could come in handy to return to if you fly away and find no more.

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HOME AND DRY

By JOHN WILLIAMSON

DUNSTABLE again! Another year, another hot, dusty week in June. We even parked the caravan on the same spot on the side of the hill, and wondered as last year which Navy tent we would demolish if the chocks gave way. But for me this year there was a big difference—Libelle!

We didn't really notice the wooden Libelle when she came to South Cerney in 1965, to take a lowly place in the Open Class of the World Championships. By 1968, in fibreglass now, she had really arrived and I knew, watching Pelle Persson and Henri Stouffs whisking upwards like thistledown in the Polish skies and flashing away afterwards like glints of sunlight, that Libelle was for me if ever I got the chance.

Slingsby's deal with Glasfugel gave the chance, Demonstrator available, the advert said. I wrote, asking for the chance to demonstrate it. Agreed. Collected it in mid-May; 15 hours practice at Bicester the week before; at last the moment came.

Geoffrey Stephenson—a little diffident, always thoughtful and serious—gave us an easy one to start with. 144 km, to Ramsey and back. John Hands—suffering (what a funny time to celebrate, the night *before* it all started!)—gave us our marching orders. Tom Bradbury, Gold badge agleam, told us about the weather, and away we went.

So started eight days of well-mixed flying, served up at such a pace that it is difficult now to remember which story belongs to which day. My success on that first day, in starting rather late but leading the field home, in an exciting final glide over the north east hill and down onto the finish line, was a carbon copy of the first day last year. Uncomfortably so—last year I finished 15th!

Each pilot has his own idea of the perfect moment. I must confess mine is in completing a well-judged final glide, burning off the spare three or four hundred feet in the last couple of miles, using every last ounce of energy to fling one across the line.

After handicapping I lost the first day to Carr Withall, who always flies so well

from his home site. Steve White, a Booker man new to the Nationals scene, also flew a splendid race and might easily have won the day. I had slowly caught up with him in his Ka 68 until we shared the last thermal ten miles out. He took that one into cloud, wanting to make sure of his final glide. I went on at cloud base and, finding a small street, got in six minutes ahead of Steve. This is the sort of tactical decision which has to be made frequently, the sort of decision in which experience helps. Rarely is it worthwhile taking to the clouds on a good racing day unless there are several thousand feet to be had at a rate of climb double that generally available.

Next day Geoff gave us a 144 km. triangle, and Tom *just* managed to give us enough weather. Only ten got round and after again leading the field in, I conceded the day's honours to Stuart Waller of Nympsfield, and to Steve White, who now held the overall lead.

Monday felt good but wasn't, and Tuesday felt even better but got muddled up half way through. Sent off to fly the longest race yet set in a British Nationals, a 340 km. triangle, we had little

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trouble until half way up the second leg, between Cirencester and Melton Mowbray. A col had developed and was trapping the Midland smog and all the cumulus started to spread out. With visibility cut to less than a mile near Rugby we groped our way north-eastwards, each climb seemingly the last. Near Melton the murk eased a little and a last thermal took me to 3,000ft. Then a "not-quite" glide towards the regular orange and white thermals emanating from the great Corby steel works. Somewhat despondent we trailed home, to find the ever-patient Robin Harper calculating that I was now in the overall lead! That day belonged to Stuart Waller and to Ian Strachan, the only ones to fly home. Stuart would have won but, alas, his photography didn't match his pilotage and he was penalised.

The weather picked up again for the fourth day, and Geoff sent us round a 200 km. triangle via Chipping Norton's tweed factory chimney—a charming Victorian relic deep in the Cotswold wool country—and an invisible railway bridge at Kettering. I can't remember anything about that day, but the barograph tells me I never got below 2,500 ft. AGL; flew through 58 thermals of which only 20 were accepted, and never climbed more than 1,000 ft. in any of them.

On the fifth day we were treated to a Grand Balloon Race. At least it felt like that as we whizzed away on the 35 knot wind to the Long Mynd, 176 km. away. The thermals were rough and strong and the race a great success. In spite of the now-unfashionable retrieve situation no one was grumbling about getting the chance to fly on such a day. Arrivals at the Mynd were tricky. The wind would quickly whisk the unwary over the West face and into a wicked curl-over. There were one or two heart stoppers but no harm done. My time was 1 hour 31 minutes, at 115 km/h. At such speed, every second must count and the essential ingredients that day were a perfect start, precise map reading, especially in the confusing country around Red-ditch, and a good final glide.

So to day six, and the cross-wind out-and-return race proved to be quite hard work. Alternate turning points were given, to be selected by the pilot according to his tactical position at the time. The strategy was to aim for the upwind

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one—Melton Mowbray. If one had to scrape one would at worst drift back to the alternate goal. If already committed to the down-wind track a scrape could leave one badly placed.

The forecast was right for the Dunstable area but a moist tongue of air came off the North Sea at the Wash and placed its clammy hand right across the track. Rather surprisingly I continued to find fair thermals in the most unpromising bits of sky, by concentrating on the developing wisps at cloud base. One good thermal near the turn point came at 800 ft. AGL after a paralysing few seconds in off-the-clock sink. Another pilot reported breaking off his approach when he was attacked by a 10 knot thermal and carried back to 5,000 ft. just outside Kettering. It was that sort of day. Obviously trying but a bit thwarted.

Next day was miserable. An 8 knot thermal off Dunstable had a whole gaggle of us roaring off downwind to turn at the Bicester chimneys—where we all nearly landed! Struggling in weak lift, deluded time after time by clouds with no substance to them, we made our rather wearisome way towards Pitsford reservoir, by Northampton. I landed outside that town, having quartered it from 1,500 ft., trying railway sheds, gas works and generating station and the market square all to no avail. The day was rather harshly devalued to only 230 points for the winner, Steve White, because the qualifying distance 'Y' was set too high for the conditions we got. In the whole week this was the one small flaw in an otherwise perfect combination of forecasting and task setting.

By take-off time on the last day I was thoroughly twitched up, dreading the possibility of losing the 600 point lead I had by now accumulated. I needn't have worried. Determined at all costs to go carefully, Libelle and I nevertheless got to the Sywell turning point in only 40 minutes. Soon afterwards I picked up my last thermal of the Championships. At 8 knots it took me to the 5,000 ft. cloudbase. At better than 10 we went on to 8,000 ft., audio screaming and calculator running out of advice as to just how fast I could afford to fly the 23 miles home! Skirting the airway as far as Cranfield we were able to go at 90 knots, pushing it up to 110 for the last few miles. Libelle and I were home and dry!

AVIATION ART SOCIETY

OUR Summer Exhibition of some ninety works opened at the Biggin Hill Air Fair and was then moved on to the World Aerobatic Championships at Hullavington. Gliding as a subject is this time noticeable by its absence, except for one work by Margaret Kahn, a study of a Cirrus over Portmoak, which surely must be one of the best this very able artist has painted.

The Annual Exhibition and competition are scheduled for November at the Kronfeld Club. Any enquiries should be addressed to Mrs. Bonham at 11 Great Spilmans, S.E.22. Tel. 01-693 3033.

THE LONG MYND ON MAY 2nd

By RHODA PARTRIDGE

"EIGHT-EIGHTS" said the Met. man on Friday evening. "Drizzle on South and West facing hills, wind SSW moderate". Oh well, I'd better stay home and work in the pottery. I need the money, heaven knows.

Saturday morning I'm up to my elbows in clay and thinking sternly about money when Dennis Dawson phones. Dennis is a man of impeccable patience and good humour who also flies my Broomstick ("the most beautiful K-6E the Schleicher works ever turned out".) He's going up to the Mynd this weekend. Will I be there? Now, I don't know about you, but one conversation I really hate is the one that starts off "Pity you weren't here last weekend . . ." So I phone the club to find out what the day looks like. "Good" says Ernie Ainscough, our CFI "Westerly around 20 knots, complete cloud cover now but signs of wave and I think it will soon break up". Half finished pots wrapped in polythene sheeting, snatch up sleeping bag, warm clobber, cash, map and off (family all away). By Newton I could see it. Neat stripes of cloud across the wind.

I arrived at the Mynd about 14.00

hours and the atmosphere was remarkable. You could tell at a glance who had and who hadn't flown. Either a far away cat-that-has-swallowed-the-canary look or else clients for the head shrinkers couch. Ernie had gone up through the first gap in the clouds at around 11.00 hours and there had been a number of wave flights since, to between 3,800 and 8,000 ft. above site. The most interesting gliders were a Skylark 4 piloted by Mike Horan (one of our best wave pilots) and a 15m. Dart piloted by Ken Rylands (very experienced and competent). They had gone off pair flying in radio contact pushing up wind into Wales. From time to time we heard of them. Strong lift over Newton. Down to 6,500 ft. over Lake Vyrnwy. Stephen Wills came down at about 16.30 hours. He had gone one wave back and had got 12,000 ft. over Church Stretton. At last Broomstick came down and I was bungied off after 17.00 hours.

This is not a blow by blow description of an epic climb but it was the sort of flight that many of us got that day. It was the most amiable and good natured wave. It picked me up straight off the

bungy point. No messing about in hill lift trying to contact. It collected me, smooth and strong and whistled me up at between four and six knots (for about two blissful minutes at eight knots) while the altimeter needle scurried round the dial and I flew at minimum sink, grinning like a Cheshire cat. It was obviously determined to take me to 20,000 ft. and the oxygen was turned on and I was willing and eager. At 5,000 ft. it suddenly got sick of me. I hunted about a bit and then went back and tried the Church Stretton wave. I got to 7,000 ft. (above site) and that is all I did get. If I'd not already got Gold height I might have worked harder, if I'd stayed over Stretton and waited . . . If, If, If! But never mind, it was visually a knock out and it's not every day you find a great lurking wave lying in wait for you at the bungy point.

When I landed I heard about the epic flights. Ken Rylands got to 16,800 ft. and broke off because he had no oxygen. If his altimeter and barograph are accurate he may have scraped a Diamond. I do hope so. Mike Horan had oxygen and he climbed inside a lenticular west of Lake Vyrnwy, canopy completely iced up and ice crystals drifting in onto his lap. He reached 22,800 ASL. Height gain 20,900 ft. He landed back at the Mynd (as did Ken) after five and a half hours. He already had his height Diamond with a flight from the Mynd last year but this is a new site record. It was a flight that demanded skill and courage of a high order, (you won't catch me fifty miles from the Mynd over the Welsh mountains with my canopy iced up. Just to think of it makes me feel uneasy).

Jancis Scarborough had a flight which pleased every one. Her training had been interrupted by a long beastly illness and she had recently gone back onto the Swallow. The previous weekend she had completed her Bronze C, which qualified her to fly the Olympia 2b in which she and her husband had just bought a share. So May 2nd was her first flight in this enchanting glider. She worked away with patience and cunning and after three and a half hours she was as high as she reckoned she could get 8,500 ft. above site. The other syndicate members all had their height gains, so she did her five hours as well! To see her after the flight was a pleasure. Weary but all flushed and sparkle-eyed with the joy of it. John Crebbin and John Tolley (both flying the Swallow) also got their Silver C height.

But the day wasn't about badges. I know it sounds corny, but it was about delight. So much delight for so many people. Astonished ab intios kept popping up from between the clouds in the K-13. Blissful Swallow pilots, liberated from the ridge or the circuit, swanned about all over the sky. Pilots who had never been above cloud before were lifted smoothly up and there it all was, laid out below them under a clear blue sky. I'm sure that, like me people must have drifted off to sleep that night with a kaleidoscope of pictures passing through their minds. The brilliant clouds, the gaps between them showing the early spring countryside. The scurrying altimeter needle, other gliders sparkling against the clouds, motionless, like fish in a current.

Pity you weren't at the Mynd on 2nd May.

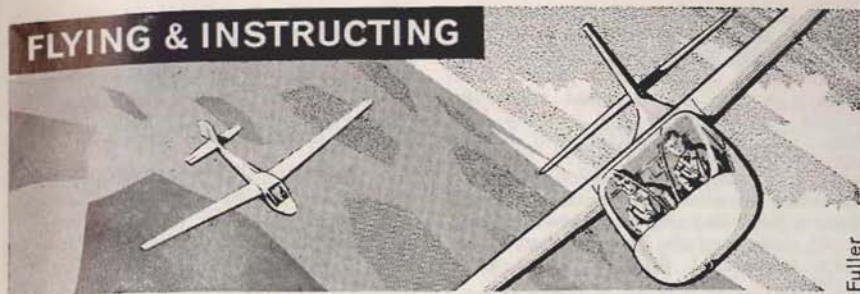
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THE MID-AIR collision problem seems to have caught up with us at last. It is therefore timely that this excellent article by Ann Welch, my predecessor, should appear. She writes mainly about collision avoidance in clear air, but there is, of course, another way of having a mid-air collision, and that is to blunder about in cloud without ascertaining the whereabouts of other gliders. If you fly at a busy club, and you want to fly in cloud, make absolutely certain that, to the best of your knowledge, no one else is using it. Local club rules concerning the use of radio and standard altimeter setting are very useful here.

Finally, I would add one more warning, and that is to the clubs operating very few aircraft. Just because you are the only glider in the air, and you know this because all the others are on the ground, doesn't mean that you should relax your lookout in any way whatsoever. It would be quite unnecessary to have a collision with a light aircraft that had chosen to visit you or was doing a forced landing.

R. NEAVES, *Chairman*
BGA Instructors Committee

* * *

PROBABLY the only glider pilots subject to no collision risk were Lilienthal and Pilcher, and this was only because the latter left his glider behind when he visited Germany. Everyone else is at risk every time they fly.

Collisions are available between gliders, aeroplanes, balloons, helicopters, parachutes, birds, and assorted debris from space; recently an airliner even discovered a kite lurking in its personal

path. Like any other accident, such as floors collapsing when everyone rises for the National anthem, collisions will never disappear, but their rate can be reduced.

There are two basic sorts of collision, the random clash, and the congregational confusion. The first is when you do not know of the presence of other aircraft, and the second is when you do. There will always be a random accident risk because it would be impracticable—and wrong—to try to cover the world completely with controlled airspace, and only two aircraft are needed to make a collision.

Random accidents occur because:—

The view from the aircraft is inadequate.

One of the pilots is not keeping a proper look out.

The visibility is bad; or a combination of all three.

Dealing with visibility first. We cannot yet alter the weather, but it is sensible in haze to avoid places where there is a likelihood of other aircraft, such as in the general vicinity of active airfields, along useful navigational lanes like the M1; also to work out where the dirty air downstream of towns will lie, and avoid that too. The view from most gliders is excellent, but the same cannot be said of many aeroplanes, including those used as tugs. It took car manufacturers a long time to appreciate that thick screen-pillars and narrow side and rear windows simply resulted in the efficient elimination of pedestrians.

The structural problem with aircraft is more complicated, but greater efforts ought to be made, particularly with the high wing, single engine, configuration.

But the best piece of equipment for avoiding the random collision is still the pilot himself. Keeping a good look out is not just a platitudinous phrase, it is literally a way of life, and starts—or should start—on the day a pupil first flies. The good instructor will ensure that the pilot does not merely turn his head, but really looks, searches the sky for other aircraft, gets good at seeing them a long way off, and goes on doing it. If one aircraft hits another, it is quite immaterial that the turns were faultless.

The second way of colliding is the congregational confusion. It is broadly subdivided into three groups:—

Where a pilot knows of the location of the other aircraft; e.g. formation flying.

Where a pilot knows that other aircraft will be close, but there is no pre-arranged pattern—thermallings.

Where a pilot knows that there will be other aircraft, but separation is ensured by ATC; outside the scope of this article.

Formation collisions are invariably between aeroplanes, and are caused by poor briefing, mechanical failure, or one of the pilots just getting it wrong. They occur infrequently, but into this category should come the collision with the ground, probably through spinning of one of the aircraft when trying to avoid an in-flight collision, possible by being “squeezed” by the leader.

