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February-March 1986
Volume XXXVII No. 6

SAILPLANE AND GLIDING

EDITOR
Gillian Bryçe-Smith
281 Queen Edith's Way, Cambridge, CB1 4NH
Tel 0223 247725

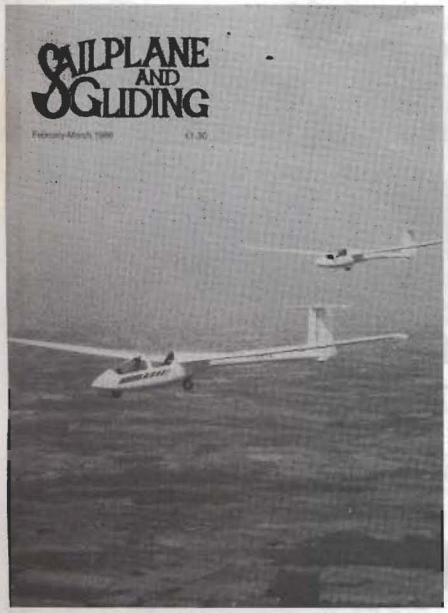
CONSULTANT EDITOR
Rika Harwood
66 Maisemore Gardens, Emsworth, Hants, PO10 7JX
Tel 0243 374580

SUBSCRIPTIONS
Bev Russell
BGA Office

COMMITTEE
A. W. F. Edwards (Chairman)
R. Q. Barrett, M. Bird, F. G. Irving, B. Rolfe

ADVERTISING MANAGER
Helen Richie
Cheiron Press Ltd
7 Amersham Hill, High Wycombe, Bucks, HP13 6Q
Tel 0494 442423

PUBLISHER
British Gliding Association
(Barry Rolfe, BGA Administrator)



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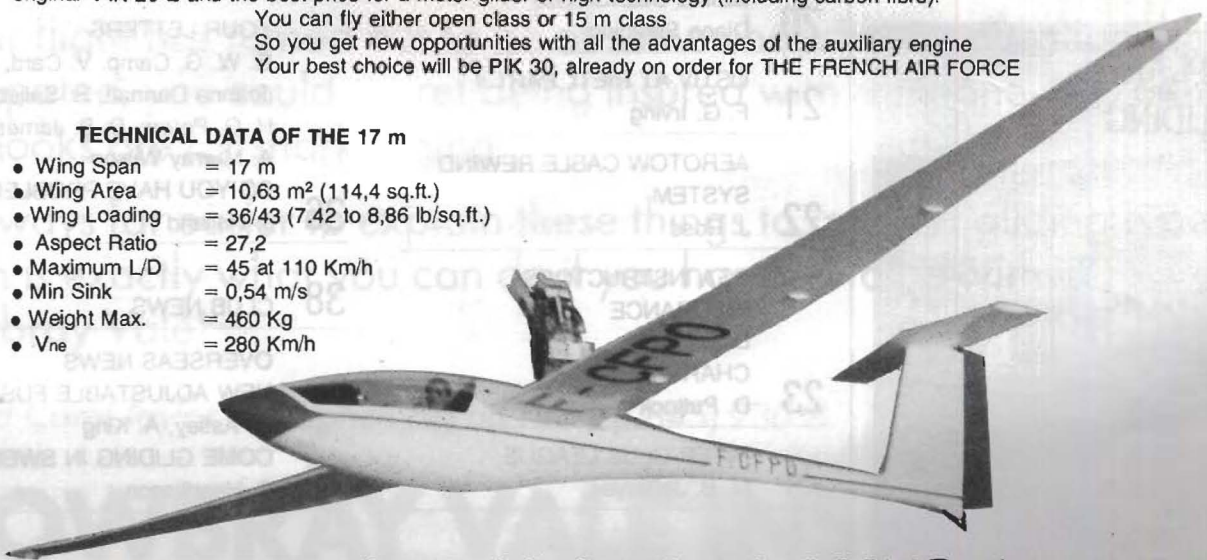
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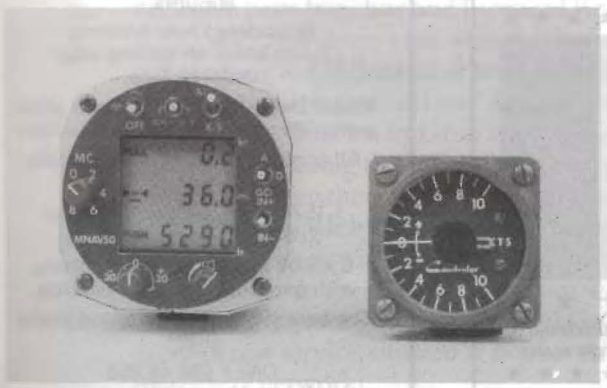
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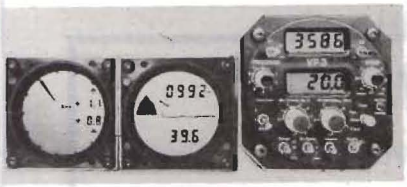
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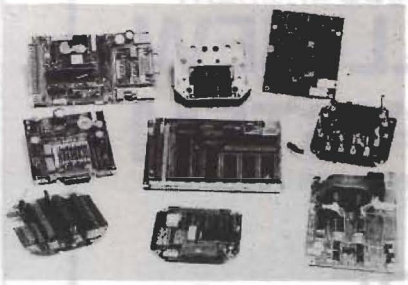
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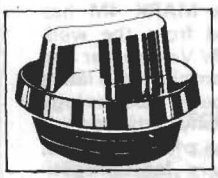


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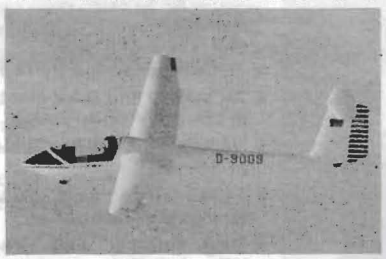


