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Sailplane News

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Cover: Brian Marsh flying the L-8 he took delivery of just in time for the Standard Class Nationals, coming a creditable 9th with so little time on type (see report on p274). Photo: Neil Stuart.

SAILPLANE & GLIDING

261 YOUR LETTERS
P. C. Jarvis, B. Morris, B. Wade, R.A. Macintyre, B. Zijp, A. Garside (reply by C.C. Rollings)

263 IGNORE THIS AT YOUR PERIL
C. Pullen

264 TAIL FEATHERS
Platypus

266 SPOOKY VOICES
D. Whiteley

267 FORECASTING BY NUMBERS
T.A.M. Bradbury

270 THE LATEST SAILPLANE NEWS
J. Ewald

272 LIMITED LIABILITY PROTECTION FOR GLIDING CLUBS
N. Martin-Kaye & G. Bhakar

273 WAY OFF TRACK
Penguin

274 STANDARD CLASS NATIONALS
W. Durham

276 FINAL RESULTS

277 BOOK REVIEWS

279 COMPETITION ENTERPRISE
J. Hill

280 BEGINNINGS – AN ALTERNATIVE VIEW
R. G. Skerry

281 LANDING OUT
Wingman

282 OPEN CLASS NATIONALS
M. C. Russell

284 FINAL RESULTS
9TH EUROPEAN CLUB CLASS CHAMPIONSHIPS
A. Sheard

285 BOB BICKERING – OR THE MANAGER MANAGING
R. Bickers
ROLEX CLUB CLASS CHAMPIONSHIPS

286 LAVENDER GLIDE
M. C. Russell

287 8TH EUROPEAN CHAMPIONSHIPS
J. T. Birch

288 BGA & GENERAL NEWS

289 GLIDING CERTIFICATES

292 GPS JOTTINGS
R. Feakes

294 CLUB NEWS

305 BGA ACCIDENT SUMMARY
D. Wright

306 FIRST SOLO
K. Jones

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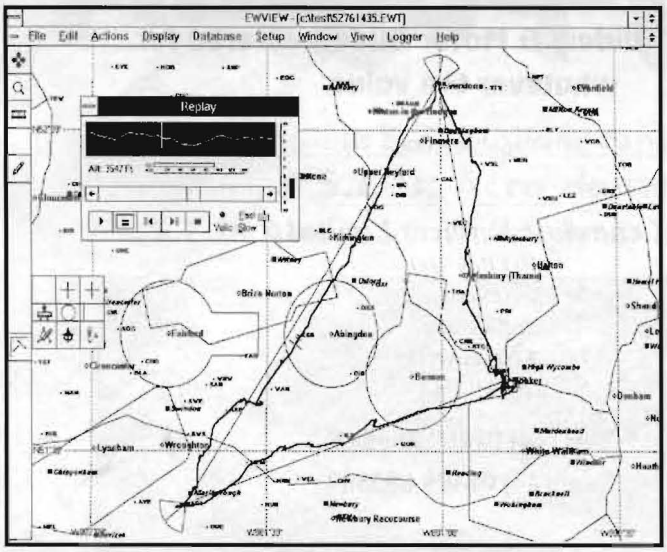
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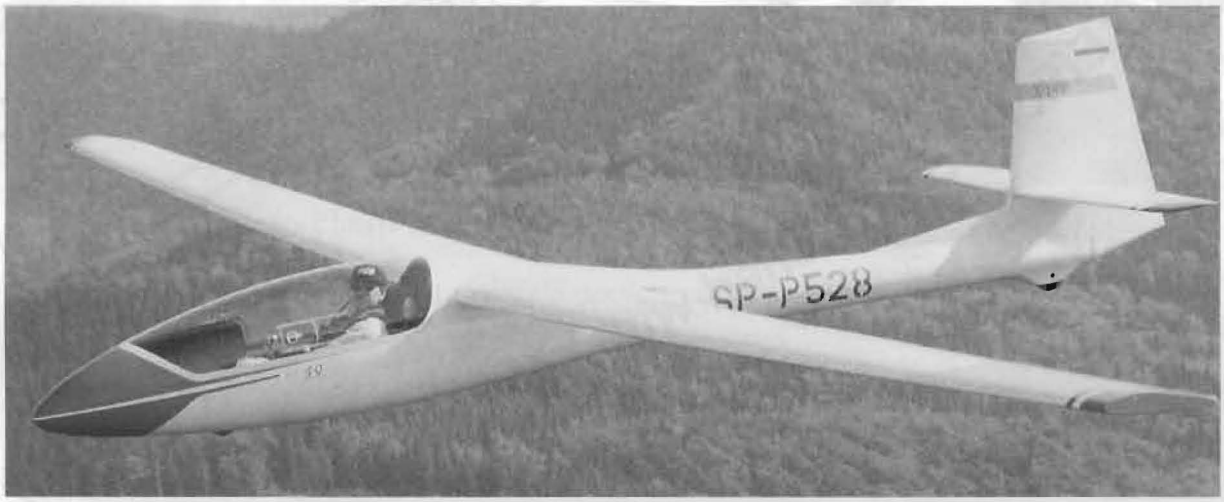
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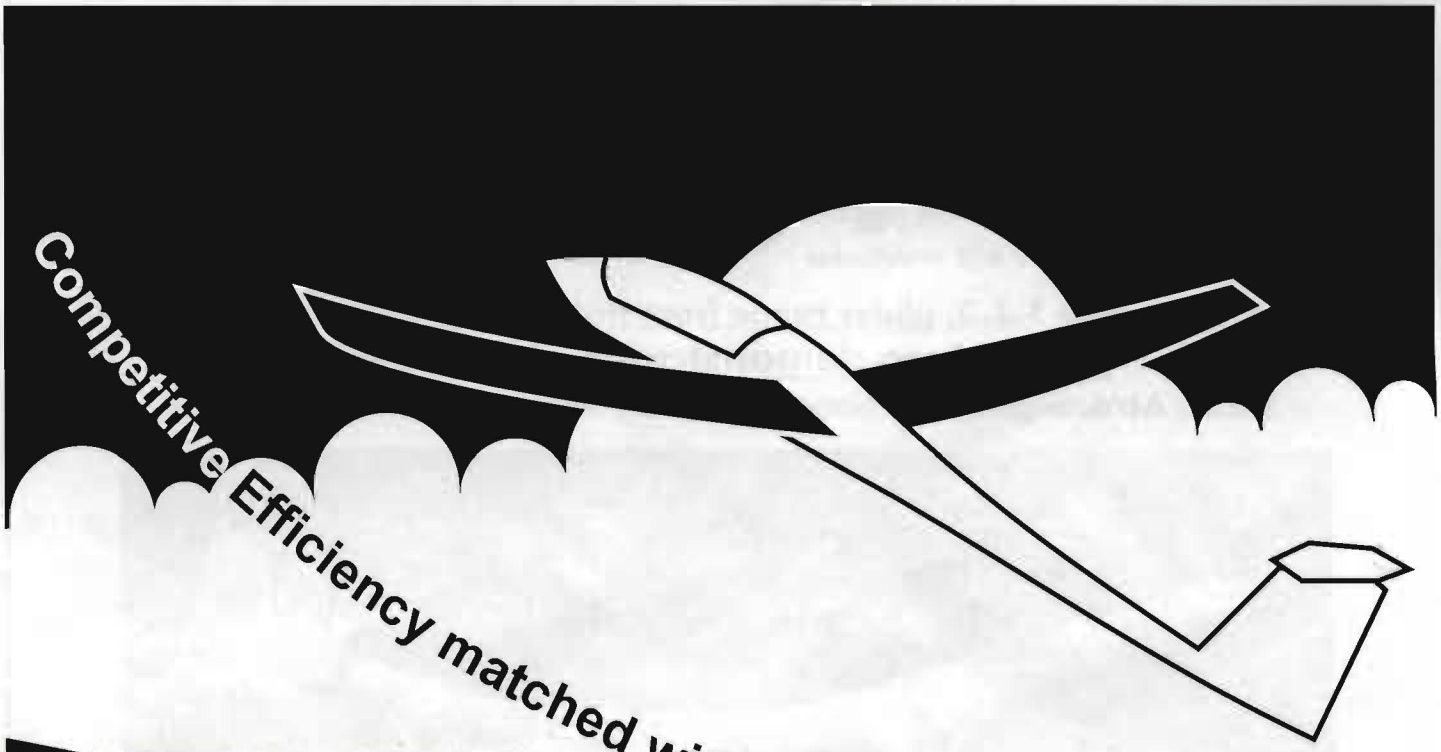
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YOUR LETTERS

UNDERSTANDING GROUNDLOOPING

Dear Editor,

I have just experienced a serious groundloop which damaged my glider. After 17 years' gliding this is my first experience of this phenomenon and I realise now that my understanding of the cause was incorrect. I had always thought it was a result of dropping a wing into some obstacle.

In my case I was trying to stop in a shorter than ideal distance with full wheel brake on when I added a little rudder to steer a curved path away from the approaching hedge. To my complete astonishment the glider viciously executed a 180° turn and stopped, damaging the fuselage.

Replaying the incident in my mind over and over again I think I now understand the mechanism.

With a modern glider with the wheel ahead of the C of G, when a braking force is applied to the wheel **and** the tail is moved out of line then a strong turning couple, comprising the braking force on the wheel and the glider's inertia acting through the C of G, will rotate the glider on its axis without having dropped a wing first.

Taxying turns on the ground are therefore extremely hazardous if any brake is applied.

I would appreciate comments on my calculations from those more experienced than myself but also to ask whether this fact should be underlined in training. I have no recollection of ever being told of this effect. Perhaps it is obvious to most people but this letter may save some other uninformed pilot like me.

PHIL JARVIS, *Newbury, Berks*

IN PRAISE OF ROGER

Dear Editor,

I would like to put on record Booker GC's appreciation of the help given by Roger Coote, BGA development officer, during our rent review negotiations.

Roger provided specialist background research, instant telephone advice, assistance with drafting all letters to the landlord's agent and he attended the meeting with the agent.

We faced a crippling increase of £17 987pa which has now been settled at £3730pa and fixed for seven years. We have also resolved the problem of helicopters flying low along our trailer park and settled other outstanding issues as part of this negotiation.

I know from my experience both as chairman of the BGA Instructors' Committee and attending Executive Committee meetings that there are plenty of brickbats and few bouquets. There are those who believe the BGA has little to offer the large professional clubs like Booker. This is an outstanding example of that not being true.

Well done to the Executive for creating the role and employing Roger.

BERNIE MORRIS, *chairman Booker GC*

WOMEN'S RECORDS

Dear Editor,

I quite agree with Siobhan Hindley's letter ("We don't need women's records") in the last issue, p199. Some years ago I won our task week cup. At the annual dinner, the following conversation took place.

Him: "Congratulations on winning the Ladies' cup."

Me: "There isn't a Ladies' cup!"

Him: "Oh. I thought you won a cup?"

Me, with dignity: "The cup was a proper cup."

With only about 10% of glider pilots being women (and some of those in a passive "if you can't beat 'em, join 'em " capacity) women are probably never going to figure greatly in the record tables. But as long as there are feminine records, there is going to be a built-in presumption of inferiority. Let any titles we do win be "proper titles".

BONNIE WADE, *Long Stratton, Norfolk*

Dear Editor,

The letter from Siobhan Hindley and reply by Basil Fairston reflects the quandary the International Gliding Commission (IGC) has found itself in after many years with a developing sport but little change to the categories in which world records may be made, together with changing attitudes to women. As was reported further into the same issue (p228/9), the IGC has set up a sub-committee to report on the categories for world records and we have bravely set out to go where no one has gone before. (Well not recently anyway.)

Yes, the question of continuation of women's records is being considered. There are strong opinions both for and against. There are opinions that want many more categories and types of world records (up to 1500 has been one suggestion), though more seem to want either less records or more categories but with restrictions on the current records so the total number is not varied much. Possibly the motor glider categories should be done away with now that motor gliders have developed into a glider with a different form of launch mechanism. When motor glider records were set up that was not the case.

As mentioned previously, suggestions and thoughts will be welcomed and considered by the five members of the sub-committee (the BGA delegate, Brian Spreckley, is a member), but as a report is required for the March meeting and members will need time to consider the ideas put forward, there is now only a limited amount of time left before we draw the line and start putting our recommendations into report form. Comments to me by e-mail on 106025.2661@compuserve.com will reach me directly, and letters *via* the editor of *S&G* will be almost as quick.

There may be records out there Jim, but (maybe) not as we (now) know them!

ROSS MACINTYRE *(chairman of the IGC World Records Review Committee)*

DEHYDRATION

Dear Editor,

I would like to make a small addition to the article on dehydration in the last issue, p209.

When Mr Schleicher came to Terlet some years ago to introduce us to the K-23 he told me that a mutual friend nearly died by dehydra- ➡



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tion because he always sweated profusely and usually replenished the water lost by drinking beer. As alcohol is a diuretic he got rid of more than he took in.

Mr Schleicher then showed me how to check if you have enough fluid in the body. You pull up the skin on the back of your hand and if it stays up like a tent you clearly have a problem. If it sinks back more slowly than normal this is an indication that you are already short of fluid.

A lot of my pupils and myself have found out that this works well.

BRUNO ZIJP, *Weesp, Holland*

NO NEGATIVE COMMENTS

Dear Editor,

The reply by Chris Rollings, the senior national coach, to the letter from Graham Lawrence in the last issue, p201, was, to say the least, regrettable. Graham deserved a helpful reply instead of a negative one.

It seemed to me that Graham, an early cross-country pilot, was not saying field landings were dangerous but that cross-country flying deserved caution.

This attitude appears responsible and sensible. Passing near your home airfield halfway through a flight does present a temptation to return and land. This may happen if conditions are difficult for the pilot concerned, the flight is too slow or the pilot is getting tired, in which case it may be the best option anyway. However, it may encourage pilots to at least set off on a cross-country who may not have otherwise done so.

No one should be accused of abandoning a possibly achievable flight. It's their decision alone whether to continue with a flight or not.

Positive encouragement is needed without leading pilots to push on either against their judgment or current ability.

I have known several German pilots for a number of years, including a German master. In Germany it is common practice to change TPs in the air if there is a significant risk of landing out. They also take a photo of an identifiable point to prove how far they have flown along a leg before returning home or flying to an alternative TP.

This practice means they often continue to fly significant distances instead of sitting in a field waiting for a trailer. Germany appears to have little problem in producing excellent international competition pilots despite this practice of abandoning possibly achievable flights.

Perhaps it's more time in the air and more skill in understanding changing weather conditions that counts. Cross-country flying can be challenging and rewarding and should provide a lot of enjoyment. It must not be spoilt by negative comments from more experienced pilots.

ALAN GARSIDE, *Maidstone, Kent*

Chris Rollings, replies: My short answer was obviously too short. Inexperienced cross-country pilots usually land out when they miss a couple of thermals in good soaring weather. Their outlandings are not usually caused by deteriorating conditions.

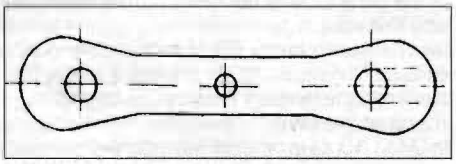
For pilots of this level of experience the only way to avoid landing out is to stay within gliding range of the airfield all the time. If a pilot's confidence in his ability to land safely in a field is low this is what he should do until he has had some field landing training of course.

Once a pilot has gained a fair bit of cross-country experience it becomes possible to abandon tasks with reasonable judgment - but you have to go and land in some fields first.

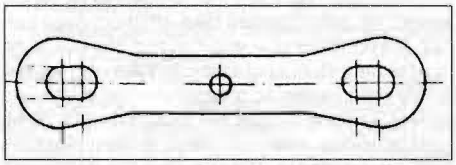
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Incorrect use of Tost Weak links could seriously damage your health

It has come to our knowledge that several clubs are using two Tost weak links for each cable. There is nothing wrong with that provided they are **different**. Not by colour of course but by **design**. By this I mean one with circular holes and the other with elongated holes. (See the diagrams below.)



Weak link insert - circular hole.



Weak link insert - elongated hole - for reserve-type weak link only.

Using two weak links, each with the same hole design, doubles the breaking load and will not protect your glider.

If you have to use two links, it is the responsibility of every pilot to ensure that the winch cable attached to their glider has not only the correct colour weak links, but also the links have different holes.

But in my experience it is normally impossible to see.

BGA recommendation:- Only use ***one*** weak link per cable, ***not two***.

Then it doesn't matter whether it has circular or elongated holes. Either will work.

Chris Pullen, *chairman of the BGA Instructors' Committee*

We welcome your letters but please kept them as concise as possible and include your full name, address and telephone number. We reserve the right to edit and select.

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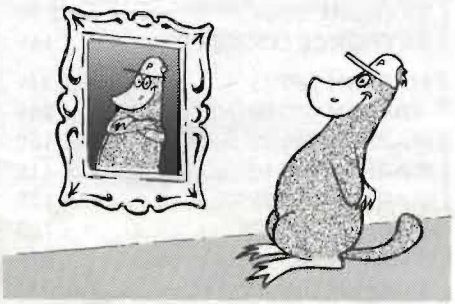
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TAIL FEATHERS

The Woobensoo Trophy



A work that does not age.

A classic is a work that does not age. George Moffat's [1]**Winning on the Wind** is 22 years-old, but most of it - leave aside the reviews of sailplanes now applying for membership of the Vintage Glider Club, such as the Capstan - is fresh, relevant and required reading still. A true classic. One of the most memorable chapters is Low-Loss Flying, better remembered for its subtitle Winning By Not Losing.

This deals with the little cumulative gains that you make when you pay attention to details like efficient starts and finishes, entering thermals cleanly, then leaving them before the lift falls off and so on. Having flown in innumerable contests and having helped to manage quite a few, I have concluded that if George brings out a new edition of the book to take young glider pilots into the 21st century, then Winning By Not Losing requires an extension, which he might call Winning by Not Screwing Up. The greatest and the humblest of competition pilots alike would benefit.



Humblest of competition pilots.

The points gains George offers in Winning by not Losing are small but important. However Winning By Not Screwing Up (WBNSU, pronounced Woobensoo) offers absolutely gigantic increases in points, as I shall demonstrate with a number of some real life examples. The names are concealed to protect the guilty.

In the era before GPS (should we start saying BG for Before-GPS, and AG for After-GPS?) one of our finest international pilots, on a day in the World Champs, increased his score by 990pts over the previous day. "Unbelievable!" you will say. Not really. He did indeed fly well on the second day, but his real WBNSU triumph was to remember to put film in his cameras for a change.

In a Regionals the club chairman similarly made a vast improvement in score from one day to the next. He managed to go round all the correct TPs as specified by the contest director, and not round a task of his own devising. The winner of the previous day (modesty forbids me to say who that was) suggested in his witty speech that the chairman's lovely wife should buy her man a GPS for Christmas. I think she did, if only to help moderate the language around the house.

I could cite several cases from my own career in olden BG days where I have earned substantial points gains as a contest wore on, so that by the very last day I was remembering to switch the barograph on before take-off (then, even better, remembering to put it in the glider), to go round the task the right way, to take my pictures in the right sector, to photograph the startboard before, and the fin and the clock after, the flight, and generally avoiding a host of little irritations and punishments. What a rare joy it is to the coarse contest pilot to see his name on a score sheet quite unsoiled by Administration Penalties! Admin Penalty on the score sheet means "You've done nothing really wicked but you have been a pain in the bum to the organisation, and we are going to make you suffer for it."

> ***"...he'd entered his GPS co-ordinates wrongly with his banana-like fingers***

"Ah, but now we are in the era after GPS, and free from the problems that TP photography brought" you interject sagely. "Nowadays such spectacular opportunities for Winning by not Screwing Up surely do not arise?"

If you believe that you'll believe anything.

One of my mates, in a goal race to another club (on a day when the weather man thought that getting back to our own site was impossible) did a fizzing final glide to a field so empty of gliders that he congratulated himself on leaving his fellow competitors well behind. It was only on the approach that the truth dawned on him: he'd entered the GPS co-ordinates wrongly with his banana-like fingers.

Pilots in England (not to mention France, Spain, Algeria, Mali, Upper Volta and Ghana) can earn excellent Woobensoo points by correctly distinguishing between east and west co-ordinates. Let your competitors forget to tell their GPS which side of the Greenwich meridian the TPs are, but **you** will remember, won't you?

At least 50pts can be gained by remembering to re-program the GPS logger from 30sec to 10sec intervals, because a fast, tight turn on the slow 30sec setting will often fail to show your presence in the sector.

Using fresh batteries in the logger, remembering to clear its memory before take-off - oh, there are a host of ways in which you can quietly accumulate points that your rivals are spilling all over the place, like a drunk with a tray of beer.

I think we should encourage pilots to Win By Not Screwing Up by giving an award to the Administratively Most Improved Contestant during the competition. This would be the competitor who, regardless of soaring performance, shows the biggest reduction in penalty points between the first and last contest days. But exactly what should this much prized, avidly contested Woobensoo trophy - which I could have won myself countless times - consist of?



But you can buy span.

Do write in and make suggestions. But for the moment I suggest a wooden spoon.

TINSFOS rethink

I've been wrong all these years. There is a substitute for span.

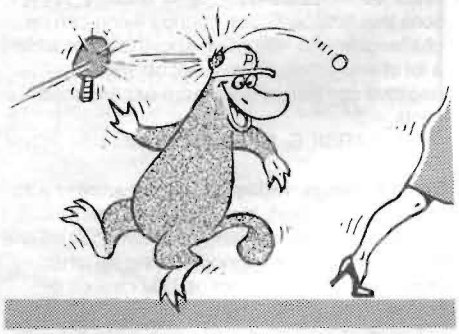
It's called Talent.

But you can buy span.

Big wings, small whinge

More about span. And more about contests. Sorry, but it's that time of year. Last week I finished a Regionals with a position smack in the middle ranks, right on the median. Boring, boring. On the previous five occasions that I had flown big gliders in British handicapped competitions, I got a 4th place, a 3rd and three 2nds.

Why not **1st**, *you ask? Indeed, why not? I must lack the killer instinct. It was the same when I played table tennis in my youth: I would get to 19pts to the other guy's 12, then I would lose*



Something else like girls.

[1]This is the second time I've referred to George Moffat in this year. I hope he doesn't begin to feel persecuted. It comes of plundering books and magazines for ideas when inspiration runs dry, and George always had lots of ideas. As I've said earlier, I firmly believe in leeching, whether in the air or in print.

concentration and start thinking about something else like girls, or when the bar was going to open, or maybe it was just nerves at the relentless pressure of being in front. Anyway the ball would start flying erratically all over the room and the other player invariably stormed past me. I didn't mind them winning so long as they didn't gloat too much.

If you want to win you really have to hate losing. My friends should have done me the favour by gloating more so as to make losing less palatable. They failed me. If this was the USA I should sue somebody.

The reason for my distinctly lacklustre performance in 1996 was chiefly the unusually good weather and short tasks on most of the days. Pilots do like getting back, so I don't blame the organisers at all for the small tasks. I do blame the weather, though. The weather let me down badly. (Difficult to sue the weather. So far, that is. I bet the lawyers are working on it.)

In the five previous competitions there was so much rain, wind and overdeveloped cloud that the airwaves were constantly rent by plaintive cries from little gliders plummeting into pastures. As I sat drinking ice-cold lager after yet another finish, the loudspeakers would regularly boom out the delicious message "Crew of number XYZ to control!" soon followed by another sweet sound, the hollow rumble of a small, empty trailer heading for the open road.

However, global warming is wrecking all this happiness. There is too much sunshine and the little blighters are getting back too often. I don't ask for continuous foul weather, just a band of stratus about 20 miles across, preferably in the last stages of the task.

This is an undisguised, self-interested plea for a change in the handicapping system to restore things to their proper order.

The handicapping system was initially based on the glider's polar curve (hah!) applied to the British Standard Thermal (hah! again). When I was first introduced to him - or her - The British Standard Thermal delivered a climb of 2.4kts to a Skylark 3 (ask grandad what that is) climbing at 35° of bank.

Years of recording all-day climb rates from the Peschges for our syndicate ASH-25 shows an average of 2.0kts[2], though that includes hundreds of hours flying around when nothing else is staying up at all, not even Skylark 3s. So the British Standard Thermal has probably been a reasonable estimate of the lift you get typically between noon and the Happy Hour.

The trouble is, averages are clumsy tools, which frequently fail to describe the real world. For instance, my favourite statistic is the fact that



See you soon, Cobbers.

[2]In Australia over the season 1990-1991 it averaged exactly 4.0kts, precisely twice as strong as Britain. See you soon, Cobbers.



Fourteen days of his life in jail.

the average Englishman spends 14 days of his life in jail.

So it is with average thermals on which handicapping is based. Very simply, if the rates of climb average 3.0kts or better the big gliders have to achieve record-breaking speeds to overcome their handicaps, which are in the region of 125-130. If the lift is only half as strong, big wings triumph. So if you mix 15 metre and 25 metre gliders, the contest result is almost entirely decided by the weather and we are reduced to vapid untruths like "Well, we are only flying for fun here, anyway". The needle, the urge to match yourself against rivals, disappears.

Lifticapping?

One way of overcoming this is to grade each day's climb rates after the event, just as the scorers estimate the wind at the end of each day for windicapping. This is not an original idea. I guess that the person who first proposed it is at the bottom of the Thames, kept under by shot-ballast bags tied to his feet with launch cable (those pilots of small gliders are capable of anything - just watch them in gaggles) or is in hiding like Salman Rushdie[3]. The problem is, how do you rate the day's thermals except by measuring the performance of the gliders on that day?

You do not have to be professor of logic at Oxford to see the dangers of circular reasoning, a conceptual version of the Oozlum Bird's famous vanishing trick[4]. If the weather determines the performance, how can you make the performance determine the weather? Well, keeping a wary eye open for the Oozlum Bird's hideous fate, I think it can be done. I know there are lots of holes in it, and it is much over-simplified, but your fun will be in putting me right.

Using a British Standard Thermal, you can easily calculate the theoretical speeds that each glider should do. (That is in principle how handicaps are supposed to be worked out in the first place, so those theoretical speed figures should exist already.) At the end of each day, the scorer calculates the ratio of the achieved average speed to the theoretical average speed for all the finishers on that day. (Refinements can be added for windicapping and the speed bonus that pilots get from starting X thousand feet higher than they finish. Don't worry, these computer whizzes can do anything, provided you explain clearly enough what you want.) That achieved /theoretical ratio is the Day Grade for Lifticapping purposes. Lifticapping tables on paper in the **BGA Competition Handbook** (or in the computer in the form of Look-Up tables) are then used to massage the scores in the customary way - that is to say, totally mysteriously to anybody who is not a professor of mathematics.

Yes, you say, but tell us, how are those essential magic tables to be concocted by our finest minds, possibly over the coming winter, sitting at their computers in the comfort of their living rooms? Easy (says he, who has no intention of doing the work). In both theory and practice the achieved cross-country speed for any given glider is pro rata to the square root of the rate of climb. Thus if the achieved/theoretical ratio is 1.30 - for instance the average speed for the day's finishers was 104km/h instead of 80km/h - then the rate of climb for the day can be assumed to be 1.69 times as strong as the norm (1.69 being 1.30 times 1.30). For each Day Grade we



A wary eye open for the Oozlum Bird.

can construct a reworked British Standard Thermal (call him or her BST 1.69 if you like) from which the cross-country speeds of each type can be recalculated, the speed differences between glider types yielding the handicaps for Day Grade of 1.30. And so on. And on. And on, through all the glider types and Day Grades from 0.30 to 5.00. (Well, you never know. We live in hopes.)

Come on, you eggheads and computer nerds! By the time you read this the damp and dark autumn will be upon you, and the only substitute for gliding is playing with, er, your terminals.

Who will have the last nerd?

I asked Warren Kay, noted member of the Comps Committee and a typical quiet, tonguetied computer genius, to animadvert (look it up) on the above thoughts, and he faxed me the following:

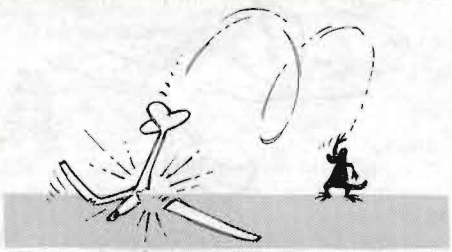
1. Lifticapping...Plat demonstrates the classic failure of those who have little knowledge of computers, ie that being able to count accurately and swiftly will solve life's wrongs!
2. Why not compute average climb rates from GPS traces much as consideration is being given to deriving the wind for handicapping purposes from GPS thermal drifts?
3. However, since winning pilots only climb in better than average thermals they will still win whatever handicap system is employed.
4. Adjusting handicaps after a task might pro-

[3]If the inventor of the idea is still around, do get in touch.