Thermalling accidents are invariably between gliders, and they now occur frequently enough to be classed as an occupational hazard. There is a lot of thermalling done in the world, so some increase in the number of collisions can be expected, but there are factors which also increase the chance. One of these is the closeness with which gliders fly to each other in top competitions. The competence of the pilotage is not in question, but it only requires a sudden or unexpected action on the part of one glider to reduce the room for manoeuvre of several others to a hazardous extent. The risk in such competitions should be worse, but is ameliorated because it is obvious that a situation of potential danger exists; so everyone is on guard.

The collision risk in competitions can be reduced or increased by the Organisers. Setting an out-and-return or round-

and-round small triangle in poor visibility, starting everyone off too late, or upwind in weak conditions, siting the finish line so that abrupt manoeuvres are needed to land, and not disciplining bad or exhibitionist flying, these are all ways of increasing the chance of a big bang.

In Regionals or Junior competitions where there will be some pilots of lesser experience, there are two other risks—assuming that everyone understands the need to keep a good look out. The first is that the work load of the pilot who is trying to stay in a weak thermal, keep his eye on a landing field, get out of everyone's way, and answer silly questions from his crew over the radio, may be too high. He runs into one glider he did not see. The second risk is the pilot who knows all the answers. Until he learns, he comes charging into thermals, scattering the timid and the sensible, without realising that he is upsetting a delicately balanced situation, perhaps irretrievably.

Outside competitions, the thermalling collision risk is increased when:—

Pilots in the thermal have different aims and intentions, or a different level of experience.

Are flying gliders of widely different speeds and performance.

Are still learning to fly, and are in the thermal almost by default.

All this adds up to a basically more dangerous situation than exists in a championship thermal, but is helped to some extent by the fact that anyone who does not like what he finds can go elsewhere without losing marks. Every pilot must sooner or later learn to fly with other gliders in lift so this becomes an essential part of training, and it should be taught, and not be just vaguely picked up.

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Apart from thermalling rules, such as going the same way round as the others, the new pilot needs to learn how to join other gliders in a thermal without pushing them out, or sitting in their blind spots. How to maintain station safely with gliders of differing climb performance. How to keep track of the changing number of gliders using the thermal, and how to leave it. He also needs to learn not to get sucked unwittingly into cloud, and then come charging out into the innocent below, dive brakes at full scream.

Perhaps one of the most sure-fire ways of having a collision is to see another aircraft, and assume that its pilot:—

Knows the rules of the air and will obey them.

Will take sensible avoiding action.

Or, will just go away.

The pilot most at risk in such a situation is the new one, convinced that everyone else in the air is more experienced and more skilled than he. They may well be, but equally for the reasons given earlier, they may simply not have seen him.

Collisions are expensive, frightening and sometimes tragic; they are unwanted, disliked, and have absolutely no redeeming features; but special efforts are needed from everyone if they are to be reduced as far as is humanly possible. Instructors, particularly at clubs where the sky is fairly empty, should remember that like all birds in the nest, their pupils will fly away, so they must teach them thoroughly to search for, and see, other aircraft. For example, the shadow on the ground of your own glider is the one with the bright spot. If the shadow has no bright spot, it is somebody else.

Ultimately, of course, even in our welfare state, the pilot is on his own, solely responsible for his own skin. Never, even for a second, should you assume that the other pilot has seen you. If those distant wings, or the whites of those eyes, are on a collision course, or anywhere near it, avoiding action should be started IMMEDIATELY, and maintained until there is no further risk—while you also, of course, avoid running into yet another aircraft whose pilot is watching your antics in a state of fascinated trance.

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FINAL RESULTS OPEN CLASS

No.	Pilot	Country	Sailplane	22.6 Day 1	23.6 Day 2	24.6 Day 3	25.6 Day 4	26.6 Day 5	27.6 Day 6	1.7 Day 7	2.7 Day 8	3.7 Day 9	Total Points
1	Moffat	U.S.A.	Nimbus	566(21)	890(8)	1000(1)	1000(1)	1000(1)	966(5)	901(8)	1000(1)	1000(1)	8323
2	Grosse	W. Germ.	ASW-12	919(5)	783(15)	909(6)	936(5=)	877(5)	838(22)	934(5)	899(5)	941(6)	8036
3	Mercier	France	ASW-12	797(8)	913(7)	741(13)	936(5=)	849(8)	848(21)	940(4)	999(2)	788(23)	7811
4	Burton	G.B.	Kestrel 19	612(15)	964(4)	941(4)	941(4)	850(7)	769(27)	907(7)	800(15=)	962(3=)	7746
5	Makula	Poland	Kobra 17	1000(1)	982(2=)	555(18=)	825(26)	844(9)	947(7)	830(24)	800(15=)	904(7)	7687
6	Neubert	W. Germ.	Kestrel 22	954(3)	14(36)	995(2=)	942(3)	887(4)	1000(1)	1000(1)	928(4)	962(3=)	7682
7	DeLafield	G.B.	ASW-12	630(11)	948(6)	887(8)	909(7)	831(12)	882(17)	889(10)	800(15=)	896(8)	7672
8	Labor	France	ASW-12	924(4)	982(2=)	444(29)	845(21)	802(21)	886(15)	932(6)	848(10)	953(5)	7616
9	Scott	U.S.A.	ASW-12	596(17)	951(5)	27(30)	962(2)	942(2)	965(6)	943(3)	992(3)	974(2)	7352
10	Wirtanen	Finland	Phoebus 17	569(20)	1000(1)	640(16)	865(16)	859(6)	892(13)	825(25)	838(12)	844(15)	7332
11	Hossinger	Argentina	Cirrus	972(2)	496(26)	805(12)	843(22)	781(22=)	888(14)	837(21)	865(8)	815(21)	7302
12	Zoli	Italy	Kestrel	853(6)	382(32)	926(5)	890(10)	781(22=)	904(11)	834(22)	856(9)	782(25)	7208
13	Pelttersson	Sweden	Diamant 18	598(16)	843(13)	870(10)	851(19)	818(16)	797(25)	844(20)	735(22)	755(30)	7111
14	Ehrat	Switzld.	AN-66	768(10)	544(18)	841(11)	790(29)	804(20)	724(29)	886(11)	847(11)	881(10)	7085
15	Ax	Sweden	Phoebus 17	624(12)	347(33)	883(9)	897(9)	894(3)	872(19)	857(15=)	870(7)	827(18)	7071
16	Jinks	Australia	Diamant 18	576(19)	527(20)	995(2=)	864(17)	812(18)	752(28)	857(15=)	788(18)	877(11)	7048
17	Rizzi	Argentina	Cirrus	790(9)	444(28)	693(14)	835(24)	843(10)	900(12)	865(13)	785(19)	854(13)	7009
18	Schubert	Austria	Kestrel	266(34)	865(10)	27(30=)	880(13)	840(11)	992(2=)	977(2)	888(6)	890(9)	6625
19	de Darlodot	Belgium	ASW-12	559(22=)	505(23)	901(7)	803(28)	774(24)	882(17)	857(15=)	317(33)	833(16)	6431
20	v. Steinaforn	Holland	Diamant 18	318(31)	529(19)	540(21)	764(32)	813(17)	913(8)	854(18)	819(14)	782(25)	6332
21	Wödl	Austria	D-36 V-2	549(25)	DNC	528(23)	836(23)	809(19)	992(2=)	831(23)	837(13)	852(14)	6234
22	Vergani	Italy	Kestrel	577(18)	522(21)	644(15)	867(14)	828(13)	884(16)	892(9)	191(36)	818(20)	6223
23	Braes	Denmark	Libelle 301	559(22=)	546(17)	529(22)	904(8)	379(33)	770(26)	762(30)	727(24)	831(17)	6007
24	Münch	Brazil	HP-13M	803(7)	424(29)	489(25)	830(25)	682(28)	705(31)	778(29)	340(32)	764(28)	5815
25	Georgeson	N. Zeal.	Cirrus	620(13=)	500(24)	27(30=)	714(35)	693(26)	906(10)	822(26)	730(23)	787(24)	5799
26	Innes	Guernsey	Libelle 301	346(30)	846(12)	614(17)	701(37)	690(27)	695(32)	761(31)	389(29)	739(33)	5781
27	Evans	N. Zeal.	Cirrus	620(13=)	573(16)	0(37=)	816(27)	828(13)	911(9)	807(27)	397(28)	779(27)	5731
28	Webb	Canada	Kestrel	500(27)	850(11)	484(26)	860(18)	626(31)	992(2=)	362(37)	743(20)	300(36)	5725
29	Perez	Chile	Cirrus	557(24)	880(9)	555(18=)	847(20)	823(15)	626(35)	863(14)	171(37)	270(37=)	5592
30	Firth	Canada	HP-11A	263(36)	424(29)	544(20)	728(34)	642(30)	814(24)	878(12)	278(35)	824(19)	5395
31	Boisset	Chile	Cirrus	246(39)	497(25)	27(30=)	734(33)	671(29)	716(30)	695(33)	680(26)	762(29)	5028
32	Defosse	Belgium	BS-1	296(32)	DNC	27(30=)	867(14)	703(25)	522(37)	789(28)	720(25)	802(22)	4726
33	Jackson	S. Africa	BJ-4A	249(38)	809(14)	0(37=)	881(12)	114(36)	819(23)	706(32)	364(31)	734(34)	4676
34	Rawe	Australia	Cirrus	387(29)	399(31)	465(28)	885(11)	41(38)	865(20)	DNC	737(21)	868(12)	4647
35	Corydon	Denmark	Phoebus 17	399(28)	64(35)	27(30=)	703(36)	582(32)	592(36)	853(19)	678(27)	748(32)	4645
36	Maeki	Finland	Phoebus 17	520(26)	473(27)	524(24)	783(30)	244(35)	683(33)	669(34)	47(38)	636(35)	4579
37	Bar	Israel	Sisu 1A	252(37)	506(22)	19(36)	767(31)	313(34)	643(34)	659(35)	374(30)	753(31)	4286
38	Fujikura	Japan	Diamant 16.5	265(35)	99(34)	471(27)	DNC	92(37)	500(38)	603(36)	280(34)	270(37=)	2580
39	Beatty	S. Africa	BJ-4B	283(33)	Withdrawn								283

FINAL RESULTS STANDARD CLASS

No.	Pilot	Country	Sailplane	22.6 Day 1	23.6 Day 2	24.6 Day 3	25.6 Day 4	26.6 Day 5	27.6 Day 6	1.7 Day 7	2.7 Day 8	3.7 Day 9	Total Points
1	Reichmann	W. Germ.	LS-1	823(6)	1000(1)	969(5)	1000(1)	1000(1)	1000(1)	931(5)	1000(1)	940(16)	8663
2	Wroblewski	Poland	Kabra 15	1000(1)	875(14)	882(22)	828(30)	972(4)	863(7)	955(2)	859(26)	994(3)	8228
3	Kepka	Poland	Kabra 15	998(2)	795(20)	881(23)	826(31)	892(18-)	833(13)	877(19)	984(4)	998(2)	8084
4	Mix	Canada	Sid. Cirrus	615(15=)	976(2)	915(10)	917(4)	898(13)	838(10=)	883(16)	904(12)	988(4)	7934
5	Cameron	N. Zeal.	Sid. Libelle	836(5)	931(5)	927(7)	870(14)	941(7)	834(12)	867(22)	779(33)	927(20)	7912
6	Waibel	W. Germ.	ASW-15	689(7)	755(29)	1000(1)	935(2)	867(23)	855(8)	869(21)	891(18)	954(11)	7815
7	Smith	U.S.A.	LS-1	413(32)	799(19)	977(3)	896(9)	982(3)	901(3)	901(12)	991(3)	919(24)	7808
8	Johannessen	Norway	Sid. Cirrus	913(3)	758(27)	909(14)	822(32)	892(18=)	716(31)	939(3)	819(29)	1000(1)	7768
9	Petroczy	Hungary	SH-1	678(8)	923(6)	904(16)	837(25=)	834(28)	796(18)	915(10)	895(16)	949(13)	7729
10	Reparon	Holland	ASW-15	538(25=)	771(26)	924(8)	840(22=)	895(16=)	868(6)	1000(1)	912(9)	952(12)	7700
11	Clifford	S. Africa	ASW-15	570(22)	960(4)	903(17)	852(16)	895(16=)	838(10=)	894(14)	801(32)	956(8=)	7669
12	Niellispach	Switzld.	Sid. Libelle	538(25=)	831(18)	972(4)	841(21)	916(10)	769(23)	918(17)	993(2)	919(24)	7657
13	Zegels	Belgium	Sid. Libelle	415(30)	774(24)	900(18=)	889(10)	932(9)	936(2)	920(8)	926(7)	925(23)	7617
14	Tury	Hungary	Phoebus B	598(20)	901(7)	906(15)	839(24)	860(25)	796(18)	878(17)	882(20)	932(18)	7592
15	v. Bree	Holland	ASW-15	406(33)	837(15)	913(12=)	910(5)	937(8)	925(4)	800(34)	876(22)	956(8)	7560
16	Urbancic	Argentina	Sid. Libelle	615(15=)	783(22)	913(12=)	909(6)	848(27)	677(36)	826(20)	896(15)	936(17)	7453
17	Gough	G.B.	Sid. Cirrus	559(24)	900(8)	884(21)	829(29)	865(24)	752(25)	749(38)	952(6)	956(8=)	7446
18	Fahrafellner	Austria	LS-1C	628(12)	834(17)	878(24=)	871(13)	869(22)	656(37)	836(30)	904(12)	926(21=)	7402
19	Lyon	Chile	Phoebus A	630(11)	896(9=)	900(18=)	837(25=)	834(28)	875(5)	838(28)	828(27)	745(38)	7383
20	Gombert	France	WA-26	517(28)	782(23)	699(31)	833(27=)	833(30)	785(22)	903(11)	955(5)	965(7)	7370
21	Allemon	U.S.A.	Sid. Libelle	318(35)	682(36)	846(28)	900(8)	952(5)	804(16)	898(13)	908(11)	988(4)	7296
22	Schubert	Brazil	Urupema	538(25=)	884(12)	878(24=)	851(17)	709(38)	803(14)	805(33)	895(16)	836(37)	7266
23	Lindhardt	Denmark	Sid. Cirrus	562(23)	738(33)	917(9)	856(15)	821(31)	796(18)	867(22)	757(34)	846(35)	7160
24	Greaves	G.B.	Sid. Libelle	865(4)	774(24)	361(33)	804(35)	812(33)	742(28)	885(15)	912(9)	947(15)	7102
25	Bloch	Switzld.	ASW-15	379(34)	741(31=)	892(20)	687(39)	915(11)	725(30)	936(4)	877(21)	916(27)	7068
26	Piludu	Italy	Sid. Libelle	595(21)	962(3)	830(29)	810(34)	948(6)	746(26)	332(39)	886(19)	891(30)	7000
27	Schroff	Austria	LS-1C	308(37)	741(31=)	873(26)	833(27=)	879(21)	646(38)	858(25)	899(14)	926(21=)	6963
28	Mattern	France	LS-1C	615(15=)	708(34=)	331(36)	850(18)	857(26)	854(9)	929(6)	875(23)	931(19)	6950
29	Seistrup	Denmark	ASW-15	255(39=)	708(34=)	914(11)	874(12)	898(13)	711(32)	860(24)	827(28)	863(32)	6911
30	Junqueira	Brazil	Urupema	638(9)	588(38)	867(27)	820(33)	696(39)	813(15)	797(35)	813(31)	863(33)	6895
31	Hansson	Sweden	Sid. Libelle	604(19)	888(11)	339(38)	776(37)	816(32)	795(21)	854(26)	869(25)	906(29)	6847
32	Reid	N. Zeal.	ASW-15	414(31)	751(30)	954(6)	875(11)	715(37)	638(39)	806(32)	725(35)	907(28)	6785
33	Rodling	Sweden	Sid. Libelle	475(29)	794(21)	374(33)	848(19)	889(20)	745(27)	836(30)	874(24)	948(14)	6783
34	Martin	Australia	Phoebus A	614(18)	758(27)	788(30)	840(22=)	804(35)	764(24)	787(36)	383(37)	852(34)	6590
35	Moutat-Biggs	S. Africa	Sid. Cirrus	316(36)	286(39)	392(32)	909(6)	912(12)	803(17)	920(8)	918(8)	969(6)	6425
36	Perotti	Italy	Sid. Libelle	616(14)	896(9=)	0(40)	923(3)	996(2)	695(33)	842(27)	391(36)	881(31)	6240
37	Stouffs	Belgium	LS-1G	635(10)	837(15)	998(2)	673(40)	790(36)	685(35)	924(7)	200(39)	DNC	5744
38	Howland	Australia	Sid. Libelle	619(13)	624(37)	19(37=)	791(36)	896(15)	734(29)	295(40)	818(30)	839(36)	5701
39	Arooz	Argentina	Phoebus B	255(39=)	879(13)	19(37=)	845(20)	810(34)	689(34)	837(29)	338(38)	919(24)	5591
40	Deleurent	Canada	Sid. Libelle	292(38)	DNC	19(37=)	695(38)	685(40)	630(40)	783(37)	133(40)	632(39)	3869

Tasks: - Day 1 both Classes Cat's Cradle. Day 2 Open, O & R 263 km. Std. O & R 250 km. Day 3 both Classes 355.5 km. Triangle. Day 4 as Day 3.
 Day 5 Open, O & R 391 km. Std. O & R 263 km. Day 6 both Classes Cat's Cradle. Day 7 both Classes O & R 263 km. Day 8 Open, 527.5 km. Triangle,
 Std. 466 km. O & R. Day 9 Open, 450 km. Triangle, Std. 384 km. Triangle.