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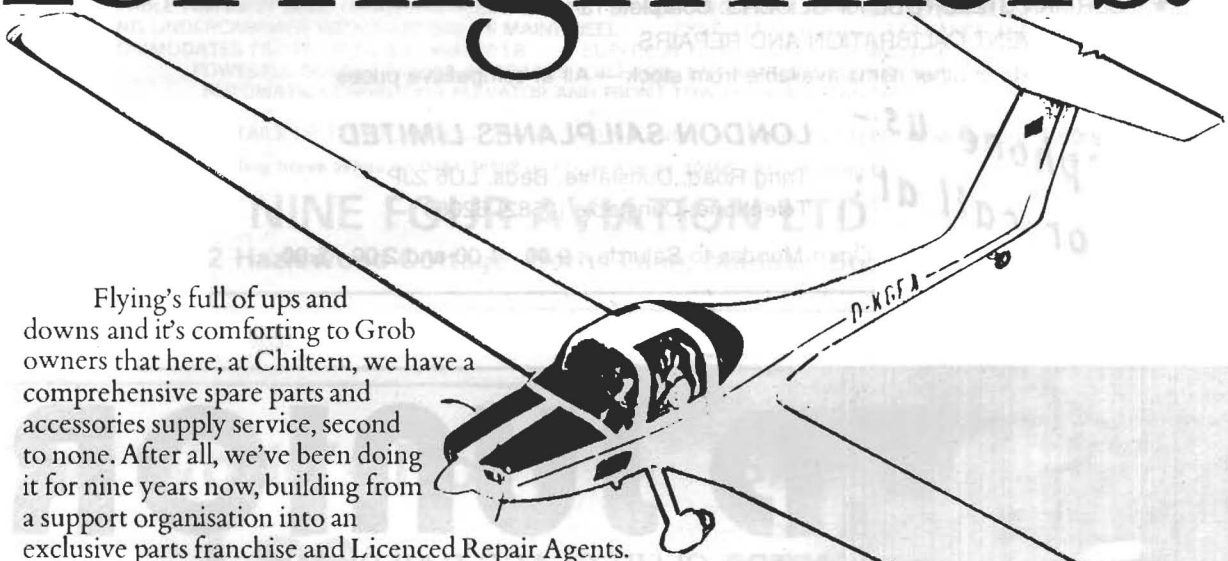
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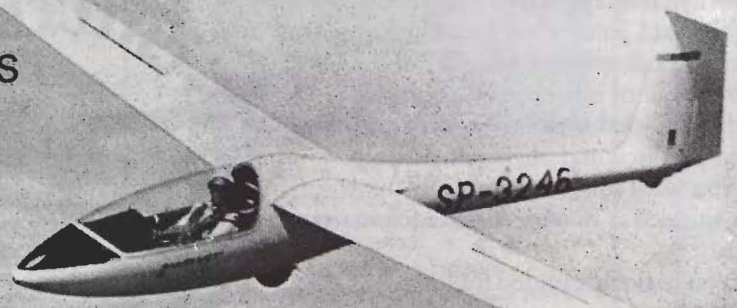
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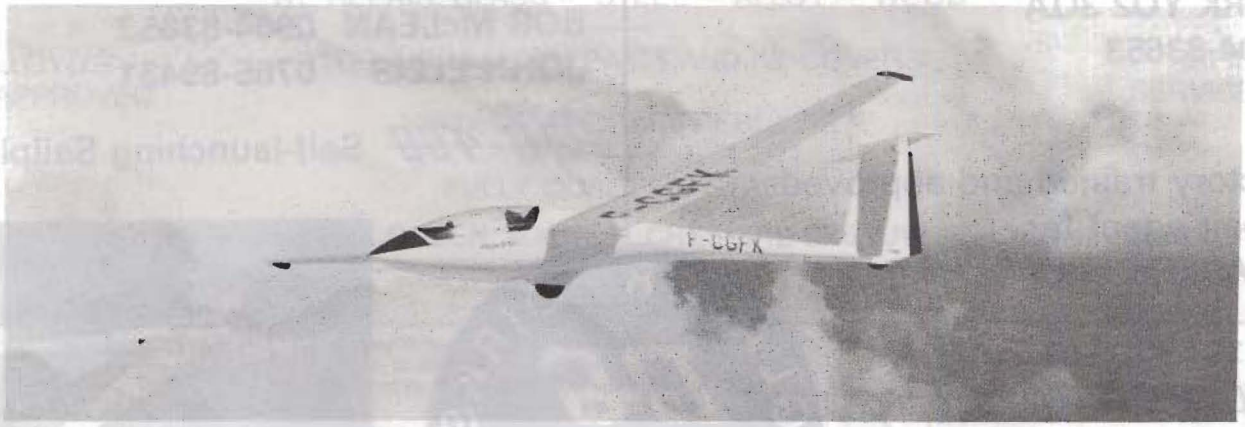
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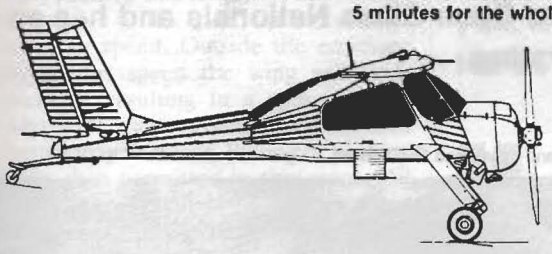
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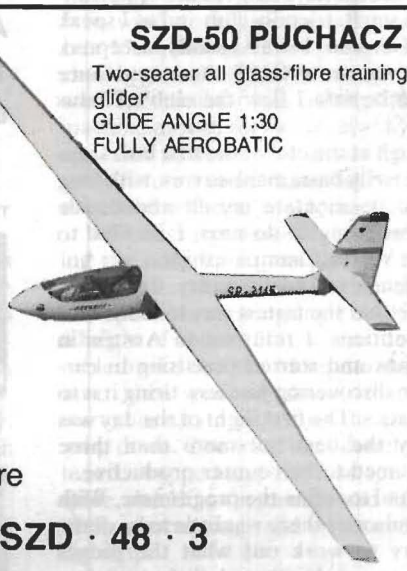
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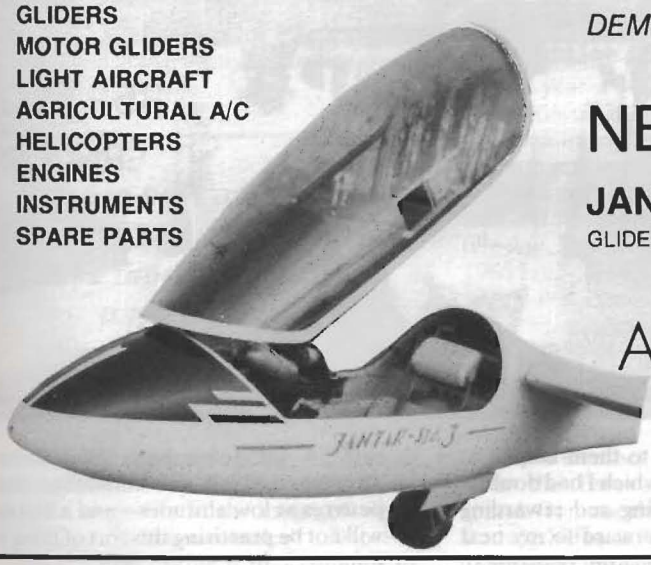
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AEROBATIC TRAINING

Lionel, a 30 year-old master mariner, came 30th in the first World Gliding Aerobatic Championships at Mauterndorf, Austria last summer. He has been gliding at Lasham since 1979, competed in three Open Class Nationals and has an assistant instructor's rating.