[4]Foreign readers may be unfamiliar with this creature, renowned for flying in ever-decreasing circles, with the inevitable result.

duce unexpected results such as devaluing days that only Open Class gliders complete!
5. The true solution to handicapping system inadequacies is to hold one design unhandicapped competitions, then the pilot could only blame the instruments, the weather, fellow competitors, breakfast, spouse, offspring, crew and last but not least themselves for "losing by not winning".
6. The serious problem with handicapping and, come to that the entire scoring system, is that the best days have least effect on the overall contest results. Perhaps we should consider a system in which we decide what the point spread should be between the winner and the median and massage each day's results to produce that spread.

Well, I suppose I deserve a bit of gratuitous abuse after I'd suggested that computer experts have no love life worth discussing. (I would have made an exception in Warren's case: amazingly,



Only gliders you were allowed to break.

someone does love him. No, not me, silly.) If you can't take it you shouldn't dish it out, I always say, so I have nobly refrained from censoring his blunt remarks. On the other hand this is my column and I do have the last word, which I shall now utter in order of his observations:
1. Look here, mush, I was selling squillions of pounds' worth of advertising space with the aid of computer models in 1963, when you were still in junior school and the only gliders you were allowed to break were made of solid balsa. I've never stopped using them to manage businesses and to do creative number crunching (he means, doing his expenses Ed) in the intervening 33 years. I was merely forestalling nitpickers who would raise mere difficulties of calculations, when the real problem is whether the model is valid and the data is accurate. On that last point I think Warren and I would agree.
2. Yes, we could get average thermal strengths from GPS in the future sometime but it sounds very complicated. Or do I sound like a nitpicker? The formula I suggested uses data already currently available in the present scoring system and doesn't depend on GPS. (See what Wendy Durham says about GPS failures in the Standard Class Nationals report on p274.)
3. I thought we all agreed that the aim of handicap systems is not to penalise pilots - it's not a golf handicap - but to penalise gliders. The last thing we want is a system that stops the best pilots winning. So what Warren says is good news - if it is true.
4. Yes, of course I expect my proposal to reduce severely the advantage that big gliders like mine enjoy on difficult days. Or do you think I am a totally selfish, egocentric, to-hell-with-everyone-else sort of person? (Don't answer that question.
5. Yes.
6. Yes,
In like a lion out like a lamb.

The 25 metre pilot's lament

ASHes to ASHes,
Dust to Dust
If the price doesn't get you
The Handicap must

SPOOKY VOICES!



Dave, a member of Bowland Forest GC, started gliding in 1993. Prior to this he was a member of the Pennine Hang Gliding Club since 1988. He says that by the time you read this, after further spinning and stalling, he hopes to have his Bronze badge.

When you get close to sheep they really are quite pretty animals. If only I had brought my camera on this flight then *Farmers' Weekly* would have benefited from some rare aerial close ups.

"Do you see that stile up there?" asked the voice at the back of my head.

"Yes" I said.

"Well when you see it in that position it really is marginal."

Now from my point of view (front seat of K-13) marginal seemed to represent the transition point between flying and joining the Ramblers' Association.

"You'll have to stay closer than that if you're to remain in lift" growled the voice behind.

"Oh...!"

Bang went the stick in my hand as a magical force moved us closer to the scree. "You have control...now keep it there!"

I remember thinking if I was to get any closer then I ought really to be thinking about landing, but what the hell; with 47 years' of experience the voice at the back of my head would be there to work its magic again if things went pear shaped.

"The hill shouldn't be working this far round so that lift must be thermal. I have control."

"You have control ! Thank goodness for that," I thought.

The voice in the back said, "I'll just work this for a while as we're so close to the hill and see if I can gain some height."

I was thinking my vario must not be working as it hovered a gnat's nodger above zero and all those articles in *S&G* passed through my mind about flying in conditions where anything less than a seven up was ignored. With that sort of lift the voice in the back could circumnavigate the globe in a T-21 (well maybe not...).

"There you are, I've gained us another 50ft; we're back level with the stile. You have control!" Well at least I had for a while but I don't know whether it was fear of the proximity of the hill or the angry voice ready to bark into my consciousness which made my flying become uncoordinated just at the point when...

"You should be making accurate turns - you can't afford to side slip now.."

"Exactly...!"

It was always the same, whenever I tried too hard things went to rats... I would just have to relax and let things happen naturally. That was better, even the sheep looked more relaxed. "Oh! Oh! Stick forward, watch the speed not the view in these conditions," I said to myself just before you know who boomed into my internal airspace.

"What the bloody hell's he playing at in the K-8?"

Pushing me out of the lift (what lift?). With a quick look and a turn to the left I had hoped to fly back in to the hill but it was not to be as the other K-13 was turning just where I wanted to be.

"What are you going to do now?" the voice in the back almost chuckled.

"I'm out of here. I think I'll go and land."

"Good decision! I think I'll make it. Blue card on the hill. It's just about on the limit."

All that was last week while I was trying to get things signed off on my Red card, this day was a different ball game. There I was at cloudbase (honestly, I even had to pull out my airbrakes) 2700ft QFE looking down at other gliders who were not fortunate enough to have caught the same thermal that got me up to that position. Everything up there seemed quite easy with lift all over the shop. As soon as I started circling the gliders below would fly under me but were never quite able to contact the lift

(Oh bliss!) Now don't get me wrong, I'm not bragging. I just happened to be in the right place at the right time, helped along not only by the angry voice but other voices, some calm, some laughing, some a bit bored, but all with a wealth of knowledge and experience. These were all voices that used to fly in the back seat and now that I was solo still accompanied me inside my head and it's these voices to whom I would like to say a very public thank you for teaching me to fly!

If you've read this far then you might as well know that the voices I'm referring to all belong to the professional and dedicated instructors at Bowland Forest GC.

"How's that for a public snivel then?" I said to myself.

"Should be good enough for a free flight in one or more of those private two-seaters..."

"Who said that?!?"

TOM BRADBURY

FORECASTING BY NUMBERS

This is an account of how weather forecasting changed from being an art based on long experience to a science depending on mathematics, computers and satellites

Weather forecasting started as a storm warning service for shipping and developed into a forecasting service under the direction of Admiral Fitzroy in 1861. It was not a precise science. At the turn of the century the director said: "The rules of forecasting were partly formulated and partly the result of long experience".

Scientific opinion was sceptical. It was said that: "No scientist, with regard to his reputation, will ever dare to forecast the weather".

True science involved numbers but these were hard to apply to a restless atmosphere which could not even be mapped accurately. Forecasters used geostrophic scales, graphs and tables but seldom resorted to mathematics. In the 1930s an eminent meteorologist remarked that "It is necessary to replace complicated calculations by rapid estimates".

Until the 1960s forecasts were based on the latest hand-plotted chart (which showed the recent weather) plus a 24hr forecast chart which only showed isobars and fronts. The forecast chart depended more on drawing skill than mathematics. People learned how to use a sequence of charts to extrapolate the movement of weather systems. Before 1950 hardly anyone thought of reducing the process to numbers which could be handled mathematically.

A premature experiment

There was one early attempt at forecasting by numbers. In 1913 L. F. Richardson was working on a scheme for "Weather Prediction by Arithmetic Finite Differences". The plan was to divide the atmosphere into a series of shallow boxes, find the average conditions in each box and work out the future state by a series of short steps. None of these steps were exact. He proposed a method of "analysis by segments". This used large algebraic equations which could be solved arithmetically.

Richardson made a trial calculation in 1916. It took him six weeks to work out conditions for just 6hrs ahead. The solution contained an error of 145mbar at one point. At that date the scheme



Photos A (above) and B (below): Big cu-nim - but too small for the computer to handle explicitly.

was as preposterous as suggesting the aircraft industry should try and build Concorde when their experience was limited to wood and fabric biplanes such as the Sopwith Camel.

There were two fundamental problems in Richardson's scheme. First there were no regular upper air soundings so he was ignorant of many essential factors. Secondly there was no way of making the calculations fast enough even to keep up with the weather. Richardson estimated that it would take 64 000 people all equipped with hand cranked calculators to get ahead of the actual weather.

War stimulated research

Richardson's basic problems were solved during WW2. The Air Ministry set up a network of upper air reports so the forecasters could make a three-dimensional analysis of the weather. The theoreticians could then work out how the flow aloft interacted with the weather below.

The code breakers at Bletchley needed machinery for dealing rapidly with enemy ciphers. The GPO research laboratory at Dollis Hill built them the first electronic calculator "Colossus". Once the principle was understood commercial firms were able to develop computers for other uses. The first machines were enormous contraptions filled with thermionic valves, operated by banks of switches and decorated with flashing lights. By modern standards they were painfully slow.

Numerical research started

In the UK research on Numerical Weather Prediction began in 1950 although we had no computer then. In 1953 the Met Office tested its early programmes on a machine borrowed from J. Lyons and Co and called "Leo". This took 4hrs to work out a prediction for just 12hrs ahead. In 1959 the Met Office got its own machine, a Ferranti Mercury. This was faster than Leo; it produced a 36hr forecast in 3hrs.

The Basic Stages in a Numerical Forecast

1. The grid

Weather observations are scattered irregularly over the globe. This does not suit computers; they work more efficiently if the data is presented on a regular grid.

Since the weather is three-dimensional the grid consists of several layers. Fig 1(A) shows an early three level grid used in the 1960s. Fig ➡

Photo B.



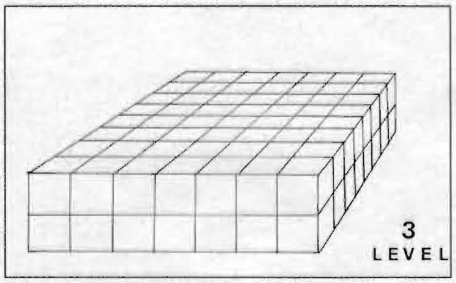


Fig 1A. An early three level grid.

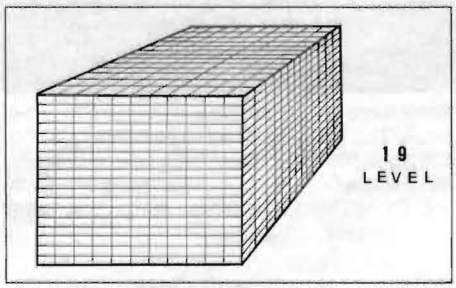


Fig 1B. A modern 19 level grid.

1(B) is a modern 19 level grid of the 1990s.

The grid acts like a net to catch weather systems. If the mesh is too coarse small systems can slip through undetected so a fine mesh is desirable. Unfortunately the finer the mesh the more calculations are needed. The first machines only worked at 2000 FLOPS, (Floating Point Operations Per Second). The programmers had to strike a balance between accuracy and computing speed and chose a grid with horizontal sides of 260km. The first model had only two levels; the roof was at about 18 000ft.

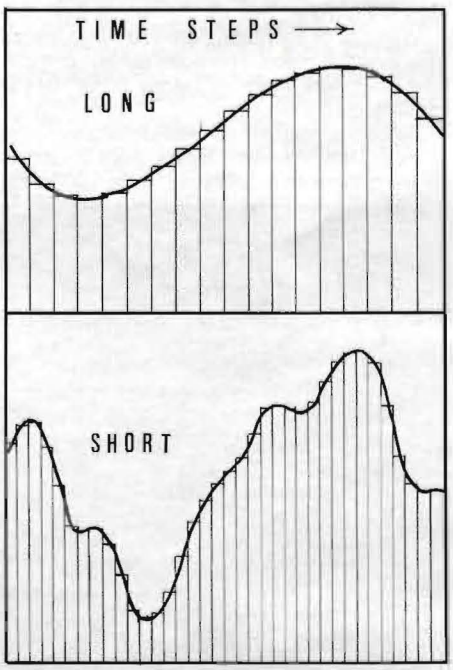


Fig 2. An example of time steps. Smooth changes and coarse mesh grids can use long time steps. Rapid changes and a fine mesh grid need short steps.

2. Time steps

A human forecaster used to draw a 24hr prediction in a single operation making adjustments by eye as he went along. A machine has to proceed in a series of short stages known as "time steps". At the end of each step the machine has produced a forecast for a few minutes ahead. Each grid point now has a new value which is used for the next step. The process is repeated many times until T+24, T+36 etc is reached. Fig 2 illustrates how a long time step is adequate when the weather changes slowly but short steps are needed for rapid changes.

3. Quality control

Almost all data is liable to error so a quality control system is needed to weed out rubbish before it corrupts the forecast. It proved quite hard to write a routine which rejects false data but still accepts observations which look improbable but are actually true.

4. Putting in the data

The first model had 432 grid points at each level where data had to be entered. In the early days the programmers took copies of charts previously drawn by hand, superimposed a transparent grid and then read off the values at each grid point.

This was far too slow; the machine had to be taught to use the irregular scattering of observations to interpolate its own grid point values. Simple linear interpolation will not do because the observations lie on a curved surface, not on a flat plane.

5. Initialisation - smoothing out the rough bits

Analyses now start from the previous forecast for T+12 so the machine knows what to expect. When the new data is fed in it can produce unexpected humps and dips. If these are left in, the predictive equations may treat them as gravity waves and amplify them so much that the forecast becomes unstable and "blows up". One method of smoothing was to put the new data in little by little over a number of steps, using the prediction process to keep the model in balance. This gentle nudging avoided the shock wave due to a sudden change.

6. Adding an extra dimension

In the early days observations were made at fixed intervals such as 06,12,18 and 24 GMT. This data was fitted by a three-dimensional analysis. Now, however, there is a mass of data from satellites, aircraft and drifting buoys for all hours of the day.

This needs fitting in time as well as space so a special "4-D Variational Analysis" was devised. The process takes ten times as long as 3-D analysis so it can only be used by the fastest computers.

7. The cut-off time.

Some data (particularly ship reports) do not reach us for many hours. The forecast is needed by a fixed time and the process cannot wait for late data. A deadline known as the "cut-off" time is set. The machine then starts with what is available. An early cut-off was partly responsible for the failure to predict Michael Fish's "hurricane" in October 1987.

The first afternoon forecast came from a model which (till then) had a reputation for accuracy. It predicted that the deepening low off Spain would pass just south of England and take the storm across France. This was wrong. The follow up prediction shortly afterwards used later data. Now it (correctly) predicted the low would track across England bringing storm force winds to us as well as the French. Alas, by then the BBC had broadcast the mistake. No amount of subsequent "Severe Weather Warnings" could repair the damage caused by that first erroneous forecast.

Progress through the years

In 1961 the old two level model was superceded by a more realistic three level version with its top around 38 000ft. The old Mercury computer was replaced by an English Electric KDF9 which produced two sets of forecasts a day. In 1973 an IBM 360/195 took over. It was 80 times faster and the extra speed was used to run a ten level model which extended up to about 53 000ft. Fig 3 shows the progression.

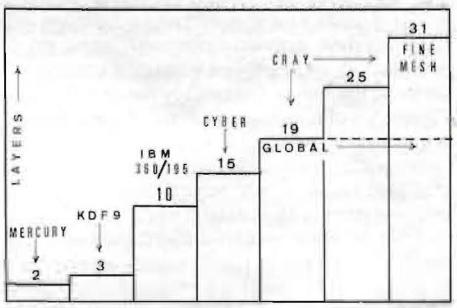


Fig 3. How the number of levels increased as computers became more powerful. The type of computer used is shown above each column.

Faster machines followed: a Cyber 205, then a Cray YMP8 and another Cray C916. The increase in speeds was huge. From the early Leo working at 2 kiloflops (2 x 10^3) the speed rose to a gigaflop (10^9) with the Cray. The European Centre has recently ordered a Fujitsu Vector Parallel Processor to replace its Cray systems. Parallel processing should give even higher speeds.

Shrinking the grid and adding layers

The faster machines were needed to cope with the huge increase in work produced by a close mesh grid with more layers above the surface. The global model now uses a 90km grid with 19 levels in the vertical. This grid is still too big to define features such as sea breezes so a finer mesh is used for limited areas. A 17km grid with 31 levels was designed to cope with small features.

Putting in the weather

Early models were fully occupied just predicting the pattern of surface isobars and upper air contours. The old machines could not cope with the physical processes of cloud and rain. Rainfall

forecasts did not begin until the ten level model started in 1973.

Statistical aids

Before machines were fast enough to compute weather directly they used statistical methods. For example when a depression was predicted statistics, based on past records, could indicate the area of rainfall. Similar techniques can be used for local variations of temperature and patchy phenomena such as fog. This is how old fashioned forecasters worked, except that they used personal experience rather than a mass of statistics to guide them.

Parameterisation

Nearly all grids are too coarse to define small systems, even those the size of thunderstorms. Such items can be predicted by parameterisation. For example one can find a parameter combining depth of instability, moisture and heating which predicts thunderstorms. The machine does not know about individual storms but it can predict the area where they may break out and work out the height of cu-nim tops.

Improving the physics

Just reducing the grid size did not improve the forecasts as much as expected. Better forecasts needed more elaborate representation of the complicated physical processes. What had been a straightforward exercise in dynamical meteorology developed into a complicated study of interacting physical processes. For example, when air is lifted condensation of moisture adds extra heat energy. This makes a moist depression deepen more than a dry one. The extra deepening alters the track and speed and eventually the whole pattern is changed.

Solar radiation is reflected, absorbed and reradiated by clouds as well as from land and sea. The net effect is so hard to compute that even now it is difficult to predict cloud cover.

The volume of data

The machine has to handle a vast amount of data to carry out these complex calculations. The latest global models may need to cope with five million variables. One of the foremost models is run by ECMWF (The European Centre for Medium Range Weather Forecasting) near Reading. This forecasts the wind, temperature and humidity at 4 154 868 points. Most operational models could handle about a million sets of data over the globe, were they available. In practice they use less than one tenth of this.

Satellites are essential

Without a huge mass of data from satellites the computers would be half blind. The first weather satellite was launched by the Americans in 1960. It made one orbit every 90min and produced TV and Infra-red pictures. In 1966 the first geostationary satellite (ATS-1) was placed 35 000km above the equator. This sent back half-hourly pictures of nearly a quarter of the Earth's surface. There are now five such satellites round the equator to cover almost the entire globe. Our nearest one, "Meteosat", stays over the Greenwich Meridian.

But machines need more then pictures

Pictures are splendid for watching how fronts and lows develop but computers need numbers to crunch. Infra-red and microwave radiation at many different wavelengths can be combined to derive a profile of temperature from the stratosphere down to the surface of the Earth. These are the kind of numbers that computers need.

The first temperature profiles came from the Nimbus series of satellites starting in 1969. Later the NOAA (National Oceanic and Atmospheric Administration) series took over from Nimbus. Orbiting satellites measure hundreds of temperature profiles daily. Upper winds are calculated from cloud drift observed by Geostationary satellites.

In recent years satellites have also begun to estimate surface winds by the scattering of microwave radiation from small scale ripples on the sea surface. New techniques are being developed to define the moist and dry layers in the atmosphere and provide details of cloud water. Satellites are also used to relay other data such as automatic weather reports from aircraft, ships and drifting buoys.

The improvement in accuracy

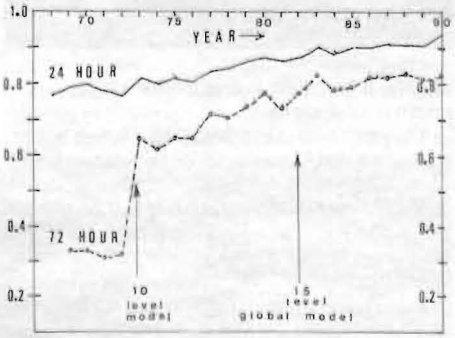


Fig 4. How accuracy improved over the years at T+24 and T+72hrs, as measured by the height-change correlation at 1000mbar. (Figures from the UK Met Office.)

Fig 4 shows how predictions became more accurate over the years. The figures up the side show the correlation of height change at 1000mbar. A value of 1.0 means the prediction was perfect while zero means it was useless. The graph only shows if the surface isobars (and hence the wind velocities) were accurate. It says nothing about the weather. The machine can work out such pressure correlations easily but it is harder to give marks for the weather, especially when it is showery.

Chaos and the limits of prediction

In 1963 Edward Lorenz wrote a paper entitled "Deterministic Nonperiodic Flow". The title did not immediately suggest its vital connection with forecasting. Lorenz had been experimenting with a highly simplified model. He found, quite by accident, that two forecasts starting from almost identical conditions, produced results which gradually diverged with time until they were completely out of phase. (See Fig 5.) The initial difference was about one part in a thou-

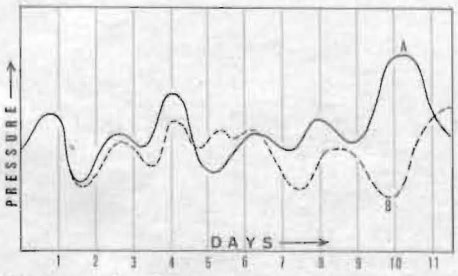


Fig 5. How two forecasts, starting with almost identical data, can diverge in ten days.

sand, far too small to be noticed by eye, but this tiny change eventually grew into a major error. Chaos had appeared. Even a minute error in the initial analysis could grow so big that the final prediction would become useless.

The growth of errors

It seems that small errors in major weather systems can double in size in two or three days. If the situation is extremely sensitive even a tiny error might eventually grow large enough to trigger an unpredicted storm. No one knows the limit but the possibilities were summarised by: "Can the flap of a butterfly's wings in Brazil set off a tornado in Texas ?". Lorenz thinks it would not.

An ensemble of forecasts

There is a theoretical limit to prediction of 15 days but the practical limit seems nearer five days. The limit varies with the sensitivity of the situation. Sensitivity can be tested by running a series of forecasts known as an "Ensemble". The first run acts as a control; then tiny changes are made to the starting conditions and the run repeated.

Machines are now so fast that a simplified model can be run as many as 32 times. If the separate predictions soon diverge the forecast is unreliable. When they agree the forecast should stay good for several days. Sadly, this is not always true. Techniques for using ensembles are still being developed.

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The Ventus cm. All photographs by Jochen.

THE LATEST SAILPLANE NEWS

JOCHEN EWALD brings as up to date with some of the latest developments in Germany and Rumania

JOCHEN EWALD

Swing in and fold - a new concept for the Ventus 2cm

In the August 1995 issue, p206, I wrote about the Ventus 2ct, Schempp-Hirth's new 18 Metre Class series.This high performance glider with the bent-up wingtips was very successful in several competitions and the delivery for any Ventus is now two years.

Now the self launcher Ventus 2cm, the last sailplane designed by the late Klaus Holighaus, has been completed by his engineering team at Kirchheim-Teck and is in production.

Klaus, who was killed two years ago in a tragic alpine gliding accident, was well known for surprising us with his unconventional way of improving the flying characteristics and performance of his designs. The Ventus 2cm is no exception.

Schempp-Hirth engineers did not like cutting the long holes in the fuselage to house the propeller and engine. Although well sealed, the gaps disturbed the airflow and lowered the performance. Also a long box had to be glued into the fuselage to strengthen the open structure, adding more weight. With the new liquid cooled engine fitted in the fuselage instead of outside, the opening could be narrower.

But this was not enough. In the previous model, a folding prop nearly halved the length of the engine box. For this version, the propeller is larger, turns slower and the blades, which are mounted on the central axle on the propeller hub, fold down for retraction. Extended, springs hold the blades in their unfolded position and the upper blade can be folded down automatically, parallel to the lower blade. It took a lot of engineering and testing to ensure this simple mechanism was efficient.

They have used the Solo 2489, which is a robust and reliable two cylinder two-stroke liquid-cooled 489cc, 40hp engine. The silencer is housed in the fuselage. It takes less than an hour to remove the engine, making it possible to use the Ventus 2cm as a pure glider. If the pilot wants to enter a 15 Metre Class competition he has to order the 15m winglets which are not included as standard with the self launcher version. The 15m version, the cm, is only certified as a glider.

The prototype I flew at Hahnweide Airfield has an empty weight of 360kg, about 10kg more than the serial production gliders. With fuel, parachute and me I flew it at 445kg. The maximum take-off weight is 500kg which, with waterballast, gives a wingloading of 39 to 45.5kg/m^2.

Compared with the turbo, there are few changes. The throttle on the left cockpit wall is just a simple knob operated by pushing forward and locked by turning the knob like a screw. Although the engine will only be used for a few minutes, this throttle might be optimised a bit. If you do not screw it up tightly, it comes loose and the throttle goes back a bit.

The propeller stopper lever under the left side of the instrument panel holds the propeller in the vertical position during retraction. Before starting the engine, the lever is pulled and turned 90° to swing the stopper away. The fuel stopcock is at the right hand side of the cockpit above the undercarriage lever. The starter button is in front of the radio button on the stick. You can only use the starter when the prop is completely out, the prop stopper pulled and the ignition switched on.

With the wheel brake lever in front of the stick it is possible to hold the stick and the wheel brake while starting the engine, leaving the other hand free to operate the throttle.

The choke works automatically. At the front of the compact ILEC engine-control instrument panel there is a LCD-indicator for rpm and cooling fluid temperature (or, if a button is pressed, battery voltage and fuel gauge), an engine operation time counter and the warning lights for high rpm and low fuel, the switches for ignition, fuel pump and the retracting mechanism with position control lights. The circuit breaker below the instrument panel serves as the main switch.

The engine is easy to start by flicking a switch to unfold the propeller, checked by a mirror on the canopy and a green light to confirm. It starts immediately, whatever the weather. A very small steerable tail wheel and wingtip wheels are optional extras.

The Ventus accelerates well and lifts off with neutral flap. It climbs at 95km/h at 2½ to 3m/sec. With the power on the stall is gentle with no nose or wing drop. A headset is recommended to protect the ears but the vibration level in the cockpit is very low and from the ground the glider is reported as being extremely quiet.

The Ventus 2cm is an excellent glider for competition pilots as well as for those who want a high performance motor glider.

The DG-800b with the new Solo engine

As I reported in the last issue, p223, Glaser-Dirks have been taken over by DG Flugzeugbau and Wilhelm Dirk, the chief designer, has test flown the DG-800b with the Solo engine replacing the Mid-West. It is a liquid-cooled two cylinder two-stroke with 625cc and double ignition.

Like the Mid-West, it is fixed to the bottom of the propeller boom and swings up with it, the cylinder head just reaching the fuselage surface between the open doors. At the same time the large silencer in the fuselage connects automatically to the engine's exhaust tubes.

Developed by Wolfgang Emmerich, it is a 55hp engine with just one carburettor allowing easy maintenance. It is the first of a series of more powerful engines designed to replace the Rotax two-stroke motor glider engines.

I test flew the DG-800b with the new engine at Karlsruhe. At the same time Wilhelm Dirks test flew his DG-600m evolution prototype with the new 18m winglets built by DG's neighbour, Güntert & Kohlmetz. While Wilhelm flew the 800b I was able to appreciate the excellent climbing rate and low engine noise.

As I said in my article last October, p258, the cockpit is extremely comfortable. During my three flights I restarted the engine several times and it never needed more than a quick flick on the starter button.

Thanks to the wingtip wheels and the robust, steerable tail wheel taxying to the runway wasn't a problem. The empty weight of the competition instrumented demonstrator was 332kg and with fuel, parachute and me our take-off weight was around 420kg in a 5kt wind. The acceleration was enormous. My optimal climbing speed was 85km/h and at the end of Karlsruhe airfield my altimeter showed 250m!

This gives a good safety margin, even if you take-off with the maximum permitted weight of 525kg or from a short runway. It was nearly like

a winch launch and if the engine should fail, there is time to plan a safe landing. Three and a half minutes after take-off I reached 1000m and 1500m in 5¾min.

At greater altitudes, the DG climbs well. When I reduced power, the nose went up a bit but the same speed soon returned. It is possible to cruise between 140 to 150km/h without over-revving the engine.

To convert back to a glider you switch off the ignition and when the propeller stops you push the starter button until the prop is nearly vertical. Driven by the air, it is held by the automatic prop brake and folds away.

I described flying the DG-800B in my previous article and there are no major differences. The prototype had little winglets, but as there was no significant improvement in performance, the standard 800 wingtips are going into production. With its new engine it is probably the most powerful motorised single-seater motor glider with folding prop available today.

Aerotowing with a motor glider - the Rotax-Samburo

In the December issue, p328, I reported on the new, powerful AVO 60/68r (Rotax-Samburo) two-seater motor glider with its 60 or 68hp Limbach engine. Its gentle flying characteristics and powerful performance made it seem ideal for glider towing.



The Samburo towing a K-8.