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"WAVE" GLIDING

By J. S. SPROULE, Cdr. RN (Ret'd)

AT 10.30 on the morning of May 29th, 1945, I was airborne in a Slingsby T-20 two-seater glider about 300 ft. over the waters of the Irish Sea, in a position about ten miles off the north-east coast of the Isle of Man. It struck me at the time—as no doubt it may strike the reader—that this was a very funny place to be flying a glider, so I hasten to explain that I was being towed by the aircraft carrier HMS Pretoria Castle on the first of a series of flights to investigate the behaviour of the air-wake behind such vessels.

I was attached to the ship in question by about 1,000 ft. of cable from a winch situated on the forward end of the flight deck, and she looked quite small and not very obviously part of the act, so to speak. Pretoria Castle, a converted Union Castle liner, was not a particularly speedy carrier as carriers go, and at the particular moment in time to which I refer she was steaming flat out into a light southerly breeze and only giving me a margin of some four or five knots above the air speed at which a stately descent into the sea would take place.

A novel situation

As will be appreciated, this was a state of affairs unconducive to a feeling of security, but nevertheless, as the air was smooth, and the T-20 glider controlled remarkably well, bearing in mind the circumstances, one could not fail to be impressed by the novelty of the situation. Also to reflect that flying a glider from an aircraft carrier had almost certainly never been done before anywhere in the world, and owing to the expense and general palaver was unlikely to catch on as a popular pastime. True, Cody had done much the same sort of thing in 1900 slung beneath a team of kites towed by the destroyer HMS Grafton, but the gallant "colonel" had ended up in the drink due to the ship turning downwind for reasons which are unclear.

So here I was some 45 years later on a similar airy passage behind one of HM ships in search of scientific truth—the events leading up to this circumstance being as follows.

Toward the end of World War II the Royal Navy had a substantial number of aircraft carriers in commission, and a great deal of carrier flying was taking place. Inevitably there were many deck landing accidents and incidents in which the current Fleet Air Arm aircraft, such as the Seafire-Hellcat, Barracuda, etc., were being ditched. In the responsible departments of the Admiralty there was much preoccupation with the accident reports and the statistics thereof.

Investigation

As many of the more obscure accidents were being attributed to turbulence aft of the ship, i.e. the famous "sudden gust" so well known in early gliding circles—the numbers had built up to such an extent that an investigation of some sort was considered advisable. The more so because for some time past the design of the carrier superstructures, etc., had been carefully checked as turbulence minimised by ship model tests carried out in the large open-jet wind tunnels at the National Physical Laboratory at Teddington. In other words, the boffins began to suspect from the "sudden gust" statistics that there was something phoney about their model test results. So they turned their minds to finding a full-scale way of checking what actually happened behind an aircraft carrier against the model results for that particular ship.

After discarding all sorts of ideas, from streaming smoke to towing balloons, someone hit on the idea of towing a glider from a carrier and getting the pilot to explore the whole of the airspace behind the ship in a methodical manner. The glider was to be equipped with recording instruments to indicate roll and pitch with great accuracy, so that, provided the glider could be maintained at fixed levels, the up trends and down trends in the ship's air wake could be deduced. Accordingly the call went out from the Admiralty for someone who "knew about gliders" to find a suitable machine, and if possible perform as the pilot thereof.

In due course, and by devious ways, the light shone on me as a Fleet Air Arm driver, airframe, with glider experience, and I was asked if I would like to do the job. As I was preoccupied at the time



The flight deck cleared for launching

with avoiding what sounded like a most unpleasant detachment to some obscure outpost in India, I accepted with gratitude and a feeling that one could only get wet at the most—and it might even be useful. So, when the deal was all set up with the Admiralty, I was let loose to look around for a likely glider. The most obvious first place to look was my pre-war bailiwick of Kirbymoorside, where I installed myself in one of the pubs to take stock of what was available at Slingsby Sailplanes.

It appeared that I had arrived at a good time for all concerned as "Sling" happened to have a prototype tandem two-seater trainer called the Type 20. This machine was surplus to requirements as it had just been ousted by the side-by-side Type 21, destined to become the Sedburgh, Sling, in post-war endeavour to replace the ageing Falcon III design, with shrewd foresight had built both tandem and side-by-side alternatives, on the basis that if he only built one type of seating—the customers could be relied upon to want the other! So I could not have arrived at a better time, when the tandem model was available. When I tried out the machine on several soaring flights at Sutton Bank, it seemed to be an ideal aircraft for our job.

The Type 20 was quite lightly built and had a span of about 50 ft.; there was an adequate rear cockpit under the wing—ideal for the instrumentation—and the ailerons were quite powerful throughout

the whole speed range. As I envisaged fairly marginal relative wind speeds when we would fly from the carrier nominated for our experiments, I immediately began to design the biggest pair of fixed flaps that the wing of the T-20 could accommodate.

The reasoning was that maximum lift was all-important regardless of drag—and, with such unprecedented horsepower available to pull, the more drag the better in order to keep the tow cable taut. So the flaps were made adjustable on the ground, to give a selection of settings from about 10° to 45°, in order to find the best setting for minimum air-borne speed compatible with controllability.

Tests at Wombleton

To establish the above characteristics, a series of car towing tests was carried out at nearby Wombleton airfield, and we eventually fixed on a flap setting of about 30°, which gave a minimum "sustained flight under control" speed of 22 mph. At this speed the ailerons were naturally none too effective, but after we had added some two inches to the trailing edges, control was about adequate.

At first we towed the glider out to the starting point each day with the usual 10 ft. of rope and someone walking at the wing-tip. I very soon discovered, however, that if the car went just a little faster the glider, with its enormous flaps,

would become airborne in the ground effect at little more than running pace; so from then on we "flew" the machine everywhere about 2 ft. high on the end of the 10 ft. rope—a trick which seemed to amuse everyone.

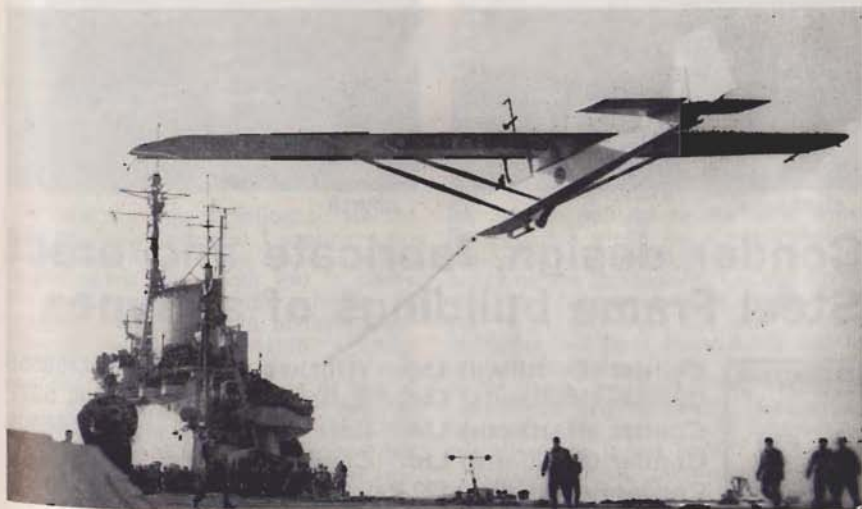
When the glider was about as good as I could get it, and the lads from the Admiralty research laboratories at Teddington had designed and installed their pack of instruments in the rear cockpit, the time came when we were given a slot in the programme of the trials carrier, HMS Pretoria Castle. The ship was based at Tail of the Bank on the Clyde, and one rainy and blustery day I found myself boarding the vessel up the 30 ft. of rope ladder to the boom. The glider and the scientific party were already aboard ready to go, and a crowd of somewhat ribald spectators assembled in the hangar to watch the rigging and other preparations.

Pretoria Castle, being the trials carrier, was a most comfortable and hospitable ship, well used to unorthodoxy and the sometimes rather weird civilians of the genus boffin. But the glider was something which even Pretoria Castle had not seen before, and in the Wardroom that evening there was much swap-

ping of turns of duty among the below-decks ship's drivers so as to be topside when the day came to be able to see Sproule perform—and with luck go over the side! Needless to say, I looked forward to such a possibility with gloom, but as the gin was 2d. a tot and the supply ample, I managed to maintain some sort of front amid the general hilarity.

In what seemed like no time at all, the carrier sailed down the Clyde for the open sea, and on the morning of May 29th I found myself strapped in the front cockpit of the T-20 complete with Mae West, the winch wire connected up and the ship turning into the wind entirely for my benefit. The "goofers", or sight-seeing part of the carrier island, was black with spectators all eager to see what would transpire.

The T-20, positioned about 60 ft. forward of the round down, had been equipped with walkie-talkie type radio and rope pennants on each wing tip. And a loop of rope in the centre section to hold on to if the worst came to the worst! Sailors were stationed on each of the tip ropes and at the nose to keep the machine steady until I gave the word to go.



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Glider seen from the deck

When the ship was on course into the wind and with 35 mph on my ASI, I got the green flag from the batsman and no sooner had I given the word than I was airborne. My Elisha-like vertical ascent was surprisingly easy as I pulled back against the tow cable and I let the glider ride at about 50 ft. above the deck. The glider controlled in normal fashion, so after a while I used the lift spoilers to jockey my way down to the deck of the ship again, where the aircraft handlers were waiting to grab me. As all had worked well, I repeated the performance three or four times to let everyone get the hang of things, and when once more at 50 ft. above the deck, I called upon the winch driver to pay out the cable.

All was smooth

It was a funny sensation to see the ship gradually recede as I continued my climb, and when I was about a ship's length astern, and about 250 ft. above the sea, I called for the cable to be stopped. All was smooth in the cheese-like air well above the ship. I found I was able to fly well out to either side and climb and descend more or less at will. At first I was not too keen to descend too low into the area where the worst turbulence might be expected, but cautious exploration did not reveal anything of any great significance.

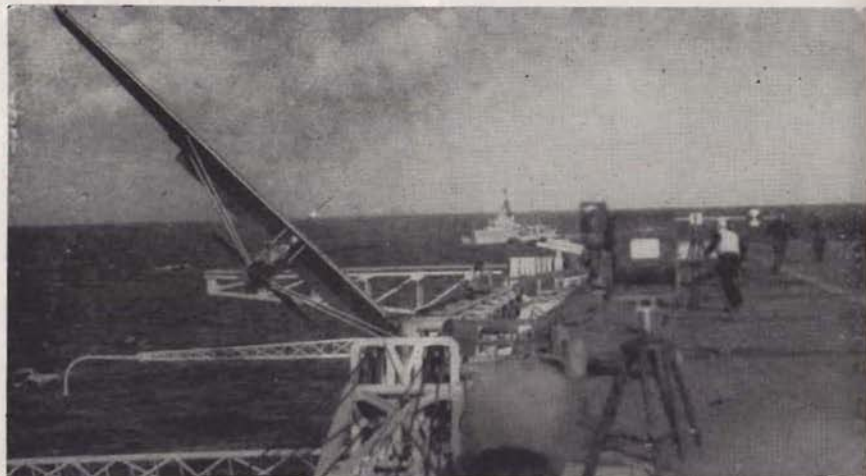
I was just about to descend once again when I noticed that the wind noise was

decreasing and my ASI had begun to show a dangerous lack of knots—so I was on my way down whether I liked it or not! I immediately called for more speed on the radio—to be told that the ship was going full out and the reason for the general slackening off in things was that we had steamed into a lull in the natural wind. I therefore called upon the winch operator—a friend of mine called Sam Youles—to “pu-u-u-ull” or words to that effect. There being no immediate response to this very reasonable request, I continued to flute appeals to Sam to give me forward movement at all costs, as by this time I was beginning to well and truly subside towards the waters. Descent continued but, just when I had resigned myself to the Irish Sea, there was an almighty jerk on the cable and I zoomed back in seconds from 0 ft. to the comparative safety of 200 ft. A close call indeed, and why the cable did not break, or pull the nose off the glider, I still do not know.

The winch had stalled

Somewhat shaken, I called up to say I was coming in, so the winch continued to haul me in to a running landing, aided by some nifty work with the spoilers. As our allotted time for the preliminary tests was up, the T-20 was taken down on the lift to the hangar, and our first session was over. Needless to say, I had a conference with Sam over the contretemps with the winch—it appeared that at the *moment critique* the winch engine had stalled on him. The resourceful Deck Landing Control Officer was just organising a pulley-hauley party of deck handlers to pull me in manually, when Sam got the winch going again and in the general excitement he had been a bit heavy on the throttle. All I could report regarding the behaviour of the glider in the ship's air-wake was that nothing untoward had been encountered and at no time had any extreme control movements been necessary. The recording instruments had, of course, been working all the time, so no doubt these would tell all—or so it was hoped.

Pretoria Castle proceeded with the remaining programme of trials, and when we returned to the Clyde all our gear was taken ashore. After a little time



Immediately before ditching. Photos: J. S. Sproule

it appeared that the boffins were very dissatisfied with their instrumentation, and a new outfit would have to be designed. After several months, in which time I found other things to do, including learning to fly helicopters, a new and much more elaborate instrument outfit was produced and fitted up for more land towing trials at Wombleton.

Again the apparatus did not satisfy the scientists, and, what with one thing and another, some considerable time elapsed before we again took the T-20 to sea, this time in HMS Illustrious. Again the performance was much the same as before, and I made several quite long flights in various areas without incident. Due, I suppose, to my keen sense of self-preservation, I managed to get back to the safety of the deck each time.