The British team, left to right, Lionel Sole and Lynne and Guy Ballard.



There has been very little advanced aerobatic training in this country in recent years, due partly to the lack of qualified instructors and partly to the lack of suitable gliders. I feel this is a pity as the sport offers pleasure and satisfaction and greater self-assurance and safety in the air.

I have been trying to improve my skills for years with little real progress, so when Karl Berger of the Austrian Aero Club suggested I went to Mauterndorf to fly with the CFI, Horst Strondl, I leapt at the opportunity. It is a small, friendly club and as I speak a little German I was readily accepted. Training was in a G103 Acro and once judged to be safe I flew the club's Pilatus B-4.

Although at the end of the first visit I was only able to fly basic manoeuvres, with long pauses to re-orientate myself and decide what I was going to do next, I decided to enter the World Championships.

Experience in cross-country flying had shown me that the fastest way to learn is to fly competitions. I returned to Austria in mid August and started practising in earnest, soon discovering just how tiring it is to fly aerobatics. The first flight of the day was invariably the best but more than three flights seemed to be counter productive.

I now had to refine the programme. With the compulsories there was little to be done, except try to work out what the judges wanted to see and with each flight try to get nearer this standard. The free sequence presented more problems as I tried to refine it to get the best programme for my glider and improve my flying at the same time. I don't think I flew the same free programme twice in succession until the day before the contest, and it was still far from ideal. This was one area where I could have used a lot more expert advice earlier in my training.

I had already gained from the competition before it started by being forced to work hard to bring my flying up to a standard where I could demonstrate in public without being too embarrassed, but it was once the contest started that I really started learning. It is not difficult for even an inexperienced observer to tell whether someone is flying well and the standard of many of the competitors was very high. Each pilot had his own style and the successful adapt theirs to their aircraft.

It is galling to discover a manoeuvre you think was fairly well executed has been given zero marks, which means the judges think you have actually flown something different. I soon realised just how badly my free programme had been planned as I threw away lots of points by selecting figures from which I couldn't hope to score well. The other pilots were very helpful, probably because they realised I wasn't a threat and just chatting to them helped to clear up many points on which I had doubts.

It was a very interesting and rewarding experience and I look forward to my next competition, probably the European Championships this year, but I hope more pilots will become involved and we can go with a full team.

If you are wanting to try advanced aerobatics, I'm sure you would like to know how to go about it.

1. Be a good pilot. Aerobatics are all about flying a glider as well as possible and an aerobatic pilot should be able to demonstrate this in normal soaring flight. Monitor your own flying and work hard to get rid of bad or slipshod habits. The slipball should always be central unless you are deliberately side-slipping. Entries and exits to turn should be crisp and always on pre-determined headings. A good aerobatic pilot is likely to be able to do spot landings without changing the airbrake setting after the final turn. Be safe. A good aerobatic pilot doesn't attempt difficult or unfamiliar manoeuvres at low altitudes – and a bad one will not be practising this sort of thing for long.
2. Get experienced instruction in the basics in a suitable machine. Although a powered aerobatic aircraft will give much the same sensations in manoeuvres and help you become comfortable in high or negative loads, the control inputs are very different. The co-ordination, especially in negative flight, must become instinctive as must recovery from unusual attitudes. The recovery from your first attempt at a flick roll is not the time to work out how to get out of a 45° inverted dive! Powered aircraft also tend to have more drag than gliders; closing the throttle usually gives enough time to sort out the problems, whereas a glider with its nose pointing at the ground will still be accelerating at nearly 20kt/sec well after the speed at which the wings

fall off. In particular, never try to practise inverted flight or rolling manoeuvres solo. Even experienced power aerobatic pilots are almost certain to "lose it" on their first attempts. The safety margins involved are very small and control is only just adequate.

3. Know your aircraft, particularly the flight envelope. This gives details of the load factors or accelerations the airframe is capable of withstanding through the speed range and will be found in the flight manual. In general the load factors, positive and negative, increase as the square of the speed up to the manoeuvring speed. Outside the envelope below this speed the wing will stall, probably resulting in a spin or flick. Above the manoeuvring speed the load factors may decrease. Pulling or pushing more than permitted in this range will damage the airframe. The permitted max load factor is usually reduced with the airbrakes open. The manoeuvring speed applies to the ailerons and rudder as well as the elevator. Full control deflection above the manoeuvring speed will cause damage.

'You are now asking it to accept −3 to +5 and it will take time to become used to this.'

4. Don't rush the training. In your normal flying your body has become accustomed to gravity in the range of $+\frac{1}{2}$ to +2, and in "semi-aerobatics" to 0 to +3. You are now asking it to accept −3 to +5 and it will take time to become used to this. Co-ordination is also very different. Until now you have used "stick to the right: rudder to the right". This no longer applies and you will have to retrain your reflexes to make the glider do what you want it to.
5. Get critiqued. Half the value of any training flight is lost if you don't have someone watching from the ground and judging your performance, preferably recording his comments about each figure on tape. I don't think there is an instinctive way of knowing whether a loop is round or a climbing line is truly 45° and unless you have the basics right you can't hope to get good competition marks where a deviation of $2\frac{1}{2}$° in any axis will lose you points.

THE SUDDEN STOP

'It's not the fall that hurts you, it's the sudden stop at the bottom'

My birthday falls on Boxing Day, a fact that I have always regretted. I would have preferred a summer birthday, one which gave another excuse for a party, and preferably one which could be held outdoors on a warm evening.

This year I will have my opportunity. From now on I will share with the Monarch the small indulgence of an official birthday which in my case I will celebrate on July 14.

This is not a sudden desire to align myself with our nearest neighbour and mark Bastille day. It is to remind me that on July 14, 1985 I survived a flying accident that should have killed me.

By the grace of God and the foresight and medical skill of a handful of Germans I'm still alive and by sharing my experience I may prevent you from becoming another accident statistic.