This new version of the old Austrian design is German and JAR type certified. Several old Samburos have been modified by LTB Gerhard Nitsche at Unterwössen south of the Chiemsee. Glider towing tests started in June in Germany with the Samburo test pilot Rainer Stöckl first tugging a K-8 flown by Unterwössen Gliding School's CFI Reiner Kipp. The results were so good, that several glider types - K-6, Lo-100, Discus, K-13 and the K-21 (both two-seaters with two up) - were towed successfully.

I was towed in a K-8 with a light tailwind. The engine thrust of 175kg gave excellent acceleration and after a short ground run I took off at nearly the same time. At 90km/h, I reached the end of the runway at about the same height as the Porsche-Remorqueur tug.

During the very comfortable tow, I had a 2 to 2.5m/sec climb rate. While this means a longer towing time than with a conventional tug, it is considerably lighter on fuel. The Samburo uses 22 litres/hr compared with nearly 60 litres/hr for the Porsche. It is also better than a tug on the descent as you may dive with the engine running idle and airbrakes out. With its liquid cooling, there is no risk of damaging the engine as often happens to air-cooled tug engines.

I then flew the K-13 with the same pleasing results and an earlier lift off than I would have anticipated. The Samburo has a good glide angle, efficient airbrakes and the knowledge that it would be easy to land in a field. I agreed with one of the senior flying instructors who said that this would be an ideal tug for first solos as pupils wouldn't be able to lose control of the aerotow.

Jochen flying the DG-800B over Karlsruhe harbour.



Solar powered aircraft



Icaré photographed by Wolfgang Lossen.

A 25m solar powered aircraft, Icaré, flew for 15min to about 400m at an airshow at Laupheim airport, near Stuttgart, Germany in July and no doubt brought us closer to the day of solar-assisted gliders.

It came first in a competition for the most impressive flight by a solar powered aircraft. Developed by Stuttgart University's Institute for Air and Space Technology and flown by Werner Scholz, it is a conventional plane that had to meet airworthiness requirements. Professor Rudolf Voit-Nitschmann and his university team worked on the design for two years.

The competition attracted 46 universities, research centres and private firms but it was such a tough challenge eventually only five planes were in contention. The rules asked for a climb after take-off of not less than 2m/sec to 500m with sustained flight at 50% solar radar intensity. Icaré flew with solar energy of only 540 ➡

watts/sq m - on a cloudless day the sun can give 900 watts.

The 260kg plane has an 8m fuselage and the wings and tail surfaces were covered by 3000 10cm square photo-voltaic cells. The solar energy is used to drive the single propeller. The motor, designed by Braunschweig professor Herbert Weh, can produce 12kw of power but weighs only 11kg.

The FAI is closely following developments in solar powered flight and hopes to stimulate rapid development in this field. Alvarez d'Orleans-Borbon, FAI's first vice-president and an international glider pilot, watched the test flight.

Christmas rush: Deadlines have to be advanced for the February-March issue to beat the postal delays in December. Main articles please by November 25 and club news and letters by December 3.

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Limited Liability Protection For Gliding Clubs

Some timely advice from two practising company and commercial solicitors

The formal organisation and legal structure of your gliding club may sometimes seem to be an unwanted chore but it is essential that club assets and the members are reasonably protected from claims. And with gliding the very nature of the activity makes it highly desirable to get things right.

The great concern is not just the time taken, the confusion and possible ill-will that can result from lack of organisation and failure to conform with the law, but the threat to personal wealth and assets, without limit, of the members themselves.

We understand that some gliding clubs are not incorporated into a limited company or industrial and provident society. In such cases every member, whether on the committee or not, can become liable for the club's debts or for claims against the club for damages, including those arising from fatalities, injuries or damage to property. Also they may not be able to access funds from such organisations as the Lottery Sports Fund.

Insurance is obviously the prime way of reducing risk but there can still be problems. The club might be under insured or not have complied with the small print which could lead to payment being refused by the insurers. Some risks may be extremely costly or difficult to insure against.

Although claims usually need some element of fault, the courts often turn a blind eye to plaintiffs having been foolish or clumsy and expect defendants to consider the likely consequences of their actions. Under the law of negligence the club and members will owe a **duty of care** to quite a lot of people including members and guests.

This country is following the USA in becoming more litigation conscious, particularly for personal injury. Damages awarded are sometimes staggering and lawyers are having a boom. The expectation of a quality assurance conscious society is now far greater than it used to be.

The state's expenditure in legal aid has risen so much that the Lord Chancellor is proposing major reforms to reduce it. However, difficulties over legal aid are unlikely to staunch the increase in this type of litigation since solicitors are now able to work on a commission basis - they get paid a part of damages but if unsuccessful don't get paid at all.

There are three things clubs need to do. The first, which most will have covered, is to comply with flying regulations and to identify and warn against all possible hazards

The second is to take out, understand and keep under review adequate insurance cover.

The third, is to become incorporated. This will usually mean setting up a company limited by guarantee or registration under the Industrial and Provident Societies Act, which will give members reasonable protection.

However, there is a further risk. When an incorporated club has claims which are not fully met by insurance, the club assets have to be sold or used to meet the balance of the claims. A club should therefore consider whether its key assets, *eg* the airfield, hangar and clubhouse, would be better "ring fenced", that is held outside the company limited by guarantee or registered society. Perhaps they should be held by another company in which all members have shares?

Registered societies have limited liability. The law relating to them is less complex and onerous and involves fewer formalities than company law relating to companies limited by guarantee. The number of basic returns is similar but company law requires more returns, particularly for peripheral matters. On the other hand, company law is more certain and more fully understood by most company and commercial lawyers and therefore their costs are likely to be lower for professional work in connection with companies.

The costs of forming a registered society can be reduced by giving your solicitor a copy of the rules of a society already registered. Rules have to cover a number of subjects stated in the legislation.

Fees for the registration of a club or for the registration of change of rules will be significantly higher than for a company limited by guarantee. It is £650 for a new registration compared to £20 for the registration of a company, and £400 for registration of a change of rules compared to no fee for a change of company articles.

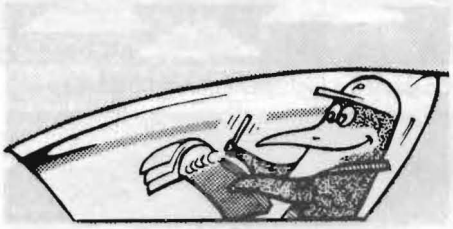
By whatever route a club is incorporated, it is advisable that the directors/committee take time to understand and comply with the formalities. Not to do so can create problems for the club and individuals concerned. Of primary importance is the need for any change in rules or articles to be properly approved at a formal meeting and for the amendments to be sent to the appropriate registrar. In the case of a society, the changes have to be approved by the registrar. Changes of the directors/committee must also be entered in a register held at its registered office and in the case of a company a return needs to be sent to the registrar.

Annual returns have to be completed and sent off promptly. Both companies and societies have to keep various details in registers and record changes, including changes of registered offices, with their respective registrars. Companies need to make a variety of other returns and societies must have the approval of the registrar to a change of name. Societies may have some tax benefits not available to companies.

This is not intended to be a definitive analysis of the law. Individual club circumstances will have to be assessed and we recommended consulting a solicitor.

Gurcharan Bhakar is a partner with Bhakar & Tomlinson Solicitors of Telford and Birmingham.

WAY OFF TRACK



Don't let's play these Games

That absurd and grossly over-large gallimaufry of rampant nationalism, palm-greasing sleaze and genuine sweaty endeavour, Corinthian sportsmanship and lowdown cheating, hype, commercialism, embrocation, jock straps and dope laughingly called the Olympic Games is in full chaotic swing in the charmless city of Atlanta, GA, as I write.

I've just been arrested by a headline in today's top people's tabloid. "Gliders hover over Olympic heights" reads *The Times*.

The story is illustrated with a picture of two Rogallos and, indeed, hang gliding proves to be mentioned below, being listed with ballroom dancing, lawn bowls, tae kwon do, snooker and pool as other activities either seeking recognition or being spoken of as potential Olympic *sports*.

Hang gliding enters the frame, apparently, because just outside the next venue for this quadrennial madness, Sydney, are some "terrifically tall cliffs which would be well suited to hang gliding". Which is probably a better reason than that advanced by the glib persuader who offered six disembodied arms beckoning, or 12 inverted legs making scissor movements, above the surface of a pool and got synchronised swimming in, one or two Olympiads ago.

The host nation's media, its swimmers and their coach are all being more than po-faced and monstrously ungracious in the face of the stunning success of Ireland's Michelle Smith - three gold medals so far and perhaps a fourth tonight. Obviously they can't grasp the fact that Paddies might swim - and swim fast.

IBM is earning international press ridicule from the failure of its $50m computerised results system to work. The never-quite-justified US reputation for efficiency has been blown away by Atlanta's failure even to half-match the organisational standards achieved by the then still Soviet Moscow in 1980, let alone Barcelona four years ago.

So, please, please, *please*, let us hear nothing from now until the end of time about real gliding (there's real tennis, so why not real gliding?) seeking inclusion amid Olympic sports.

The fact that our sport was to be included in 1940 but those Games never took place must be put down as one of the few really happy accidents of the Second World War.

Even as I bang this out I suspect I may have said much the same thing in a letter to *S&G* years ago. If so, the message bears repeating.

If its own biennial World Championships are considered insufficient and soaring wants to show itself in a wider, multi-sports, setting then let's all back the World Air Games proposal, to be tested in Turkey next year. They'll be more than big enough.

The above was written less than 12hrs before the bombing in Atlanta's Centennial Park. Lest readers may feel it is in bad taste, given that tragedy, and that it should have been dropped I advance my defence: as a reporter who has covered countless such outrages in Northern Ireland for some 25 years I fervently believe that mindless terrorism should never be allowed to impede, or to shape, legitimate and heartfelt comment.

Entrepreneurial flair is stifled on the quay

One warm, sunny, mid-summer evening Hen Penguin and I, with a small grandchild in tow, drove to Portaferry, a neighbouring and picturesque village where spring tides surge through the Strangford Narrows at a breath-taking 14kt. We went to witness a sailpast of various antique boats. They included several Galway hookers, gaff-rigged sailing craft common in Ireland's fishing fleets nearly a century ago.

Being enthusiastic bird watchers we were optically well equipped, all three of us with binoculars while I also carried my tripod-mounted Nikon Fieldscope. Once on the waterfront there, with several thousand other spectators around, I remembered the coin-operated pierhead and promenade telescopes of my childhood holidays in Hastings and other now similarly *démodé* seaside resorts.

With my oldest grandchild now well advanced in her pre-solo training and indulgent Grandad picking up the tab, my gliding outgoings have soared much more than my Jantar in recent months. Few of the launches appearing on my club account have actually been mine.

Some other spectators were eyeing my 'scope enviously as we scanned the fleet.

So I quickly whipped out a small declaration board from the car boot and scrawled on the reverse side "Support the *Rachel* Launching Fund", adding a chalked ketch sketch below. "50p to view the aged hookers".

I was rather aggrieved when Hen Penguin - whose conscience has always been markedly more tender than mine - wouldn't let me put it up.

Faceless

"Usual drawing" was the Ed's instruction to the printer inadvertently left in beneath the title heading of the last "Way Off Track" (p217) while the drawing itself was omitted.

The joy of my club colleagues when they see this and meet me at the club tomorrow will be openly expressed. There's not one of them who doesn't regard Pete Fuller's Penguin sketch as absurdly flattering, conferring a comeliness that in truth I don't possess.

Let's Learn From This

Another of the true accounts written by members of the team of accident investigators

The aircraft was being used for pre-solo training at the club home site. At about 200ft, power on the winch was shut off by the driver. After a noticeable delay the glider adopted a nose down attitude and the airbrakes were then deployed. The aircraft failed to accelerate to the speed at which the rate of descent could be arrested in the flare. The subsequent very heavy landing damaged the fuselage steel tubes and caused minor back pain to the pilots.

Cause

The launch was stopped by the winch driver because he heard the noise of the cable cutting into the drum's paying on gear. A slight over run on tow out had caused the cable to become misrouted. I don't consider this contributed to the cause of the accident since the launch must be flown in such a way as to be recoverable at all times.

The failure of the aircraft to accelerate in the nose down attitude was attributed to the student deploying the brakes after the instructor had taken control, when the pupil initially failed to select an appropriate attitude after the launch failed. Unfortunately the instructor didn't take control in the formal way but merely took over the flying. This confusion led to the student attempting to help the instructor by extending the airbrakes in the approach attitude, but before the airspeed had increased to the approach speed. Thus at the flare there was insufficient energy to arrest the descent.

Safety comment

1. Please remember that winch drivers should DI the winch and winch cables every day.
2. From the first day of training insist that students take and give control of the aircraft in a formal way to avoid confusion.
3. Every launch discuss the options available to you before you accept the cable. CB SIFT CB E.
4. Instructors should guard controls that will cause a problem if operated inappropriately at a critical time.



Denis Campbell, the Standard Class Champion.



David Allison, one of the youngest competitors, who gained a highly creditable 4th place.

STANDARD CLASS NATIONALS

Dunstable - July 6-14

Reported by WENDY DURHAM with photos by NEIL STUART

As the 1996 Standard Class Nationals assembled at Dunstable, the competition T-shirt said it all - "The Ups and the Downs".

Day 1, Saturday, July 6

Down on Saturday morning, as weatherman Derek Sear forecast substantial thermal activity, but lots of rain, with a 30% risk of thunderstorms. "Quite a high risk, actually..." was his verdict, and pilots were sent away taskless by competition director Mike Bird to await a further briefing at midday.

By then, we were on the up, as the sky looked infinitely drier than forecast. Task setters Robin May and Graham Smith briefed a 200km O/R, with alternate TPs at Cheltenham and Evesham to allow avoidance of thunderstorms, one of which was already looming west of Dunstable. "Upmanship" still prevailed as the grid launched at 1300, with Robin urging haste from his airborne vantage point in the ASH-25. Competitors took him at his word and poured through the start almost simultaneously at around 1400, rushing down track to escape the torrential rain and hail which fell on Dunstable during the next 45min.

Gloom and doom now reigned on the ground. But landouts over the next hour plotted competitors' relentless progress toward the TPs, in spite of showers down track. And as the skies cleared over Dunstable, spirits and chins rose slowly, leaving everyone in a sunny mood to greet the first finisher, Mike Young (Discus), who had Denis Campbell (Discus B), Paul Brice (ASW-24WL) and Russell Cheetham (LS-8-18) hard on his heels. But a double hardware failure - logger and camera - robbed Mike of 1st place and Denis won the day with 915pts.

Day 2, Sunday, 7 July

Sunday's airmass was broadly similar but drier, and 4kt thermals were forecast, with fewer thunderstorms. Ed Downham set a 432km triangle, Frome and Ludlow, which provoked Warren Kay to remark that the next time E. Downham Esq set a task that was 30km too long, he might lose the use of his lower limbs...



Mike Young who came 5th.

In spite of his foreboding, all were safely away by 1230, and although poor conditions at Swindon proved the early undoing of some pilots, 27 competitors completed the task, led by Warren himself (O, ye of little faith!) at a speed of 91.2km/h in his LS-8). Paul Brice, 7th for the day at over 85km/h, declared in amazement: "I wouldn't have believed it was possible for me to fly 432km today - but it was absolutely brilliant!"

Denis Campbell, finishing 2nd at 90.3km/h, held on to his lead, while Peter Sheard's 3rd place for the day in a Discus AWL moved him into 2nd overall. Special mention must be made of Nick Tillett (Discus), who after a fright at Swindon doggedly completed the task at best L/D to achieve 65.7km/h, spending more than 7hrs in the air.



Pete Masson, the youngest pilot, flying his ASW-24 into joint 6th place on Day 6.



Steve Crabb who came 3rd.



Henry Rebbeck who came 2nd.

SCORING DATA

GPS problems

This was the first UK contest to insist on a fully functional GPS/logger system in every cockpit. Whilst pilots still had the choice of using GPS or cameras as their primary evidence, all bar one elected to use GPS. The level of logger failures was excessive, with Mike Young's and Tim Scott's loggers ahead of the field in the Bad Behaviour Stakes with two failures apiece.

It suggests that no one has yet invented a perfectly reliable logger. So hedge your bets: decrease your chances of being clobbered by electronic gremlins not only by behaving impeccably, but also by taking note of some of the DOs and DON'Ts!

DO carry at least two time-recording cameras, and use - or learn to use - them as carefully as if they were your only source of evidence.

DO, if possible, carry a back-up logger, or at least a back-up barograph - Winters may be considered steam-driven these days, but they would have saved "no trace" penalties for several pilots whose EW barograph/loggers failed or were zapped.

DON'T land in fields close to high electrical activity.

DON'T mess around with hand-held radios close to the cockpit once the GPS/logger system is operational.

DON'T rely totally on your logger as evidence - even if you have done nothing wrong, you can't always trust the hardware and software in the scorer's office!

DON'T forget that although a competition is about flying, not electronic wizardry, rules have to be made - and kept - to safeguard the majority.

So DON'T risk being robbed of a well-deserved 1st place just because you can't provide satisfactory evidence of completion of the flight.

After this competition we feel GPS could stand for "Give us a Perfect System!"

Day 3, Monday, July 8

Monday morning's howidunnit was a lifetime triumph for Warren Kay, who - brandishing half-a-mile of speech notes - threatened to regale us with all the wit and repartee he had been saving up during 15 years of not winning days at Nationals. Blessedly, he was joking, and graciously relinquished the microphone after thanking his nice, new LS-8 for forgiving his mistakes, or at least enabling him to make fewer than anyone else.

Expected to be the best so far, with healthy cumulus even under spread out, Monday belied its early promise, and several tasks were abandoned before the grid was launched on a 206km polygon round Towcester, Oakington and Stony Stratford. Conditions improved slowly during the afternoon, and today it was Russell Cheetham who came home first, several minutes and 7.5km/h ahead. "On the way home," he confided, "I decided to take a long glide out to the sunshine. It was only as I came home all by myself that I realised that no one else had made the same decision!"

The next gaggle crossed a finish line which existed only in their imaginations, but escaped penalty because of an admin error, saving the bacon of at least one on the leader board! Second for the day was Mike Cuming (Discus), with Brian Marsh (LS-8A) in 3rd place. Denis Campbell, finishing 10th, maintained his overall lead, but things were really beginning to hot up, and he was now only 17pts ahead of Russell, with Dave Allison (he of the saved bacon) 56pts behind in the No 3 slot, flying an LS-8A. Henry Rebbeck (LS-4) lay 4th, less than 200pts behind the leader.

Everything was still to play for...

Martyn Wells with his LS-8.



Day 4, Wednesday, July 10

Following a scrub on Tuesday enlivened only by "Howwedunnit in France" from Andy Davis, flying *hors concours*, and maggot racing in Cinemascope, Wednesday was initially expected to be another scrub day - even by the Met man. But the overcast gradually broke up and conditions eventually permitted a 1500 launch on a 117km task around Woburn, Caxton Gibbet, Woburn.

Although heavily devalued on both distance and time, competitors revelled in the first real race of the week. Mike Cuming performed best with 413pts at 91.2km/h, but logger failure robbed him of 1st place, leaving Russell Cheetham as the winner.

Competition at the top was now fiercer than ever, with only 14pts separating overall leader Denis Campbell from Russell in 2nd place.

Day 5, Thursday, July 11

In weather apparently far better than forecast, pilots launched just after midday on a fall-forward 320km dogleg O/R, Northampton, ➡

Andover. However, as the launch progressed, conditions worsened, and task setter Robin May's heart sank as Lasham reported 8/8 cloud! However, his fears were only partially realised. On the return legs competitors climbed above 2500ft at last and made good progress. Several flurries of finishers were led home by Peter Masson (ASW-24WL) - flying his first Nationals - at around 1800.

Sixth for the day, he was overtaken on elapsed time by Denis Campbell, who at 74.4km/h flew into 1st place to consolidate his lead. Russell Cheetham's day was not so good and the gap opened up giving Denis a 207pt advantage.

However, below them the competition was now cut-throat, with only 15pts separating Chris Rollings (Discus), Dave Allison, Henry Rebbeck and the Crabb twins, both flying LS-8s. And there were still three days to go...

Day 6, Saturday, July 13

This was crunch day - and what a crunch it was! Following a scrub on Friday, an early overcast cleared to bright blue sky, with a 2000ft inversion needing 24-25°C to break. Eventually the break came and cumulus up track encouraged a 1300 launch on a 217km polygon, Oakington, Wisbech, Oundle. Most were away by 1400 or soon after, but a short lived mass of damp and inhospitable cloud from the south-west hampered late starters, and played a crucial part in what happened on task...

At 1716, Gee Dale (ASW-24WL) crossed the line to win at 66km/h. The next four finishers - Henry Rebbeck, Oliver Ward (Discus B), Rocky Stone (Discus B) and Martin Durham LS-7) - came home well spaced, each having abandoned the gaggles and struck out on his own into the blue down the last leg. Gee spoke for them all: "The place to be today was not where the British team squad and 30 other gliders were getting in your way...but out where you could do what you wanted to do!"

Jed Edyvean (Discus CS) described thermals which "stopped halfway up" and few finishers had climbed above 3000ft all afternoon - making for exhausting flying and a high workload.

The workload took its toll, particularly on the late starters: Russell Cheetham, Paul Crabb, Tim Scott (LS-8A) and, more dramatically, Denis Campbell, all failed to get back, while Chris Rollings managed only 43.5km/h.

Denis's lead had survived, but he was now only 60pts ahead of the new runner-up Henry Rebbeck. Steve Crabb was in 3rd place, only 2pts clear of Dave Allison in 4th, Mike Young lay 5th, Russell and Chris Rollings were at 6th and 8th respectively, while George Metcalfe (ASW-24) had quietly crept into the No. 7 slot when no one was looking.

With one day to go, anything suddenly became possible, especially for one of the four contenders with six finishes, 22-year-old Henry Rebbeck, sitting in 2nd place...

But it was not to be.

All day Sunday the grid sat tense and frustrated under glowering skies, watching the sunshine inching its way painfully towards Dunstable. The hours passed, the possibility of a task became more and more remote and it was only as pilots towed off the field after a reluctant scrub at 1540 that Sunday delivered its punchline. The sun came out and Denis, Henry and Steve received their well-earned trophies in sweltering heat, under blue skies with 4/8 cu - possibly the best conditions of the entire week.

But then that's how it is with gliding - and there's always another season, another Nationals and other ups to take along with the downs!

FINAL RESULTS

Standard Class Nationals

			Day 1.6.7 200km O/R alternative TPs Cheltenham, Evesham			Day 2.7.7 432km ▲ Frome, Ludlow			Day 3.8.7 206km polygon Towcester, Oakington, Stony Stratford			Day 4.10.7 117km (4 legs) Woburn, Caxton, Gibbet, Woburn			Day 5.11.7 320km dogleg O/R Northampton, Andover			Day 6.13.7 217km polygon Oakington, Wisbech, Oundle			
Pos	Pilot	Glider	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Total Points
1	Campbell, D. R.	Discus B	74.1	1	915	90.3	2	992	57.0	9	860	90.2	2	410	74.4	1	1000	(212.8)	23	647	4824
2	Rebbeck, H. A.	LS-4	61.1	=10	836	83.8	9	933	53.4	15	826	83.4	=18	365	66.1	17	855	61.0	2	949	4764
3	Crabb, S. J.	LS-8-18	(193.3)	17	658	85.2	8	946	58.8	6	877	86.0	10	382	71.1	4	942	53.1	7	868	4673
4	Allison, D. W. K.	LS-8A	61.9	8	842	90.2	=3	991	58.9	5	878	81.1	25	350	60.4	30	757	51.6	9	853	4671
5	Young, M. J.	Discus	73.4	5	886	74.8	15	851	49.3	17	788	85.9	=11	381	66.6	14	864	49.2	13	829	4599
6	Rollings, C. C.	Discus	68.2	6	880	75.8	12	861	47.2	21	767	87.2	=5	390	69.9	6	921	43.5	22	770	4589
7	Metcalfe, G. C.	ASW-24	58.5	=14	821	71.4	18	820	55.3	11	844	81.9	22	355	68.2	10	893	(198.4)	30	591	4324
8	Cheetham, R. A.	LS-8-18	70.2	3	892	77.9	10	880	69.4	1	978	90.7	1	413	63.2	24	807	(138.1)	41	340	4310
9	Marsh, B. C.	LS-8	(103.0)	=32	447	72.5	20	806	60.5	3	893	86.6	9	386	69.8	8	920	47.8	17	814	4266
10	Lysakowski, E. R.	Discus BWL	(115.5)	=29	473	75.5	13	858	54.1	13	832	75.0	=35	310	66.3	16	859	50.9	10	846	4178
11	Sheard, P. G.	Discus AWL	69.9	4	890	90.2	=3	991	(160.7)	31	525	68.5	45	268	72.7	2	970	(178.0)	33	512	4156
12	Ward, O. M.	Discus B	60.9	=12	835	67.8	23	788	(183.3)	26	600	76.2	29	318	54.5	38	656	60.2	3	941	4138
13	Fritche, P. C.	LS-4	61.3	9	838	67.0	24	781	(138.7)	38	437	88.7	3	400	63.4	23	810	49.4	12	831	4097
14	Scott, T. J.	LS-8A	(67.8)	42	283	88.9	5	979	59.3	4	882	84.3	15	371	69.6	9	917	(206.2)	25	621	4053
15	Crabb, P. G.	LS-8	(184.3)	18	639	88.2	6	973	56.0	10	851	87.1	7	389	71.7	3	953	(116.5)	43	222	4027
16	Smith, E. R.	LS-4	(182.0)	=21	615	69.4	22	802	(187.1)	=23	608	75.1	34	311	64.9	20	835	47.5	18	811	3982
17	Hurd, P. L.	LS-7WL	(185.5)	20	622	75.4	14	857	(152.8)	34	494	75.8	33	315	57.0	36	699	49.3	13	829	3816
18	Murphy, T. J.	LS-7WL	(179.3)	23	609	70.2	19	810	(171.1)	=28	567	(33.8)	=48	29	67.5	11	881	54.1	6	878	3774
19	Masson, P. J.	ASW-24WL	(67.2)	43	281	69.7	21	805	(155.2)	33	503	86.7	8	387	69.9	6	921	52.6	8	863	3760
20	Dale, G. G.	ASW-24WL	(40.2)	=46	144	(278.9)	29	447	53.7	14	829	83.4	=18	365	71.1	4	942	66.0	1	1000	3727
21	Durham, M. W.	LS-7	(182.0)	24	590	(99.8)	45	121	47.6	20	771	84.0	=16	369	67.0	13	871	57.0	5	908	3630
22	Coward, P. J.	LS-4A	60.8	=12	835	(85.5)	47	100	50.2	16	795	87.4	4	391	67.5	11	881	(203.2)	27	609	3611
23	Barker, K. D.	Discus CS	(149.8)	25	546	(268.2)	30	432	58.2	7	872	82.5	21	359	62.3	25	791	(201.2)	28	601	3601
24	Edyvean, J. R.	Discus CS	(87.1)	39	381	77.2	11	874	(140.9)	=36	446	75.0	=35	310	60.5	29	759	48.6	15	822	3592
25	Tillett, N. D.	Discus	(60.2)	=44	245	65.7	27	769	(187.1)	=23	608	81.3	=23	351	60.3	30	757	46.2	20	798	3528
26	Glossop, J. D. J.	Discus	(182.0)	=21	615	(233.7)	42	363	45.8	22	754	73.2	40	298	61.7	26	780	(201.2)	28	601	3411
27	Brice, P. F.	ASW-24WL	71.8	2	902	85.4	7	948	(158.5)	32	516	84.4	14	372	(215.1)	45	261	(150.7)	37	405	3404
28	Stone, A. J.	Discus B	60.9	=10	836	(247.1)	=35	390	(60.4)	47	197	65.1	47	245	61.1	27	770	60.1	4	939	3377
29	Pozerskis, A.	Discus	(103.1)	=32	447	66.0	26	772	57.9	8	868	85.9	=11	381	56.8	37	696	(108.6)	44	179	3343
30	Freestone, I. P.	Discus CS	(143.8)	28	534	(280.6)	28	449	(121.9)	=41	370	71.8	43	289	64.0	22	821	50.4	11	841	3304
31	Strathern, M.	LS-7WL	58.4	=14	821	(255.3)	34	406	(161.0)	30	526	87.2	=5	390	57.2	35	703	(150.8)	36	406	3252
32	Reed, J.	Discus B	(78.2)	41	336	72.2	16	828	(116.7)	43	349	75.0	=35	310	51.1	41	596	48.2	16	818	3237
33	Kay, W. M.	LS-8	(189.4)	19	631	91.2	1	1000	(124.3)	40	380	81.2	=23	351	64.2	21	824	(24.2)	49	0	3186
34	Johnston, E.	ASW-24	(103.7)	31	448	(247.1)	=35	390	(171.1)	=28	567	75.9	=30	316	55.2	39	644	47.5	18	811	3176
35	Cuming, M. F.	Discus	(88.2)	38	387	(73.5)	46	83	61.9	2	907	87.1	=18	365	65.9	19	853	(192.1)	31	566	3161
36	Fox, R. W.	Discus B	57.5	16	815	(276.0)	=32	419	49.2	18	786	75.9	=30	316	(110.2)	46	139	(206.2)	25	621	3096
37	Wall, N. H.	Discus B	(115.5)	=29	473	72.1	17	827	47.7	19	773	(33.8)	=48	29	66.5	15	863	(81.4)	48	98	3063
38	King, P. A.	LS-7	64.2	7	855	(96.9)	46	117	(121.9)	=41	370	74.7	38	308	66.0	17	855	(146.6)	39	387	2892
39	Alldis, C. J.	LS-4	(148.4)	=26	543	66.9	25	780	(100.7)	45	300	80.8	26	348	(269.5)	44	312	(154.3)	35	420	2703
40	Dawson, M. R.	Discus B	(40.2)	=46	144	(276.0)	=32	419	(135.1)	39	423	84.6	13	373	59.6	33	718	(192.1)	31	566	2643
41	Langrick, D. J.	Discus	(89.7)	=36	394	(267.4)	31	430	(104.8)	44	310	66.0	46	251	58.0	34	717	(169.1)	34	477	2579
42	Davidson, R.	LS-4	(103.0)	=32	447	(143.8)	44	185	54.3	12	835	75.9	=30	316	50.4	42	584	(90.9)	47	118	2485
43	Hilton, D.	LS-7WL	(148.5)	=26	543	(238.8)	=39	373	(27.2)	48	80	72.3	42	292	59.9	32	748	(141.9)	40	361	2397
44	Baker, P. E.	Discus B	(40.2)	=46	144	(245.7)	=37	387	(98.6)	46	294	78.7	28	334	(292.6)	43	334	45.6	21	792	2285
45	Nash, J.	DG-300	(98.4)	35	437	(245.7)	=37	387	(19.0)	49	37	73.7	39	302	52.1	40	614	(148.3)	38	396	2173
46	Stingemore, G. P.	LS-8	(40.2)	=46	144	(68.2)	49	75	(187.1)	=23	608	83.9	=16	369	60.8	28	765	(101.8)	46	141	2102
47	Hutchings, A. R.	Discus	(89.7)	=36	394	(188.3)	43	273	(140.9)	=36	446	79.3	27	338	(31.6)	49	24	(206.4)	24	622	2097
48	Welford, R. J.	LS-7WL	(82.9)	40	360	(235.3)	41	366	(152.6)	35	493	72.8	41	296	(105.7)	47	132	(108.0)	45	175	1822
49	Stephenson, E. K.	Discus	(60.2)	=44	245	(238.8)	=39	373	(175.6)	27	584	71.4	44	287	(34.8)	48	28	(119.1)	42	236	1753
	Hors Concours																				
	Withall, L.	Discus	59.7	14	828	72.4	16	830	(141)	=36	446	81.3	=23	351	61.2	27	771	(194.4)	31	575	3801
	Davis, A. J.	Discus	DNF			DNF			DNF			82.5	=21	359	69	10	907	55.5	6	892	2158
	Wells, M. D.	LS-8	DNF			DNF			DNF			88.1	4	321	69	10	907	62.4	2	963	2266

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BOOK REVIEWS

A&C Black have reprinted three great gliding books in time for Christmas

The first is **Meteorology and Flight,** A Pilot's Guide to Weather, by Tom Bradbury, which is being stocked by the BGA shop at £15.99, including p&p.