On this series of trials it had been decided that I should introduce another pilot to the somewhat unique art of ship towing. I had therefore selected a fellow Naval Officer to be my stand-in and general assistant, a most experienced pilot with gliding skill. When I had completed my flights, after an exhaustive briefing, my chum was strapped into the cockpit of the T-20 and Illustrious was once again turned into the wind. On the word "Go" the glider was released in the nor-

mal manner, but this time, instead of pulling back on the stick and getting well clear of the deck, as had been carefully explained, my friend continued to fly about three or four feet above the deck in a zero incidence condition. In this unsatisfactory situation he allowed the T-20 to begin to weave to left and right until, for some reason which I still do not understand, he weaved right across over the starboard side of the flight deck still only about ten feet above the take-off level.

Tangled cable

Disaster was obviously at hand and it was not long in coming. The tow cable became irretrievably tangled in one of the radio masts, which on HMS Illustrious were lowered to a horizontal position during flying operations—and the T-20 was doomed. The glider sank out of sight below deck level, scraping the port wing down the side of the ship as it went, and when next it re-appeared, under the stern of Illustrious, it was floating like a duck on the turbulent water. The pilot must have been very nippy indeed, as by the time we saw him he was firmly installed on the centre-section of the glider holding on to the loop of rope I had incorporated for that very

purpose. I was immediately struck by the similarity of his situation to that of the pyjama-clad figure which used to feature in the advertisement above the legend that Bovril "prevented that sinking feeling"!

Away went the T-20, far astern, and in a short time we were relieved to see its pilot being rescued by the escorting destroyer. But what to do about the T-20, which appeared to have the most seaworthy qualities? In the end it was decided that the machine was obviously not worth salvaging, and I think that the destroyer dispersed the remains on the surface of the ocean by ramming it repeatedly at high speed.

A sorry end to a good machine, but I think that the demise of the T-20 was not too unwelcome to everyone, coming in the way that it did. The experiment had dragged on for a very long time in an inconclusive manner and the ditching of the principal piece of equipment was a good excuse to have another think. So eventually the Admiralty scientific team decided to do some experiments in ship-wake investigation with helicopters, which by this time were becoming a nor-

mal part of the Fleet Air Arm inventory. These aircraft had the advantage of being a lot easier to stage-manage on a busy trials carrier than all the paraphernalia and carry-on which went with the glider-towing activity.

In my case I was not sorry to see the experiment called to a halt because by this time I had become well involved in the new and fascinating helicopter business, so suited to a multitude of Naval uses. I had felt for some time, moreover, that while ship towing of a glider from a carrier was not in itself all that difficult, it was doubtful if anything very conclusive and useful could be gleaned from it for this particular purpose. In any case, by this time there were signs that deck landing accidents could be reduced by better training and various technical improvements.

So, while I was sad to see the end of the excellent T-20 glider, in which I had always succeeded in keeping my feet dry, for me its watery end meant release into very rewarding Fleet Air Arm affairs. And I can assure you that the only other aircraft worth flying after the motorless variety have rotary wings.

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GP

GLIDING CERTIFICATES

DIAMOND DISTANCE

No.	Name	Club	1970
1/19	R. Bradley	South Africa	6.1
1/20	C. M. Greaves	South Africa	6.1

DIAMOND HEIGHT

3/101	R. T. Constable	S.G.U.	20.2
3/102	T. P. Docherty	S.G.U.	26.5
3/103	A. R. Caveen	Midland	30.5
3/104	A. Parker	USA	27.1
3/105	T. W. E. Corbett	Midland	30.5

DIAMOND GOAL

2/312	J. G. B. Daniell	USA (late Bristol)	5.4
2/313	G. O. Humphries	Bath & Wilts	24.5
2/314	J. E. Homewood	Straits	6.6
2/315	J. E. G. Harwood	Surrey & Hants	14.6

GOLD C COMPLETE

251	J. G. B. Daniell	USA (late Bristol)	5.4
252	L. Barnes	Moonrakers	20.3
253	J. E. Homewood	Straits	6.6

GOLD C HEIGHT

J. C. Harvey	Kent	6.4
R. C. Stafford Allen	London	3.5
D. G. Cooper	Norfolk	28.4
L. Glendinning	Clevedons	29.3
J. G. B. Daniell	USA (late Bristol)	18.4
L. Barnes	Moonrakers	20.3
M. R. Emmett	Airways	19.3
V. F. Griffith	Bath & Wilts	22.4
R. A. Hardon	Mendips	20.3
R. I. Rea	East Midlands	19.3
E. A. North	Aldershot	20.3
G. M. Morris	Swindon	26.3
A. R. Graves	Kent	6.3
D. J. Robertson	Bicester	1.3
J. O'Donnell	S.G.U.	1.3
R. D. Howse	S.G.U.	112.69
J. E. Homewood	Straits	2.6.69
A. Parker	USA	27.1
M. C. Matthews	Surrey & Hants	10.6
A. J. Wagenaar	Thames Valley	11.6
A. F. Gough	Wrekin	7.6
F. G. Bradley	Surrey & Hants	11.6

GOLD C DISTANCE

J. G. B. Daniell	USA (late Bristol)	18.4
G. O. Humphries	Bath & Wilts	24.5
J. E. Homewood	Straits	6.6
J. E. G. Harwood	Surrey & Hants	14.6

SILVER C

2586	D. MacPhie	East Midlands	17.4
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2587	R. Chatfield	Fenland	18.4
2588	D. W. Sear	London	20.4
2589	A. Long	Mendips	2.11
2590	J. P. Green	Southdown	27.3
2591	R. T. Dixon	Four Counties	18.4
2592	G. W. Marr	Clevedons	19.4
2593	A. Pozerkis	London	19.4
2594	G. H. Upson	Bristol	19.4
2595	W. Galloway	Ulster	25.4
2596	R. J. Amor	Chilterns	19.4
2597	M. Neal	Surrey & Hants	28.4
2598	J. A. Cheesbrough	Ouse	19.4
2599	Susan Chesters	London	3.5
2600	R. G. Naylor	Bicester	3.5
2601	R. J. Preece	London	28.4
2602	J. Graham	London	28.4
2603	R. J. Pearce	Midland	19.4
2604	M. E. Carter	Yorkshire	2.5
2605	E. F. E. Barnard	Aldershot	28.4
2606	M. Farrow	Yorkshire	17.4
2607	M. J. Orr	Wrekin	20.4
2608	P. Van-De-Velde	Airways	6.5
2609	G. Lawrence	Kent	20.4
2610	P. D. Boyer	London	2.5
2611	M. Moroney	London	3.5
2612	G. F. H. Singleton	Doncaster	2.5
2613	A. Moon	Leicester	19.4
2614	M. J. Dean	Fenlands	18.4
2615	R. B. Woodhouse	Norfolk	22.5
2616	J. R. Monteith	Bicester	24.5
2617	G. W. Meacham	Bicester	18.5
2618	D. B. Walker	Imp. Coll.	28.5
2619	J. Bennett	Bicester	25.5
2620	J. C. Harvey	Kent	25.5
2621	J. S. Whibley	618 G.S.	25.5
2622	Lesley Masson	Kent	25.5
2623	G. B. Ventress	London	25.5
2624	D. Wright	Kent	2.3
2625	D. H. Ashman	Enstone Eagles	24.5
2626	P. Beech	643 G.S.	27.5
2627	Barbara Deans	London	25.5
2628	W. B. Swales	Yorkshire	25.5
2629	J. S. R. Bodkin	London	30.5
2630	R. E. Davis	West Wales	19.4
2631	J. Pemberton	Dorset F/C	29.5
2632	D. A. Oliver	Surrey & Hants	5.6
2633	R. J. L. Luckford	Midland	2.6
2634	J. E. Homewood	Straits	2.6
2635	T. I. Gardiner	Kent	9.6
2636	A. Henderson	Newcastle	8.6
2637	S. T. Matthews	Clevedons	24.5
2638	H. R. Jarvis	Aldershot	13.6
2639	D. P. Holdcroft	Bicester	13.6
2640	R. Lewis	Bristol	19.4
2641	M. J. Barrett	Essex	24.6
2642	A. V. Early	Polish	14.6
2643	M. A. Gaynor	Four Counties	13.6
2644	W. D. Parker	Lincoln	11.6

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"The only acceptable cameras are the Kodak INSTAMATIC 25 and 33 cameras"



The Kodak 'Instamatic' 25 and 33 cameras have been specified by the British Gliding Association as the cameras to be used in competition gliding.

This is why.

They're 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. They have double exposure prevention devices, so you can't take 'two-on-one.' You have a choice of either black-and-white prints, colour prints or colour slides. Their large eye level viewfinders let you compose your picture easily, instantly. They're light, compact and easily stowed away when not in use; a pocket will do.

Kodak

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International Gliding Records—Subject to homologation**Single-Seaters**

Goal Flight	H. W. Grosse (Germ.), 4.6.70, ASW-12	approx. 1,030 km.
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Single-seaters (Women)

Goal and Return	Susan Martin (Australia), 6.2.70, Libelle 301	approx. 656.04 km.
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Multi-seaters

Goal and Return	J. C. Lincoln and C. Crowl (USA), 23.5.70, 2-32	approx. 651.6 km.
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United Kingdom Record—Subject to homologation**Single-seaters**

500-km. Triangle	B. Fitchett, 21.6.70, Std. Cirrus	approx. 60.8 km/h.
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Correction: British National Records, S & G, June-July, page 223

Multi-seaters

Distance	L. Welch and F. G. Irving, 14.5.55, Eagle	.. .. .	408 km.
Goal Flight	W. A. H. Kahn and J. S. Williamson, 12.4.58, Eagle	.. .. .	312 km.
Goal and Return	A. H. Warminger and R. Tucker (in SA), 4.1.69, 2-32	.. .. .	362 km.
300-km. Triangle	A. H. Warminger and R. Tucker (in SA), 29.12.68, 2-32	.. .. .	72.3 km/h.

IRISH SAFARI

By A. E. SLATER

GOLD C heights over the Atlantic Ocean, in a wave set up by Macgillicuddy's Reeks, Ireland's highest mountain range—that was the highlight of the Irish Gliding Association's "Fortnight's Flying and Fun" at the new Farranfore airfield between Tralee and Killarney.

From points W and SW of the airfield respectively, two mountain ranges stick out into the Atlantic: the Dingle Peninsula to the north, with sea on both sides, and the Reeks to the south, with more ranges beyond. Between these two is an inlet of the Atlantic, Dingle Bay. So, whether the wind blows from north or south, Dingle Bay is in the lee of a mountain range and the first wave takes up station above it.

This was so on that outstanding day, Saturday 23rd May, when, in a strong south wind, launches were made along a hard sandy beach on the edge of a flat piece of land called Inch, projecting three miles into Dingle Bay from its north shore—this being a useful alternative to the man-made east-west runway at Farranfore.

A typical flight this day was by Jeremy Bryson. Launched into slope lift over the Dingle range at 800 ft., he climbed to 2,000 and then pushed out over the seas to get Macgillicuddy's first lee-wave. This took him up at 6 knots beyond

8,000 ft., then slowed to 2-3 knots. At 12,000 ft. the lift picked up a bit but was still too slow for him to risk going up to Diamond height and down again without oxygen.

Many good climbs in Irish waves have had to be broken off for lack of oxygen—even the height record of 18,000 ft, set up last year in the Wicklow Hills. But now, with two machines fitted with oxygen, they are hoping for better things. In fact, the opportunities seem boundless: nearly everywhere one goes in Ireland, there seems to be a range of mountains or hills on the horizon, if not nearer. During our five-day visit, there appeared to be a good wave-producing inversion every day, from the way the cumulus flattened out in the afternoon.

To the rally came 11 sailplanes in all. Dublin brought 3 two-seaters (including Ka-13 and Blanik), 2 Ka-6's, and one each of Ka-8, Olympia and motorised Ka-14. Ulster and Short's brought three from Northern Ireland, including Gordon Mackie's motorised SF-27M. He said, about this machine, that he never re-starts the engine below 1,000 ft., because that is the height at which he picks his landing field, and he never changes his mind.

The majority of the Irish gliding movement must have been there, either part-time or whole time: 40 came from Dublin, 6 from the North. The only other club with aircraft is at Clonmel; the County Kerry Club at Farranfore has none yet, but is still building itself up and has 12 members so far. This air-

field was only an idea three years ago when some local people, especially hoteliers, put up the money. The buildings are not yet finished because of a long-standing cement-workers' strike, but the bar, at least, is in full function.

The gliding people have used this Safari to gain experience in running such a show, and to learn from any mistakes, one of which was letting the public in without extracting money from them—this will not happen again. Next year they hope to get overseas visitors as well—and it would help a lot if someone would bring another tug. There were two this time, and when one, an ancient Fieseler Storch, had engine trouble, it was soon put right because (a) it had a French C. of A., (b) engineering jobs on French aircraft do not *have* to be done by qualified aeronautical engineers, and (c) Bill Coleman, though of English ancestry, is a French Citizen. This is Ireland.

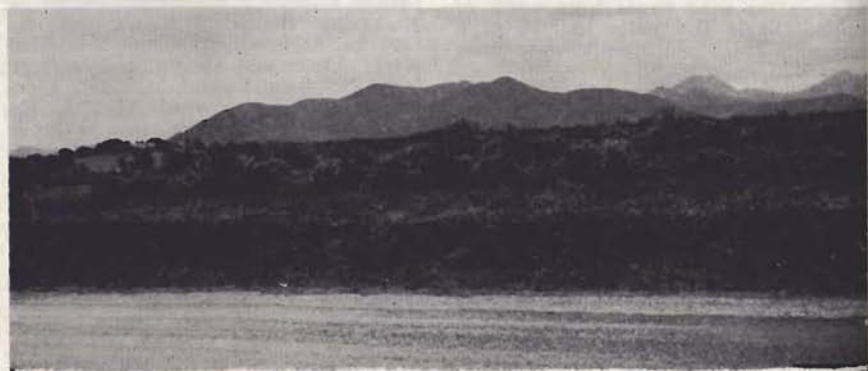
The first three days of the Safari brought 70 flights. Flying on Saturday 23rd totalled more than 27 hours for 11 flights, and included two Gold C heights and three Silver C durations—partly in slope lift below cloudbase and partly in wave lift above. Another day, in the first week, produced a total of 25 hours in thermals, when the wind was too light for waves. No sea-breeze phenomena have been noticed in the west; Ireland's east coast is the place for them.

One feature of Irish gliding is that nobody gets into a flap when things go wrong. The charm of Irish life goes on

as before. I discovered this eleven years ago on a day's visit to the Dublin Club, when the winch packed up for two hours. On this year's occasion, by an unlucky concatenation of circumstances, no tug pilot turned up one day. So everyone either carried on with caravan life, or went fishing, or departed on a sight-seeing tour. We savoured the glorious scenery all round the Dingle Peninsula, whose far end is claimed to be the most westerly point in Europe (apart from offshore islands). Nevertheless there was flying; the two motor-gliders took off for the nearest wave, shut off power, and had a normal flying day. One up to them!

There was no need to arrange for food between breakfast and dinner at the modern hotel in Tralee. A succession of invitations to coffee and refreshments in one caravan after another saw to that. Hospitality was great, and Mr. Jerome P. Hegarty must especially be mentioned for the trouble he took to make our visit enjoyable. One evening we were given a formal dinner in the romantic setting of a converted country mansion—and in this connection must be mentioned a night at the Slazengers' on the way to Tralee (Ralph Slazenger helped to found Cambridge University Gliding Club in 1934).

Finally, on our last night, a farewell party was laid on in the bar at Farranfore, to which everyone with a portable musical instrument brought it along. The party began on the evening of Wednesday, the 27th May . . .



Macgillicuddy's Reeks from the North. Photo: A. E. Slater

BGA NEWS

Executive Committee of Management

TAKE a baker's dozen of assorted glider pilots. Prime well with tea and toast, mix and shake down into comfortable chairs around a green baize-covered table, and you have the recipe for a typical B.G.A. Executive Committee Meeting—in particular the occasion on 13th May when it was decided that in future some snippets from the Executive Committee's proceedings should be published in S & G. The reason for this is that in some clubs the Minutes sent to the Hon. Secretary apparently do not get on to the club notice board.