I was a member of a small group of pilots from the Essex GC who were visiting friends from another club at Dannstadt near Ludwigshafen in West Germany.

I arrived in Dannstadt early in the afternoon of July 13 after a journey that had started a little over 24hrs before. We were warmly welcomed and after a meal at the club I was delighted to be offered a check flight in the club K-7 with the chance to familiarise myself with the area. The launch was something of an eye-opener. The winch gave us 1300ft in a flat calm on what was little more than a large meadow! The flight of forty minutes or so was enjoyable, with my host pointing out landmarks and suitable landing-out places. By the time we landed I was looking forward to flying in the area during the coming fortnight.

That evening we were allocated to our hosts and went off home for a gargantuan evening meal. The hospitality was superb, and as tends to happen where two or three glider pilots are assembled, the conversation turned to flying. It was a most enjoyable evening but by now the journey was beginning to tell and I for one was ready for my bed.

Early next morning, after a shower and another substantial meal, we left for our first days flying and from this point I am largely compelled to rely upon accounts of my friends, for I actually remember very little until I woke up in hospital nearly a week later.

It was a very warm cloudless day with little wind. I strapped myself in my syndicate Mosquito and after going through the checks, gave the signal to launch. The result was spectacular and nearly fatal. The machine moved forward fairly slowly and I appeared to attempt to gently lift the nose twice before a more vigorous attempt which coincided with the winch accelerating.

With this inept move I succeeded in pitching the nose up so steeply that the glider virtually stood on its tail. It then climbed to an impossible seeming angle until it reached a height of about 150ft, where the stranded cable broke and the Mosquito stalled. The nose then pitched down, the machine started to rotate and struck the ground port wing down. The wing bent double, straightened, snapped and the fuselage folded in three, shedding the canopy and various bits of the structure as it slid to rest at the side of the strip.

It was not a survivable accident. Sickened, the boys did not even bother to run but one of the German lads sprinted down the strip and to their surprise shouted back urgently: "Quick, he lives!" From then onwards it was all action. Pete and Wally, one of whom is even older than I am and both of whom are considerably heavier, ran down the strip and lifted part of the fuselage that was lying across my body. Fearing spinal injuries (correctly as it transpired) they then prevented would-be rescuers from pulling me about until the emergency services arrived minutes later.

The first thing to appear was a helicopter ambulance operated by the German Automobile Club (ADAC). They came fully equipped with cutting gear and within minutes the para-medics had a drip up to ensure that my circulation didn't collapse and had passed an airway to help my breathing. The club cable retrieve vehicle was also provided with cutting gear and I was rapidly extracted from the tangle and flown off to hospital.

The more commonly used accident hospital did not have a vacant operating theatre and as a thirty minute delay would have resulted in a job for a joiner rather than a surgeon, I was admitted to the University of Heidelberg Hospital in nearby Mannheim. This is where the gliding Mafia seems to

have been in evidence as the surgeon who reassembled me proved to be Helmar Gai, the German National Champion.

I did, however, present him with a challenge as my injuries comprised, among other things, a fractured skull, a fractured spinal vertebra, a broken collar bone, three broken ribs and a broken ankle. In addition to this I had sustained a number of puncture wounds to my abdomen and many superficial cuts and bruises. The thing that threatened to kill me, however, was a spleen described as 'shattered' which resulted in a massive loss of blood.

S&G has always boasted good communications but they do not extend either to the Kingdom of Heaven or the Principality of Hell, so clearly I survived to write this article.

I spent five days in intensive care, a further two weeks in hospital and was discharged into the care of the UK National Health Service where I remain.

It seems with the benefit of hindsight that survival was very much against the odds, a number of special factors acted on my behalf and I am a very lucky man. There is however more than the desire to tell a good 'I survived' story behind this article.

The accident need not and should not have happened. If you are aware of some of the causes you may profit from my experience and certainly the kind of contingency planning that saved my life can teach British clubs a great deal.

First of all it is worth looking at what appears to have happened and consider just why it did.

I almost certainly stalled the elevator with the near vertical take-off that I originally described, and once that happened there was little real chance of regaining control. This was an accident which largely originated in things which were done and decisions which were made before I ever left the ground.

To start with I was right on the minimum cockpit weight limit and indeed, on the basis of subsequent evidence, was almost certainly below it. It would have been prudent to carry cockpit ballast and failure to do so may well have been a contributory factor to my apparent loss of control.

Second, I did not give proper consideration to the nose-up trim change caused by setting recommended take-off flap.

Third, and I think most important, I appear to have compounded my errors by moving the stick back to pick up the nose, despite the fact that the expected acceleration could hardly fail to pitch the nose up violently even with the glider trimmed well forward.

How did I manage to entrain this succession of mistakes? To be honest I don't know with absolute certainty, but I can make an intelligent assessment and have certainly been given plenty of time in which to think about it.

Although I have been gliding since 1976 I had only flown for some 12hrs in the six months prior to the accident, had flown only about half of this in the Mosquito and have little experience of winch (as opposed to reverse auto-tow) launching.

What is perhaps even more to the point is the reason why I have done relatively little flying recently. I work in special education in an inner city area and as a result have been grossly over-pressed for a very long time. Being hard pressed is not peculiar to those involved in educating the handicapped and fatigue is an ever present factor for most of us.

'When flying, human fatigue can be more of a killer than metal fatigue!'

I think that the combination of a protracted period of working under extreme pressure and a long journey slowed my reactions and impaired my ability to make sensible decisions. When flying, human fatigue can be more of a killer than metal fatigue! To the obvious lesson, ensure that you keep in regular practice, should be added the proviso, give yourself adequate time to recover from long and exhausting journeys.

So much for the speculative part of my article; you may find it instructive reading or you may see it as evidence of sheer stupidity. What I can now offer is a straightforward description of the contingency planning that undoubtedly saved my life. It is not, so far as I know, common practice in Britain and perhaps we can learn something from our German friends.

As my aircraft hit the ground the German club members started the accident procedure. A radio link with the helicopter ambulance summoned it to the scene of the crash and other emergency services were informed. Within minutes of the impact the para-medics were in attendance and the rest I have already described. I was later told that the medics had about 30 minutes in which to take some fairly radical measures. Happily for me they managed to beat the bogey.

Had I sustained similar injuries at any of the British clubs I have visited in the last nine years I doubt if I would have survived. It is not there is anything wrong with British medicine, it is simply we have never considered that kind of contingency planning.

Gliding, happily, is not considered a high risk sport, and as a consequence we do not seem to think about the possibility of serious accidents taking place on our airfields.