Like all books by this publisher, the layout is clear and attractive, making good use of Tom's graphics and photographs. It has been widely acclaimed and Ann Welch summed it up in her review in the December 1989 issue, p298: "It has the quality of being just as interesting to the experienced soaring nut as to the beginner pilot. Having been the forecaster at countless gliding Championships Tom knows well what pilots want to know".

Tom has written extra material for this edition, taking into account the new technology involved in weather forecasting.

Understanding Gliding and **Understanding Weather** by Derek Piggott. Both are available from the BGA shop, the first at £16.25 and second at £9.49, including p&p.

It is good to see these books reprinted as Derek deserves to be widely read. Newcomers will appreciate the way he can make the most involved subject seem simple and straightforward. He has the gift of being able to write as he speaks and readers can well imagine him with them in the cockpit.

Understanding Gliding has become a classic and this is its third, updated edition. It covers all you need to know about gliding and loads more. **Understanding Weather** unravels the mystery of the science and both books are generously illustrated and beautifully presented in a very uncluttered, pleasing style.

Both books were reviewed in the October 1995 issue, p271.



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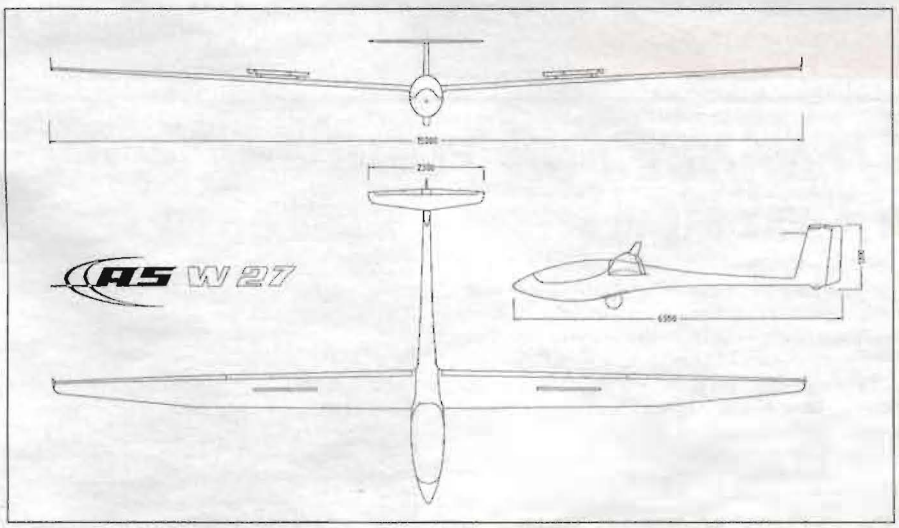
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Bill Scull photographed John White (left) from Canberra, a friend of the Wallington's, presenting a copy of the book to Frank Irving who received it on behalf of Lasham Gliding Society where Wally started gliding.

Wally Wallington Remembered

Wally Wallington, the Life and Times of a Weatherwise Man by Joyce Wallington, printed privately in paperback.

This happy little book is about someone who played a great part in post-war gliding in Britain and later in Australia, but who always enjoyed life to the full. As a meteorologist at numerous British Championships he gave not only clear, realistic briefings but for several years brought excellent anticyclonic weather with him. It seemed magic when the thermals and Wally arrived together after days of wind and rain. He was also unique in that, unlike many clever people, he could switch off his analytical thinking instantly for a party.

Wally, with his wife Joyce and their family, emigrated to Australia in 1969, enjoying a happy life there and around the world gliding, ballooning and lecturing until Wally's death from a rare illness in 1992.

Joyce's story of Wally's life highlights all that was important to their family and friends, including son John's international successes in ballooning. The book brings back many happy memories of gliding fun.

ANN WELCH



The course members looking forward to another blue day. The instructors were, from left to right, Chris Rollings (second place), Guy Westgate (third) and Adrian Hatton (sixth). Photo: Neil Rathbone.

Sponsorship for Young Pilots

With the declining number of young people coming into gliding and the competition we face from newer, and often cheaper, sports, it is obvious that clubs must be thinking seriously about how they can lower the average age of their pilots.

As someone who had his first flight at 11 years-old, I know how the desire to fly can turn into a burning ambition. After that first flight I decided to save up and learn to glide but other things got in the way - work, wife, family, overdraft etc - but the day did come 26 years and 11 months later when I joined Buckminster Gliding Club.

Clearly there is a danger that cost will put off the young from ever trying the sport. With this in mind, Chris Rollings, BGA senior national coach, has secured a £5000 sponsorship from Mobil Oil towards training young pilots, and this was doubled by the Sports Council's Sportsmatch scheme which will match private sector sponsorship pound for pound. The £10 000 will be used to support juniors, defined as 18 years-old or 21 if in full-time education, who go on recognised courses. The scheme will pay all their course fees and £100 towards their flying fees.

This handsome encouragement was launched *via* a BGA junior cross-country course in July at Buckminster GC, which was combined with a soaring course. Six juniors of mixed ability were sponsored and flew the BGA's DG-500, Puchacz and, for the more advanced, the Discus.

It was an extremely successful start to the scheme which we hope will give encouragement to our young pilots.

NEIL RATHBONE

Make Christmas present buying for glider pilots easy this year - buy from the BGA shop. A catalogue will be sent on request - tel 0116 2531051.

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UPLIFT



This dramatic acrylic painting is by John Boydell Rogers, a retired lecturer at Goldsmiths College, who manages an idyllic summer life style. He flies at Le Blanc and gives painting classes in the Dordogne. This print, a limited edition, is called "Uplift" and is from his Icarus series. He describes himself as an "enthusiastic but lousy pilot" with 200hrs and a 300km flown on a day when "I didn't know how to get the thing down!" He also has a PPL. John, who has exhibited his work widely, also has a series of Icarus greetings cards.

ABOYNE WAVE



Robert Shallcrass took this photograph while flying in October wave at about 8000ft over Glen Tanar, near Aboyne, in his Std Libelle.



John Street and Simon Leeson with their K-13. Photo by Jim.

COMPETITION ENTERPRISE

North Hill, June 30 - July 7

Nick Gaunt won in an LS-7 with three K-6Es in the top five and seven contest days out of eight, despite frequent rain showers and strong winds. A report by Jim Hill who also competed

"From goblins and pixies and long leggety kaysixies. And things that go bump in a cloud. Good Lord, deliver us." - A West Country prayer for pilots of glass gliders.

This year's competition director was Tom Zealley. The task setter was the inimitable John Fielden, ably and most efficiently assisted by members and staff of the Devon & Somerset GC, with much good humour and friendliness. We thank them all.

Thirty gliders were entered, ranging from high performance glass, (Ventus) to low performance wood, (Gull 1). Somehow or another John was expected to make sense of this disparity (and all of the others in between) and fit them into tasks which gave a reasonable chance for them to compete with each other. That he managed so to do, in the main, with great expertise and not a little low cunning, can be seen by the results.

If it had been a Regionals or Nationals, I doubt that more than two contest days could have been flown. (Some say, one.) On three of the other days, had I been staying at my own club I wouldn't even have bothered to leave my caravan. However, as it was Enterprise, only one day out of the eight proved to be just too awful to squeeze out a proper contest, but even then one brave soul made a valiant attempt and the others didn't give up until late that evening.

Day 1. Sunny but windy with north-westerlies of +30kts at 4000ft. John drew little lenticulars on the blackboard. We all laughed. North Hill is not renowned as a wave site. The task was a choice of five TPs. Any number could be turned, with bonus points for getting back. Several pilots contacted wave. Nick Gaunt (LS-7) spent 4hrs over 8000ft. He reached 11 000ft over Yeovilton and 10 000ft over the Bristol Channel. Mike Wood (K-6E) reached 7500ft along with some others. Only three made it back. The !st was Nick Gaunt with 379km, 2nd Mike Wood and 3rd Mick Wells (Kestrel 19), both with 228km.

Day 2. The only pilot who tried to make anything of the grotty conditions was Jay Rebbeck, (K-6E) who deserves the sobriquet, Gunga Din. (You're a better man than I am, GD.) The rest of us stayed firmly on the ground. For his efforts Jay was awarded the princely score of 20pts. The distance flown was 9km in 3hrs 30min, (2.6km/h) - surely the slowest scoring cross-country in history. Much of his time was spent "rock polishing" on a downwind ridge, waiting for conditions to improve, but they didn't.

Day 3. Cloudbase 1800ft above the site, with some sun, showers and windy, but not quite as strong as on the day before. John set a number of O/Rs of varying lengths, but the increasingly frequent showers made a mockery of trying to achieve long distances. It was possible to soar the line squalls and jump across to the next one downwind but, if you were unlucky, they spread out to join up with each other and then you were sunk, literally. (At least, I was.) Jay Rebbeck won the day with 98km. Gerry Martin (Open Cirrus) was 2nd with the same distance and 3rd was Maurice Clarke (Pegasus) with 88km.

Day 4. Windy with showers forecast from mid afternoon. John set a downwind race to Lasham - there was no chance of anyone getting back in such conditions The first pilot to Lasham was to observe the others and time them down. Who was to time the first pilot down? John didn't say. ➡

Ten made it led by Jill Atkinson. (Libelle) with Jay Rebbeck 2nd and Gerry Martin 3rd.

Day 5. John was unavailable for this day, so task setting became the responsibility of Mike Garrard. The weather was much the same as before and the task set was an individual choice of routes to photograph as many as possible of the airfields and lakes shown on a quarter mill map. Scoring was on the basis of 1pt/km for distance and 10pts for each acceptable picture. Once again showers played a major part in one's choice of route. Get it wrong and down you went. Chris Nicholas (K-6E) was 1st with a very creditable 119km and ten photographs. Nick Gaunt was 2nd and Derek Staff. (K-6E) 3rd.

Day 6. No real change in the weather, a little more sun perhaps, but the strong westerlies and showers dominated John's task setting, so he set, again, a choice of different TPs for O/Rs. It really was frustrating weather but, of course, it was infinitely better than not being able to fly at all. Despite the conditions, 25 of the fleet attempted the task, clocking up more than 50hrs and 2400km. Nick Gaunt came 1st with 260km, Jay Rebbeck 2nd with 200km and Ron Davidson (SB-5) 3rd with 195km.

Day 7. At last the strong winds eased, but not quite as much as was forecast. Sunny and showers with a low cloudbase, locally less than 2000ft. John's task setting was three sets of 170km, 120km and 90km O/Rs, so located as to give one set, at least, a chance for us to keep our wings dry. The scoring system was to award every task 1pt/km for the outward leg and on the return leg 5, 3 and 2pts/km for the long, medium and short tasks respectively. Jon Hart (Vega) took a cloud climb to 10 000ft. He came out of it with ice on his wings, raced to his TP and saw Nick Gaunt, who hadn't gone into cloud, ahead of him. Nick was still on the ground when Jon took off. Galling isn't it? However, Jon Hart did win the day with 260km. John Cadman (Libelle 301) came 2nd and Nick Gaunt 3rd, both with 210km.

Day 8. The weather was supposed to be better than that for the previous day, with clearing skies expected to develop around noon. John set a large task. O/Rs to Broadway or Lasham or a triangle around them. In the event, the clearance decided not to make an appearance. About 11.30, Jay Rebbeck launched into an overcast sky. Within a couple of minutes he had disappeared into cloud and nothing further was heard from him until he landed at Lasham, 3hrs later, rained out of the sky. After a while things improved a little with the Broadway task appearing to offer the driest route. Chris Nicholas launched and several others followed suit. Those who took off at that time got away before the heavy showers started up yet again. Everyone but Nick Gaunt landed out. He made it to Broadway and back (328k). Stuart Thackray (ASW-20) almost got back with 290km and 3rd was John Street/Simon Leeson who reached Lasham, for their 2nd time that week, in the K-13.

The top five positions, overall, were; 1. Nick Gaunt (LS-7), 2781pts; 2. Jay Rebbeck (K-6E), 2361pts; 3. Stuart Thackray (ASW-20), 1727pts; 4. Jim Hill/ Mike Wood (K-6E), 1365pts; 5.Chris Nicholas (K-6E), 1356pts.

And so, the 23rd Enterprise ended with a total of 11 606km flown in 339.5hrs, much of it in weather conditions which, under normal circumstances, would have seen our gliders remaining firmly in their trailers. John Fielden's imaginative task setting, with pilot choice of TPs and launch times, enabled contest days to be flown when, under BGA competition rules, they would have been scrubbed, most surely. Gaggle flying was eliminated and our little grey cells were exercised. We had to think about the task which we, individually, could achieve on each day; much more so than in competitions where a gate is opened and the herd stampedes across to a common TP. It was also great fun. Without doubt Enterprise is the king of gliding competitions. Thank you, Philip Wills.

Next year up to Yorkshire, at Sutton Bank and I have been informed that I am to be competition director. (Oh! lucky Jim, how we envy him.) So, if you want a competition which exercises your mind as well as your flying skills; considers hours and distances flown to be more important than sticking rigidly to single task racing, with its X and Y restrictions and where the only rule is, There Shall Be No Disputes, then Enterprise is for you.

BEGINNINGS - an alternative view



Dick with his woolly hat.

My introduction to gliding was not as auspicious as some. Not for me the whisper of wings, the snarl of a tug engine or the smell of newly cut grass on a summer day. My first day, I recall through the mists of time like the sepia of an old photograph, was a freezing January many years ago. The wind, flecked with the odd flake of snow, howled across the wartime airfield which was the first landfall after the North Pole.

From a distance I saw a group of what appeared to be balls of wool huddled round a white aircraft. As I paused to allow my pulse to settle and my resolve to return, I saw the machine hurled aloft by some great unseen hand at an angle that took my breath away.

I wandered over to the group of balls of wool and introduced myself. The welcome seemed genuinely friendly and I was invited into the nearby caravan.

"My goodness" I thought, "they've got a nest. Warmth and the mug of tea thrust into my hand gave me the confidence to look round at this assembled crew. All were uniformly dressed with huge anoraks, multiple layers of trousers and woolly hats. I asked what I would have to part with for entry into this strange land of silent flight. With this the great white bird which I had seen being cast aloft like a demented fledgling with a death wish was landing again.

To my amazement it still seemed in one piece. The caravan emptied as the woollens all gathered round it. Another ball of wool was cajoled into the front seat. Several strange incantations were muttered, the last sounding similar to "tall sprout", and off it went again.

I discovered to my surprise that at a reasonable price I could have a flight to see if I liked it. I noticed that though the front seat occupant was changed regularly, he of the woolly hat in the back seemed to be treated with a special reverence. Not for him the trudge back every time. He remained seated and was fed copious quantities of tea.

"Your turn" instantly filled me with a mixture of dread and excitement. "I haven't a woollen hat" but it was too late. I was shoehorned into the front seat and tied in place with webbing straps. To my consternation the god like one in the back got out. "Heavens" I thought "they think I can fly". My panic subsided slightly when I heard him say to another of the group "You can take him".

Cast aloft by an unseen hand almost a mile away, I recalled thinking only superman could do this. By the time the wheel rumbled along the tarmac my mind was changed. Driving home with my head full of checks, elevators and attitude I knew the first thing I would do the next day - buy a woollen hat.

SAFETY ADVICE

TECHNICAL CAUSES

- Some accidents in this category may be disputed. Did the canopy come off because of a design fault? Probably not. It is more likely the pilot failed to lock it properly.
- Technical failures as such may not have been noticed on the DI or even at the C of A. The DI is your last line of defence. Don't assume that because the glider flew yesterday everything is OK.
- Cumulative effects may be critical. Damage from one heavy landing or ground-loop may not become apparent until the next incident. Always report an incident to an instructor or inspector - it is an operational regulation to do so.
- Control cable ferrules are a common cause with potentially serious results. Check that the crimping tools are the right size and proof load the cables.

BILL SCULL

LANDING OUT

A field in Bedfordshire

My hands were sweating and my mind racing - I knew it was time to make the decision, I was already low enough so I lowered the wheel. The field lay alongside and I checked for wires and cables, obstructions on the approach, poles in the field itself, animals and access. All looked OK. The sun, burning from a cloudless sky, watched me turn on to a threepenny-bit base. I made my checks, set the flaps and the speed, trimmed and looked out, re-checked the wheel and looked out again.

I waited, my hand gripping the brake lever, carefully judging the timing until the angles fell into place to turn finals. I monitored the speed, made a final check for wires...still OK. Half-brake looked good and with only seconds to go until touch-down, thoughts came unbidden...

Perhaps if I'd persisted with that last thermal - only half a knot but it was scrappy, only getting lift halfway round and losing out overall. The experience of the previous hour had made it obvious that the day was dying - thermals getting weaker, inversion dropping sharply, wind increasing (sea breeze already?).

I had glanced outside the canopy to see the world moving very fast. At least the field looked good from where I was, freshly cut, no animals, near a village - I had idly wondered which one it was. I needed to concentrate, concentrate; there was no place to take chances, too low for high adventure - I had to keep the speed up, keep it going but at last I had resigned and given up the struggle.

The downwind hedge approached and I found that there was hardly any wind at all down there. I bled off the speed gently, not wanting to float too far. Safely over the hedge, I pulled full brake and flared. The tail touched and then the main, the noise and vibration of the roll cluttering the cockpit. I kept the wings level, selected full negative flap and stamped on the pedals to kick in the wheelbrake.

The ground felt smooth, it felt good. I came to a stop, eased off the brakes and the world stopped moving. The left wing settled and I fell back into my seat, sweat trickling down my face. I closed my eyes and felt the relief of another successful field landing. Moments passed and the sound of my heartbeat mutated into the whine of a dying vario. I switched it off, undid my straps and climbed out into the warm, afternoon breeze.

Perhaps I had been trying too hard. I wouldn't have needed the last scrappy thermal if I'd stayed high and I wouldn't have got low if I'd used the weaker stuff. Well, maybe. There had been clouds, but they'd disappeared an hour before, along with the Radio 130.4 talkshow. I should have noticed the conditions change, should have allowed for it.

After spending so long in the same area there had been little point in carrying on and I ought to have turned back then - there would have been no shame in that. But I had known that the pleasure of getting round would have far outweighed the convenience of landing back from a failed task.

I studied my quarter-mill to avoid the embarrassment of having to ask where I was. I thought I'd found it - I had known the village, had been to the local pub, they did a good duck...my thoughts wandered once more. I picked up some cash, a 'phone card, a list of numbers and set off for the farm noticing that the postage stamp of a field I had identified from the air had yet again miraculously transformed itself into an area the size of Heathrow by the time I'd touched down.

In the distance I saw white specks circling in the deep blue sky but I was past the envy and frustration of a grounded pilot seeing others soaring and just put it down to luck, just one of those days.

It ended with a gentle reminder that I have much, much more to learn

I then set off along the access track, heading for the farmhouse, checking on the way for its suitability for trailers. I was not impressed, the track was very rough, littered by small piles of stones and bricks - problems, problems... I'd have to ask if there was another way in. I explained my situation to the farmer.

He was friendly and I was greatly relieved. He offered me the 'phone and I passed my message. He refused payment and drove me back to the glider, showing me the easy way into the field. After a brief chat he left, allowing me time to reflect on the day.

Perhaps I shouldn't have rigged at all. Hot, humid highs had never been my favourite soaring conditions. At briefing they had set only modest tasks and I'd considered doing something else. But after I'd helped to rig some gliders I couldn't resist rigging mine. And as it had been rigged, well, it had to be flown...

I removed the tape from the wings and disconnected the controls. I spent 20 minutes removing bugs from leading edges, cleaning as much as I could before the trailer arrived. I stowed the parachute in its container and disconnected the batteries.

The sun's heat blazed down, the air now still and filled with the sound of humming insects. Japanese technology allowed me to listen to music and I took a walk by the canal with The Lark Ascending in my ears. I laid back in the warmth, feeling and smelling the grass and the flowers as if for the first time. Then felt truly alive and I closed my eyes.

Perhaps this had been the wrong sport for me. But how could I have told without trying? And having tried, I had found myself unable to stop, chased along by the excitement, the uncertainty, the challenge, the beauty, the glory of flying. The frustrations were simply not sufficient to deter me from taking another launch when the weather allowed and I had known I wasn't alone in this passion.

My trailer arrived as the sun set and was shepherded safely into the field. We derigged and as we left the field we checked that nothing had been left behind. "You must feel pretty sick", my crew ventured, "having landed out. Doesn't happen often to you, does it?" I considered this as I bought them a pint and a bite at the local pub (we ate duck).

We drove into the night and I concluded that gliding brings its riches in many ways; sometimes in the form of a badge, sometimes in knowing that one has beaten the odds but in all cases involving some form of personal triumph. After all, my own flight that day had been merely an exploration just beyond the boundaries of my own experience, with no records (or gliders) broken, no badges gained, no speed or distance of any consequence achieved and it had ended with a gentle reminder that I have much, much more to learn.

And so it was that I found myself once more in the company of my friends, discussing our common passion and making plans for next time, feeling ultimately satisfied with my day. We left the trailer at the club and I set off for my bed, reflecting that just as there are many journeys we can make, so are there many ways of coming home.

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KONRAD LEWALD

Grob's sales manager Konrad Lewald was killed in a flying accident on July 20 at Schwabmünchen Airfield, Germany, at the end of an air show. A keen glider and power pilot, Lewald was flying the Grob G 115T advanced trainer with Ismail Al Mulla (who also died in the crash). The aircraft failed to recover from a stall.

Konrad, aged 47, had been Grob's sales manager since 1976.



Robin May, the Open Class Champion, looking pleased - and this was before both the Jones boys landed out on Day 4!

OPEN CLASS NATIONALS

Enstone, June 8-16

Report and photographs by MICHAEL RUSSELL

After the wondrous nine day contest at Lasham last August, director Ken Sparkes and his team would have been fortunate to have had such weather for this year's Open Class Nationals. Violent thunderstorms in the south the previous night didn't bode well, but the first morning dawned calm and clear.

Day 1, Saturday, June 8

Briefing at 10am produced a task to the north-west, but the day failed to generate as expected and launching was after two grid re-briefs with 30 out of the 31 contestants finally setting out on a 205.61km triangle, Stourport, Hereford race-course. Twenty-four completed, led by last year's Champion Phil Jones (Nimbus 3DT) at 87.4km/h through to Adrian Hegner (LS-6c) at 60.3. The day was devalued to 941pts. The best technique seemed to be ready to change gear - to go fast when conditions were good but be patient otherwise.

Day 2, Sunday, June 9

Sunday dawned fine and sunny with a 332.52km quadrilateral set, Norman Cross, Didcot, Northampton south. But the day didn't develop as expected with only one completion - Robin May (ASH-25) at 63.5km/h for 978pts taking 7hrs 10min. Great patience was needed to stay aloft with many falling into fields on the second and third legs. Peter Sheard (ASH-25) was unfortunate to land in a crop in an inaccessible field, leading to a brief pit-stop at Peter Wells' workshop.

On Monday unrelenting rain and low cloud put paid to flying. Robin May, recalling his flight the day before, said that the last mile was very critical with just enough energy to cross the line, drop the wheel and brake gently to stop at the parking area. By Tuesday there was a promise of a high moving in and Ken even dared to forecast five good days.

Day 3, Wednesday, June 12

As forecast, it was a bright morning with a fresh north-westerly. The 396.39km quadrilateral task was Norman Cross, Bury St Edmunds, Winchcombe. The day looked good and got better so that even on the grid there were mutterings of undertasking. The first home were not the fastest; Ralph (Nimbus 4) and Phil Jones and Robin May all left late, the latter pair finishing with speeds of 119.2 and 119.9km/h respectively. Only John Spencer (DG-600) was unfortunate to land out with last home being David Gardiner (71.2km/h) and Vic Tull (70.5km/h) moments before 6pm in a pair of almost elderly Kestrels - how times have changed!



Derek Taylor flying the sole ASW-22.



The grid after two days of rain.

Day 4, Thursday, June 13

Today the high had split leaving Enstone in a light wind col area. The 507.56km polygon task was the Long Mynd, Westbury, Aylesbury, Husbands Bosworth. There was concern after Vic Tull finished at 7pm leaving only John Giddings (DG-202) out but he called in having covered 470km to land near Banbury. His problem was a low point at Westbury where he spent 47min struggling to stay up - while retaining his water! Phil Jones was the fastest at 109km/h with Robin May 2nd, but still retaining his lead.

Day 5, Friday, June 14

In hazy conditions the cu took a while to develop, and then only to the east, so there was a fall back 307.43km quadrilateral task, Caxton Gibbet, Didcot, Bletchley. The wind was very variable causing the Scottish Sport Council's ASH-25 control difficulties leading to an abort and a turn off into the rough, sadly to retire from the contest.

For others this proved to be a day of mixed fortunes with Steve (Nimbus 3DM) and Phil Jones both running aground close to Bletchley for only 461 and 456pts, dropping them to 9th and 4th overall. Father Ralph carried on to finish 1st at 78.7km/h, just pipping Robin May by 0.4km/h as the day winner. Robin held on to 1st, Peter Sheard went up a place to 2nd and Ralph to 3rd. In the Handicap Class Robin May, Chris Rollings and Adrian Hatton (Nimbus 2c) took the first three places, Chris moving the BGA DG-500 to 3rd overall. Only 18 finished.