Here, then, are three such snippets from that same meeting:

- (i) Gerry Burgess, reporting on World Championships arrangements, said that grateful thanks are due to all those generous contributors who had enabled the budget now to be in balance (see list).
- (ii) John Ellis, reporting on Safety, said that there is no apparent increase in the accident rate, in fact on a per capita basis there was a slight improvement. Escalation of repair costs had, however, resulted in an increase in insurance rates.
- (iii) It was agreed that Philip Wills should act as B.G.A. representative at meetings of the Conference of General Aviation Organisations. The last meeting had also been attended by David Ince.

At the meeting on 10th June:

- (i) Roger Neaves, reporting as Chairman of the Instructors' Committee, said that the use of the Falke for ab-initio training was enormously successful, and extremely useful in the training of instructors.
- (ii) Naomi Christy said clarification of the impending new legislation about trailers would be obtained and published in S & G.
- (iii) The next Executive Committee Meeting was deferred from 8th July to 15th July, and no meeting would be held in August.

World Championship Appeal

Donations from the following are gratefully acknowledged. (Period 18th

April to 16th June.) The Appeal Fund is still open to receive contributions.

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Rouse, J. E.
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Total so far received

£5,210 1s. 8d.

Tech. Committee Note

The RAFGSA have recently issued a Tech-note No. 11 making it mandatory to fit fuses in the circuits of any accumulators carried in gliders.

Some time ago the BGA Technical Committee did recommend very strongly that fuses should be fitted in all gliders that had circuits powered by accumulators, and this recommendation is now repeated.

It is felt that the fuses can well be of the "in line" type as used in cars and it is an advantage if the fuse can be changed in flight. However, the fuses should be as close as practicable to the accumulator, to avoid lengths of unfused wire.

R. C. STAFFORD ALLEN, CTO, BGA

TRAILERS—Lights and Reflectors

With effect from 1st October, 1970, all new trailers over 16 feet in length must be fitted with amber side reflectors, one at the rear and one at the centre of each side. Existing trailers must be fitted with these reflectors by 1st January, 1971.

Your question: Is the spirit of adventure really dead?


The aerocrat offer: flying—perhaps as a fighter pilot

In this day and age, there is no shortage of routine, respectable, dull-as-ditchwater jobs. But for some men, the routine way of life just doesn't offer enough. "I'd go mad," they say, "cooped up in the same old office all day long."

If you are like this, now is the time to do something about it. Because the RAF has twelve new types of aircraft in service or coming along, among them the Phantom—one of the fastest, most developed fighters in the world.

There is no time like the present to find out about the opportunities.

Age limits, 17 to 26th birthday. Enquiries are welcomed from men who have, or expect to gain, a degree, A-levels, or O-levels. Minimum qualification is 5 acceptable O-levels (or equivalent), including English language and mathematics. Visit the nearest RAF Careers Information Office to find out more details—address in 'phone book—or send this coupon.

 To Group Captain E. Batchelar, RAF, Adastral House (896LH1), London, WC1.

Please send me information about flying commissions in the RAF.

Name

Address

Date of birth

With this coupon please enclose a separate note giving your present and/or intended educational qualifications.

Royal Air Force Aerocrats



Whitbread Bursary Award

The following awards of £10 each have been made to:—Anthony Pozerskis, London G.C., A. J. Norrie, Lasham Gliding Centre, and A. Breen, Bicester.

ICAO at Montreal

In November this year there is to be an important meeting of the Division of the International Civil Aviation Organisation which is concerned with setting the standards for pilot training and licensing. One of the proposals for discussion is of particular interest to the BGA as it concerns the minimum age qualifications at which a PPL may be granted.

At present in the UK we have the anomaly that a youth of just 16 years of age may fly solo in a glider but must wait a whole year, until his 17th birthday, before flying a powered aircraft solo.

With the advent of the motor glider, and the scope it offers for rapid and frustrationless training, it is conceded that this is a situation which deserves special consideration. Accordingly, one of the proposals at Montreal will be a reduction in the minimum age PPL qualification from 17 to 16 years.

GODFREY HARWOOD

German Towing Hooks

THE standard German back-releasing towing hook is the Tost "Kombi". Whilst British towing ring-pairs of the circular type can be inserted in this hook, releasing them under tension may be difficult or even impossible under certain circumstances. This is because the rings can jam in the back-release cage, which is designed to take the standard German oval rings.

To overcome this difficulty, Tost manufacture a variant of their hook known as the "EKombi". The back-release cage has been modified so as to be compatible with British ring-pairs but in all other respects it is identical with the "Kombi". The "EKombi" can be identified by an "E" stamped on the side of the back-release cage.

Intending purchasers of German gliders for use in the U.K. should therefore

make certain that, when delivered, the machine is fitted with an "EKombi". Some manufacturers (e.g. Schleicher) are well aware of this situation and will automatically provide the correct hook but, in general, intending purchasers should request confirmation before taking delivery. On some types, changing the hook is not particularly easy.

On some types (e.g. Libelle, Standard Cirrus etc.), there is insufficient space to fit a "Kombi" or "EKombi" hook, and they continue to use the older "Safety" hook. This does not have a back-release cage, but simply a spring-loaded tongue behind the actual hook. To prevent side-loads being applied to the hook, a pair of external angle members is fitted, one on each side of the hook. The distance between these members is normally suited to German oval rings and must be altered for use with British ring-pairs. Again, intending purchasers should enquire what type of hook is fitted and, if it is the "Safety", should require the spacing of the angles to be modified.

All these remarks apply only to back-releasing hooks used for winch launching only or for both winch and aero-tow launching. Hooks of the non-back-releasing type used only for aero-towing do not require modification.

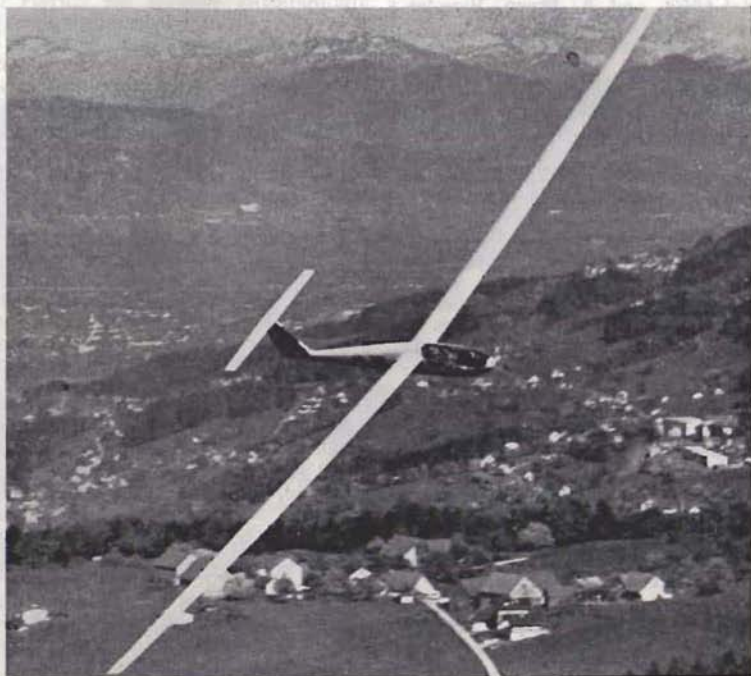
Finally, it is not acceptable to use an unmodified "Kombi" hook in conjunction with a pair of German oval rings fitted temporarily to the end of the towing cable. Such a procedure causes delays on the flying field and, sooner or later, somebody will forget to remove them and they will be used to launch a glider with an "Ottfur" hook. Whilst "Ottfur" hooks seem to work with German rings, they are not designed to do so and the possibility of dangerous jamming may exist.

Messrs Tost have recently produced a new launching ring-pair in which both the rings are circular. This ring-pair is designed to fit the Ekombi hook and the Ottfur. It is distinguished by the fact that it is a golden colour and has an "E" stamped on the larger ring. This ring-pair is now available, and the Technical Committee are anxious to gather information about its performance in service.

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

SWISS DIAMANT — WORLD'S LEADING SAILPLANE

DIAMANT 18 - FIRST U.K. 500 km. TRIANGLE.



DIAMANT 18

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ENTRY LIST FOR NATIONALS

A NEW system has been agreed for entry to the 1971 competitions. The basic concept of having a "retention" list geared to performance in past Nationals and a "promotion" list geared to performance in Regionals remains unchanged. In the new scheme, however, the retention list is based on placing positions rather than scores. The two national competitions are ranked equal, with the Standard-Sport arbitrarily placed one position higher on the basis that it has recently had higher "maximum available points".

Rules for 1971 Nationals Entry

1. Form of Competition results to be used.

Handicapped points will be used to produce a full competitions results list for every official competition involved. Drawn places will be resolved by lot. Teams will be represented by one name only; this will be the pilot whose individual score is a higher proportion of the maximum daily points on the days on which he flew. The placing of the team will be attributed to this pilot only.

2. Regionals consolidated promotion list.

All competitions accepted by the BGA as qualifying competitions (other than Nationals) will serve as heats provided they achieve at least four contest days, or the aggregate of points scored by each day's winning pilot exceeds 2,000.

For each pilot in each heat his placing number (e.g. 1st, 2nd etc.) is divided into the total number of competitors at the start of the heat concerned. (Where two heats are of equal size the BGA will make the minimum alteration necessary to avoid equal placings in different heats.) Pilots' names are arranged in ascending order of the numbers obtained as above with the largest number first. Pilots named more than once in the list (due to participation in more than one heat in a given year) will have all but their highest place reference deleted. Pilots are then numbered consecutively from

one upwards to give the consolidated promotion list for the year concerned. Nationals pilots' names (from any year) are permitted to remain in the Regionals consolidated promotion list.

3. Procedure for preparing 1971 Nationals Entry List.

The Nationals placing lists (handicapped results) for 1970 will be written down side by side with equally placed pilots (e.g. 1st, 2nd etc.) from each competition at the same level. The two Nationals placing lists (handicapped results) for 1969 will similarly be written down alongside the 1970 lists but displaced downwards 10 places, so that 1st placed pilots from 1969 are on the same line as 11th placed pilots in 1970. In both cases the Standard-Sport class list will be written down to the left of the Open Class.

Names from the 1970 Regionals consolidated promotion list will be next written down in pairs (i.e. 1st and 2nd on one line, 3rd and 4th on the next line and so on) starting with 1st and 2nd place written down on the same level as 11th place in the 1970 Nationals lists. The names from the 1969 Regionals consolidated promotion list will then be written down similarly in pairs, displaced a further ten places down (and to the right of the 1970 Regionals List); thus the 1st and 2nd places from the 1969 Regionals list will be on the same level as 21st place in the 1970 Nationals list.

From the eight columns of names written out as above a single list will be obtained by reading off each line from left to right and downwards consecutively. Pilots' names appearing more than once will be deleted in all cases below their highest position, but there is no "movement up" of names in individual columns as a result of such deletions.

Any pilot who wishes to have a sample tabulated list should write to the BGA.

T. ZEALLEY, *Chairman*
BGA Flying Committee

BOOK REVIEW

The Future of Aeronautics. By JOHN E. ALLEN and JOAN BRUCE (Editors).

Published by Hutchinson. 543 pp., £5.25.

THIS stirring work consists of the collected "Second Century" papers commissioned by the Royal Aeronautical Society on the occasion of its Centenary in 1966. Distinguished authorities on all aspects of aeronautics and its associated technologies were invited to predict developments for the next hundred years. The end-product is gathered together in this volume, complete with a foreword by H.R.H. The Duke of Edinburgh and a preface by Air Commodore F. R. Banks.

Each paper was presumably written on the assumption that while few of its readers would be expert in that particular topic, they were generally very well-informed on aeronautical matters. There is little mathematics, but an awful lot of ideas. Most people who are really interested in aviation will be able to read a large proportion of it, and they will find it utterly fascinating. Of direct interest to glider pilots are the papers on the atmospheric environment, unconventional flight (by Beverley Shenstone) and the man-machine hybrid (by Geoff Melvill Jones). Bev. Shenstone's chapter covers insects, models, birds, man-powered aircraft, sailplanes and sails. It was originally published in 1968 and is not quite abreast of the very latest developments, but it talks cheerfully of glide angles of 1 in 60 and concludes that, "there are many ways ahead and so far none of them is blocked".

Many other papers are also relevant, particularly those on structures, materials and air traffic. Peter Hearne contributes a paper on avionics, which shows what awe-inspiring thoughts go through the minds of glider-pilots in their professional disguises. and Val Cleaver's astronomical crystal-gazing treads very delicately along the edges of science fiction, complete with illustrations from the film "2001". £5.25 is a significant amount of money for one book, but even at that price this one is a "best buy". It will be great fun in one's old age to see how right, or wrong, the prophets were.

F.G.I.

Soaring Valley. By ROBERT HANSMAN and UWE VAN HUSEN. Published by

D. H. Mark Publishing Co., Braintree, Massachusetts, USA, 1970.

Price \$12.50.

THIS large book contains 170 superb photographs, mostly taken in the region of the Enns Valley in Austria, and a large proportion of them including sailplanes in flight. There are a few pages of text here and there, in a style which suggests a translation from German, and the introduction is in both languages. One caption gets the sailplane type wrong, but the captions are short and the picture is the thing. Though expensive, the book is well worth the money. American books can be obtained through a bookseller. Van Husen, by the way, is a son of Peter van Husen who obtained the 13th Silver C in the world in 1933.

A.E.S.

CORRESPONDENCE

THROW OUT THAT CUSHION

Dear Sir,

The letter from C. B. Bolton in the last issue seems to indicate that the work being done on cushions at Farnborough is restricted to what he rather charmingly describes as the user's "posterior topography". In these days of increasingly supine pilot positions, however, more and more of the pilot's weight is supported by the back of the glider seat. While a parachute pack may deform slightly to suit the shape of the human back, it still presents what is essentially a flat surface which, in my

view, is not usually sufficiently yielding for real comfort. Furthermore, some glider seats leave a part of the pilot's back just below the parachute unsupported.

I know of one or two suggested solutions, such as Brenning James' glass-fibre carapace, or a long pad running from shoulders to thighs (passing between the pilot's back and his parachute). Could Farnborough say whether the "bead" cushion could be thus extended?

London, N.W.3.

MIKE GEE

Dear Sir,

NATIONALS AT DONCASTER

I was appalled and dismayed to read the outburst from R. Jones in the June/July issue of S & G relating to the forthcoming Nationals at Doncaster. After reading and re-reading his letter time and again, I cannot understand why he feels so strongly. Two factors seem to emerge; those mentioned in his so called "questionnaire" that appear to give him concern — the venue and the date.

Ralph Jones obviously did not consult the gliding calendar for this year, otherwise the date would have become clear. 1970 is an important and busy year for the gliding fraternity, and in my opinion the B.G.A. have done a good job in spacing the calendar so well.

As for the venue, could it be that he is under the impression that the weather is significantly worse in the North? If this is the case, his attempt at market research is even more sadly lacking than his questionnaire implied. Statistics indicate that the ratio of soaring days to flying days at Doncaster compares well with that recorded at Lasham and other Southern clubs. Furthermore, if he had asked his respondents how many "no flying days" had been recorded in the Nationals held at Lasham in the last few years he would have found the figure uncomfortably high. Clearly the weather cannot be the cause of his concern.

Could it be that Ralph feels clubs in the South are better positioned geographically? A glance at an Airways map would soon have removed his fear. Apart

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from Blue One (whose base is FL 75) to the north of the site, Doncaster is in clear air. The area surrounding Doncaster is, in the main, very "landable" with good sized fields and friendly North country farmers.