I don't suppose that gliding is any more dangerous in Germany but, if Dannstadt is any criterion, they do confront the possibility and make proper provision for it.

I am not suggesting we can provide helicopter casualty evacuation, that kind of facility does not generally exist in this country, but we can ensure that we have discussed the possibility of a serious accident with the casualty department of our local hospital and ensured that our local emergency services know exactly where we are.

In addition we can take a few cheaply available elementary precautions.

First we can make sure that we have a basic kit of cutting tools on at least one vehicle that is always on the site.

Second we can invest in a first aid kit which contains the necessary equipment to put up an intravenous drip and insert an emergency airway fitted with a manual ventilator. Even if there is a person with medical training on site they can do little but watch helplessly unless there is adequate equipment on hand.

As a matter of interest the cost of such a medical kit would be well under £100!

So much then for my story. I hope that reading it may prevent anyone else from doing something similar, or at least will ensure they have a similar chance of survival should they be so foolish or unlucky.

Don't say "it can't happen to me". It happened to me and it bloody well hurt!

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BACK TO BASICS

Part nine of this widely read series, intended for *ab-initios* and instructors, concentrates this issue on Other Launching Emergencies

There are various possible emergencies which might occur on a launch and which are worth discussing. Even today, when everyone is taught to use a comprehensive pre-take-off check, far more problems arise from faulty cockpit drills and other piloting errors than by mechanical failures. Good habits will prevent most of these. Almost every item in the cockpit check if omitted or sloppily done can cause trouble on take-off or during the launch.

Here are some examples:

Controls

There have been numerous cases of pilots failing to realise they had not connected an aileron or elevator, and I know of one case of the pilot failing to notice the rudder cables had become crossed during the annual inspection. Although this is mainly a matter of correct rigging and a proper Daily Inspection, it is sensible to check visually before every flight and to make sure you do really get the full movements. It is only too easy to allow a seat cushion or other object to slide forward or drop into the control system so that full movement is unobtainable.

Ballast

Several accidents have been caused by flying with the cockpit load so much under the minimum that the glider was virtually unflyable. There have also been fatal accidents where the pilot is believed to have been underweight and in which the glider has stalled and entered a spin at low altitude. But if extra ballast has to be carried, make sure that it cannot break loose in a crash or heavy landing. Just sitting on a lead cushion does not prevent it flying forward jamming the controls or cutting through your legs in a crash or low *g* situation. Also remember that for first flights on type or for early solos it is important to add much more ballast than the minimum. This will improve the stability and make the flying easier.

Straps

Yes, there have even been cases of pilots failing to strap themselves in and only recently a pilot went out through the canopy on aerotow but managed to use his parachute and landed safely. Many pilots fail to tighten their straps correctly and this can result in injury in a heavy landing. Only a few years ago a Lasham K-8 pilot smashed the canopy flying into the smoke from a stubble fire and you only have to fly into really severe turbulence once to realise how tight you need your straps. The bottom straps should always be pulled up really tightly, otherwise you may bash your head on the canopy in turbulence.

Instruments

This is the one item which might only be a nuisance to forget as every pilot should be able to cope without the need for the basic glider instruments. However, problems may arise because of paying too much attention to the instruments or believing them when they have failed or have not been correctly set before take-off. A cracked glass or instrument case will usually cause a serious error in an ASI or variometer and usually a zero error will result in misleading indications at all speeds and heights.

Flaps

On many modern machines the ailerons and flaps move up and down with the flap setting. For the best aileron control during the take-off roll, the flaps and ailerons need to be at a negative angle. If you forget to set them correctly before take-off it may result in a wingtip touching the ground and a violent groundloop. As soon as good control has been established, (usually when the tail has been raised), the flaps can be lowered to help the aircraft to leave the ground.

Trim

Glider trimming devices are generally rather crude and failure to trim with a spring trimmer may not be critical. However, a pilot unfamiliar with the type of aircraft could get into serious difficulties taking off with the trimmer set full nose or tail heavy. Trim tabs are usually more powerful so that a big error in setting the trim could result in the pilot having difficulty in overpowering the control loads.

Canopy

Always lock the canopy, check the lock and then push up on the perspex above your head to ensure that it is really secure. In this way you are also checking the hinges and the security of the perspex itself. Over the years I must have seen literally dozens of canopies come off during take-off and none would have happened if the pilot had checked by pushing up on the perspex after locking them. Adopt the habit now and you will never have this maddening and expensive kind of incident. I would rather make a few greasy finger marks on the canopy than have a broken machine. Remember that a new canopy costs about £500 to replace so treat it kindly at all times. Many are needlessly damaged by people putting their hand through the clear vision window to reach the release knob while the glider is still being towed along by car.

Brakes

Two things can cause the airbrakes to open in flight — failing to lock them properly and a faulty locking device. Never check the airbrakes are closed by just pushing the lever forward. If the lock is very tight they can still be unlocked, although the handle seems forward and the brake caps are flush with the wing surface. Always open them fully first, checking they do both open of course, and then close and lock them. If you cannot feel them locking positively, the lock is badly out of adjustment and you risk them flying open if you get a sudden bump. If one side is opening before the other it is possible for the suction on the unlocked blade to pull through the lever system and unlock the second side. So they must unlock and open together and the lock must be positive.

Remember

These checks only take a few moments to do but must be done correctly in the set order to be certain that nothing is forgotten. Avoid being rushed by getting aboard and all ready in plenty of time for your launch. If there is a hold up and you open the canopy to keep cool, make sure that you do the last two items again before you have the cable re-attached. Otherwise you

run the risk of leaving the canopy or airbrakes unlocked.

Launch failures and cable breaks have been covered in detail in a previous article but there are several other situations to do with launching which can be hazardous and which need thinking about.

Hang-ups

Although extremely rare, the situations which can arise if the cable cannot be released after the launch are particularly dangerous and should be considered carefully by every glider pilot.

The most usual cause of a hang-up is the glider being jerked forward at the start of the take-off run so that it over-runs the cable or rope end. Unless the rope is very stiff, it or the parachute may be caught by the main wheel and wound around it.

There are several other possible causes. On one occasion I saw, the glider was launched on the aerotow hook by mistake. Unfortunately the pilot did not pull the release knob hard enough to drop the cable and, of course, these hooks do not always have an automatic release. In this case the pilot was unaware that he had a hang-up until the end of the cable caught an obstruction. Luckily he managed to release it but the cable fell across the power cables causing damage and a great deal of inconvenience to the local people.