Saturday was another fine hot day, but thin upper cloud caused only modest thermal strengths and by 2.30 the day was scrubbed.



The first grid re-brief of the contest.





"My Daddy finished 2nd because I polished all the bugs off his wings!" - David Sheard, aged two.

Day 6, Sunday, June 16

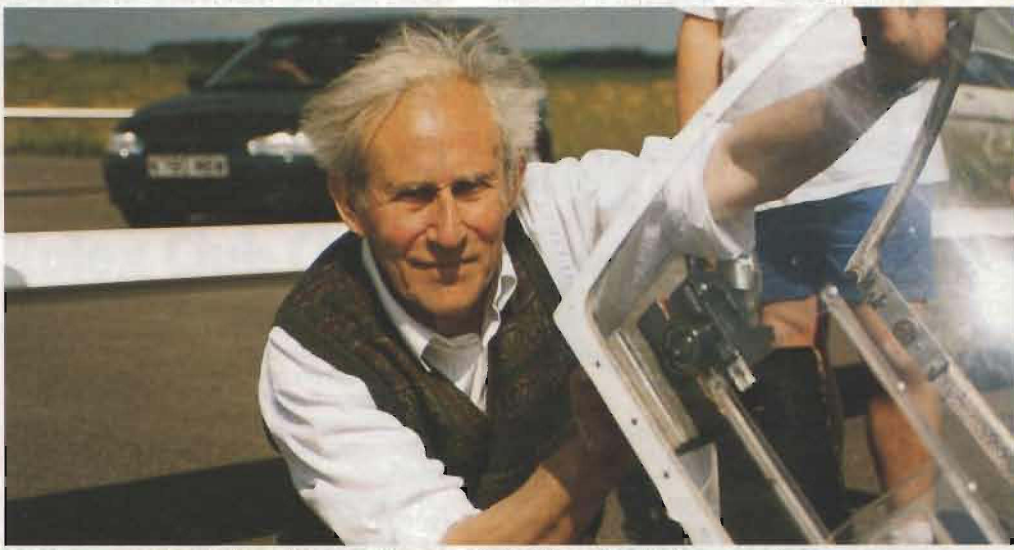
A brilliant and clear summer day following a cool night gave better prospects for a final day's task. Ken chose a five sector 262.82km task, Worcester racecourse, Northleach, Watford Gap services, Winslow, with the third leg passing virtually overhead, so that competitors were kept fairly close to Enstone to avoid long retrieves. Again development was late leading to a reduced 215.1km task, Worcester racecourse, Northleach, Towcester with launching around 2.30pm. After about 2½hrs first one, then five, then 21 as two gaggles passed low overhead, Chris Lyttleton (ASH-25) in particular giving Enstone very detailed study before climbing away!

Most seemed to be flying in the 2000ft height band, with few heard of much over 3000ft. In the end, under totally clear skies around 7pm, the following wafted home (listed in order of speed) - Ralph, David Innes (Nimbus 3T), who won the day in the Handicapped Class), Derek Taylor (ASW-22) Phil, David Findon (Nimbus 4DT), Robin and Ted Lysakowski (Ventus 2-18m) at speeds from 69.6 back to 57.6km/h, the remaining 20 having short retrieves. At the end, then, something of an anticlimax. No one could envy Ken trying to ease a task out of a difficult blue day which then left many out on the road at prize-giving and which delayed the start of, for some, the long overnight journey home.

Conclusion

By any standards this was a successful contest, well and fairly fought. Despite the loss of three days, Robin May won by a comfortable margin. Ralph, in 2nd place, showed that the passing years do not diminish his skills. Peter Sheard was down two places on the day to finish 4th, though he had his luck - two non flying days after his little mishap on Day 2. In the Handicapped Class it was Robin, Peter 2nd and Chris Rollings 3rd. It was a good contest with good humour evident throughout the week.

With a membership of only 50-55, Enstone Eagles GC is perhaps a little more modest than some, but the ready and willing team of helpers lacked nothing in enthusiasm and expertise. The long runway requires a single-line grid, thus there was a degree of pushing forward to avoid tug back tracking, but it was pleasing to see comfortable integration with the other airfield users, including light aircraft and microlights. The club and Ken Sparkes (directing his 23rd contest) deserve congratulations for their efforts and we look forward to next July's Open at Enstone. ➡



Vic Tull, veteran of 30 Open Class Nationals with the Kestrel 19 he has owned since new.



FINAL RESULTS
Open Class

			Day 1.8.6 205.61km ▲ Stourport, Hereford racecourse			Day 2.9.6 332.52km ■ Norman Cross, Didcot, Northampton South			Day 3.12.6 396.39km ■ Norman Cross, Bury St Edmunds, Winchcombe			Day 4.13.6 507.56km polygon Long Mynd, Westbury, Aylesbury, Husbands Bosworth			Day 5.14.6 307.43km ■ Caxton Gibbet, Didcot, Bletchley			Day 6.16.6 215.1km ■ Worcester racecourse, Northleach, Towcester			
Pos	Pilot	Glider	Speed (Dist)	Pos	Pts	Dist (Speed)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Total Points
1	May, R. C.	ASH-25	83.7	3	894	(63.5)	1	978	119.9	1	1000	105.2	2=	951	78.3	2	995	65.3	6	674	5492
2	Jones, R.	Nimbus 4	84.2	2	900	270.9	9	746	105.1	9	821	100.1	5	886	78.7	1	1000	69.6	1	709	5062
3	Jones, P. R.	Nimbus 3DT	87.4	1	941	299.6	4	829	119.2	2	992	109.0	1	1000	(260.4)	20	456	65.2	4	693	4911
4	Sheard, P. G.	ASH-25	81.7	4	867	301.0	3	834	107.1	5	846	105.2	2=	=951	76.0	4	968	(166.3)	21	439	4905
5	Findon, D.	Nimbus 4DT	81.1	7	860	210.1	14	605	107.5	4	850	102.1	4	911	76.9	3	978	63.4	5	687	4891
6	Thick, M. G.	ASH-25	81.7	5	866	252.3	12	708	105.2	8	822	99.9	6	883	72.2	10	922	(189.7)	13=	509	4710
7	Moulang, A. P.	ASH-25	69.7	13	712	286.2	6	778	107.0	6	844	91.7	17	777	72.6	8	928	(183.0)	18	489	4528
8	Gorringe, J. P.	ASH-25	69.3	14	706	264.5	10	733	102.5	11	789	92.8	14=	791	72.4	9	925	(196.6)	8=	530	4474
9	Taylor, D.	ASW-22 (24m)	70.3	12	720	254.5	11	713	96.6	18	718	91.9	16	780	62.5	18	808	66.4	3	698	4437
10	Jones, S. G.	Nimbus 3DM	81.2	6	861	287.2	5	782	111.6	3	899	99.7	7	880	(263.5)	19	461	(192.9)	12	519	4402
11	Innes, D. S.	Nimbus 3T	76.9	10	805	136.1	27	310	106.8	10	792	93.8	11	805	75.5	5	962	68.9	2	707	4381
12	Lyttleton, C. C.	ASH-25	77.8	9	816	172.3	20	455	105.6	7	827	91.4	18	774	75.4	6	960	(189.0)	16=	507	4339
13	Hatton, A. P.	Nimbus 2c	61.9	20	611	271.5	8	748	98.6	15	742	89.1	21	743	70.1	11	898	(194.2)	10=	523	4265
14	Lysakowski, E. R.	Ventus 2 (18m)	65.8	16	662	184.5	16	503	99.5	13	754	90.7	20	764	69.5	12	891	57.6	7	666	4240
15	Rollings, C. C.	DG-500	61.5	22	606	215.8	13	628	98.2	16	738	97.4	9	851	68.3	14	877	(194.3)	10=	523	4223
16	Glossop, J. D. J.	Nimbus 3DT	67.7	15	686	189.6	15	523	101.7	12	780	94.0	10	807	73.9	7	943	(175.7)	20	467	4206
17	Hartley, K. J.	ASW-20BL	65.7	17	660	172.3	21=	454	91.0	21	650	92.8	14=	791	68.8	13	883	(189.2)	15	508	3946
18	Clarke, A. J.	Ventus (17.6m)	75.6	11	789	283.3	7	772	97.6	17	730	93.0	12	794	(203.0)	26	343	(189.0)	16=	507	3935
19	Stingemore, G. P.	Nimbus 3DT	63.8	19	636	175.8	19	469	88.5	22	620	92.9	13	793	(222.7)	24	382	(164.3)	22	433	3333
20	Foreman, M. C.	ASH-25	79.8	8	843	313.5	2	882	98.7	14	744	97.9	8	857	DNF	30=	0	DNF	28=	0	3326
21	Giddins, J. B.	DG-202/17	61.7	21	608	146.5	28	302	86.7	24	598	(489.9)	30	289	63.4	16	818	(189.5)	13=	509	3124
22	McLean, P.	Nimbus 2	(113.2)	30	208	161.1	25	410	87.2	23	604	73.2	28	538	62.7	17	811	(196.6)	8=	530	3101
23	Adlard, S.	Janus CT	(168.6)	25=	309	178.2	18	478	86.3	25	593	88.5	22	736	(213.2)	25	363	(181.1)	19	483	2962
24	Cole, R. A.	Ventus (17.6m)	(168.9)	25=	309	170.0	23	445	93.2	19	676	85.8	23	701	(226.7)	22	390	(139.5)	25	359	2880
25	Pickering, K.	LAK-12	60.7	23	596	165.3	24	426	79.2	27	508	77.6	25	596	(172.5)	28	291	(158.7)	23	416	2833
26	Spencer, J. D.	DG-600 (18m)	63.9	18	637	180.1	17	485	(336.0)	31	234	82.5	24	658	(224.9)	23	387	(158.2)	24	415	2816
27	Witter, R. B.	Ventus 2c (18m)	(157.5)	29	239	0.0	30=	0	92.6	20	669	90.9	19	767	66.8	15	859	(0.0)	28=	0	2534
28	Wright, A.	Kestrel 19	(165.7)	27	303	172.3	21=	454	77.3	28	484	76.5	26	582	(227.6)	21	392	(44.0)	27	72	2287
29	Gardiner, D.	Kestrel 19	(152.0)	28	279	149.4	26	363	71.2	29	410	74.9	27	561	(187.1)	27	315	(0.0)	28=	0	1928
30	Tull, V.	Kestrel 19	DNF	31	0	DNF	30=	0	70.5	30	402	70.0	29	498	(144.5)	29	243	(114.5)	26	284	1427
31	Hegner, A.	LS-6c (18m)	60.3	24	591	129.6	29	284	79.8	26	515	(0.0)	31	0	DNF	30=	0	(0.0)	28=	0	1390

BGA competition scoring program by Specialist Systems Ltd.



9th European Club Class Championships

Slovenj Gradec, Slovenia, June 21-July 6

The tourist literature was right about the exquisite beauty of little Slovenia, but something about the phase "the sunny side of the Alps" made me put my green wellies in my car as I left Poland, even though temperatures of 30°C were trying the patience of teams practising at Slovenj Gradec, just south of the Austrian border, as I set off.

Sure enough, the opening ceremony was diverted indoors due to rain and we then watched the next eight days float away under daily downpours. On the 7th day they launched in hot sunshine with high hopes, but when the whole field plopped into Wolfsberg Airfield in Austria, 44.44km away, it was no contest.

On June 29 - at last - off they went again and despite winds on site rising to 30km/h, enough made it round to provide the first result. The next day terrific thunderstorms stopped play.

July dawned, rain unabated, and on July 2nd there was a month's normal rainfall in one night.

After almost 6hrs on the grid on the 3rd, the day was eventually abandoned and with it the last chance to achieve the four Championship days. For the first time in the history of Club Class, there could be no European Champion declared, unless an extra day could be squeezed in by postponing the closing prizegiving until the evening. Unfortunately, pressure of travel arrangements prevented just one team's agreement, and so the remaining two days' flying were just for fun.



The newly retired CFI of Challes-les-Eaux, Pierre Pellier, as crew to the only female pilot, Claire Luyat (France). Photo: Angela.

The following day was, of course brilliantly flyable with a 354.7km task planned! So why record the "Championship that wasn't" at all? In tribute to the superb planning, unstinting generosity and warmth of the Slovenian organisation, the beauty of the site and, above all, the worthwhile spirit of the Club Class, so enthusiastically promoted by Helmut Kiffmeyer and all the competing countries.

ANGELA SHEARD

BOB BICKERING, or The Manager Managing

Bob Bickers, the British team manager, comments on the European Championships and Lavender Glide, both reported on the next two pages

It was a real pleasure to be involved in the European Championships at Räyskäla. The atmosphere was such that all pilots had to worry about was their performance during the tasks, knowing that Tapio Savolainen, the director, was intent on making it a flying competition and not an administrators' benefit.

This was not the situation we found a week later on arrival at St Auban.

The airfield at St Auban is on a ledge above the Durance valley some 20km south of Sisteron where the Route Napoleon splits off east towards Digne. It is a lovely flat grass airfield but the north-west boundary is the village of St Auban and half of the eastern boundary is a large and active chemical factory. Both are no-go areas which caused problems launching the grid and limiting the finish line approach areas. More of this later.

Facilities were good, as you would expect from a national centre for teaching mountain gliding and instructing instructors. There were two main organisations - Centre National de Formation Aéronautique (CNFA) and the Centre de Formation et de Haut Niveau (CFHN) - who were both involved with running the pre-Worlds, also known as Lavender Glide. (The lavender was in full bloom providing wonderful colour and smell in the countryside.)

What was difficult for us as competitors, and for me as the manager, was that after a practice week the organisation had not begun to get its act together. Volunteers from clubs all over France were present and the personnel numbered some 230 (110 pilots competing!!). Melding them into a team was a major feat of leadership on its own.

This, coupled with CNFA, CFHN and the FFVV (French BGA) meant that there were three major factions apparently all with differing ideas and motives. The Gallic shrug conveys so much or so little. They had only flown one practice task and that had not been scored.

Scoring was a major problems in itself - it took five days before they were able to produce any meaningful scores. A serious attempt had been made to integrate the logging and the scoring to produce "instantaneous results". Sadly that never worked. On one day the British team scored the whole day's task with the aid of Andy Lincoln and 10min after the last glider had crossed the line we were able to post the results outside the Comp office. It was 18hrs before the organisation could publish theirs.

The Met service was excellent in its IT display, but sadly the whole set up seemed to be computer based and did not relate to the weather we were experiencing.

Going back to the airfield, we found that because "it had always been done that way" we were gridded halfway up the field and were inevitably launched downwind. The Open Class - full of water - were lucky not to have had an accident. The scoring continued to take days.

Eating in France is always a delight and the arrangements for St Auban were that a hangar had been taken over by a local restaurant and was providing 18 hour catering. The meals were reasonable but drinks and snacks were almost outrageously expensive and many countries were finding it much much cheaper to eat and shop for snacks off the site.

Jacky "Kiki" Clairbaux, the director, had his hands full. He is a charismatic, lovely man with a tremendous sense of humour and enormous gliding knowledge and experience. Typical problems were as follows:- ten or 11 pilots missed the startline on one of the task days. The line was 1.5km long. They were awarded a 25pts penalty. Some of them had missed the startline by as much as 3km! After initial rumblings it was decided in scoring that there was a photo sector behind the startline which most of these errant pilots had probably flown through! It took a lot of pressure from the team managers as a group to come up with a more equitable penalty. Two of our pilots had also missed the startline first time and lost 10min going round again to ensure they started correctly.

On another day the wave was collapsing whilst the grids were being launched. Chris Garton, who was 2nd overall at the time, was on the last line of the grid along with Alister Kay and some six other pilots. They couldn't contact the wave and therefore were unable to sensibly attempt the task. They tried for hours but just could not get away. Six hundred points is a lot to lose when you haven't had a chance to compete for them. Second to 20th overnight!

From our point of view the team flying was really coming together and being re-enforced in the 15 Metre and Standard Classes and Pete Harvey gained a great deal of valuable experience in the Open Class. Our results speak for themselves.

I am absolutely positive that we can give the French a good run for their money next year. What we need is for the organisation to take heed of all the constructive comments made at the three team managers' meetings and to heal some of the rifts in their own organisation. "Kiki" can make it the wonderful competition they so desperately wish to have, but they - CNFA, CFHN and FFVV - must get united behind him.

Rolex Club Class Championships

Nympsfield, June 22-30

This was the first Club Class Championships, run concurrently with the Western Regionals, both competitions being directed by Les Bradley. It was limited to gliders with a speed index of 103 or less and was won by Mike Jordy, flying a K-23, with 3231pts after four contest days.

The weather was indifferent - a mixture of anticyclonic conditions with spread out, which killed the lift, and rain and overcast skies. The longest task, a 243.6km, Didcot, Lasham, Didcot, was on Day 1, ➡

FINAL RESULTS
Club Class Championships

			Day 1.22.6 243.6km ■ Didcot, Lasham, Didcot			Day 2.23.6 178.8km ▲ Edgehill, Brackley			Day 3.24.6 229.2km ■ Didcot, Banbury, Badminton			Day 4.27.6 137.5km O/R Edgehill			
Pos	Pilot	Glider	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Total Points
1	Jordy, M. J.	K-23	(233.2)	1	600	64.2	9	699	69.2	2	965	63.4	2	967	3231
2	Emson, C. R.	Std Cirrus	(138.3)	9	229	88.2	1	1000	75.6	1	1000	64.5	3	917	3146
3	Jelden, A.	Libelle	(206.8)	2	468	74.4	4	802	71.5	3	937	56.8	8	803	3010
4	Brook, M. F.	SHK-1	(186.4)	4	393	65.1	12	647	68.5	8	866	60.8	4	858	2764
5	Housden, S.	ASW-19B	(121.8)	12=	169	80.6	2	859	70.6	7	880	53.8	12	727	2635
6	Rice, P. F.	Libelle	(161.5)	6	312	67.1	10	688	70.1	5	910	50.7	13	704	2614
7	Witter, R. B.	Dart 17R	(150.2)	7	297	57.2	15	607	59.2	10	792	58.6	4	908	2604
8	Williams, J.	Libelle	(80.1)	17	99	71.6	6	758	67.5	9	860	59.1	7	840	2557
9	Hughes, A.	ASW-19B	(203.1)	3	439	63.7	16	605	59.2	17	669	61.0	6	841	2554
10	Mee, M. P.	Pegasus	(121.8)	14	167	73.2	7	736	65.4	11	772	54.6	11	732	2407
11	Popika, J. P.	ASW-15B	(28.3)	20	5	67.7	11	687	71.9	4	930	53.1	10	734	2356
12	Eddie, A.	ASW-19B	(34.4)	19	15	62.2	17	583	64.0	12	756	70.0	1	983	2337
13	Brown, V.	Std Cirrus	(121.8)	10=	172	63.3	13	624	60.3	15	712	57.0	9	796	2304
14	Evans, I. M.	Hornet	(121.8)	10=	172	77.2	3	832	70.7	6	908	(112.8)	19	299	2211
15	Arnold, J.	Astir	(34.4)	18	16	68.2	8	705	62.0	13	755	(121.6)	18	335	1811
16	Rackham, P.	ASW-15	(115.1)	15	160	62.8	14	611	59.1	16	690	(122.8)	17	336	1797
17	Langton, M. H.	ASW-19B	(121.8)	12=	169	(97.2)	19	144	61.8	14	716	44.9	14	587	1616
18	Head, A.	Pegasus	(180.6)	5	359	76.2	5	780	(156.0)	20	168	(94.4)	20	224	1531
19	White, A.	Sport Vega	(121.8)	16	126	47.9	18	399	46.7	18	474	38.8	15	516	1515
20	Foster, S.	Astir	(145.3)	8	256	(68.7)	20	104	45.4	19	440	(124.6)	16	346	1146



Mike Jordy, the Champion. Photo: Bernard Smyth.

Saturday, July 22, at the very start of the competition. Two contest days followed and then after two non flying days a short task - a 137km O/R - was set in desperation on the Thursday and proved to be the last.

Deacons Jewellers of Swindon gave prizes to the value of £600 which were presented by Michael Deacon on the final day.

Now that the Championships has been launched it is hoped that in 1997 it will attract more than the 20 pilots who competed this year.

Golden Oldie



Colin Golding started flying Daglings with the Air Defence Cadet Corp in 1942, gaining A and B badges in 1945. He has been an instructor for more then 40 years and a full Cat for some 30 years. As well as being an ATC instructor, Colin has been a member of Midland, Booker, currently Scottish Gliding Union, and started Borders GC as their CFI in1971. He has been a tug pilot, motor glider instructor, is an OO, BGA senior inspector, a PFA inspector, runs a registered official calibration centre and is a Fellow of the Institution of Mechanical Engineers.

Colin has owned several aircraft including "Gertie", the Slingsby Sky, for 25 years.

When not flying gliders, Colin can be found building and flying model aircraft or driving his 1953 Sunbeam S8 motor cycle.

GAVIN GOUDIE

MICHAEL RUSSELL

LAVENDER GLIDE

St Auban, June 22-30



Peter Harvey, who flew in the Open Class. Photo by Michael.

Those fortunate enough to have enjoyed the 1995 World Championships in New Zealand were intrigued when the French team manager, Jacky Cleibaux, announced at the closing ceremony that there would be a practice contest - Lavender Glide - at St Auban in 1996.

Fresh from crewing in the Open Class Nationals, I agreed with alacrity to report on this contest. Managed by Bob Bickers and practising hard I found Chris Garton and Steve Jones (both Ventus 2c), Alister Kay (Ventus 2B) and Justin Wills (ASW-27) in a 15 Metre Class of 36; Andy Davis (Discus), Brian Spreckley and Martyn Wells (both LS-8s) in a Standard Class of 39 with Peter Harvey (ASW-22 newly fitted with ASW-27 winglets) the sole Open Class representative in a field of 26.

Marginal final glides were tricky, especially on Days 5 and 6. Competitors arrived from the north-west requiring a turn south a few kilometres out to skirt the east side of the town to avoid the factory and then either landed straight ahead or pulling up with a circuit to the right. There were some pretty finishes but they led to some "don't do low slow circuit" type warnings at briefing.

Take-offs were preferably to the south. Jacky said "If the tug motor failed you might hurt your glider but not yourself, but to the north you would probably destroy your glider, hurt yourself and also a lot of French citizens."

The weather early in the first week was moist with a build-up of thundery showers in the afternoon and over-development. The four and five leg tasks varied from 250-350km, generally in an arc from north-west to north-east, always among mountains and taking in the south-western reaches of the main Alps.

Later in the week a high gave a light northerly wind and excellent conditions with tasks rising from 380-450km and eventually 450 to 550km on the Friday. After six days Saturday was a rest day and Sunday produced wave.

Some days the Cambridge Aero Instruments representative showed on full screen the infamous maggot race - usually the first five in a Class - and (to loud applause!) it was often obvious where runners-up lost time or a winner came up late behind. One showed an essential major track deviation slowing the Open Class - so GNSS is very useful to see where folk have really been!

Launching was not usually before 12.30pm and the first in on Thursday, June 27, was just after 6pm with 21 still to finish when I left for dinner at 8pm. Friday's longer tasks produced even later finishers and with them the tragic news that the very experienced Swiss pilot, Frederico Blätter, died impacting a mountain in his Nimbus 3. Saturday having previously been declared a rest day, the tenor of Sunday's briefing reflected this tragedy with a period of silence. Frederico's family and crew were present.

On one day the field took off beneath a cunim and later, crossing another line of thunderstorms, Andy Davis experienced much static - hair on his arms standing on end, flashes in the cockpit, the GPS shut down and other electrical disruptions. In contrast Sunday, June 30, produced an almost blue wave day, but although some completed, the day failed to achieve expectations.

The 1997 World Championships is undoubtedly going to be another mountain soaring and ridge running contest. The view is that with the advantage of local knowledge among the mountains, ridges, cols and plateaux the French will be hard to beat.

All in all - the tragedy apart - I found St Auban very civilised with an assured warm welcome and much to enjoy locally.

Finally as I travelled south, by pure chance I re-discovered English glider pilots Barbara Reed and Chris Duthie-James running a very comfortable B&B with a newly converted gite adjacent. This is at St Sevin, close to both Chauvigny and near Le Blanc and I recommend it well.

The leading results: Open Class: 1. G. Lherm (ASW-22BL) France, 8372pts; 2. B. Gantenbrink (Nimbus 4) Germany, 8167pts; 3. G. Gerbaud (Nimbus 4) France, 8124pts; GB: 23. P. Harvey (ASW-22) 5252pts. 15 Metre Class: 1. G. Navas (France) 8524pts; 2. S. Ghiorzo (Italy) 7981pts; 3. G. Galetto (Italy) 7968pts, all flying Ventus 2A; GB: 4. T.J. Wills (ASW-27) 7835pts; 11. C. Garton (Ventus 2c). Standard Class: 1. J. Barrois (LS-8) 7903pts; 2. J. Lopitaux (LS-8) 7606pts; 3. D. Hauss (Discus B) 7262pts, all French; GB: 4. A. J. Davis (Discus) 7126pts; 5. B.T. Spreckley (LS-8) 7075pts; 6. M.D.Wells (LS-8) 6909pts.

Michael's panoramic view of St Auban showing, from l to r, the 15 Metre Class, Standard Class and Open Class grids.



JOHN BIRCH

8TH EUROPEAN CHAMPIONSHIPS

Räyskäla, Finland, June 1-16

Beer cans, playpens and diddley-diddley music

Räyskäla is no stranger to international competition, having staged the 1976 Worlds and the 1988 Europeans. The competition task area was fairly restricted by airspace considerations, running largely east-west from Räyskäla. The available airspace varied each day, quickly christened the playpen. The terrain is flat, with vast areas of evergreen forest and innumerable lakes, but there are generally enough landing fields.

Alister Kay had arrived had arrived two weeks before the competition started and a week ahead of the rest of the British team. Alister's previous experience of international competition was of great value to the team, most of whom were new to competition at this level.

The team is drawn from the top positions of the previous year's Nationals - Mike Young and Phil Jeffery (Standard Class, Discus and LS-8), Alister Kay and Mel Dawson (15 Metre, Ventus 2B, and Ventus A) and Russell Cheetham and Peter Harvey (Open Class, ASH-25 and ASW-22). This line-up changed during the practice week with a serious accident to Russell's ASH-25; undeterred, he immediately hired a local Discus, installed his own instruments - and was generously allowed by the competition organisation to compete in the Standard Class.

And what of Paul Crabb, runner up in the 15 Metre Nationals last year? He and twin brother Steve entered as the Irish team, at their own expense, both in LS-8s.

Practice was necessary for reasons other than learning the terrain. Data logging is now mandatory at this level - a TP is deemed to have been rounded if a trace is recorded within a vertical cylinder of ½km radius around the TP, known as the beer can. With loggers recording every 4sec it is not necessary to go round the TP at all and precious seconds can be saved - timing this to gain advantage without risking cutting it too fine for a trace became a hot topic.

Thus started 11 days of competition out of a possible 14. The first five days were generally characterised by good cumulus and cloudbases going up to 6500ft - real racing days with winning speeds from 90 to 125km/h and task lengths of 250 - 500km. There were just 36 landouts from 440 starts.

By the time the first unflyable day came, team positions were Al Kay 2nd, Mel Dawson 13th, Phil Jeffery 7th, Mike Young 20th, Russell Cheetham 38th and Peter Harvey 3rd.

In the Standard Class the German team (four of them!) held 1st, 2nd, 3rd & 5th through an impressive display of team flying, coming in together in 1st place on the first two days. Only Leonardo Brigliadore (Italy) could separate them. Michael Grund (Germany - Ventus 2) led the 15 Metre and Janus Centka (Poland - ASW-22) the Open Class.

Also emerging was the dominance of the new glider types, perhaps more flavour of the month than state of the art. In the Standard Class field of 39, seven of the 12 LS-8s were in the top ten, and in the 15 Metre Class field of 32, five of the eight Ventus 2s were in the top ten. The Polish team had brought two of the new SZD 56 Dianas.



Troll found lurking near Phil Jeffery's LS-8.

Clearly top pilots will spend money to keep on top, but consider the under financed Russian team. In the Standard Class, Alexander Polt-oranin had come from Siberia (over 2500 miles) to fly a Jantar 3. Those who do not see a role for a World Class glider, thus levelling the playing field, may care to look at it from Alexander's point of view.

Four days of blue conditions followed, with the top of convection generally lower than in the first four days. Speeds were much lower, in the 65 - 85km/h range for the winners. Day 6 saw almost the whole of the Standard and 15 Metre Classes land out, although most were within 20km of home.