Maybe he is concerned about the soaring he may enjoy in the North. My own experience indicates that thermals are certainly larger and marginally stronger in the South, although certainly no more plentiful. In addition to good thermals, Doncaster enjoys frequent wave, and is within reach of the delightful ridges available in the Derbyshire Peak and the Yorkshire Dales. Although Doncaster is too far inland to be cut off by sea breezes, it is not too far away for pilots to be able to use sea-breeze fronts, should they wish. Four good sources of lift available in the vicinity of one site can't be bad.

Whether or not the "Up and Coming" club of Doncaster (gliders have been flying here since the 1940's) can organise the Nationals will be judged after the event. Some people, I know think the "Lasham Co-operative Society" are the only people who can organise an event like this, although our friends at Husbands Bosworth and Dunstable have already scotched this rumour. I am certain, however, that the effort put into the Nationals by everyone concerned at Doncaster cannot be entirely abortive.

Certainly, Doncaster will sort out the men from the boys, and more than a few pilots will have to re-learn how to navigate. We know that our environment could be more pleasant, although I hope Audrey, Ann and Jane bring their bikinis. Our white gliders do stay white — most of the time.

Finally, may I take this opportunity of welcoming all the pilots and crews entered for the Open Class, to Doncaster. Whilst we cannot control the weather, we have gone to a lot of trouble to ensure that all the other factors will ensure a happy and pleasant stay — even for Ralph.

Doncaster, Yorks.

BRIAN DALBY
Chairman,
Doncaster and District G.C.

NOTE BY THE EDITOR—

Two other letters on this subject have been received, but space does not permit reproduction in full.

A. ST. PIERRE (RAF Leeming) writes: "... any hypothetical disadvantages of weather conditions or airspace restrictions will apply to all competitors, so does it matter that much? ... I have had a September competition with excellent flying conditions ... Dissidents usually claim the support of the silent majority, but those who didn't reply are presumably satisfied ... Finally, I don't see how giving a club the responsibility of holding this contest can be said to be supporting it, considering the disruption of normal activities and the diversion of members' efforts could more aptly be described as "lumbering" it."

GRAHAM SINGLETON (Sheffield) writes: "As regards peripheral benefits, the local food is, in my experience, twice as good and half the price of anything to be found in London. Industrial smog is virtually unknown, while most of the best scenery in Britain is either north of Derby or west of Birmingham ... Our wave is part of the Camphill wave system and there have been recent flights at Doncaster of more than 11,000 ft. ... Finally, we won't lynch Ralph Jones, for since the day he landed here from Nympsfield he is an acquaintance, and therefore, not to be eaten."

HAVE YOU NOTISCHED?

Dear Sir,

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London, S.W.9.

G. HARWOOD

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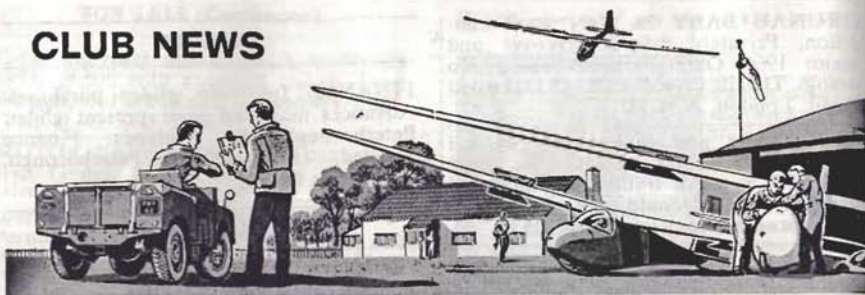
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It will, of course, be understood that the British Gliding Association cannot except responsibility for the claims made by advertisers in "Sailplane and Gliding".

CLUB NEWS



THE long, cold, hard Winter and Spring have given way to a brilliant Summer and reports of soaring and badges gained coming in from all over the country are a true indication of this.

We are very sorry to read of the end of the Handley Page Gliding Club after more than 20 years, and wish R. R. Obee and the other members all the best in their new clubs.

Copy and photographs for the October-November issue should reach me by 17th August, and news for the December-January issue by 19th October; typed, double spaced on foolscap, please. Send the news to me at 11 Great Spilmans, Dulwich, London S.E.22. Tel. 01-693 3033.

YVONNE BONHAM (Mrs.)
Club News Editor

CORNISH

"WELCOME to the Cornish Gliding and Flying Club". This phrase is repeated week by week, as many people are introduced to, or return from previous years to, a gliding Course held here at Perranporth.

Our fleet now consists of a Blanik, K13, two Swallows and an Olympia 463. We await delivery of another K13 and later this year a K6. George Collins, who for many years has been the CFI and is known throughout the flying world, now sports his own SHK. On 7th June, he spent many hours in the air gliding over the county before returning to Perranporth. After being CFI for so long, George has handed over the office (and all the many chores that go with this duty) to Ernie Hayman, to enable him to spend more time in the air. We are lucky to be able to call on his many years of experience, and wish him every success with his SHK.

A Skylark 4 and a Skylark 3 have recently been purchased by club members, and it really is a grand sight to see eight gliders soaring the ridge, or thermalling away. We also have the use of two private tugs, plus our own work-master. Aero-tows therefore, are nearly always

available. We deem ourselves very lucky indeed.

At our monthly Committee Meetings we are all kept in order by our Chairman, Sqdn. Ldr. J. Alcock, who is stationed at St. Mawgan. This is the first time in the club's history, that a professional flyer has been in the chair.

Already this year gliders have flown in from Lasham and other gliding sites. Phil Gardner in a Phoebus 17 was our first visitor from Lasham followed on Sunday, 14th June, by Godfrey Harwood in a Skylark 3b number 65.

In congratulating all these visitors may we say a special word to Godfrey (an old friend of the club) whose barograph trace looked as though he had come by London underground. All Cornish members were delighted to receive Godfrey who was entertained to dinner in the true Cornish manner before arrival of his crew. Also present was another visitor to the Club—John Homewood.

G.T.C.

COTSWOLD

ONCE again the first week in June saw the annual Task Week between Worcester and Cotswold Clubs. This year

we were joined by a Ka6cr from the Norfolk Club and a Skylark IV from Swindon, both of which were competing for the individual prize. At least 16 aircraft took part each day, and with three tugs in operation the organisation was comparable to a "mini Regionals".

The weather surpassed itself and each day was flyable—with varying degrees of soarability. Some days looked infinitely better than they in fact were—the Nationals at Dunstable would seem to have fared somewhat better if radio reports of "... 5,600 ft., climbing ..." were to be believed, while we were scratching at a mere 2,000 ft!

Tasks were again set to enable Bronze C pilots to achieve their Silver distance, and with some success. Only the Gold 300 km triangle was set, and as the weather didn't quite permit completion, the task setters decided to set shorter tasks which could be completed with some degree of certainty to add more spice to the contest.

Unfortunately, the Editorial deadline does not permit a detailed analysis of miles and hours flown, nor a breakdown of the daily tasks and results. There were some memorable radio conversations ... "Please report your position." "I am in sink." "What are you doing there?" "Trying to get the ... out of it." Retrieve crew to intrepid (lost) pilot. "I still cannot see you. Please identify your field." "There is a bus going past. Do you see it?" (In a three knot thermal, no doubt.) And so on, with rigging, de-rigging and more rigging, seemingly endless retrieves and similar evenings in the bar!

The last day saw Cotswold the winners—Derek Hills from Norfolk won the individual prize, with Dave Millett, CFI Worcester, second and Roger Bunker, CFI Cotswold, third. All too soon it ended—a week of thoroughly enjoyable flying during which we all learnt an enormous amount, and had a great deal of fun.

The organisation at Worcester was excellent, and we are most grateful for their hospitality—thank you, Worcester. We hope to be joined "en masse" by Norfolk and Swindon next year, and to that we look forward. Meanwhile, watch this space, folks!

G.H.

COVENTRY

HAVING just emerged from an extremely successful Traction Engine Rally, we are now known locally as the Coventry Steam Vintage Gliding Society. 13,000 people actually found their way to the Airfield and we put on a few aerobatic shows for them, plus a display of smoky thermalling over the steam engines. We almost converted one engine and we may have been the first proud owner of a 1910 Steam Winch or maybe given a few high speed auto-tows for the price of a bag of coal ... Our thanks to the many helpers and especially to our stalwart organiser Sid Gilmore. We had another one of our rowdy parties for the Rally and so "christened" our newly completed Clubhouse extension with plenty of beer and food, not to mention the dancing on the 'anti-hob-nail boot' floor. Thanks to the girls for the food etc ... Jackie, Barbara and Val did a grand job again.

The soaring season started at HB with a mass invasion from Bicester, so retaining the valued "pot". We have drawn up a monthly Cross Country target but on

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Reciprocal interest was displayed by glider pilots and steam engine enthusiasts at the Coventry Traction Engine Rally



present performances it would appear that our Flying Committee have over-estimated the Spring thermals as we are well below the mark. However, Bill Fay went to Dunstable and return, and Ken Haynes tried out the SHK to Bicester and back. Derek Abbey, our hard-working course secretary, took time off to do his Silver distance to Pebworth near Stratford. At the time of going to press Joe Horwood has made his first cross-country flight in the Ka-13 to Edgehill and just missed completing his Silver C. Many congratulations to the dozen new solo pilots, and welcome back to Laurie Watts, who has brought his Bocian to its new home at HB.

There appears to be mass emigration for the holidays to the European Gliding sites . . . Lou Frank and family have gone to Switzerland and another bunch are invading Austria in July so "Achtung Österreich".

The next "Booze-up" planned will be on 26th September when we are having a fancy dress party . . . all will be welcome, come in your flying suits.

V.M.

DERBY & LANCs

THE last few weeks have been weeks of achievement. We have had more solo's, 'C', Bronze and Silver certificates.

Brian Jackson now has 1,000 hours gliding. Eric Wilks did 15 hours in one week on one of our courses gaining his 5 hours and Silver height in one flight.

The Daily Express recently hired an Apache to take some air-to-air photographs of the K-13 for a holiday feature they are doing. It was most interesting to see a powered aircraft and a glider flying together along our south ridge.

On the 6th and 7th of June we held, once again, a contest with our friends from the Midland club. The contest was held at Camphill and Ken Blake won the Saturday for us, but Midland were ahead on team points. On the Sunday, however, Alan Beckett clinched it for us by being the only competitor to get away to Rufforth. So we won the two day event, but Midland must also have been very happy with two Diamond heights on the Saturday.

We have had a good mixture of wave, ridge and thermal soaring and have also been able to do east wind soaring with trips across to Mam Tor—an east facing bowl about six miles away, although one or two pilots landed out on the way back. Getting back is the tricky bit.

A big damper at the moment on the flying side is the extension to Amber One which is now over the top of us. Although Eric Boyle our CFI mana-

ged to get it raised to FL 65 it does interfere with wave flying over the site.

We have had visitors from other gliding clubs lately including Doncaster, Bristol and Kent. They come from far and wide to try their hand on our ridges and are always welcome.

P.H.

DEVON & SOMERSET

COURSES are now fully under way at North Hill including 'air experience' evening meetings chiefly for Youth Clubs. These activities have been greatly facilitated by our recent acquisition of a Bergfalke III, comments about which have varied from the sublime to the ridiculous (like the member who complained that it wasn't his falke).

Our new clubhouse was perhaps socially utilised for the first real function when we had the honour of entertaining members of the American Air Force and friends from Yeovilton after their annual commemoration Service at Dunkeswell on May 31st.

The weather has been pretty good this year and we can record three Silver legs, Des Kingsland and myself for distance, Nick Allery for duration and a Bronze C completed by B. Salter. This was one of Nick's first flights in the Olympia 2B and he did well to last 5 hours in conditions which were not easy.

The blue ribbon for this period however, must surely go to Terry Brown and Bill Nill for their marathon effort on the steelwork of the new hangar. The result of seeing those trusses suddenly erected and the roof appear is most encouraging to say the least.

We are happy to report that the bar facilities in the new clubhouse are in full swing. What can be more pleasant after a day's activity on the flying field than a cool pint amongst congenial companions?

A.E.R.H.

HANDLEY PAGE

BY the time this report is in print the Handley Page Gliding Club will have joined its parent Company as a piece of history. Regretfully it was decided on May 10th that it was no longer possible to keep the Club in existence.

With its membership diminished by last year's Company troubles it was nevertheless at one time thought that we could continue as a viable entity at another site. In the event, so many of the current members were leaving the area that it would have become a different club anyway. Flying has, by the good office of the Receiver, continued at Radlett during the Spring and early Summer, but no continuity could be guaranteed.

It was in 1947 that the Club was formed under the patronage and encouragement of Sir Frederick Handley Page, who presented us with two Daglings, and an ex-R.A.F. Wild winch which we converted for launching. Our fleet was increased shortly after by the acquisition of a Cadet, later to become a Tutor by the substitution of appropriate wings. It was some years before the D.-I.-Y. training was replaced by instruction in a T.31 and the winch gave way to auto-launch—a great improvement which with Radlett's long runways gave us regular 1,500 ft. launches.

Through the years we have owned a Scud 3 and Rhönbussard, but it was in the last five or six years with the Eagle ab-initio, Swallow and Skylark 3 to follow, and a Pirat as the ultimate encouragement, that we really felt we had grown up. Now at 23, we are no more.

It is a little ironic that H.P.'s traditional "rival" at Manchester is now receiving Radlett's "Victors". Some of us are following them there, and the Avro Gliding Club is welcoming us. We thank them and the other clubs who will open their doors to our ex-members. The writer, as one of the original founders and the last Chairman of the H.P.G.C., would like to thank everybody who has

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K.R.O.

KENT

A LONG with everybody else in the gliding circle, our thermal-seeking members have gaily abandoned their winter balaclavas in favour of their 'lucky' soaring sun-hats—and not in vain.

The season started with a bang over Easter, with good South-Westerlies on our ridge, interspersed with some fine thermal days.

A section of the club emigrated to Portmoak with the club Skylark IV and a Ka6CR in March, bringing back wondrous tales of Gold and Silver heights etc. Bob Graves and John Harvey both returned with Gold heights, Nigel Read and Don Wright with Silver heights and Jim Wraight and John Harvey with Silver durations. Not that it all happens North of the Border.

The SHK of the Howard, Herne and Ross syndicate returned from its wintering at Portmoak—good timing, as April brought a number of South-Westerlies on our ridge and a fair number of good thermic days. This led to a spate of out and return races to Rochester and an increasing number of cross-country or 'attempted' cross-country flights. Already a large number of new members have gone solo this year and one of our more elderly pilots, Charles Bettles, has gained his 'C' and, flying a Swallow, shown the pundits 'how to do it'. Six Bronze 'C's' have been completed this season and with the wonderful thermal days preceeding and on Bank Holiday Monday, five Silver 'C's' have been completed.

Notable was the flight of John Harvey in a Skylark IV from Challock to Redhill—virtually up-wind to Redhill—where he landed to gain his distance, then took off and flew back home to Challock!

Our Hon. Treasurer, Roger Neame, has been lured from his book-keeping by his newly formed syndicate acquisition of a Ka2.

The club's A.G.M. was efficiency itself with Ron Cousins being elected as

the new Club Chairman. This position just left him time to rush off to Dunstable to take part in the 'Nationals'. Appreciation was expressed on all sides for the great contribution to the progress of the club made by the retiring Chairman, Hugh Gardiner.

The holiday course season is now in full swing, and at the beginning of May the Caravan Club had a rally at Challock—the best-behaved set of caravanners, children and dogs that we have ever seen. Several of them had the opportunity to sample the pleasures of gliding—and have been back for more.

L.J.M.

LAKES

THE Lakes, whilst doing nothing spectacular, has had a fairly eventful time over the past few weeks.