It has even been known for an inexperienced bystander to hook the glider up on the open bungy hook where it jammed solidly. As the launch was an aerotow the pilot discovered that he could not release at a safe height but he was able to break the rope. And, of course, if the launching rings are the incorrect ones or are bent they may become jammed in the release. Incidentally, an open bungy hook can be a serious hazard if the rope or parachute gets caught on it. They should be cut off flush and the normal release used for any bungy launches.

But by far the most likely hazard is on aerotow with the modern gliders. If the release hook is just ahead of the main wheel any jerk in the rope can result in an over-run with the possibility of it becoming caught in the wheel or undercarriage structure. Unless the take-off is stopped, there is then a real risk of the glider zooming up out of control pulling the tug into the ground.

Every effort should be made to avoid any nose up movement which might get out of control. Concentrate on keeping in position and do not attempt to signal to the tug pilot or do anything abnormal until you have several thousand feet.

In England the signal to the tug pilot is to move to the left and attract his attention by rocking the wings and yawing. The tug pilot will then release his end of the rope for you to bring it back to the airfield. In this case it is vital to approach with sufficient height to ensure that the end of the rope clears any obstructions. Extra speed should be used on the approach so that there is a better chance of breaking the rope or pulling it clear if it does catch on something.

The most important precaution to prevent trouble on take-off is a positive signalling system. It must be possible to stop a launch after the glider has moved forward a few yards. Signalling systems such as putting the wingtip down on the ground are useless once the machine has begun to move and, without a signaller well ahead of the towplane, it is unlikely that the tug pilot would see a **stop** signal once he has opened the throttle. On many machines it is possible to apply a little wheel brake at the start of the take-off run and this will prevent an over-run if a jerk does occur.

If the glider does over-run it is vital that the launch is stopped just in case the rope has become caught somewhere. Fortunately, although hundreds of over-runs occur every year, it is extremely rare for a hang-up to occur and even rarer for the launch not to be stopped in time. The pilot should always pull the release and shout **stop** if he thinks he may have over-run. However, he cannot always see what is happening and be sure of the situation and, therefore, it is even more important that **anyone** seeing a glider over-run should shout **stop** and that the **stop** signal should be given immediately. Of course the pilot hearing a shout of **stop** must release at once even though he cannot see a reason to do so. (This is because the **stop** may have been given for some totally different reason such as to avoid a hazard from a low flying jet which had not been seen before the launch was started.)

There is also the risk that if the towrope happens to be slack at the moment of release the rope end may float back and become caught in the undercarriage. However, it is dangerous to put extra tension in the rope before releasing, or starting to turn off before the rope has been seen to go, as this can easily result in tipping the towplane if the rope fails to drop off.

On a winch or car launch if the glider is launched by the wheel instead of the usual hook, it will try to zoom up into an extremely steep climb in spite of the pilot keeping the stick right forward. If it can be kept on the ground this is definitely the safest place to be and the winch or car driver will soon give up if the glider is held down for more than a few hundred yards. Once the nose rises, however, it may be impossible to stop it zooming up far too steeply and the cable is quite likely to break. Fortunately with the stick already right forward there is a good chance of recovery and making a safe landing.

With a hang-up on a car or winch launch, it is vital to get and keep some slack in the cable. If the glider flies on until the cable becomes tight it will be pulled into an ever-steepening dive, centre the winch and radius the cable length just like a kite or model glider. On a windy day side-slipping or S-turns into wind over the winch or car with the airbrakes open, would greatly reduce this risk. Since the glider pilot cannot tell for sure whether the cable has been guillotined or released at the other end, he should then circle, keeping close to that end of the field and avoiding flying over any obstructions which could conceivably catch the end of the cable. Once the cable starts to drag along on the ground the drag will be very high and a steep descent will be necessary to maintain enough speed for a safe landing.

The situation is still more traumatic if it is caused by the release jamming in some way. Then the glider pilot is unlikely to be aware of it until the cable comes tight and starts to pull the glider into a dive. A natural reaction will be to pull back to try to stop it and the steady load, although increasing, may be insufficient to break the wire. Here the best solution may be to try to break it by a sudden snatch. Pushing forward to steepen the dive still further will slacken the wire and build up speed so rapidly that a quick pull out will almost certainly break the wire or pull it free. However, do not forget that it is still possible to be trailing a length of cable which could catch something on the ground and pull you down. Keep over the open field and fly until safely on the ground.

At one time hang-ups were one of the greatest hazards in gliding until Ottley and Furlong got together to devise the Ottfur release, "the hook that made gliding safe!" However, now that it has become acceptable to put the hook right in front of the main wheel the risks of a tangle are quite high. So make sure your signalling system is efficient and can stop a launch if there is an over-run. Treat every over-run as a potential hang-up and stop the launch. Be sure that you and everyone else concerned understands what to do if a hang-up actually occurs.

Remember, you may never see a hang-up in the many years you fly but the danger is always there and needs to be considered seriously.

COPING WITH WIVES

The further progress of a North Wales flyer.

As I write this it's Sunday and it's raining. It didn't rain yesterday, but then she needed me to carry a wardrobe home from Chester. Now what I want to know is how it is that my wife knows, certainly much better than the Met man, what the weather is going to be like over the weekend. "I need to go shopping," she says on the Saturday. "Why not have all day tomorrow on the field?" The thermals boom whilst we are in Marks and Spencer's, but dawns Sunday, the rain pours steadily and visibility is down to 3½yds.

The next weekend she says, "Why don't you go flying today, dear, tomorrow we have been invited to the children's for dinner." Result — clagged in all Saturday and the best day's soaring they have had all year on the Sunday. I've even tried to beat her at her own game and taken the opposite tack. "Sorry, darling," I reply, "I'm committed to a retrieve today, we will just have to go to the children's tomorrow." The look on her face indicates quite plainly that she knew exactly what I was going to say and that once more I've got it all wrong. I haven't actually found her pointed hat and rune stones yet, but I'm sure they are around here somewhere.

So now all those "I'm master in my own home" types will be asking "Why doesn't he just push off flying on both days?". Gentlemen, there are those amongst us who are more in tune with feminism, sympathetic to women's aims, equal sharing, more emancipated, less chauvinistic, or what amounts to the same thing, battle-weary, ground down, suffer from a guilty conscience, have thrown in the towel, or it's anything for a peaceful life.