The blue conditions resulted in a further increase in the already prevalent gaggle flying, culminating in the arrival of 30 gliders (largely the 15 Metre Class) in the space of 2min on Day 7. Competition director Tapio Savolainen made his feelings on gaggles clear.

Pointing out that the previous day's result sheets could have been produced by reversing the start order list, he awarded the prizes for Day 9 not to the winners, but to the first starters. The teams all applauded, but it did not reduce the gaggles.

Worse was the mid-air collision between Phil Jeffery and Paul Crabb, announced rather lugubriously over the radio by Phil - "I think I've caught a Crabb". Some smart overnight work by Andy Lincoln and Mike Cuming had both gliders on the grid the next morning.

Potentially as unpleasant was the axe wielding farmer who threatened Mel Dawson and his outlanded Ventus, although the farmer's English speaking son managed to prevent anything more than a scare.

And so to Day 10. With rain due from the west, the organisers set a cat's cradle. Since the task area was largely to the east of Räyskäla, landouts were inevitable as the field was forced away by the incoming rain. Everyone landed out, without mishap, the Standard Class day winner being Paul Crabb.

Day 11 was a racing day with winners' speeds at around 120km/h in all three Classes. It was a day that did little to help the cause of the British contingent, Al Kay's uncharacteristic landout costing him a secure looking 4th place overall in the 15 Metre Class, while Phil Jeffery's 24th took him down to 11th in the Standard Class, the first time he had been outside the top ten.

The final results were: Standard Class, 1. Erwin Ziegler (LS-8) Germany, 9353pts; 15 Metre Class, 1. Michael Grund (Ventus 2) Germany, 9714pts; Open Class, 1. Janusz Centka (ASW-22BL) Poland, 10 476pts. The team prize went to Germany, with Britain coming 5th in a close group for 3rd, 4th and 5th.

The Brits ended up with Phil Jeffery 11th, Mike Young 15th, Russell Cheetham 34th, Alister Kay 7th, Mel Dawson 13th and Peter Harvey 9th. Paul and Steve Crabb were 21st and 22nd, just 13pts apart - you really can't separate them.

Our thanks to Tapio Savolainen and his team, for the superb organisation - from specially printed air maps to evening entertainment - the excellent weather forecasting and for the good humour with which discipline was imposed on the grid. The penalty was a six pack of beer to the search and rescue team, firmly enforced! And finally to the man with a thankless task, British team manager Bob Bickers - thanks!

...and diddley-diddley music? The Irish team like a little folk music while waiting on the grid.



BGA & GENERAL NEWS

FROM THE BGA CHAIRMAN

Any wishful thinking that the summer months would bring a reduction in the chairman's workload have proved to be ill-founded.

The subject of gliders in controlled airspace has been receiving a great deal of attention in response both to the recent Yorkshire TV 3D programme and to certain proposals by the CAA directorate of airspace policy.

A strong protest has been registered with the appropriate authorities about misinformation contained within the TV programme. I was particularly disappointed that Bill Scull, Carr Withall, Chris Rollings and I took a whole day to visit the programme makers in Leeds and provide them with a thorough and comprehensive briefing - which was largely ignored, presumably in the interests of sensationalism.

Negotiations with the director of airspace policy continue, and in the meantime I hope that all cross-country pilots are aware of the system of voluntary radio calls in connection with gliders wishing to access Class D airspace. (See the last issue, p205.)

Safety is a subject which is constantly in our minds. This is particularly so in my case as I receive a telephone call each time there is a fatal gliding accident.

Many, indeed the majority, of these tragic accidents do not just occur as a matter of bad luck. Most could have been avoided had the pilot acted differently at the crucial moment - avoided the stall or spin, maintained a more efficient look-out, selected the field earlier and so on.

So I am very pleased that Bill Scull is currently organising a series of seminars for club safety officers. The main thrust is to adopt a pro-active stance on safety and I commend this approach to all. Let's really concentrate on bringing about a real improvement in our safety record.

The experiment at Bicester where we have been co-operating with the RAFGSA throughout the 1996 course season has worked extremely well. By containing costs, providing free accommodation for delegates and enjoying the excellent facilities at Bicester the Instructors' Committee has received most encouraging feedback from delegates. Discussions are taking place to explore the opportunities for continued co-operation in 1997.

The generous sponsorship by Mobil Oil and Sportsmatch to assist young people on BGA courses has been most welcome. (See also p278.) I would like to take this opportunity to thank those of you who have taken the trouble to write and express your gratitude.

To date, the cross-country season has produced some mixed weather with some really good patches. I have just been flying in Lasham Regionals' B Class. We had seven consecutive task days, the majority of which were blue.

The last day, Sunday, July 21, I selected a good grass field near Daventry - then landed in it. The farmer commented that the field was known as the "runway". He seemed delighted by the fact that "55" was the first aircraft to land "on" it, but this was little consolation to me! I and my valiant crew (Mrs Chairman) crept into Lasham's main entrance at 12.20am Monday morning, registered with scoring and disappeared into the night. After that I welcomed a few days back at work to recuperate!

Dick Dixon

15 METRE CLASS NATIONALS

Justin Wills (LS-8) is the 15 Metre Champion after a six day contest at The Soaring Centre, Husbands Bosworth, from August 3 - 11. He scored 5116pts, 265 ahead of Paul Crabb (LS-8) in 2nd position. Tim Scott (LS-8A) was 3rd with 4756pts.

There will be a report in the next issue.

NATIONAL LADDER

The Open Ladder is developing into a close run race between two regular contenders, with Tim Macfadyen just a few points ahead of Steve Crabb. It is likely that with several high scoring 750km flights already claimed it is just a matter of time and a few half decent days before these totals are surpassed.

In the Weekend Ladder Steve Mynott shows the way for Cambridge, a club which is yet again putting in a strong appearance this season.

Open Ladder

Pilot	*Club*	*Pts*	*Flts*
1. T. M. Macfadyen	Bristol & Glos	10 600	4
2. S. J.Crabb	The Soaring Centre	10 194	4
3. J. L. Bridge	Cambridge	9620	4
4. P. E. Baker	Cambridge	9528	4

Weekend Ladder

Pilot	*Club*	*Pts*	*Flts*
1. S. J. Mynott	Cambridge	9165	4
2. J. L. Bridge	Cambridge	8959	4
3. S. J. Crabb	The Soaring Centre	7432	4
4. M. Bird	London	6463	4

John Bridge, *National Ladder steward*

DEVELOPMENT NEWS

Lottery Sports Fund - who's missing out?

With the recent announcement of Cambridge GC's award of £44 000 towards upgrading the club fleet, eight BGA clubs have between them obtained £¼ million from the Lottery Sports Fund. To the best of my knowledge about a dozen more applications are in the pipeline and I hope we shall soon be announcing further successes.

But why have so few clubs applied?

I am aware of several more projects where decisions have yet to be made, where business plans have still to be completed or planning consents and quotations gained. Yet by far the majority of BGA clubs have done nothing to take advantage of this bonanza while stocks last.

Working at Le Blanc this July I had the opportunity to speak to representatives from a wide range of BGA clubs. It soon became apparent that many had either misread or misunderstood the Sports Council's "Guidelines for Applicants" and interpreted them to mean that their clubs were not eligible for grant aid. In all cases further discussion revealed they were wrong and that opportunities of grant funding had been lost due to lack of understanding or ignorance of the system.

Having been involved in assisting clubs since the introduction of the National Lottery, I have discovered ways round many of the perceived obstacles. The Sports Council's officers with the responsibility for allocating the Fund are always friendly and co-operative and I have built up an excellent working relationship with many of them. They want to help clubs to gain access to these funds, not to place obstacles in their way, and some of the original rules have been amended enabling more clubs to apply.

So if your club is looking for funds, please get in touch with me. You can telephone me at any time or leave a message on 01273 515373. I will give *ad hoc* advice on applications but my preferred course of actions is as follows:-

1. Visit the club and discuss projects for funding with the committee or appointed members.
2. Help with the preparation of a project brief and business plan and provide pro formae and blueprints to assist club officers in obtaining and processing the necessary data.
3. Identify problems which might delay eligibility of the club or acceptance of the application and try to find ways round them.
4. Complete an application form in draft with the members concerned.
5. Deal with the more difficult "essay" questions and provide a draft reply with "features and benefits" tables, if warranted.
6. Produce a detailed report in the form of a letter to the club's chairman.
7. Review the club's complete application in draft and suggest amendments or modifications that might improve its chances of acceptance by the Sports Council.
8. Provide further BGA support for the project once I know the details.
9. Communicate with the Sports Council on the club's behalf on such matters as obtaining "without prejudice permission to proceed" in order to expedite the project.
10. Chase up any applications that have been delayed or appear to have been lost in the system.

I have been appointed to help clubs with their funding problems. I know the ropes and I actually enjoy helping, so please do not assume that your club or your project is not eligible for funding. I bet that it is! Why not give me a ring and let's find out?

Roger Coote, *BGA development officer*

FATAL ACCIDENT

The pilot of an Olympia 460, Steve Taylor, was killed when the glider suffered structural failure during a winch launch. The accident occurred at the Staffordshire GC's site at Seighford on July 14. The pilot was making his third flight of the day when at about 600ft the right wing failed.

The wreckage was taken to Air Accidents Investigation Branch (AAIB) at Farnborough. Preliminary investigation shows some corrosion of the aluminium laminates in the main spar around the root rib.

Bill Scull, *chairman of the BGA Safety Committee*

VAT EXEMPTIONS

As mentioned briefly in the last issue, p228, an agreement has been reached with Customs & Excise that charges by a club for hangarage, trailer parking and the use of the workshop are exempt from VAT. Claims can be put in for retrospective refunds under these heading but

the Government is trying to limit claims to the previous three years only.

A full paper on this subject with a news release from Customs & Excise have been sent to club treasurers. It is suggested that clubs should protest the three year limit through locals MPs.

BGA 1000 CLUB LOTTERY

The **July** draw results are: First prize - R. Alexander (£52.75) with the runners up - M. Bainbridge, J. Patchett, G. H. N. Chamberlain, R. Worters and J. Kettlety - each winning £10.55.

The **August** draw: first prize - J. Day (£51.25) with the runners up - M. Weston, K. Brackstone, G. H. N. Chamberlain, S. Duerden and D. Johnstone - each winning £10.25.

AIRSPACE ISSUES

Club chairmen and CFIs already have information regarding possible changes for glider flights above FL245. Also, most pilots will be well aware of the change to the airways crossing exemption which came into force last October.

Any possible changes are discussed at the Glider Working Group which was originally set up by the Director of Airspace Policy (DAP) under the aegis of National Air Traffic Services (NATS) and the National Air Traffic Management Advisory Committee (NATMAC).

Following recent changes NATS has become a subsidiary company of the CAA. The DAP is no longer part of NATS, but is now a stand-alone Directorate jointly sponsored by the CAA and the Ministry of Defence (MoD). The ministerial directions, which require the CAA to take account of all aviation interests, remain substantially the same, as do the negotiating arrangements.

The other recent change you should be aware of is the voluntary requirement to make a radio call before entering Class D airspace. It is probable that this will be a legal requirement by next season with the likelihood that pilots will be required to have an R/T licence. In principle controllers should not refuse entry to a glider unless there are exceptional circumstances.

However, there have already been some instances of refusals or a distinct lack of co-operation which goes beyond the controllers' remit, certainly for Class D aispace. In respect of VFR flights, their responsibility is to give an air traffic control service with traffic information on all other flights, not to provide a separate service.

If you have tried to get a clearance through any Class D airspace or experienced an uncooperative attitude then we need to know and have a right to know why.

Please send a brief report of the circumstances to the BGA, marked for the attention of the Airspace Committee, as soon as possible after the incident. It is also important that pilots adhere to the trial requirements.

Bill Scull

DIABETIC GLIDER PILOTS

The BGA is probably the only flying organisation world-wide which has allowed insulin dependent diabetics to fly solo. We have been asked by both the CAA and the FAI to report our experiences.

Would all glider pilots who are insulin dependent please notify Dr Peter Saundby, through the BGA office, of their name and address. They will in due course be asked to complete a postal questionnaire.

HAY FEVER PAPER

In connection with a paper to be presented at the 1997 FAI Aero-Medicine conference in Rome, Angela Sheard is collecting comments from glider pilots who suffer from hay fever. She is interested in the severity of symptoms, solutions, medication used etc.

All comments are welcome and should be faxed to her before December on 00 48 61 627352.

Airspace Update - a correction to my article in the last issue, p205. The map showing the revision to the Teesside CTR/CTA should not have been included. I had been informed that the revisions were taking place in July. Since the previous deadline for *S&G* copy, there have been more discussions with interested users of this airspace. The final changes have not been agreed, but should be by the end of the year.

I apologise if this has caused any concern or inconvenience.

Carr Withall, *chairman of the BGA Airspace Committee*

GLIDING CERTIFICATES

BGA 750KM DIPLOMA

No.	*Name*	*Club*	*1996*
18	Short, Colin	Lasham	13.5
19	Pentecost, Roy	Lasham	13.5
20	Baker, Iain	Cambridge	13.6
21	Jordy, Mike	Soaring Centre	13.6
22	Baker, Peter	Cambridge	12.6

BGA 750KM TWO-SEATER DIPLOMA

No.	*Name*	*Club*	*1996*
6	Little, Paul/Taylor, Christopher	Bristol & Glos	4.5

ALL THREE DIAMONDS

No.	*Name*	*Club*	*1996*
493	Mountain, Anthony	Bicester	4.5
494	Short, Colin	Lasham	13.5
495	French, Andrew	London	6.5
496	Ward, Peter	Cotswold	13.6
497	Lazenby, Philip	Yorkshire	13.6
498	McLean, Paul	Fenland	13.6
499	Dent, Evelyn	Bristol & Glos	12.6
500	Payne, Kenneth	Soaring Centre	12.6
501	McLaughlin, John	Staffordshire	23.6
502	Jeynes, Frank	Bidford	13.6
503	Stoker, Thomas	York	13.5

DIAMOND DISTANCE

No.	*Name*	*Club*	*1996*
1/723	Mountain, Anthony	Bicester	4.5
1/724	Short, Colin	Lasham	13.5
1/725	Johnson, Richard	Soaring Centre	13.5
1/726	French, Andrew	London	6.5
1/727	Ward, Peter	Cotswold	13.6
1/728	Lazenby, Philip	Yorkshire	13.6
1/729	McLean, Paul	Fenland	13.6
1/730	Dent, Evelyn	Bristol & Glos	12.6
1/731	Haseler, Peter	Bidford	12.6
1/732	Payne, Kenneth	Soaring Centre	12.6
1/733	Tribe, Allan	Wyvern	12.6
1/734	Gay, Malcolm	Bristol & Glos	12.6
1/735	McLaughlin, John	Staffordshire	23.6
1/736	Jeynes, Frank	Bidford	13.6
1/737	Stevens, Raymond	Soaring Centre	13.6
1/738	Stoker, Thomas	York	13.5

DIAMOND GOAL

No.	*Name*	*Club*	*1996*
2/2440	Brixton, Sydney	Marchington	6.5
2/2441	Brown, Vermon	Stratford on Avon	4.5
2/2442	Newnham, Leonard	York	13.5
2/2443	Barnes, Trevor	Bicester	5.5
2/2444	Short, Colin	Lasham	13.5
2/2445	Cannon, Deborah	Lasham	13.5
2/2446	Uren, David	Cornish	11.5
2/2447	French, Andrew	London	6.5
2/2448	Wright, Mark	Rattlesden	2.6
2/2449	Sanville, Stephen	Cambridge	13.6
2/2450	Adam, Robert	Southdown	12.6
2/2451	Rivers, Leonard	Norfolk	13.6
2/2452	Ross, Stuart	Southdown	12.6
2/2453	Thomas, Adrian	Black Mountains	12.6
2/2454	Worrell, Nan	Lasham	13.6
2/2455	Green, Andrew	Bicester	13.6
2/2456	Clay, Peter	Yorkshire	13.6
2/2457	Veness, Stephen	Enstone	6.5
2/2458	Nash-Wortham, Michael	Surrey & Hants	13.6
2/2459	Moss, David	Clevelands	15.6
2/2460	Davenport, Mark	Lasham	13.6
2/2461	Horner, Giles	Wolds	5.5
2/2462	Holland, Derek	Yorkshire	13.6
2/2463	Smith, Robert	Booker	13.6
2/2464	Hill, David	Shalbourne	7.7
2/2465	Black, Peter	SGU (in Australia)	25.2
2/2466	Conran, Paul	Dublin (in Australia)	17.2
2/2467	Burdett, John	Lakes (in France)	27.6

DIAMOND HEIGHT

No.	*Name*	*Club*	*1996*
3/1314	Swallow, Philip	Soaring Centre (in New Zealand)	5.2
3/1315	Hill, Andrew	Anglia (in France)	27.3
3/1316	Walton-Smith, Patrick	631 VGS (in USA)	21.3
3/1317	Sturley, Philip	Two Rivers (in France)	27.3
3/1318	Thomas, Gwyn	Anglia (in France)	27.3
3/1319	Davies, Robert	Four Counties (in France)	27.3
3/1320	Palmer, Richard	London (in USA)	2.5
3/1321	Wiseman, Anthony	Yorkshire (in USA)	5.2

GOLD BADGE

No.	*Name*	*Club*	*1996*
1892	Brown, Vernon	Stratford on Avon	4.5
1893	Walton-Smith, Patrick	631 VGS	21.3
1894	Barnes, Trevor	Bicester	5.5
1895	Short, Colin	Lasham	13.5
1896	Uren, David	Cornish	11.5
1897	French, Andrew	London	6.5
1898	Worrell, Nan	Lasham	13.6
1899	Green, Andrew	Bicester	13.6
1900	Clay, Peter	Yorkshire	13.6
1901	Wall, Nicholas	Bristol & Glos	17.2
1902	Holland, Derek	Yorkshire	13.6
1903	Smith, Robert	Booker	13.6
1903	Conran, Paul	Dublin	17.2
1904	Burdett, John	Lakes	27.6

GOLD HEIGHT

Name	*Club*	*1996*
Walton-Smith, Patrick	631 VGS (in USA)	21.3
Sturley, Philip	Two Rivers (in France)	27.3
Wall, Nicholas	Bristol & Glos	17.2
Robertson, Alastair	Cairngorm	8.6
Rowson, Marcus	Midland	29.6
Joynes, Frederic	SGU	29.6
Palmer, Richard	London (in USA)	2.5
Wiseman, Anthony	Yorkshire (in USA)	5.2
Stanley, Timothy	Yorkshire	3.7

GOLD DISTANCE

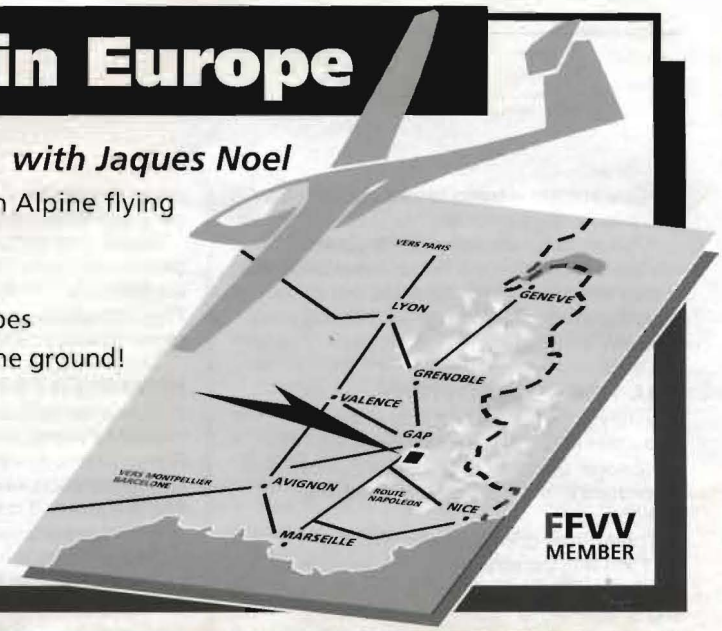
Name	*Club*	*1996*
Brixton, Sydney	Marchington	6.5
Brown, Vernon	Stratford on Avon	4.5
Newnham, Leonard	York	13.5

➡

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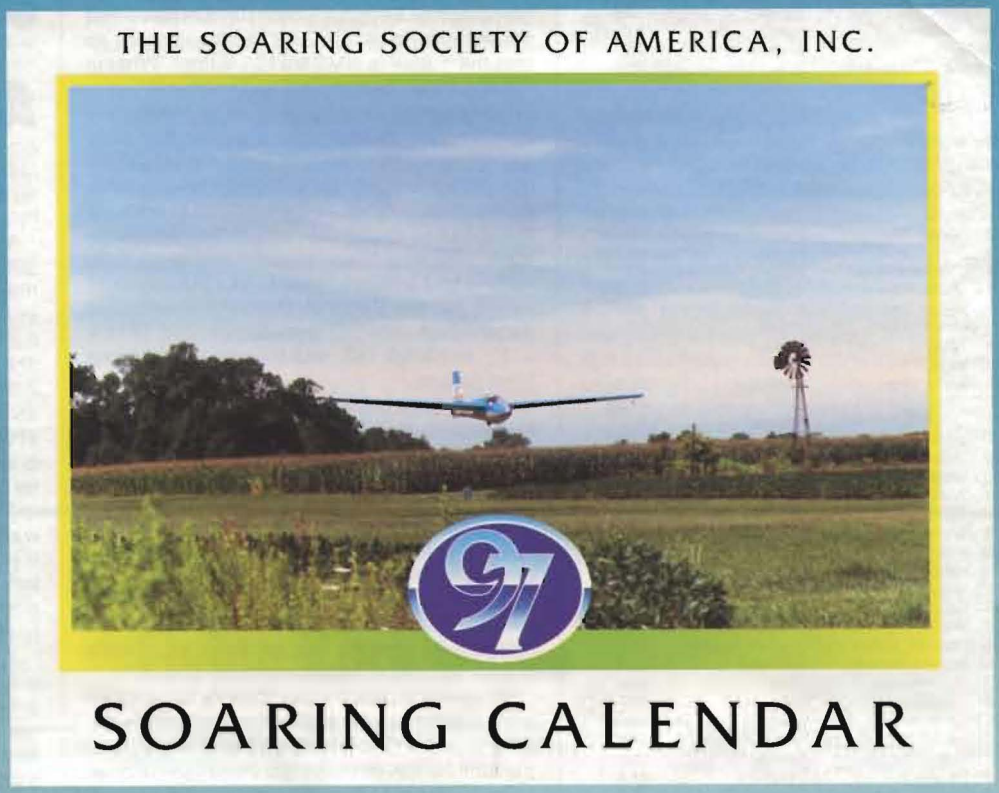
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Barnes, Trevor	Bicester	5.5
Short, Colin	Lasham	13.5
Cannon, Deborah	Lasham	13.5
Uren, David	Cornish	11.5
French, Andrew	London	6.5
Wright, Mark	Rattlesden	2.6
Sanville, Stephen	Cambridge	13.6
Rivers, Leonard	Norfolk	13.6
Ross, Stuart	Southdown	12.6
Worrell, Nan	Lasham	13.6
Green, Andrew	Bicester	13.6
Veness, Stephen	Enstone	6.5
Nash-Wortham, Michael	Surrey & Hants	13.6
Moss, David	Clevelands	15.6
Davenport, Mark	Lasham	13.6
Horner, Giles	Wolds	5.5
Holland, Derek	Yorkshire	13.6
Smith, Robert	Booker	13.6
Bradford, Stephen	Norfolk	2.6
Hill, David	Shalbourne	7.7
Black, Peter	SGU (in Australia)	25.2
Conran, Paul	Dublin (in Australia)	17.2
Burdett, John	Lakes (in France)	27.6

SILVER BADGE

No.	*Name*	*Club*	*1996*
10013	Nunley, Mick	Welland	1.8.95
10014	Blyth, David	Norfolk	21.5
10015	Chalmers, Stuart	Bristol & Glos	4.5
10016	Clarke, Peter	Cotswold	25.5
10017	Ingram, Lee	Stratford on Avon	13.5
10018	Moslin, Paul	Wrekin	5.5
10019	Williams, Grant	Deeside	2.6
10020	Ingle, Robert	London	4.5
10021	Wells, Leigh	Shenington	25.5
10022	Welch, Graham	Lakes	27.5
10023	Langford, Steven	Cranwell	2.6
10024	Littler, Derek	Bowland Forest	12.6
10 025	Collings, Marcus	Bristol & Glos	12.6
10 026	Woollet, Michael	Midland	9.6
10 027	Wilkinson, James	Kent	14.6
10 028	Weston, Michael	Enstone	14.6
10 029	Boycott-Brown, Martin	Cambridge	13.6
10 030	Hoare, Nicholas	Booker	13.6
10 031	Harrison, Peter	Rattlesden	13.6
10 032	King, Kevin	Rattlesden	2.6
10 033	Coppin, Derek	Lasham	23.6
10 034	Wadie, Reginald	Southdown	18.6
10 035	Horsnell, Robert	Stratford on Avon	14.6
10 036	Buckley, Simon	Cotswold	22.6
10 037	McLaren, Henry	SGU	17.6
10 038	Haughton, Dominic	SGU	8.6
10 039	Martindale, John	Lakes	13.6
10 040	Niblett, William	Bath & Wilts	12.6
10 041	Zamo, Romeo	Cranwell	15.6
10 042	Nicholson, John	Enstone	14.6
10 043	Pennant, Jessica	Shenington	18.6
10 044	Fish, Elizabeth	Black Mountains	18.6
10 045	Rocks, Peter	Trent Valley	2.6
10 046	Fisher, James	Staffordshire	27.6
10 047	Glen, Fergus	Shalbourne	10.8.95
10 048	Stewart-Smith, John	Cornish	11.5
10 049	Alston, Eric	Midland	29.6
10 050	Allender, Colin	Aquila	23.6
10 051	Walker, Richard	Chilterns	23.6
10 052	Flintoft, Alan	Peterboro & Spalding	1.6
10 053	Lipscombe, Carol	Lasham	28.6
10 054	Climpson, Nigel	Cornish	11.5
10 055	Wiseman, Anthony	Yorkshire	30.4
10 056	Nobbs, Josef	Dartmoor	3.3
10 057	Warren, Mervyn	Southdown	10.7
10 058	Brockman, Donald	Bristol & Glos	8.6
10 059	Haywood, Derek	Lasham	19.6
10 060	Gosden, Donald	Black Mountains	23.6
10 061	Montague, Alan	Bristol & Glos	11.7
10 062	Barrell, James	Aquila	15.7
10 063	Swales, Nicholas	Midland	29.6
10 064	Briggs, Josie	Norfolk	20.7
10 065	Sloggett, Michael	Devon & Somerset	7.7

UK CROSS-COUNTRY DIPLOMA

Complete

Name	*Club*	*1996*
Scott, John	Bidford	19.6

Part 1

Name	*Club*	*1996*
Wareham, Stephen	Bath, Wilts & N Dorset	4.5
Hawkins, Mark	Bath, Wilts & N Dorset	15.5
Hamilton, Roderic	Booker	13.6
Kennard, Brian	Norfolk	13.6
Fish, Elizabeth	Black Mountains	18.6
Moslin, Paul	Wrekin	23.6
Skinner, Ian	Glyndwr	6.5
Jackson, Rickard	Trent Valley	2.6

GPS JOTTINGS

Edited by Dickie Feakes

By now most of us who have coupled a GPS unit to an external device such as a vario, EW barograph or Skyforce logger have realised that it is essential to set the GPS interface options so that the output is NMEA 0183 format. What is "NMEA 0183" and why is it so important?

Long before the advent of GPS, the marine industry used an international standard to allow electronic devices such as Decca and LORAN navigators and marine autopilots to communicate with each other. In order for this to work, all the units had to communicate in the same electronic language. Many language standards, both marine and aviation, were in use but that published by the National Maritime Electronics Association (NMEA) and designated NMEA 0183, or NMEA 183, was the one that became most popular.

NMEA 0183 is a series of plain language sentences that are transmitted sequentially, all of which start with a trigraph that identifies the content of the sentence. The trigraph is followed by data in a prescribed order and terminates with a "checksum", which is simply a mathematical calculation to verify that none of the data has been corrupted in transmission. An example of a NMEA 0183 data is the "RMC" sentence which includes data giving UTC time, latitude, longitude, speed over the ground, date, track made good, magnetic variation and checksum.