First we report a change of CFL. David Millett, after some four years in office, has taken up a similar post at Worcester, and Ron Hawkes is to carry on here. We wish David every success at his new club, and express our sincere thanks for his work on our behalf. Further, we welcome Roger Bull to our instructor list.

Progress: four members have won solo status recently, one of whom, a sixteen year old who was introduced to us through our Venture and Air Scout connections, knocked up his 'C' and a Bronze 'C' leg over our gritty little slag bank some three weeks later. The same bank provided another Bronze 'C' in the period.

Flying weather: only fair. One or two Sundays have produced wave conditions up to 9,000 ft. on one of which our T.53 soared to 6,000 ft. carrying the BGA Development Officer, visiting to give us the benefit of her excellent guidance and sound advice, and happily coinciding with soaring conditions.

Aircraft: we have taken delivery of a Skylark from Slingsby Sailplanes, unfortunately not an addition but a replacement, bringing the club fleet back to strength.

Many 'foreign' transmissions were picked up on our radios recently, from other northern flyers, of the "at 11,000 ft. in strong wave, simply can't get down" variety. Now whilst it is quite amusing to hear that someone is strugg-

ling if you are at 7,000 ft. with 5 knots up, it is quite another matter when valiantly trying to maintain 500 ft. over a gritty little slag bank, which the authorities are busily removing anyway. So please, gentlemen, if you are having it good, kindly whisper your position reports!

R.R.H.

LONDON

THE National Sports Class Championships has been the major event of recent weeks, and we were fortunate, yet again, to get eight contest days and some excellent soaring. The organisation, once more led by Roger Barrett, carried out their onerous job in fine style, and from the competitors' point of view it was just a matter of completing the tasks that Geoffrey Stephenson and Tom Bradbury cooked up for us. No major prangs occurred, and everyone kept their mounts flying right to the end. Let's hope the Open Class are favoured as we were.

The Nationals undoubtedly pinched the best of the weather of the year, as nobody exceeded 200 km. distances at weekends up to the end of May. Frank Pozerskis, once more, has put up a fine performance in his Cirrus by completing a 100 km. triangle in 1 hour 4 minutes, almost a U.K. record. On a more modest side, Sue Chesters got her Silver C distance in a Ka6E, while a number of other pilots have done five hour or distance legs in the Ka8's.

Whit weekend was very good, practically every glider available being airborne at some time or another. On the Monday over 20 gliders were seen at one and the same time within a few miles of

the site. The Ginn Kestrel has been clocking up the hours, still in its original red dope finish, but now shows patches of micro-ballooning! We may yet see it finished! The Nimbus is in an advanced stage of readiness, so we'll soon have two huge two seaters patrolling the hill!

Further afield, congratulations to Ray Stafford Allen, who got his Gold height at Deeside by reaching 13,000 ft. In the flight before this he took Llyn Brown to over 10,000 ft.

Our Annual General meeting in April was unusually well attended, largely because the committee were proposing to tax the members more heavily in the coming season. Costs, as everywhere else, have been rising, and we had reached the ridiculous situation where the annual subs were only just paying for the running of the Club buildings. Hopefully this year will see a recovery, particularly with a completely modernised fleet of Club gliders. The hard working General Committee remains unchanged, still headed by that tower of strength, Tom Zealway.

I hope to be able to report even better flying in the next issue, but in the meantime I'll be sampling California thermals in my old faithful Dart 17, as if Dunstable eight knot thermals weren't good enough!

M.P.G.

MIDLAND

WE are now getting down to some good soaring, both from the club's point of view and from the private owners'. We have had a spate of westerly winds, when our bungee has been used for five out of the past eight weekends, and wave has been contacted on each of these occasions.

On May 2nd Mike Horan in his Skylark 4 reached 22,700 ft. asl over what we call his "hunting ground", Lake Vyrnwy, 30 miles WNW of the Mynd. He reached this height after pressing forward from the club through six waves until he reached the lake, and height lost between waves was about 900 to 1,200 ft. Another pilot to contact this wave was Ken Rylands who gained 16,800 ft., and we hope that this is sufficient for his Diamond height. On the same day, John Tolley, John Crebbin and Jancis Scar-



Gliderwork

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borough gained their Silver heights and Jancis also did her 5 hours.

Cross-country flying is now in full swing, and the club Olympias have already completed more miles than last year. Ken Payne has at last got his Silver distance when he flew to Wolverhampton. The next day the same flight was done by Ron Pearce in the same glider to gain his Silver distance. John Brenner has completed several out-and-returns and one 182 km. triangle, and both Louis Rotter and Mike Horan have also completed 100 km. triangles.

Diana Bull went solo on 24th May, to the pleasure of her instructing father, and Les Power has also completed his A & B certificates.

If this weather holds for the whole of the summer we will have some good soaring, and a number of pilots will go cross-country for the first time.

One of our instructors, Paul Stevenson, and Gill French, also a club member, were married on June 5th and we wish them well for their future together.
P.M.

NEWCASTLE & TEESSIDE

AT long last the weather at Carlton has improved sufficiently to enable us to partake in the right sort of gliding. By the time this will have been published two of our members' courses will be history. At the time of writing only one has been completed, but if it is anything to go by, winter definitely has gone. From a week of flying during which over 300 launches were completed all types of soaring were experienced.

During the same week our CFI, Norman Revell, successfully ran an instructors course and Geoff. Walker soared to a height of 7,500 ft. in wave, completed his five hours and returned to take his Bronze C test. Cross-countries were attempted only to be thwarted by a seabreeze front penetrating too far inland. Both Rod Evans and Neil Purdy completed their A&B certificates, Neil his C also. Everybody taking part in the week's flying thoroughly enjoyed themselves. Finally on the last day, people from Radio Durham came to hear all about us and to round off a very successful week's flying.

Back to earth, as we have not reported this year through one reason or another, things have not been allowed to rest. The bent Olympia has been replaced by another for general use, and orders have been placed for further high performance solo machines. Most of the ravages of the gale before Christmas have been repaired, but the hangar roof still remains. We are also performing our usual summer tasks, clearing the runways and grass sowing.

Next year will be the club's Ruby anniversary, 40 years on. We are as part of the ground work attempting to arrange some suitable function to mark the occasion. Such as sending the CFI solo in a Dagling. We are looking forward to the club's next 40 years.

N.M.J.

NORTHUMBRIA

WE decided to hold a task weekend over the Spring Bank Holiday and sent out invitations to several neighbouring clubs. Unfortunately no replies were received. Unfortunate that is for them, as on the Sunday the only glider launched by winch that didn't contact wave and go to greater than Gold C height was the T21b. T21b pilots consistently broke off climbs at 8,000 ft. and returned to earth to ask when the club would have a canopied two-seater. Highest on the day was Ray Robson who climbed to 14,500 ft. in a Skylark 2. John Greenwell in a Dart 15R flew a 250 km. cat's cradle, to see how far the system extended and on return reported a patch of 10 knots lift at 10,000 ft.

The biggest surprise was provided by Tommy Henley who, in his own inimitable way, half solved the problem of how to get a caravan and glider to Sutton Bank for a week's gliding holiday. Tommy had insisted for more than a month that the solution was to fly the glider to Sutton, and sure enough on his day off he went complete with straw soaring hat. Delivery charges are reasonable, I'm told, and depend on how quickly you can get a crew into the bar to retrieve the pilot. Three weeks prior to this, Dick Corker in similar wave conditions climbed to Gold C height in the Skylark, and also stayed up for his five hours Silver duration.

J.R.G.

OUSE (York)

AT the time of writing we are preparing for our big open day and flying display at RAF Rufforth at the end of June—but more about that in the next issue.

As we have had sunshine for weeks on end, and temperatures in the 80's, our week-end gliding and soaring goes on from dawn till dusk, and we have, too, done a lot of evening flying. Oh! the beauty of it! To have the last flight of the day against an after-sunset rosy glow and a golden sickle moon, with the street lights of York shimmering across the river Ouse like a glimpse of fairyland!

But over two-thirds of our country-wide membership now consists of solo pilots, who are not interested in fairies, but talk continuously and authoritatively about heights and distances and durations, who have extensive experience of thermals and wave, who know the best landing fields along the East coast, and have their sights set much higher than even a sickle moon!

Since Gordon Magson and Cyril Hockley started the soaring season with 5,000 ft. climbs as early as March 7th, various members, male and female, have logged up an impressive list of flights. John Cameron, Peter Edwards, Les Hey, Arthur Sams, Norman Richardson, Barry Crocker and Jim Purves—to mention but a few—have been in the forefront. Janet Horne, glamorous 24-year-old wife of Bill Horne, has gone solo in a T.53—she is a "born pilot" and has made remarkable progress in a year.

Club officials were re-elected at the annual meeting, and Les Powell and Peter Ramsden were welcomed to the committee. We are a "swinging" club, a progressive club—and we still have lots of fun!

A.H.S.

PERKINS

IT is some time since a news item was included from the Perkins Club, but during our absence we have not been idle.

A film show was held at the new Perkins Sports Club on the 30th April which was very successful. After the dis-

asters of losing our T.21 "Daisy May" and "Eon Baby" in accidents in one weekend—fortunately no-one was hurt only their pride—we now have our replacement two-seater which is a brand new Bocian E. We are all very grateful for the assistance given to us by the Perkins Sports Club committee.

The Bocian arrived by ship from Poland in perfect condition on the 7th May. On the 8th CFI Roy Taylor and Club members, Terry Sismore and John Bowles, collected it from London Docks and delivered it direct to Derek Wilcox's specially prepared empty workshop at Northampton for C of A.

Since the arrival of the Bocian we have been flying every weekend when the weather has been kind to us and mid-week evenings too numerous to mention. Fred Pell has completed his Bronze C except for the written paper. Get swotting Fred. John Bowles has passed his assistant instructor rating down at the Dorset Club. Well done John and welcome to the over-worked instructor rota.

We wish everyone an enjoyable soaring season and if anyone is in our area, whether supported by wheels or wings, they will be welcome to pop in or drop in and see us at our location Postlands Airfield near Crowland.

I.C.B.



Alan Simpson, Chairman and the oldest Ouse Club solo pilot, cutting a cake on his 62nd birthday

SOUTH WALES

EVERYONE has had such good flying it's a job to know where to start. Our new site at Usk seems to have everything. Already two solos, Graham Fell and Andrew David in the T31, which has been to its record height of 5,800 ft. two up. Our CFI, Danny Roberts had a trip to 6,400 ft. in the Kite. Dennis Bryan-Jones our glider repair Chairman to 6,200 ft. and a Silver cross-country to Bickmarsh in the Ka 6E. The Skylark to 7,000 ft. with Eric Fitzgerald in wave and there were loads of flights above Silver height.

I managed 11,000 ft. over Abergavenny with cross-country to Aston Down to collect the glass boot of the Cotswold Gliding Club. They had collected the champagne by flying the 3F 300 the previous week.

Whitsun was glorious—11,000 ft. on Sunday in wave; 10,000 ft. (over Chepstow) on Monday and 9,000 ft. wave Ka 6E (your Scribe) on Tuesday! There appears to be a "resident" wave to much greater heights. I wonder who the first Gold or even Diamond height will be?

Our position, for visitors' benefit, is two miles East of Usk adjoining the roundabout at the end of the motorway.

I.H.S.

SURREY & HANTS

THE beautiful Whitsun weather brought many pilots to Lasham as well as a large contingent of general public in the car park alongside the airfield. Many witnessed the very sad end to Daisy, our much venerated T-21. The two-seater collided with a club K-8 and as the wing was too damaged for the instructor to keep control it spiralled into the ground killing him and badly injuring the pupil, a Boy Scout. The K-8 was flown back to the airfield and landed without further mishap and with no injury to the pilot.

The weather has provided many glorious local soaring days but hopeless cross-country conditions. Triangles have been declared to here, there and everywhere but it seems to go odd after about 50 km. However, Hugh Hilditch and Anne Burns have each managed to do a 400 km. closed circuit flight somehow!

The Phoebus is proving very popular, and although some large people are finding it difficult to fit in we have a shoulder pack parachute under construction which will make it easier for long bodies to fly the glider. Due to the sudden influx of members to S & H GC caused by the efficient motor glider training system we have had a bit of a rethink. Skylark 3F No. 160 has not been sold and our fleet remains at 4 K-8s, 1 K-6E, 1 Skylark 3F, 2 Skylark 4s, 1 Dart 17R and a Phoebus C.

The Spring weekend comps. were a bit of a disappointment as the cross-country conditions didn't really happen. We had the Dart and K-6E doing battle in the Dunstable Nationals with Stewart Morison and Harry Howitt at the helms. Much Silver C flying has been attempted recently and occasionally 500 km. or 1,000 km. have actually been exceeded, but the K-8 trailer seems frequently to disappear through the gate, then return an hour later—total kilometrage—15!

After much persuasion Phil Gardner took his Phoebus to Perranporth for his Diamond Goal on Friday, 5th June—the first Gold C leg achieved from Lasham this year. Total cross-country distance so far is 11,000 km. of which 6,500 had been done in club gliders by early June.

C.L.

THAMES VALLEY

BILL Breakspear our retiring Chairman is now President of the club. The club committee is now Ian Hobday, Chairman; Tim Chapman, Treasurer; Ken Harris, Secretary. Backed up by Eric Baker, Brian Latimer, John Strugnell and John Wood. We thank Brian for his exceptional efforts as past Treasurer and welcome John Strugnell to the committee. Steve Hope has again accepted the responsibility for all club flying matters and sits with the committee.

The new organisation at Wycombe Air Park means that the Airways Aero Association is now responsible for all launching and training facilities together with administration. We welcome Norman Smith, Gliding CFI, and another instructor, John Astley, who recently passed a course run by Bill Scull with the Scheibe Falke.

The school is running weekly courses and these seem to be going very well. Thames Valley members now have a pooled fleet consisting of three Ka7s one Ka13 three Skylark 3s and one Skylark 4, but there is still a shortage of solo aircraft on a bumper day. We have had the Lasham T21 for a few weeks and of course it has landed out, piloted no doubt by a pilot more used to Ka7 penetration.

One of our members while on holiday in Cyprus was made very welcome by the Crusaders club and we would like to reciprocate the welcome anytime they are in the area; we are very close to London Heathrow.

J.W.

WEST WALES

ALL through last winter and into the spring we concentrated on training the ab-initios with the result that by now almost all our 50 members are solo pilots. We also held a successful annual Dinner and Dance, and at the AGM we appointed as chairman our hardworking course secretary and organiser over the last two seasons, Clayton Thomas.

At the moment there is a tremendous interest in cross-country flying, especially since 21 year-old Roger Davis has managed to make it all appear so easy. Earlier in the season he completed his Silver C with a flight of 70 miles to Builth Wells and on 25th May he achieved his Gold distance—at the first attempt—when he landed at Littlehampton in Sussex. It so happens that he had also declared this as his goal! Roger now becomes the first club member to

gain a Gold distance following a launch from our site and the first to obtain the Diamond gold.

In addition to the normal holiday courses, which started in May with Tom Harding from Dunstable as resident instructor, we are also running a one week "Introduction to Gliding" course for the D.E.S. Four of our members have been accepted for the Instructor's Course to be held at the club in July when the National Coach, Bill Scull, will bring along the Scheibe Falke motor glider.

R.E.

YORKSHIRE (Sutton Bank)

WHAT a Spring and Summer we're having this year. Our "New Look" club is having a terrific time, but first we must congratulate Barry Goldsbrough whom we have just heard has come third in the Nationals in his Dart 17r. Congratulations also to Fred Knipe in his K6e—he got 12th place and also achieved Gold C distance.