"All right," they advise, "get her interested in flying and your troubles will be over." Now, that's easier said than done; for a start we live in a bungalow because she gets a nosebleed if she has to climb upstairs. In addition she considers gliders to be dangerous things because they haven't got an engine. It would be no use expounding the theory of flight (even assuming that I could), for her mind is firmly made up. "No," she says, "you go along and play with your aeroplanes yourself, dear. I've made sure you are well insured." She also tends to use quite hurtful logic. "We can't both disappear every weekend, can we? Somebody has to stay at home to do the decorating, rebuild the wall that's fallen down and mow the lawns." As though it's my fault that I can't fit it all in. One has to get one's priorities right, besides which I don't want to take the chance of damaging my hands, just in case it affects my very sensitive touch on the controls.

I am well aware that I am not the only one who has problems with his wife. I hear many complaints down on the field of chaps whose wives don't understand them; wives who spend their launch money on food and clothing; wives who make their husbands get up in the night to attend to crying children, knowing full well that they need to be fresh for flying the next day; wives who won't get up and cook their husband a nice breakfast so that he can concentrate on flying rather than the hunger pangs; wives who don't kiss their husbands goodbye on the doorstep and wish them a good day's flying so that they can be nice and relaxed when airborne and suffused with a warm glow. I could go on and on. One of our chaps was telling me that he even has to make his own sandwiches these days. I think that cropped up because the egg fell out as he was trying to eat it. I managed to help him with that one; I find it's better if you chop it up as well as shell it. We males are not helpless and are quite capable of coping without the help of women if we have to.

'One of our chaps was telling me that he even has to make his own sandwiches these days.'

A short while ago my wife went back to her maternal home (no, not for long) to sort out some family problem, leaving me to fend for myself. What I didn't know was that she had asked the lady next door to keep an eye on me. Washing up was going to be my chief bugbear, so using a bit of male common sense, I half filled a large pan with boiling water into which I stood a tin of soup, a tin of sausages, a tin of potatoes, a tin of peas, a tin of sponge pudding and a tin of custard, *ie* everything I needed for a three-course dinner. Unfortunately the sausages expanded and rose upwards out of the tin, swaying gently as they did so, for all the world like snakes being charmed out of a basket. It had me quite worried at the time, as I was whistling a tune from **Jungle Book.** It was whilst I was trying to get the top half of them cooked by reversing them in the tin that the neighbour walked in and saw what I was doing. The result was that she insisted I ate with them for the rest of the week. Wife wasn't too pleased when she got home, said I'd shown her up. In vain did I protest that I'd saved a fortune on the housekeeping.

'Wife wasn't too pleased. In vain did I protest that I'd saved a fortune on the housekeeping.'

Holidays are another bone of contention. Wives will insist on visiting volcanic islands in the middle of the Atlantic or Greek ruins in the middle of nowhere, anywhere in fact as long as there are no gliding clubs within a thousand miles. Brittany is one of my wife's favourite spots, and if there is a gliding site anywhere around there I have yet to find it. *"Le club d'aviation,"* I query in my immaculate French, *"sans le moteur, où est ça?"* Nearest I've got to anything like flying was being directed to a naval base where they were operating Super Etendards and even then I couldn't make them understand reciprocal membership.

Now last year proved to be different. "I don't think we will go to France," she remarked one day. "I haven't seen all of England yet." "Where do you fancy?" I replied, ears pricked like a trained hound. This was beginning to sound very promising. "How about Cornwall?" she said. "I've heard people say that it's very much like Brittany, but I won't have to suffer the embarrassment of you speaking French." They are all the same these wives, they know how to wound a chap. "How about Perranporth?" I said as casually as I could. "Near to Newquay, lovely cliffs, super beaches and an ideal centre from which to tour." "Sounds good," she agreed, "I'll leave you to find a nice caravan site." Silly girl.

For those who haven't been to the Cornish Gliding Club, the airfield is perched right on the edge of the cliffs and has hard runways, one parallel to the cliffs and one almost at right angles, so that you can launch towards them. On a decent day the view is magnificent, but unfortunately it was pouring down and blowing half a gale as we bumped on to the deserted airfield late at night. Well, I had hoped I could save a few bob by parking there free/cheaply and spending the resultant savings on something essential like flying. Even I thought it looked a bit bleak, a thought that was confirmed as the voice I know so well said firmly, "There is no way I'm going to be abandoned up here." From long experience I know that it's no use arguing with that tone of voice, so it was head down in the camp site book and her resultant choice of all mod cons plus swimming pool cost me the equivalent of two and a half launches a day. Still, it proved to be worth it, for she was content to laze by the pool whilst I trotted off up to the club next morning to get checked out.

'. . . I was having one of my good days and he was probably feeling benevolent . . .'

Perhaps my reputation for displaying superb flying skills had preceded me, for the club chairman, John Trenchard, took it upon himself to check me out in their K-13, probably on the basis that "the buck stops here". Anyway, I was having one of my good days and he was probably feeling benevolent, the net result of which was that he cleared me to fly their K-6CR.

They did have a course running during the period that I was there, but I felt that it wasn't on to pinch the cables or aircraft from people who had paid for the week, so I didn't get airborne as much as I had hoped. (I mention this to confound those critics who swear I have no conscience.) However, they carried on flying late on a couple of evenings and the weekends, of course, were business as usual, so I did manage to get a few trips in. Flying along the cliffs is magnificent and I can thoroughly recommend it. If you can get, take, make or fiddle the chance then I suggest you do so.

Like most people in the gliding world, the chairman, CFI and members of the club were extremely friendly and went out of their way to ensure that I didn't have a wasted journey. Even the treasurer appeared human, and how often can you say that? My thanks to all.

All very well, I hear you saying, but what's happened to this Bronze C you were busy chasing? Well, I've cracked it, well almost. Remember those other friendly natives at Aston Down whom I threatened with a return visit? McCormick does not jest. Accompanied by 20 other North Walians (in case we encountered resistance) we returned to hold our club week there in May. The results were superb, Silver durations and distance, Bronze legs, new solo pilots, excellent flying and a good social side in the bar when we came off the field.

That's when I discovered the secret of how to succeed with this Bronze business. First of all you've got to soften up one of the instructors so that he lets you go off by yourself as soon as possible. Now this is simple at Aston Down because they autotow with damn great American automatic pickups. "Pass me out on the towcars, Pete, and I'll give your people a hand with the launching," you say innocently, then when you are going at a decent speed you declutch, only there isn't a clutch, just a brake pedal, and he does a good imitation of someone trying to exit through the windscreen. "Tuck your left foot behind your right," he advises, "and then you won't be able to use it", but he hasn't allowed for my lightning reactions. I can untangle feet and stamp on the brake a darn sight faster than he can brace himself, and once more he heads for the windscreen. After the third attempt he is looking decidedly the worse for wear and feels that he has had enough of these attempts on his life, only to find that it's my turn to fly and he is to do the check. Now he can't wait to turn me loose; once up round and down safely is all the excuse he needs and there I am with a whole week of K-8 to get this Bronze.