When GPS came along, initially most users were predominately nautical and accordingly the GPS manufacturers arranged for their units to transmit NMEA data strings. Although GPS receivers were also programmed to transmit similar data streams in an aviation format, invariably the aviation format was complex and no firm standard existed. Accordingly, the first gliding GPS recorder, the Skyforce/RD logger, elected to utilise the NMEA standard and it has become the gliding standard for all subsequent GNSS FRs.

A GPS receiver may output as many as ten different NMEA sentences each second. The receiving device, such as an EW barograph/logger, listens to the data stream and as soon as it recognises the correct trigraph as determined by its programme, reads the data into its memory and, if the checksum is correct, writes it into the logging storage. It then stops receiving until the sentence comes along again when the process is repeated.

In short, if nothing happens when you switch on having carefully wired your EW barograph to the data port of the GPS receiver, check that the GPS receiver interface has been correctly configured to NMEA 183 or NMEA 0183 and all should be well.

Stop press: The Filser LX20 GPS/logger is the third GNSS flight recorder to receive approval by the FAI IGC GPS Flight Recorder Approval Committee. Together with the Peschges VP8 and the Cambridge GPS10, GPS20 and GPS25, the Filser LX20 can now be used to provide sole flight verification for FAI record and badge flights.

Gliding Clothes

After last winter's extreme cold, especially for anyone standing around on an airfield, manufacturers are targeting those involved with winter sports. Among the most impressive are the flying suits made by Ozee Leisure.

We have being trying them out and soon realised that they formed their own barrier from the freezing late winter/spring days. In fact a strong easterly wind on a bitterly cold airfield went unnoticed and, being waterproof, you keep dry as well as wonderfully warm.

The bonus is that they are light and comfortable to wear and in eight sizes with a wide choice of colours. Made to measure suits are available at an extra charge. See the advertisement below for details.

Their secret lies in the choice of fabric - a 3oz waterproof breathable fabric which is given a thermal insulated lining. And they are a glider pilot's joy with a multitude of pockets in various sizes, fitted with velcro fastenings to give secure but instant access.

Several pilots, who all admitted to feeling the cold, tried them and came back with the same enthusiastic response. For once they were comfortable and warm, whatever the temperature, and didn't feel cluttered up. As they were so warm, you couldn't possibly wear any extra clothing - underwear was enough.

Ozee Leisure

Manufacturers of Thermal Flying Suits

Ozee Leisure have been manufacturing flying suits for all aspects of flying for over 15 years. All of the fabrics used in the manufacture of our flying suits are breathable, waterproof and windproof but are still soft and comfortable to wear, options of thermal lined or summer Weight versions are available. Choose from 6 styles of flying suits from the Ozee range starting from as little as £85.00 inclusive. Windproof fleece tops from £55.00 or our excellent sports jacket.

For a full colour brochure on our complete range contact

Ozee Leisure

73 Pall Mall, Leigh-on-Sea, Essex SS9 1RQ

Tel: 01702 79483 office

Tel/Fax 01702 471693 factory

Another range of garments we tried and can recommend are the four seasons thermal undergarments made by Cool Fix International Ltd.

They were designed for the police and armed forces to hold the body temperature from -5 to plus 18°C. They are made of an equal blend of cotton and polyester, knitted in two layers. The spun polyester next to the body takes perspiration and damp from the skin into the outer cotton layer. They wash well and keep their good looks.

We tested the polo neck top which is smart enough to use as a pullover. Apart from its good looks, we liked the snug fit and the efficient way it staves off the cold despite its extreme lightweight. It would be ideal for airfield wear and brilliant for wave flying.

The collection includes long and short pants, a long sleeve vest, the vest/polo neck mentioned above, a balaclava/loose polo neck and a T-shirt costing between £13 and £31. Contact the firm at Ruskin House, Drury Lane, Knutsford, Cheshire WA16 6HA. Tel 01565 654906

While on the subject of clothes, for the glider pilot who really wants to make a good impression, Haggar Clothing have a range of wrinkle free cotton clothes that really can be stuffed into the back of the cockpit and emerge looking freshly pressed. They are also rather well cut, so chaps can dazzle the unsuspecting farmer's wife when they call to report their landing in their field. They are on sale at most major departmental stores.

Indoor Flying!

A review of a new gliding board game - Flight Path

Gliding board games have come and gone over the years, mainly because they were either too complicated or too trivial. But now we have Flight Path ready for Christmas which has every chance of being a huge success. For a start, and most important of all, it is great fun with the bonus of being a challenge.

It gets better the more you play with all sorts of twists and turns, decision making and strategies to hone - rather like gliding itself. Its inventor, Richard Morgan of Millennium 2 Games Ltd, is a glider and power pilot who well knows all the intricacies of cross-country flying and has put all this into an attractively produced game for two to six players.

Already more than 25 000 games have been sold in Germany and it is being launched in the UK in September.

The board cleverly combines the various components of the game against a dramatic backdrop of a coloured aerial photograph taken from 10 000ft - actually it is the Kent GC with mountains tacked on at the end to give the game more complications!

The object is to race across the country avoiding the kind of obstacles faced in gliding from sink to hazards, all the time conscious of altitude. In fact each player has a moving altimeter they have to use to monitor their height. And there are added depths to the game, all based on the problems faced in the cockpit.

An ex CFI who didn't take much persuasion to help test out Flight Path was most impressed. "Pilots with little or no cross-country experience would learn decision making and be made aware of the pitfalls in the safety of their own living room." he said, going on to win.

Two non glider pilots in the party also said they found it a fascinating game to play and felt it would soon become addictive.

It is obviously the ideal ammunition for clubs to have locked away on those non flying, course days when instructors have run through the lectures and videos. And it would make an ideal Christmas gift for a gliding family.

One big plus is that the rules are straightforward and it doesn't take an age to learn the rudiments, though the more you play the more interesting it becomes as your tactics improve. But it was possible to get started after a few minutes studying the rules.

Because Richard is doing the marketing himself and cutting out the middle men, he is able to sell it at £16.99p. See details below.



The Exciting NEW Flying Race Game



The much awaited NEW game from Millennium 2 Games is ready for take off.

A completely new concept on board games 'FLIGHT PATH' has been meticulously developed to feature actual gliding terminology and procedures that can be easily understood.

The unique board has bright symbolic imagery combined with a dramatic backdrop of actual aerial photography from 10,000ft.

Each player has a moving altimeter that is not only fun to use but adds authenticity and originality to the game which has been specifically designed to be interactive and appeal to all ages.

Your objective, having been launched to 10,000ft in your glider, is to race across the countryside avoiding all manner of obstacles hoping not to crash land before you get to the finish.

Stretching your flying skills to the limit as your competitors place tactical problems in your path, you are forced to search the sky for those much needed thermals to gain valuable height in order to clear the mountain tops and reach the final winning runway.



Millennium 2 GAMES

Tel 0181 363 3552
Fax 0181 367 0752

Games innovation at its best

CLUB NEWS



Tom Brenton (left) of Essex & Suffolk GC after going solo on his 16th birthday, photographed with instructor Jonathan Abbess.



Above: Shalbourne Soaring Society's oldest member, Vern Adams, about to take-off on his 82nd birthday in the club K-8. Photo: Julia Reid. Below: Richard Sadler is congratulated by his instructor, Harry Purser, after going solo at RAE Bedford.

Copy and photographs for the December-January issue of *S&G* should be sent to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, tel 01223 247725, fax 01223 413793, to arrive not later than October 15 and for the February-March issue to arrive not later than December 3.

GILLIAN BRYCE-SMITH ***August 14***

AQUILA (Hinton in the Hedges)

Cross-country kilometres continue to soar! We are over 25% ahead of last year's record figures on a month-by-month basis. Badge and diploma flights also continue their upward trend. Mick Love has gone solo; Terry Tuite has both Bronze legs; Hajinder Obhi, Jim Barrel and Andy Preston have Silver distances, Andy also achieving his 5hrs, and Colin Allender has part 1 of the UK diploma. Mike Oggelsby and Robert Johnston have AEI ratings. Mick Boik, Jim Barrel and Ian Scarborough have become tug pilots

We had a successful expedition to the Long Mynd with our member, Steve Bates, equalling a world record by bungy launching his ASW-22. This was the first recorded bungy launch of this type and equalled the record set by a Kestrel 22.
C.A.

BANNERDOWN (RAF Keevil)

Oscar Constable has taken over as CFI from Mel Dawson, who flew with success in the European Championships. Simon Foster competed in the Club Class Championships at Nympsfield. Ann Phillips and Sasha Large were among the eight to go solo during the course held for students of South West University.

We enjoyed the visit by the Vintage Glider Club. Their beautifully restored gliders, including a Petrel and a Kite, were joined by Al Stacey's tutor and Prefect and the club "Barge"; we hope to repeat this event.
D.C.F.

BATH, WILTS & NORTH DORSET (The Park)

Since our cross-country week's flying the weather has been mainly disappointing. The course for schoolchildren was most successful in spite of the stormy conditions. As a result we now have a growing band of junior members.

Out of five weekends the Inter-Club competitions were ruined by the weather and proved to be a non event, although on Saturday, June 29, after the task had been scrubbed, wave developed over the site and a number of pilots were soon up to 14 000ft.

There have been expeditions to France and Scotland. Bob Bromwich flew his LS-6 in the Northern Regionals and Alastair Macgregor (DG-300) is in the Cambridge Regionals.
J.L.

BLACK MOUNTAINS (Talgarth)

We have had quite a good summer with lots of sunbathing, barbecues and even a fair bit of flying with wave to more than 12 000ft on several occasions, 15 000ft being the best reported.

Lizzie Fish took the club Junior to Bicester for the BGA young persons' soaring week and completed her Silver badge. A Capstan has arrived on site.
D.U.



Lizzie Fish in the BGA Discus, one of four sailplanes she flew during the BGA course.

BOOKER (Wycombe Air Park)

This summer has seen amazing variety in the types of glider at Booker. The culmination of a very successful vintage weekend was the dual

Below: Bannerdown GC's Ann Phillips after going solo, photographed with instructor Al Stacey.





aerotow of two Hütter 17s, almost certainly a first.

The free Regionals covered types from a K-6 to ASH-25, and was won by a Booker member in each Class, Andreas Jelden (Libelle) and Dave Allison (LS-8). Our most successful cadet, Richard Garner, is entering the Junior Nationals in the club's Discus.

As usual the Aboyne expedition is fully subscribed.

Achievements include Dennis Campbell, 1st in the Standard Nationals and Tim Scott 3rd in the 15 Metre Class, and badge claims include 300km by Ashley Birkbeck, Tom Hughes and Patrick Onn; 100km diplomas for Bob Sinden and Rod Hamilton and Silver distances for Ian Birkhardt, Sean Cockburn, Phil Evans, Mike Forster, Sun Hamer-Moss and Jenny Roberts.
R.N.

BORDERS (Galewood)

Eight microlight pilots from Popham spent a week with us in July, four going solo. We have been awarded a £34 000 National Lottery grant towards a new high performance two-seater.

The Gas Board have commissioned work on our new site. The clubhouse should be ready by late autumn and ground work to improve drainage started in August. We won't be flying from the new site until next spring to allow time to establish new grass. Roger Cuthberts soon gained a Bronze badge after going solo.
B.C.

BRISTOL & GLOUCESTERSHIRE (Nympsfield)

Nineteen new members have been signed up recently. Our teams won the Rockpolishers trophy back from Aston Down. When Rob Simpson had to withdraw as our pundit because of an accident, Tim Macfadyen soared to the Long Mynd to take his place, won the day and flew home!

Our university members won the two Classes in the Inter-University Week at Nympsfield in August when six teams took part. Director Sid Smith organised a DI competition when the weather prevented flying.
B.F.R.S.



Thirty years after being sent solo in a T-31 with the ATC at RAF Henlow, Richard Cooper (London GC) sought out his old instructor, Pete Foreman, and borrowed a T-31 to celebrate the anniversary. Richard recalled that he went solo after 22 launches in one weekend before defecting to Dunstable where he took another 130 launches before they trusted him to go solo. The other cadet sent solo on that day, Gerry Price, was unable to attend.





Above: left, Bernie Littler and Kevin Fresson of Southdown GC in the T-21 on the longest day. Right: Ric Prestwich of Sleap who won a trophy at the annual gliding camp at Chauvigny, France, for his first 500km, his third Diamond. He had waited a long time as his Gold badge was No.16. Photo: Bernard Smyth. Below: left, Fay Keddie of Nene Valley GC and CFI Roger Emms following her first solo. Right: Karen Wright, the first to go solo in Rattlesden GC's new K-13, photographed with instructor Mark Taylor.





BUCKMINSTER (Saltby Airfield)
July saw a packed cross-country course (see p278) followed by a successful task week in August. Bill Morecraft narrowly missed his 500km while our young pilots flew a total of 800km. Successful cross-countries were completed under the guidance of Adrian Hatton and Chris Rollings with help from Guy Westgate.

The Falke is back on line after its annual and we are using both Puchaczs for training while the K-13 is being re-fabricated.
N.R.

BURN (Burn Airfield)
Our new DCFI is Bob Baines and Paul Newmark our treasurer. July 13 was an excellent wave day, (unusual for our site), with even winch launched gliders making contact.

We now own our own hard waxing equipment for hire to members to keep their gliders "up to scratch"!

The Mosquito spent two weeks in July flying at Chauvigny in France, and Martin White and Jerry Mills competed in the Northern Regionals.
P.N.

CAMBRIDGE (Gransden Lodge)
Peter Jude, Bob Plumb and John Dadson have gone solo; Richard Maskell (Discus) flew 500km and Paul Whitehead won the Sport Class in the Northern Regionals.

Summer courses have been a huge success thanks to Keith Sleigh. Members from other clubs are welcome to join our coming season of winter lectures - phone Roger on 01767 677077 for details.
K.M.B-S.

CHILTERNS (RAF Halton)
Ian Swan has gone solo; Peter Smith and Chris Melsome have Bronze badges, and Chris a Silver height; Paul Wilford, John Young and Tony Heritage have Silver durations and Richard Walker completed his Silver badge with a distance flight.
D.S.

FLY THE S-10 IN SPAIN

You can now fly the big tasks in the 23 metre two seater under the guidance of Tug Willson. Fly 500 – 750 – 1000ks in year round thermals and wave. Learn to use the global positioning system (GPS) and Cambridge varios. New apartment has satellite television (including Sky) and large swimming pool. Golf course within 5 mins and miles of Mediterranean sand just 10 mins. 30 mins from Alicante.

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CLEVELANDS (RAF Dishforth)
Leeds University celebrated summer by acquiring a K-6CR which is proving popular. Mike Tetlow has gone solo, Jimmy Taylor and Mark Tolson have Bronze badges and "Mac" MacKenzie has flown 50km to complete his Silver. Alex Wilson and Kevin Curtis went to Silver height in thermals, while Dave Moss waited for wave to get his Gold.

Paul Whitehead and the club Discus have just won their Class in the Northern Regionals.
J.P.

CORNISH (Perranporth Airfield)
We had an enjoyable two week expedition to Chauvigny in July - we joined the Barry and Mo Meekes crowd! It was all great fun but landing out was adventurous. John Trick completed both Bronze legs and Silver height at Chauvigny in the hired K-2.

Alan Redington achieved his Silver distance to Plymouth.
S.S.

COTSWOLD (Aston Down)
Balmy weather encouraged several members to achieve solos and badges. Cameron Hughes, Chris Kent, Dermot McGowan and Vinay Patel have soloed; Brenda Marlow, Vinay Patel and Ralph Reather have Bronze badges; Ray Crosse has Silver distance and Don Brookman, Simon Buckey and Pete Clarke have Silver badges. Jim Rodgers flew his 1000th launch during June.

During late July we held our annual competition week, organised by Chris Clarke with visitors from clubs as far afield as Lleweni Parc, Gransden Lodge and Challock. The first day we had a cloudbase of 8500ft asl with good soaring conditions on several other days.

The Class for higher performance gliders was won by Geoff Glazebrook (Cambridge GC) while our own Richard Burgoyne was 1st in the Class for gliders up to 100 handicap.
M.S.

DEESIDE (Aboyne Airfield)
A successful expedition to Bicester saw Diamond goal and Gold distance flights for Graham Morrison and Dave Porteous. Frank and Derek Cruikshank have Silver duration.

Glen Douglas is an assistant Cat instructor.

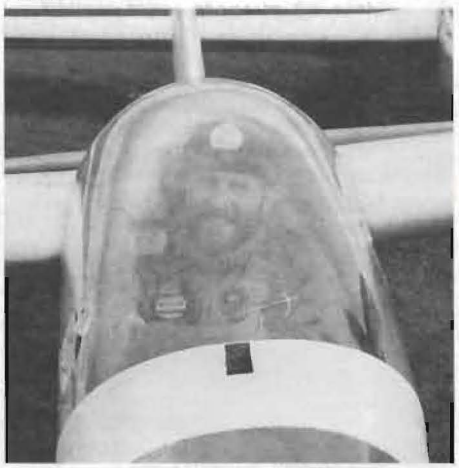
June saw us at 25 000ft and we were at 21 500ft in July.
G.D.

DERBY & LANCS (Camphill)
Nigel Howes won the Open Class in the Northern Regionals; Steve Frary has soloed and Kay Whittaker (one of our cadets) completed her Silver badge. Work is starting on our new workshop. Although our courses have not been booked up this summer we have been kept very busy with air experience evenings.
W.T.

DEVON & SOMERSET (North Hill)
July brought the sad news of the death of Peter Craggs whose contribution to the club as committee member, safety officer, instructor and friend to many will be much missed.

Competition Enterprise was a huge success with flying of some sorts on all eight days with the weather never ideal (see p279). Our thanks to Sandy Harrup and her dedicated team for an excellent event.

Mid week pilots have had some good weather with excellent 300kms flown. The new tarmac has vastly improved our hangar apron. Joe Watt completed his Silver badge with a distance leg and Peter Stapleton gained Silver height soon after going solo.
S.C.L.



Peter Craggs celebrating the 30th birthday of his syndicate Olympia 463.

Obituary - Peter Craggs
On July 6 Peter died of cancer after a short illness, leaving his wife Caroline and three children. Pilot, instructor, marathon runner, orienteer, hill walker, astronomer, musician, artist, photographer, the list goes on. A man with an extraordinary zest for living, Peter never failed to excel in whatever he took on.

We shall remember him as a very good friend and a dedicated family man.
Chris Heide

DUKERIES (Gamston Airfield, Retford)
We had a very successful flying week in June, organised by our chairman Keith Gregory, ably assisted by Paul Etherington.

June proved to be the most successful month yet in the club's history, with more launches and flying hours than ever before. Craig Hobson has a Silver badge; Gary Wardle has gone solo and Roy Lunn has both Bronze legs.
J.C.P.

ENSTONE EAGLES (Enstone Airfield)
The Open Class Nationals were a great success thanks to the concerted efforts of members (see p282). We had a good deal of club flying during the Nationals, making use of some excellent conditions with a number of badge flights. The club's Twin Astir was flown on a 300km triangle by Lorna Bevan and Tony Cox.

Hugh Gascoyne and Chris Tristram have gone solo (Chris re-soloing after a gap of 26 years!). John Nicholson and Mike Weston flew 5hrs for their Silver badges on the same day.

Mike Weston and Paul Murphy are now AEIs. Numerous cross-countries have been flown with

Paul Murphy and Steve Veness completing Diamond goals and Mike Weston his 100km diploma.
S.M.V.

HEREFORDSHIRE (Shobdon)
John France and Mike Dodd enjoyed an outstanding Blanik flight in July, 6 to 8kts from off tow to 10 000ft over Presteigne, then wave hopping to beyond the Mynd, peaking at 13 000ft, finally landing at the Mynd 4hrs later when the wave decayed.

There has been a preponderance of trial flights while many of our members have been gliding at various French sites. Our regular contingents of visitors are coming for the wave season. Though we normally fly at weekends we organise weekday flying by prior arrangement for members and visitors when conditions look promising for the following day.
R.P.

LAKES (Walney Airfield)
Our annual dinner will be on Saturday, November 16. Please contact Andrew Tebay on 01229 889014 for more details.
A.D.

LASHAM (Lasham Airfield)
Richard Lilley on his 50th birthday did a sponsored wheelchair circuit around the perimeter track raising just under £1000 for the Lasham Trust, in aid of buying the airfield. David Oliver has taken over the cadet scheme from Jeff Smithers after four years' hard work. We have 17 cadets and Eva Sampson and Milan Bharadia have Churchill awards.

The Lasham Regionals had seven days and 65 entrants who flew in hot blue weather, four completing a 510km O/R. On one day 56 aeortow retrieves involving nine tugs took 4hrs and were completed just before dusk.

John Ellner has resigned as chairman of Surrey and Hants GC and is thanked for his time and energy. David Masson is writing rigging notes for the Discus and Ventus, and usage notes for the L Nav.

Cross-countries were flown on every day but one during the two week expedition to Le Blanc, led by CFI Graham McAndrew.

The Aviation Medicine Group of the Royal Aeronautical Society visited Lasham for a day's programme of lectures and flying.
A.M.S.



LINCOLNSHIRE (Strubby Airfield)
Margaret Childs and Steve Read have gone solo. Mark and Patricia Ridger have both flown Silver heights and Patricia the 2hr leg of her cross-country endorsement.

Jeanette Kitchen has completed her Silver badge with a flight that gave her distance and 5hrs. Jeanette has taken over as treasurer from Colin Watmough.
R.G.S.

LONDON (Dunstable)
The Standard Class Nationals were a great success (see p274) with Henry Rebbeck coming 2nd. The final night party will be remembered for a remarkable cabaret turn by the national coach.

The summer has been clement with even the HusBos pot returning to its rightful place before Rob Brimfield claimed it with his 72km flight to HusBos in the T-31 at the beginning of August.

Our soaring courses have also been very successful, being fully booked with up to 14 on each one.
R.C.

MARCHINGTON (Tatenhill)
J. Garrett's second Bronze leg in wave above our site must be a first. He also flew Silver height at another club. Mark Sherwood has a Bronze badge.

It is with much sadness that we report the death of one of our senior members, Bernard Blake, whose initial experience of gliding was a real baptism of fire.

We have bought two tugs, the Pawnee that we had been leasing previously and a Super Cub 180 as back up. This latest aircraft is available to other clubs to rent. The new tugmaster is Andrew Ray on 01468 354737.

We have had a successful series of evening courses, two weather variable club flying weeks and the first flights of John Stockwell's Woodstock (last seen in S&G hanging out of the 13th floor of a Hong Kong sky rise).

We welcome visitors on Wednesdays and weekends with no reciprocal charge for BGA members.
I.N.R.

Obituary - Bernard Blake
It is with great sadness that we announce the death of Bernard Blake on July 24 after an illness of almost a year. He will be sorely missed.

Bernard's first experience of gliding occurred at Arnhem but he took up soaring only seven years ago. His enthusiasm was an inspiration to all club members and his kindness and helpfulness was always greatly appreciated. He was truly a gentleman.

Our deepest sympathy goes to his wife Rita.
Jim Robinson.

MENDIP (Halesland Airfield)
Our "dawn-to-dusk" was held on a stunning wave day with several wishing that they had oxygen aboard. Bob Merritt made over 11 000ft in his Kestrel in 20mins, including a 5min initial search.

We remain equal first in the Inter-Club; the Halesland round, like the previous two, also fell victim to the weather.

There was some mild excitement at the end of July when the BBC used part of our site as a location for the filming of an episode of the Bristol based BBC TV "Casualty" series. Having recently written off a Bocian we could have supplied authentic wreckage, but in fact the plot was about "Paradise Caravan Park" which the TV folk built on site, using caravans belonging to some of our members. The whole operation took almost one week at the end of which the only trace left was in the club's bank balance.

Phil Hogarth gave the K-18 its first taste of Mendip wave. Mick Longhurst (Kestrel) flew above 10 000ft - on another flight he almost made it back on a 300km attempt, landing at the bottom of the hill.
K.S.

NENE VALLEY (RAF Upwood)
Fay Keddie and Alan Feltham have gone solo. Fay, a grandmother, is our first female solo pilot for several years.

Our open day in June was very well attended, making it a great success and receiving widespread publicity leading to a steady increase in membership.

Wednesday flying was introduced in July. Richard Howard has Silver height and Brian Palmer flew 5hrs after several attempts, but unfortunately did not have a barograph. Richard Howard, Andy Hatfield and Gary Nuttall gained their 5hrs during our task week in August, for which we acquired a Twin Astir.

By the time this is published we should be in the final stages of the move to our new site.
A.F.

NORFOLK (Tibenham Airfield)
The cross-country season is going well with some notable flights and good performances in the Inter-Club League.

Dave Hill's 600km took him to the top of the club ladder and Lenny Rivers has Diamond goal. Steve Cattermole, Andy Fitches and Phil Morgan have gone solo; Greg Stringer and Richard Harvey have Bronze legs and Ian Walters has completed his Bronze badge and cross-country endorsement. Matthew Cook and Paul Taverner have Silver legs while David Blyth, Josie Briggs and Adrian Bennett have completed their Silver badges.

Woody Woodhouse, our CFI for the last 18 years, has announced his retirement and Eric Arthur has been appointed to take over, probably in the autumn.
B.W.

OXFORD (Weston on the Green)
The start of our summer flying three weeks in August saw Chris Lee gain 5hrs for his Silver. The weather was mixed with activities ranging from local fun and games to cross-country, lead and follow. John Giddins dropped over from Hinton in the Hedges to spend one Sunday in





Above: Left, Richard Lilley whose sponsored wheelchair circuit of Lasham raised money for the Lasham trust, is photographed with Wally Kahn, a trustee. Right: Essex & Suffolk GC's president, Eric Richard, receiving the steward's toast on his 80th birthday from Bob Adams.





Kerry Malvey of Chilterns GC having his second flight on the primary, 30 years to the day after his first flight on the same aircraft as a cadet. Right: The farewell beach party given by Fulmar GC for some of their members. Photo: Jacky Pratt.

August training on navigation and field landing practice in a motor glider.

Tim Elliot, Nicola Field, Maz Makari and Norman Hedge have Bronze badges due to the tuition and encouragement of CFI Cris Emson. Cris came 2nd in the Club Class Championship at Nympsfield.

Despite excellent performances from a wide range of pilots we didn't reach the finals of the Inter-Club League this year.
N.F.

PETERBOROUGH & SPALDING (Crowland)
We have been particularly active. Alan Flintoft has completed his Silver badge; Kevin Fear has a full Cat; Sheena Fear has her SLMG and Brian Crowhurst has become a tug pilot.

A K-6E has been added to the club fleet whilst our Vega is being overhauled.

Four members have gained the CAA flight crew VHF operators' certificate at a locally run course. Jeff Howlett, our tug master, gave a well attended lecture on cross-country flying which he demonstrated in competition the following weekend by landing out on final glide.

At our exchange evening with Fenland Aero Club we introduced several of their members to gliding.

During our task fortnight, Roger Gretton, Jim Crowhurst and Steve Turner completed 300kms.

Continuous heavy rain on the final Saturday during briefing for the Inter-Club League task resulted in a short course being set - only to be flown in unforecasted brilliant sunshine! Sunday's task was cancelled due to heavy showers.
F.R.P.

RAE Bedford (Thurleigh Airfield)
We have an expedition to Sutton Bank, taking the Blanik and Zugvogel.

Several members have taken advantage of the Coventry GC Motor Falke for field landing experience for the cross-country endorsements. Our thanks to Sackville GC for arranging this.

Richard Sadler was champagne toasted following his solo in June and we continue to attract new recruits from DRA staff and their families.

RATTLESDEN (Rattlesden Airfield)
We had excellent flying weather for our weekend hosting the Inter-Club League which coincided with the official presentation of our Lottery grant by the Sports Council. The barn dance on the Saturday evening was very popular.

Our dawn till dusk day generated 65 launches with continuous flying between 0430 and 1945hrs. Karen Wright has gone solo, the first Rattlesden pilot to achieve this in the new Club K-13.
H.J.S.

SCOTTISH GLIDING UNION (Portmoak Airfield)
Pilots from all over Britain who achieved Silver, Gold or Diamond heights at Portmoak will be sorry to learn of Richard Rozycki's sudden death in July.

A superb summer has seen some memorable flights, notably Dave Clempson (Open Cirrus) who went round 780km and Richard Alcoat (DG-500), who completed his 500km in 5hrs.

Several pilots competed in Nationals and Regionals, including Kevin Dillon (Sport Vega) "Rookie of the week" at the Northern Regionals.

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Kenny Cowie, our first cadet, gained 5hrs and Silver height on a very successful cadet week and our holiday courses have seen a crop of first solos. Our thanks to Tony Spirling for his hard work and patience.

Thanks also to Jim Proven for construction of the new clubroom library which contains the very comprehensive site briefing notes revised by our CFI. Our club Juniors now have electronic barographs to allow quick validation of Gold and Diamond heights.