Fred had been getting some good heights at the club in May—18,000 ft., 5,000 ft. and 9,000 ft. Ralph Stoddart in the Dart 15 got 8,000 ft., 8,700 ft. and 13,000 ft. Les Nicholson gained 4,500 ft., 5,000 ft. and 5,100 ft. in his Foka 3, and, earlier in the year, Les with fiancée Gwyneth in the K13, got up to 15,000 ft. Still more heights with Nick Gaunt gaining 7,000 ft. and Ian Dunkley 6,000 ft., both on the East wind wave. We have further to report that Bob Fort has done his 5 hours, and among several long cross-countries is David Lilburn's 290 km.

In between all this frantic flying we found time to hold a South Sea Island Evening, complete with grass skirts. (All matches were confiscated at the door.) The catering was excellent and much praised by all those members and guests who sampled it.

Our big deep-freeze has now been completed, due to the valiant efforts of our club director and helpers, so club food should be in even greater variety now than ever before. How about coming up and sampling it, along with our soaring, in the near future?

P.M

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SERVICE NEWS

ALDERSHOT DISTRICT

THE soaring season started in earnest when the CFI achieved a long awaited Gold height in wave at Portmoak. Howard Jarvis made a successful 50 km. flight to Shoreham, which was emulated by our Secretary in order to complete his Silver C. An ab initio solo and two Bronze C's in the same weekend has meant that most club members will not have to buy their own beer for a long time.

We now have two hangars in an advanced state of erection, thanks to the help of the "Royal Engineers". We are, however, still operating from a marquee, and in consequence can now rig and derig our K13 in about eight minutes flat.

A very hearty welcome is extended to Lee Hood who has recently joined our ranks, his help and advice is greatly appreciated.

The launch rate continues to improve, and on Sunday 31st May we managed eighty launches. The magic 100 per day still eludes us, but our sights are set to achieve this during the current season.

A word of warning to other clubs, like Bath and Wilts., we've also been "got at". This time by vandals, who smashed all the windows and screens in the A.E.C. winch, and broke into the office truck, where they proceeded to pour multi-coloured dope over all club documents and records, having first liberally distributed aircraft grease over the walls and floor. Not satisfied with this, the pressure gauges and fuel sight feeds were unbolted and stolen from the Dennis winch, which has, of course, put it U/S for the time being. Thank goodness the aircraft were left alone. However, on exposed airfields it seems that there is little one can do to combat this.

E.A.N.

BICESTER

THE cold northerly airstream and sunshine in April produced strong conditions at Bicester, leading to reports of '6 kts everywhere'—both up and down, as some pilots found to their cost. May

was also a good soaring month ending with the traditional Dunstable competition weather.

Altogether in the two months 15 Bronze Legs and 22 Silver Legs were attained by club members. There were no Golds but several attempts were made at the distance. These gave valuable cross-country experience to all concerned, especially Tony Simms who, it is rumoured, is trying for a record number of retrieves this year. The nearest to a Gold Height was George Lee's cloud climb to 10,000 ft. plus in the Dart on 27th April.

Bank Holiday weekend and the practice week for the Sports Class Nationals, brought an influx of people which was reflected as much in the club's bar takings as in flying hours. The most significant task of the week was a 303 Km triangle set to the south and west. This task was completed, in difficult conditions, by only three pilots who all took around 8 hours. One was John Williamson, displaying all the skills which enabled him to win at Dunstable and keep the title in the service for yet another year. Congratulations, John, on a very convincing performance.

Staff leave at the Centre is in July this year. August starts with a soaring week followed by the Junior Inter-Service Championships and a practice week for the Open Class Nationals. September has two soaring weeks and an Instructors' Course.

J.H.G.

CHILTERN (RAF Benson)

DESPITE the run down of the Squadron at Benson, the improved weather conditions seem to have drawn in a few more members and things look quite good for the summer, "Met" men permitting.

Whitsun weekend was the climax to a couple of months' hard "scratching" when the club flew over 53 hours in 4 days. The Ka.8 in particular really worked overtime. On the Friday, Brian Stableford flew his five hours on Chinor Ridge. The Ka8 was then aerotowed back to Benson, and spent an hour or so local soaring, whilst Brian and the retrieve crew caught up by road. Our thanks to the "Booker Boys" for the tow.

On the Saturday the Ka-8 was again

employed on Silver C attempts, but this time completed only 4 hours out of 5 thermal soaring on an 8/8ths overcast day. The pilot, Geoff Millward, newly arrived from Crusaders (Cyprus) was rewarded on Sunday when he flew his 50 Km into Bedfordshire.

It was Brian Stableford's turn again on Monday when he flew his 50 km to Henlow, much to the surprise of the spectators at the Henlow air show! Anyway, congratulations to both Brian and Geoff and again our thanks to the ATC gliding school who provided hangar space for the Ka-8.

Although by the time of publication the results of various competitions will be known, our good luck wishes go to Con Greaves and the British team in Texas and Doug Bridson at the Dunstable comps. G.M.

CRUSADERS (Cyprus)

FLYING is increasingly taking place from our excellent new site at Prastio, which lies in the heart of the flat central granary of Cyprus, away from the detrimental effects of sea breeze. Kingsfield airstrip, Dhekelia, will remain our headquarters base, however, and the new clubhouse is already taking shape alongside the hangar.

Prastio is proving a remarkable soaring site, with cloudbase up to 9,000 feet above ground on recent occasions; but conditions are expected to deteriorate

as the summer anticyclones take a firmer hold on the weather.

Cross-country mileage is steadily mounting, and it seems that only lack of a modern performance sailplane prevents records being broken. Silver and Bronze legs have been in abundance, and C. S. (Benny) Goodman has recently completed his Silver C.

Regrettably we had to bid a sudden farewell to Ivor Orrey, our Chairman of the last year, who has prematurely returned to the U.K. on promotion; we thank him for all his devoted labours, and wish him and son Tony all future gliding success. Treasurer Gordon Camp has taken the Chair for the time being.

A number of pilots from the U.K. have visited us for some shirt-sleeve soaring, and an invitation is extended to all gliding types to join us. You may not get your Bronze, but we guarantee to get you bronzed! G.C.

MAWGAN VALE (Trebelzue)

THE newest club to be formed in the RAFGSA, we got airborne for the first time on Sunday 10th May in the pouring rain with our open canopied T21b. Our launching site is the disused airfield Trebelzue, which is part of the RAF airfield St. Mawgan, 5 miles to the east of Newquay. Although we are limited when we can fly due to RAF operational flying, we are nicely situated for cliff soaring in the prevailing Wester-

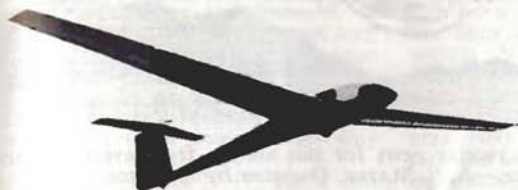


John Stockwell (right) and Colin Dewhurst ready for the maiden launch from the new Mawgan Vale club

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Swaffham Road, Bottisham, Cambridge, CB5 9DU.

lies. Mark Boyle is the CFI, and at the moment we have the one glider, winch, tractor and bags of enthusiasm!

We extend a welcome to visitors, but would request that those who come by road call at the main gate for directions to the launching site. J.M.S.

PHOENIX (RAF Bruggen/ Wildenrath Germany)

PHOENIX Gliding Club is now operating from RAF Wildenrath. Despite helicopters and assorted aircraft we have managed to gain one Silver height and 6 Bronze legs during the first three weeks of our stay. However, Silver heights will be a little difficult to obtain in the near future as we now have an altitude restriction of two thousand feet.

For the second time in twelve months we have to bid a fond farewell to both our CFI and Deputy CFI. Many thanks to CFI Roger Hodgson, who has put a great deal of work into a club which is in perpetual motion. Deputy CFI Mike Ward, who has also coped with the thankless task of Club Treasurer, is to be congratulated on the smile with which

he greets the bills, whether he can pay them or not.

Another member whom we will be sorry to lose is Margaret Worth. She began her flying career with Phoenix and has reached Bronze 'C' standard. Good luck with the flying, Margaret.

On the bright side, we have gained two new members, 'Abbo' Maunton and Nigel King, both full 'cat' instructors. They were welcomed in time-honoured Phoenix fashion, a site check and then on with the instructing. A member of the Lightning detachment from RAF Gutesloh, heavily disguised as Brian Connolly, was discovered snooping around our Tost winch and was promptly banished to the Bruggen Backwoods, known to the uninitiated as the Phoenix Workshop.

The Phoenix fleet is rather depleted at the moment with three aeroplanes away at the RAF Germany competitions, which this year are being held at RAF Gutesloh. Our best wishes go with the four pilots concerned. The airshow at RAF Wildenrath will this year be enlivened by a display of aerobatics given by one of our Swallows. S.E.

OVERSEAS NEWS



We should 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

AUSTRALIAN GLIDING. Official Journal of the Gliding Federation of Australia, is planning a Sailplane Design Competition. Entries from any part of the world will be welcome, the only requirement being that the entrant should subscribe to Australian Gliding.

Further details of the competition will be published in Australian Gliding in the near future. The intention is to elicit the design of a cross-country sailplane with a span of 13 metres which can be constructed by gliding clubs and intelligent amateur groups. Cash prizes will be awarded and there are good prospects for the future development of the winning design, whatever its nationality. The judging panel will include several distinguished aeronautical engineers, pilots and sailplane designers. Subscription details are obtainable from Australian Gliding, Box 1650M, GPO, Adelaide, 5001, South Australia.

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AUSTRIA

ZELL AM SEE.—In the past year at this centre there have been 8,044 aero-towed launches (5,675 in 1964), and 8,418 hours' flying (6,805 in 1964). The three tugs put up 1,150 hours' towing. Of the 711 pilots who flew at the school, 498 came from other countries.

Austroflug

CZECHOSLOVAKIA

BADGE LIST.—Latest published lists of pilots earning advanced badges are:—

Silver badges: Nos. 2923—2941.

Gold badges: Nos. 205—227.

Diamond badge: Vaclav Kollros, Strakonice Club, No. 19.

Letectui

LUSAKA

FROM ODD BODS IN AFRICA TO GREAT GUYS AT BOOKER.—Arriving at the airfield, one Sunday morning some six weeks ago, I noticed two odd-looking, suspicious, bearded characters at the launch point. I tried hard to ignore them, but being a decent sort of guy, I said "Hi, can I help you?" One said "Be with you in a minute" and, dropping on all fours, proceeded to look for something in the grass.

He straightened up and produced one of our large grasshoppers, firmly grasped in his grubby paw. With a sadistic look in his eyes, he proceeded to pull off its mainplanes and landing gear and then

sheepishly looked at me and said "It's for Kenneth".

I was relieved to discover that Kenneth was not his mate, but a very large cham-eleon which he had caught earlier that morning. A cold shudder ran up my back when the grasshopper was thrown help-less into a V.W. car and Kenneth, at lightning speed, produced a six-inch long sticky tongue and it was curtains for the grass-hopper.

So it came to be, that I introduced myself to Richard Wade and Charles Lagus, gliding types from Booker (my old club).

After a ride in the T-49—for I still did not really trust them—they borrowed my Sagitta, did some two-seater driving, worked like hell and ate a barbecued steak after flying. I began to like these two odd bods from home.

We talked late into the night about the boys at home—Roger Neaves, John Ellis, Bert Page, Ken Wilkinson—who were my instructors in 1959, activities at Booker and gliding in general, with an occasional smattering of sex.

The time came for Richard and Charles to leave Zambia, at which time they invited me to fly their machines if I should ever come to England. (Gull 1—Richard, and Dart 17—Charles).

Damned if I didn't arrive in London two weeks later to hold them to their promises. What a welcome! Sailplanes being offered from all directions, offers of accommodation and dinner dates, all added up to reminding me that one meets up with hellish nice guys in the gliding world.

Thank you, Richard and Charles and all of you at Booker who made me so welcome. You are my kind of people.

An open invitation is extended to all to come and sample our 5 metres up (and down) should you be in the vicinity of Lusaka, Zambia.

John Sangster

PORTUGAL

WE have been away from this column for several reasons. Gliding in this country was a poor result of the efforts of a few only. This does not mean we have bad pilots. I should say we never gave much attention to it, which is somewhat surprising because gliding is done all over Europe. Maybe the low

cost of powered flight has been responsible up to now. Years ago one small airfield was prepared for gliding, but it came to be in the approach area of Lisbon International Airport. Portuguese Air Force let club pilots use two of their runways during weekends.

Now a National Gliding Committee has been appointed with two sub-Committees (North and South). A third sub-Committee takes care of gliding activity done in overseas territories. One enthusiast offered the land for a landing area 1400 m. long, and made available facilities for accommodating people and equipment at Evora, 120 km. SE of Lisbon.

The Portuguese Civil Aviation Administration lets the Aeroclube de Portugal use two of their gliders (one Rhonlerche II and one Baby II) and a winch. The club owns one Bergfalke II/55. Last year few attempts were made from Evora, but in April this year we made the longest tow ever made in Portugal of two gliders at the same time with one tug. One Rhonlerche II (Mr. Palha up) and the Bergfalke II/55 (C. Cabral and myself up) were towed by one Auster D5 flown by J. Raimundo.

The 17th May was marked by a flight by A. Charrua south to Beja, 54 km. away. J. Raimundo was the first Portuguese glider pilot to complete his Silver C entirely in Portugal, and this he did on 30th May.

Before these two, several other attempts were made, and a few were homologated. Endurance was mainly done on Sintra hill side with orographic assistance. Height attempts were made from Beja.

E.F.M.

WEST GERMANY

SOARING WEATHER.—Weather forecasts specially for sailplane pilots are broadcast at 8.30 a.m. by UKW 11, the South German radio station. They have been sent out daily this year since 26th March.

WORLD RECORD.—On 4th June, Hans-Werner Grosse completed a goal flight of 1,030 km. from Lübeck in Germany to Angers in France, thus setting up a new single-seater world goal record, subject to homologation.

INDEX TO ADVERTISERS

Ball Engineering Company	262
P. T. Barnard & Associates Ltd., (Chronosport)	308
Beaumont Aviation Literature	327
BOAC	Inside Front Cover
British Gliding Association	325
Cambridge Sailplanes	337
Classifieds	321, 323
Ciba (A.R.L.) Ltd.	290
Peter Clifford Aviation Co. Ltd.	266
Cobb-Slater Instrument Co. Ltd.	275
Conder Group Services Ltd.	304
Cornish Gliding Club	338
Crossfell Variometers	270
Crystal Engineering Ltd.	286
Derbyshire & Lancashire Gliding Club	309
Doncaster Sailplane Services	319
Dorset Gliding Club	276
Gliderwork	330
J. Hulme	279
Irving Air Chute of Great Britain Ltd.	286
Kent Gliding Club	340
Kodak Ltd.	310
Lasham Gliding Society	340
Victor Laurence (Merchants) Ltd.	322
London Gliding Club	340
London Sailplanes Ltd.	321
Midland Gliding Club	Inside Back Cover
Pvc Telecommunications Ltd.	288
R.A.F. Recruiting	314
R.F.D.-GQ Ltd.	328
Rollason Aircraft & Engines Ltd.	282
Sailplane & Engineering Services	273
Alexander Schleicher Segelflugzeugbau	297
Scottish Gliding Union	Inside Back Cover
Slingsby Sailplanes Ltd.	276, 300
Soaring Symposia	268, 291
Southdown Aero Services Ltd.	282
Southern Sailplanes	307
Speedwell Sailplanes	262
G. E. Storey & Co.	267
Tarpaulin & Tent Mfg. Ltd.	322
Thames Valley Gliding Club	296
Thermal Equipment Ltd.	294
Alf Thompson, Rhodesia	292
Thorpe Aviation Ltd.	316
Three Counties Aero Club Ltd.	281
Torva Ltd.	Back Cover
Waikerie Gliding Club Inc.	Inside Back Cover
West Wales Gliding Association	334
Worcester Gliding Club	278
Wycombe Gliding Centre	Inside Back Cover
Yorkshire Gliding Club	289

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