We welcome pilots at any time of the year, but please phone as our wave season spaces and holiday courses are limited.
N.F.G.

Obituary - Wladyslaw "Richard" Rozycki
Richard was one of our earliest members, having joined SGU at Balado Airfield in 1947.

Trained by the solo method, he attained his A and B certificates that year and gained his C from a bungy launch from Bishop Hill in 1948. He went on to become a member of Kite-2, Skylark 2 and Olympia 463 syndicates, and was a director of the club from 1960 to 1962.

Although he retired from active gliding in the mid 1960s, he retained a keen interest in the club and became a senior official observer. He set up his calibration station in his cottage in the woods next to the airfield, and must have been responsible for the authentication of hundreds of claims over the years, handling each with unfailing courtesy, even those with the flimsiest of evidence.

A chartered electrical engineer by profession, he became in retirement an authority on the natural life of the area. He was a keen bee-keeper and maintained a close interest in the weather, having set up a satellite receiving station in recent years.

His loss will be keenly felt and we all extend our sympathy to his widow, Yvonne.
S.B.M.

SHALBOURNE (Rivar Hill)
Our "dawn to dusk" open day in June was a great success with us recruiting ten introductory and three full members. This was preceded the night before with a barbecue in honour of Vern Adams who had celebrated his 82nd birthday earlier in the month. Steve Ottner (chairman) presented Vern with an honorary life membership and his celebration flight in the club K-8 was covered by Meridian TV.

The Inter-Club League for our group has been very unlucky with the weather with only half a day's flying out of the reserve weekend after four scratched weekends.

Clive Harder and Alan Wilkinson have flown Silver distance, Clive for his Silver badge.

The new solo pilot from Shalbourne pictured in the last club news, p238, was Phil Morgan not Martin Hoskins (the photographer)!
J.R.

SHENINGTON (Shenington Airfield)
Our new winch has arrived, together with a third club K-8. We had a very useful visit from Roger Coote - BGA development officer - to discuss plans for grants and expansion of the club fleet.

Our midweek operation continues to be busy. Alex Kendell-Taylor, Elaine Crowder and Ian Worton have gone solo, while Bronze legs were achieved by Henry Whitrow, Mike Nelson, Mike Daborn, Dick Wagerfield and Bill Bench. Janet Mare, Paul Mullis, Roger Tyrrell, Chris Delahunt and James Stafford have Bronze badges with Silver badges for Leigh Wells, Bob Playle, Graeme Hudson, Julian Harman, Mike Miles and Tim Donovan. Chris Delahunt and James Stafford flew Silver distance; Hugh Phillips gained a 5hrs and Janet Mare and Paul Mullis achieved Silver height.

The student cadet scheme has recently started with four cadets. Mick Phelps and Graeme Hudson have AEI ratings. We hosted the final Inter-Club meeting for our group in July.
T.G.W.

SOUTHDOWN (Parham Airfield)
Our longest day celebrations were a huge success thanks to superb weather and efficient organisation. The variety of aircraft on display attracted the public in large numbers as did the food which was available from our first flight at 0450 until our last launch at 1930. There was a barbecue in the evening for the late night revellers with Francis Backwell achieving another culinary triumph.

Our total launch figures for the day were 171 not out. Only consideration for the neighbours brought play to a close before sunset.

Despite Michel Carnet finding he had to move house during Lasham Regionals, he did us proud by winning two of the days in Group C.

Eddie Hahnefeld achieved a Diamond goal; Mervyn Warren completed his Silver; Phil Kirk has a Bronze badge and Jim Rochelle gained the BGA aerobatics endorsement.
P.J.H.

STAFFORDSHIRE (Seighford)
We have had another busy summer with 11 full flying weeks ranging from *ab-initio* weeks for club members and university students, to the BGA soaring course in August.

We are developing rapidly and our fifth year at Seighford has seen many changes including the new clubroom, aerotowing for course weeks and a fax/answering machine.

Sadly, Steve Taylor, a visiting pilot from the Long Mynd, was killed in an accident at Seighford on July 13. Our condolences go to his family. (See the BGA news.)
A.A.

THE SOARING CENTRE (Husbands Bosworth)
This has been one of our best seasons with Steve Crabb (LS-8) flying the first 750km from the club, followed a few weeks later by a slightly longer flight by Mike Jordy in his LS-6. Unfortunately Steve cannot claim his flight due to camera failure.

We have had a number of 500kms by, amongst others, Paul Thompson, Ken Payne, Richard Johnson, Toby Wright, and Derek Westwood, and a Gold distance by Rolf Tietma.

We held both a Regionals and the 15 Metre Nationals. They were a great success thanks to directors Mike Jordy and Ron Bridges and their teams. The Regionals were won by Helen Cheetham, the Nationals by Justin Wills with club member Paul Crabb 2nd. We were extremely lucky to get a full page coverage in a National newspaper thanks to the efforts of one of the competitors.

The new clubhouse, which has a kitchen and bar, was officially opened by local council officials in September. We are competing in the Inter-Club League final.

The club newsletter has been resurrected by a trio of members. Non members can view a copy on our internet site :- http://www.csv.warwick.ac.uk/~phrsq/list.html.

We say goodbye to Ashley, our tug pilot.
T.W.

TWO RIVERS (RAF Laarbruch)
Mike Newbound, Colin Logue, Richie Vincett and Darren Dean went solo, Darren picking the one and only fine weekend in Germany and also achieving Silver height and a Bronze leg.

Serena Brunning and Al McNamara entered the Inter-Services Regionals at Bicester.

We said farewell to Andy McCann.
S.S.

ULSTER (Bellarena)
Our red Capstan has gone to Talgarth buyers, reducing our trainer fleet to the K-13, blue Capstan and QUB's K-7. A week earlier Fred Parkhill and Dave Parker bought a PIK 20D and within a week Fred's schoolboy son David was flying it.

We're getting a 52% Lottery grant to re-engine G-TUGG in January.

Jim Lamb and Peter Richardson qualified at Aboyne as assistant instructors; Phil Hazlehurst has an AEI rating and Bernard Silke, ex Sutton ➡

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Bank, has re-soloed after a break of some years.

Former chairman Gordon Mackie has stood down, medically, from tugging and instructing for what we hope will be a restricted period.

Several members took aircraft to the Irish Nationals at Kilkenny; the weather was rotten and most came home early.

We had hoped in August to fly a party of child Chernobyl radiation victims from Belarussia as our guests; sadly, difficulties in verifying parental consent meant we were able only to fly their young woman interpreter. But other visitors to fly with us during an indifferent summer included Czech students and Spanish schoolteachers on an exchange.

When you are considering possible safari venues for 1997, think of us.
R.R.R.

WELLAND (Lyveden)
Mike Steel and Robert Leacroft have gone solo and Jane Cooper and Gerald Dexter have Silver heights. Alan Bushnell has completed over 1000hrs, mostly instructing. We wish him a speedy recovery from his recent operation.
R.H.S.

YORK (Rufforth)
Our tug is back in service with a new engine.

After the success of the one-day instrument flying and aerobatics courses earlier in the summer, we shall be offering them again due to popular demand. Several members have earned the new aerobatics badges.

The club Web address (http://www.yo-rk.ac.uk/~mdc1/ygc.html) has resulted in visitors to the club from as far afield as USA, Japan and Italy.
M.D.C.

YORKSHIRE (Sutton Bank)
Our task week was won by John Lynas with Stuart Heaton 2nd. There were four Gold heights

Mike McNeil has gone solo. Dereck Holland and Peter Clay have Diamond goals and Phil Lazenby Diamond distance.

We have been well represented in competitions with Nick Grant winning Enterprise. (See p279). A full entry list for the Northern Regionals resulted in Nigel Howes (Open Class) and Paul Whitehead (Sport Class) emerging as worthy winners.
C.L.

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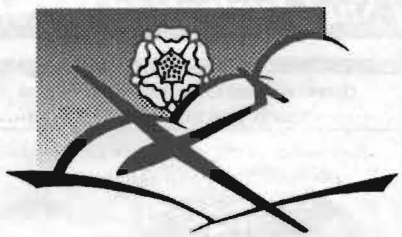
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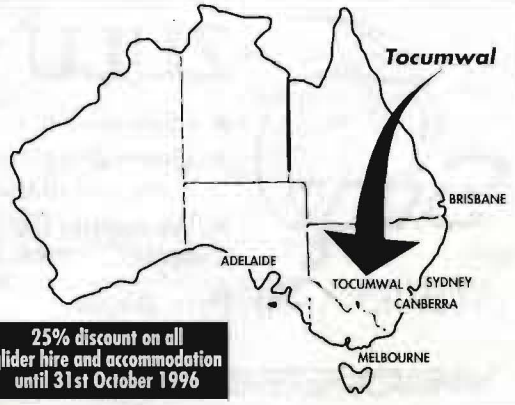
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BGA ACCIDENT SUMMARY

Ref No.	Glider Type	BGA No.	Damage	Date Time	Place	Pilot/Crew Age	Injury	Hrs
12	ASW-19	3716	Minor	20.10.95 1600	Aboyne	31	None	130

After an aerotow the pilot forgot to raise the undercarriage. During his downwind checks he failed to notice the wheel was already down and raised it. In the flare he heard a radio call "wheel" but, having realised his error, wisely concentrated on the landing. An attempt to lower the gear at this late stage could have been dangerous.

13	Std Cirrus	3929	Subst	24.10.95	Aboyne	44	Serious	200

In good wave soaring conditions, severe turbulence was experienced in the circuit so launching was stopped. Three gliders returned and this pilot was first to land. After encountering great control difficulty lining up, the glider dropped from about 10ft despite plenty of speed. The pilot suffered cracked vertebrae. The other gliders also had problems.

14	Kestrel 19	1799	Minor	24.10.95 1155	Aboyne	58	None	500 6000pwr

In good wave soaring conditions severe turbulence was experienced in the circuit so launching was stopped. The pilot made a fast but otherwise normal landing, despite the turbulence that resulted in damage to two other gliders. However, after normal initial braking, the brakes faded and the glider overran the runway, down a 6ft drop on to a fence.

15	Puchacz	–	None	–.11.95	Incident Report	–	None	30

The cable broke at the top of a crosswind winch launch so the pilot, correctly, released the remaining cable. Unfortunately this drifted across high voltage power lines. After ensuring no one went near the cable, the power company were informed. The power had to be turned off to retrieve the cable.

16	Falke 2000	G-BODU	Minor	7.1.96 1300	Rufforth	–	None	–

The motor glider pilot waited for the winch vehicle to be towed past then moved on to the runway to backtrack for take-off. The winch stopped some 20m away from the aircraft and, as he started taxying forward, he misjudged the distance and hit the wingtip on the side of the winch.

17	Bocian	–	None	– 12.95	Incident Report	65 P2 71	None None	210 ?

After a cable break the pilots found the ailerons very stiff. They could not see any external damage to the wings and P2's legs were clear of the column. With some difficulty they landed back on the airfield and the obstruction seemed to clear. Coins were found under the front seat and these may have lodged next to the stick.

18	Discus	–	Minor	10.1.96	Lasham	75	None	1500

After a normal touch down and roll-out on the grass the glider ran over the edge of a crossing runway. The undercarriage collapsed and the glider slid to a halt on its belly. A sheered bracket and bolt were found behind the glider.

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19	K-13	3215	Minor	13.1.96 1330	Seighford	47	None	8.5

The pilot, having overheard some launch point comments about 70kt approaches, mistakenly approached at this higher speed. Inexperienced, he failed to round out properly and bounced back into the air. The glider then landed nose down, damaging the nose wheel mounts before bouncing again to a final landing. A briefing would have prevented the accident.

20	K-21	3634	Minor	11.2.96 1358	Snitterfield	53 P2 35	None None	1034 134

The glider had just landed and stopped when a noise was heard from the undercarriage area. The noise increased and the glider started moving. After 45 yards it stopped and the crew got out to find the winch cable had cut 12in into the wing. The K-8, being launched on that cable, landed ahead without damage after the winch was told to stop.

21	SZD Junior	4070	Minor	20.12.95 1135	Pocklington	58	None	37

On a very cold clear day the pilot waited for a launch for about 10min with the canopy closed to keep warm. The canopy slightly misted up but he thought it would clear during the launch. However, it misted completely and he was airborne before deciding to pull off. Without external references he oscillated in pitch to a heavy, bounced landing.

22	Falke	M/G G-AZPC	Subst	25.2.96 1235	Feshiebridge	53 P2	None None	5000+ 446pwr 128

After a long briefing before the SLMG conversion training flight the motor glider took off normally. At about 50-100ft the power reduced and, given a choice between dense forest and a rocky river bed, the pilot made a forced landing in the river. Both pilots were unhurt but the aircraft was substantially damaged.

23	Falke	M/G G-BUJI	Minor	3.3.96 1155	Rufforth	40	None	6pwr

During a training solo take-off the motor glider encountered a strong crosswind gust which lifted the right wing despite full opposite aileron control. The left wing caught on the ground and the aircraft pivoted around, striking the propeller on the ground as the tail lifted.

24	Discus	3538	Minor	29.2.96	Lasham	72	None	274

While landing across an intersecting runway the undercarriage collapsed. The glider slid to a halt on its belly. The pilot recalls he had put the gear down on the downwind leg, confirmed by witnesses, and there is no reason known for the failure at this time.

25	Grob 102	–	None	– 3.96	Incident Report	35	None	1500

The glider had been stored, rigged, for some time. After a C of A the pilot carried out a satisfactory full handling check. Later he flew a loop followed by a chandelle. In the recovery he found the stick needed a 20lbs force to level the wings. He made a safe landing, despite some further resistance. A large number of acorns were found in the wing.

26	K-8	2925	Subst	2.2.96 1615	Near Pocklington	66	None	2.75

Soaring within 1.5 miles of the airfield the pilot became disorientated after the canopy misted up and turned away from the field. He chose a school field but at a late stage saw goal posts ahead so flew on towards the next field. He did not have sufficient height to reach it and crashed into the hedge, substantially damaging the glider.

27	Jantar 1	1969	Subst	2.3.96 1500	Brentor	20	None	205

The pilot was making a practice racing finish when he misjudged his speed and found he did not have enough energy for a full circuit. Instead of landing ahead in a large field, or turning left into a valley with good fields, he tried to turn back on to the runway. Realising his mistake he aimed for a field but hit a wingtip and landed very heavily.

28	K-13	2471	Minor	28.3.96 1200	Gransden Lodge	30 P2 40	None None	1082 483

On an instructor training flight P2 allowed a bow to develop in the aerotow rope and P1 waited for him to recover as in several previous exercises. This time the bow increased so P1 took over and released. The rope flew back and wrapped itself around the left wingtip, outboard of the aileron. The glider yawed sideways before the rope slipped off.

29	Grob Acro 2	–	None	– 3.96	Incident Report	61	None	2820

The glider had a C of A and "cosmetic" gel coat repairs including some around the airbrakes. After full ground checks the glider was launched. On the approach the airbrake lever required considerable force and it was noticed that the left brake was jammed in. The brake end was filed down and the control rod replaced. (See also report No. 34.)

30	K-8	–	None	– 3.96	Incident Report	52	None	79

At 1400ft on the winch launch the pilot heard a loud bang behind him. Releasing, he noticed the brakes were ¾ open despite the lever being in the closed position. With the lever in the open position the brakes came fully out. An abbreviated circuit and normal landing was made. The airbrake over-centre bracket had broken.

31	K-21	3639	Minor	4.4.96 1630	Sutton Bank	40 P2 56	None None	? ?

On a winch launch currency check flight the cable broke when the glider was about 15ft up. P2 was a little slow to react then moved the stick forward too quickly. There was no time or energy to round out and the glider hit the ground nose down, damaging the nose wheel mounting.

FIRST SOLO

Some thoughts after that momentous occasion

Relax! This is not another bore wittering on about his first solo flight when all you want is a free beer out of him. It's amazing how many people there are in the bar after you go solo. Where do they all come from? After the euphoria wore off and I landed back on planet Earth (about three days later) it was time for a realistic look at what was achieved and the statistics generated.

Cost

This is the bit my wife is excluded from reading! In my own case I had a trial flight in August 1994 but only got serious about gliding in June 1995 with a one week course.

Adding up all the costs I got a total of £463. This when reduced to an hourly rate become £71. Interestingly this is almost the same as one of the cheaper power flying schools. However, a better figure to quote to the nearest and dearest is that this equates to about £10 per week. Phew! That looks better.

Time

Just after my first solo I asked a power flying instructor how many students he had sent solo after 6hrs 30min tuition. He went very white and had difficulty speaking at just the thought of it. Certainly gliding is more intensive than power tuition, which probably explains why the duty instructor staggers off the field at the end of the day muttering the immortal words "never again".

My own figures are quite interesting - three aerotows and 58 winch launches. This means an average of 22min each tow.

Please bear in mind that most of the time spent in the air after the tug released was spent spinning, stalling, sideslipping and other such height losing nasties. On the winch the 58 launches averaged 5.5min. Perhaps this will improve after some experience in a K-8.

Just to annoy myself I looked at my 13 year-old son's logbook. He is averaging 9.3min/launch. (How does he do that?)

None of this takes any account of the time spent reading and studying and littering the hours with my junk. (My wife's words.)

Instructors

Not getting the same instructor twice running is a blessing and a curse. It prevents one instructor developing strange individual habits and then inflicting them on the poor student.

It places a huge burden on the student to be discerning and listen carefully to both what is

said and to the differences between what they all say. In the course of my training I have been exposed to over a dozen instructors. Luckily they didn't all appear in the bar afterwards.

Finally

No mention has been made of the F word. **Fun!** How can you qualify that?

Some flights were great but realistically much less so towards the end when the pressure was on to do it right and instructors one and all become very very picky!

This showed up very clearly on that first solo as once released from the winch the thought occurred, what do I do now? There was no voice from behind pushing me on. Just drifting around was wonderful.

I can't finish without thanking all those who have helped so much and I don't mean just the instructors, although I must say a particular thank you to Mike Moulang who had the courage to send me off on my own.

There have been so many times when people have been willing to listen to me rant and rave when I got it wrong and then give both advice and support afterwards that I can't mention them all. Anyway I think they were all in the bar that evening, judging from the bill!

By the way, my second solo flight was so bad I gave the aircraft back in two pieces. Only a little bit of skid broke off - honestly. The third one was better, I am pleased to say.

So roll on the next flying day. Happy landings.



32	K-13		Minor	5.4.96 1300	Dunstable	50 P2	None Minor	138 0

The instructor carefully briefed the student on cable break procedure before the winch launch. At about 50ft, as the glider was rotated into a full climb, the winch driver cut the power as he felt a sharp jerk as if the cable had broken. The instructor was slow in recovering and the glider landed heavily. The student suffered bruising.

33	Astir Jeans	–	Minor	– 4.96	Incident Report	–	None	–

During rigging a wing trestle collapsed causing a crack in the fuselage. The club have recommended a "daily inspection" of trestles and "dead men" before use.

34	Grob Acro 2	–	None	– 4.96 –	Incident Report	61 P2 65	None None	2820 –

Following a previous airbrake failure (see report No. 29) and replacement of a push rod, the glider was again fully checked and then test flown. This time it was found that the brakes could only be unlocked under negative *g*. After landing the airbrake end was further filed down and chamfered. This seems to have stopped the problem.

35	Open Cirrus	4213	Minor	30.3.96 1430	Chipping	53	Minor	1172

The instructor was fully briefed before his flight by the glider's owner. During the winch launch, unknown to the pilot, the tail 'chute deployed. Thinking he was in sink he returned to the circuit but then found he could not fly a normal circuit and the glider undershot into an earth bank. New gliders with drag 'chutes are to be checked by inspectors.

36	K-7	3925	Subst	5.4.96 1900	Keevil	28	Minor	5min

On his second solo flight the pilot made a normal approach and landing until during the round out the brakes were closed and the glider ballooned into the air. The pilot allowed the glider to pitch up and stall at about 15ft. It then impacted nose down causing substantial damage but only Minor injuries, probably thanks to energy absorbing cushions.

37	ASW-20BL	3119	None	20.4.96 1500	Sleap	67	None	1655

On the approach the pilot (unusually) selected No. 4 flap to give better control and opened a little more airbrake. The stick became solid in the roll and the brake had stiffened. No.3 flap was re-selected and the controls freed. After landing it was found a wheel brake bolt had been fitted incorrectly and would jam a control linkage with flap 4.

38	Discus CS	4030	Minor	7.4.96	Lee-on-Solent	29	None	80

After his first flight on type the pilot landed normally but struck 5in deep ruts in the grass which could not be seen. The undercarriage collapsed. The ruts had been caused by vehicles during the winter and camouflaged by grass so well that they were not visible even when walking the area. The area, now marked by cones, is to be repaired.

39	Open Cirrus	1473	Minor	20.4.96	Long Mynd	28	None	61

Encountering strong lift, the pilot correctly decided to overfly the launch point and land up the field. However, he failed to close the brakes and monitor the airspeed and the glider stalled in from about 5ft.

40	ASH-25	3606	Minor	27.4.96 1500	Husbands Bosworth	53 P2 –	None None	2500 ?

After a short soaring flight the pilots found they could not lower the undercarriage. A gentle wheel up landing was made, causing only gel coat damage. It was found that one of the door closing rods was displaced, jamming the retraction mechanism. While rubbing for some time, the jam had probably been caused by a vigorous retraction on this flight.

41	SZD Junior	3541	Subst	5.5.96 1520	Portmoak	40	None	136

The pilot started his approach from too far back for the strong headwind. After initially opening the brakes, he closed them as he realised he was not making much progress. Landing into the sun, he decided he could just make the rough undershoot area. In the flare he hit a wing on a small tree which spun the glider around, snapping the tail off.

42	K-13	4221	Subst	5.5.96 1100	4m Nr Aylesbury	37 P2 –	None None	450 0

The glider was being flown in clear visibility when it was hit on the right wingtip from behind by a light aircraft. The light aircraft crashed, killing the sole occupant. The instructor took control and made a safe landing in a field despite losing 2ft of wingtip and 8ft of fabric forward of the right aileron. BGA/AAIB Investigation in progress.

43	K-13	3692	Minor	15.5.96	Burn Airfield	57 P2 36	None None	1792 84

On a site check P2 released at 1300ft as the launch was getting too fast. There was a loud noise, thought to be due to tension still in the cable. After a normal flight it was found that the cable had broken, just prior to release, and had caught around the tailplane, sawing it through to within 3cm of the rear spar, substantially weakening it.

44	Grob Acro	3013	Subst	12.5.96 1830	Lasham	42 P2 35	None None	998 117

On an aerobatic training flight P2 lowered the nose 45° ready for a loop and P1, after checking the angle, was surprised to find the airspeed had risen to 160kt and took control as the left airbrake started fluttering. During the pull out he pulled over 7*g* and overstressed both wings. The glider was landed safely.

45	LS-4	–	None	– 4.96	Incident Report	52	None	180

During rigging the pilot was distracted. A full positive controls check was made but during the aerotow a "clank" was heard from behind and he found the left aileron was disconnected. After pulling off he could control the glider so made a long descending circuit and landed safely. The L'hotellier was only half locked then fell apart on tow.

LATE NEWS

JUNIOR NATIONALS

Dave Allison (LS-8) won the Junior Nationals held at Lasham Gliding Society from August 5-23. After seven contest days he gained 5755pts Afandi Darlington (ASW-24) was 2nd with 5518pts and Oliver Ward (Discus B) 3rd with 5246pts.

The contest director was Steve Jones and there were 32 entries.

There will be a full report in the next issue.

OSTIV CONGRESS

Manfred Reinhardt, the president of OSTIV, has written to remind readers that the XXV OSTIV Congress will be from June 26 to July 4 at St Auban during the World Championships next summer "at a most interesting place in an impressive surrounding".

He adds: "Due to the special location in the Durance valley with the nearby mountain ranges of Montagne de Lure and Luberon this area was also the subject of early intensive studies in meteorological phenomena offering all kinds of combinations of hill soaring, thermals and waves."

In asking for technical papers, Manfred says they are trying to interest especially the younger scientific technical people in the gliding community as they are very aware of the slow decline in membership caused mainly through the increasing number of members retiring.

The conference covers all scientific and technical aspects of soaring as well as gliding, including motor gliding, hang gliding, paragliding and ultralights.

OSTIV are asking for papers for the sessions on meteorology (which embraces climatology and atmospheric physics); technics (aerodynamics, structures, materials, design and maintenance); training and safety (which also includes coaching, health, physiology etc) and for the joint sessions they hope to discuss scientific and technical topics, presented in an informative and entertaining way for the broader interest of the Championships and OSTIV. Topics on instrumentations, electronics, safety, statistics and others systems technologies will be include.

The deadline for short summaries (about five to ten lines) is October 30 with extended abstracts of at least 500 words wanted by next March 31.

Contacts for the various sessions are as follows: Meteorological and Joint session papers - Dr Hermann Trimmel, Chairman OSTIV - Scientific Section, Bründelgasse 34, A-2512 Tribuswinkel, Austria, tel/fax 0043 2252 86494; Technical session papers - Winfried M. Feifel, Chairman OSTIV- Technical Section, 7107 South Ryan Street, Seattle, WASH 98178, USA, tel 001 206 965 0226, fax 001 206 234 4543 and Training and Safety session papers- William G. Scull, Chairman Training and Safety Panel, 6 Will Hall Close, Alton, Hants GU34 1QP, tel/fax 01420 83553.

Manfred tells us that the Index 1995, containing all OSTIV publications from 1950 to 1958 and all the technical soaring articles from 1986 to 1995, with names of authors and the title of papers, has been amended. This follows the 1992 index.

To order a copy contact Dr Manfred E. Reinhardt, OSTIV c/o DLR, D-82234 Wessling, Germany. Tel 0049 8153 282507 or 282501 (office) or 0049 8153 1777 (home) and fax 0049 8153 4114.

FATALITY

There was a mid air collision at the Cotswold GC, Aston Down, on Wednesday, August 21 between a K-8 and K-6. The K-6 pilot, Leslie Akehurst, was killed in the impact but Jeff Fellowes baled out successfully.

The accident is being investigated by the BGA.

Bill Scull



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ADVERTISERS' INDEX

Airborne Composities . . 298
AMF Enterprises 304
Anglo Polish Sailplanes . 257
E.W. Avionics 255
Benalla GC 301
Booker GC 299
Bristol & Gloucestershire GC 300
BGA 262, 290, 291
Buckminster GC. 303
Cair Aviation. 261
Cambridge Aero Instruments 256
Cambridge GC. 300
Centreline Services 256
T.L. Clowes. 308
Cotswolds Gliders 311
D&M Engineering 303
Derby & Lancs GC 297
European Mountain Gliding Centre. 290
European Soaring Club . 310
Faben Insurance Consultants 305
Anthony Fidler 311
First Aviation 309
Flight Insurance 259
Flight Path 293
D. Garrard 311
Glider Instruments. 311
Group Genesis . . . . . IFC
HT Communications . . . 305
Hill Aviation 284
Irvin GB 260
JSW Soaring 260
Joint Air Services . 254, 309
Kent GC 301
Lasham GS. 301
Lomond County Inn. . . . 308
London GC. 255
London Sailplanes Ltd . 277
Lyndhurst Touchdown Services 277
McLean Aviation 254
Harry Mendelssohn . . . 263
Midland GC 303
Nevynn International . . . 302
Norfolk GC 300
North Yorkshire Sailplanes 278
Oxfordshire Sportflying . 272
Ozee Leisure 292
Pawnee Aviation 311
Penningtons Accountants. 312
T. Perkins 310
Pilot Flight Training. 269, 281
RD Aviation. . . . . IBC
S&G 290
Schofield Aviation 311
Scottish Gliding Union. . 305
Sedgwick Aviation 258
Severn Valley Sailplanes 277
Shenington GC. 301
Shirenewton Sailplanes. 290
Skycraft Services. 307
Sky Systems Ltd 260
Skywings 312
J.L. Smoker 304
Southern Sailplanes 312, OBC
Ernst Specht 304
Sportavia 303
Stemme Motor Glider . . 260
Sunstate Soaring 300
Roger Targett 290
The Soaring Centre 302
Thomas Sports Equipment 303
Turnpike Technics 272
Brian Weare 304
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C.P. Witter 312
York GC 301
Yorkshire GC 302
Zulu Glasstek 304

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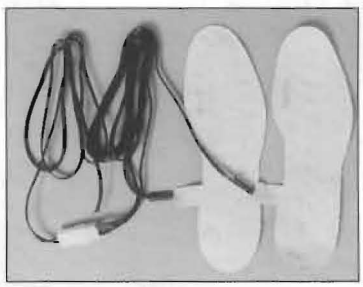
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