As you would expect of someone with my innate skills (that's innate, not inane), by the end of the week both legs were achieved. It's true I fell out of thermals more often than most, but this was due to adverse meteorological conditions which the other pilots were not sensitive enough to notice. The written portion of the test has been taken and passed and only the flying test and short field landings remain to be completed. I think we should now wait for a day when we can get up to 12 000ft in order to give me a reasonable chance of getting out of the spin. As I say, apart from that I've cracked it.

My thanks to Ruth Housden, CFI at Aston Down, for her organisation and to all her members for a very successful week.

TAIL FEATHERS

Mentioning the Unmentionable

This bit is for boys only. One of those splendidly witty women who write for *S&G* nowadays can describe their side of this problem, and I can't wait to see what they have to say. I refer to the dilemma – no, a dilemma is when their are just *two* unacceptable alternatives: this is a positive quandary, all the several answers being uncomfortable in every way – of how to have a pee in a glider. It never occurred to me before that there might be some advantages to hang gliding other than cost, but now one advantage, of a sort, immediately leaps to mind. How high you have to be before you are free of any risk of prosecution for indecent exposure I don't know, though personally I'd worry more about frostbite, or buzzards, than the Law.



Most of the fluid we take in comes out as sweat.

To return to the challenge as presented to the pilot of the conventional sailplane: there seems no logic to it. Sometimes you can fly nine hours and have no problems; sometimes it can get you after just 30 minutes, as happened to me in a Nationals on one of those epic flights round Wales and back to civilization. (There go our three Welsh subscribers. ED.) Seven and a half hours of discomfort rising relentlessly towards agony. No bags, bottles, tubes – total lack of *preparedness*. I began to regret, not for the first time, the gap in my education when I failed to make the grade in the Boy Scouts. When I eventually gave

up the battle and landed at Bicester they couldn't understand why I steered the Nimbus into the long grass and baled out over the side away from the control tower.

You can't risk dehydration, so you have to drink lots, and what goes in has to come out sooner or later. Well, to be accurate, a biologist told me that most of the fluid we take in comes out in *sweat*, believe it or not. (Anyone who has flown with me believes it.) We should be thankful for small mercies: we only have to find a home for about 40%.



If an official observer signs the bag it might become a novel TP confirmation.

The high-technology solution is a system of vessels and pipes leading to the outer air down near the towhook (preferably *aft* of the hook, if corrosion is something that bothers you). I won't go into the squalid details, but the chief snag about what looks like a very impressive piece of plumbing is that the pilot is supine* – on his back, or very nearly so, with knees on a level with his chin, depending on the attitude of the aircraft – and therefore confronted with the difficulty of making water go uphill at the beginning of its journey into the void. Putting the glider into a prolonged steep dive to get the right angle of attack, so to speak, is not a good idea for a number of obvious reasons. Try it by all means, but not if you are getting on in years.

Then there are plastic bags, stolen from your wife's freezer-cabinet: these must be pre-tested, please, in the time-honoured way, since you don't want to discover a tiny defect at 5000ft, do you? You can either jettison the bag whole or empty it while delicately holding onto one corner. The first is an environmentally anti-social act. The bags doubtless arrive on the ground empty, but farmers don't like their animals eating

'You could always tie a knot in it and drop it on the clubhouse roof at a rival site.'

plastic. You could always tie a knot in it (the neck of the bag, I mean) and drop it on the clubhouse roof at a rival site. If you could get an official observer to sign the bag before take-off it might become a novel form of TP confirmation. However this sort of thing might escalate dangerously, so let's can the idea.

Holding onto the bag is tricky. Best to wear ski-goggles while you try this, since you are liable to get a stinging eyeful as your reward for cherishing the environment.

How about just setting tiny tasks? A cure worse than the disease. Might as well stay in the bar all day and give up the sport.

Give us your thoughts. Any suggestion that is fit to print should be sent to *S&G*. The ones that aren't fit to print should also be sent here; after last summer we need a few laughs.

Per Ardua Ad Disastra

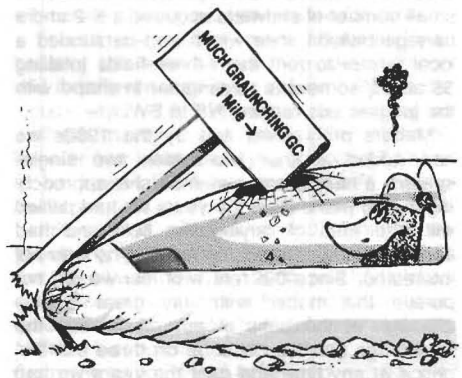
A great deal of harmless (harmless, that is, if you don't believe it) nonsense is talked about the noble team spirit that gliding fosters. Even in 1963 – the year I realised I was just a coarse pilot and would never be anything else – the now Sir Peter Scott, on



A contest pilot has to be treated like a prize pig.

winning the Nationals, said that a contest pilot has to be treated like a prize pig. He was thinking of agricultural shows, no doubt, where champion hogs look and smell wonderful, thanks to the untiring efforts of their crews. Left to themselves, it's another matter.

The harsh fact is that glider pilots, champions or coarse, are as selfless or as selfish as anyone else, but the pressure towards looking after *Numero Uno* has of late become somewhat greater than the pressure in the contrary direction. A fairly general social phenomenon. I can see why self-launching sailplanes are seen by some romantic reactionaries as the beginning of a slide into the abyss. Before we know where we are, gliding will have all the charm of professional tennis without the money.



Daily marks depending on the lowest performance by any team member.

A solution: team flying. Pure team flying, where there are no solo prizes whatever and the winners are those who co-operate to greatest effect. One question is, how to score the contest? The simplest way is to make the daily marks for each team depend on the *lowest* performance achieved by any member of the team. The ability to haul your partners out of deep holes in the sky is rare, but would become invaluable.

How big a team? Two, to start with. After that, and some inevitable tinkering with the scoring rules as we go along, any number. The gaggles would consist no longer of people all trying to outwit each other but of co-operators, the upwardly mobile equivalent of skydiving groups. Well, some gaggles would consist of two rival mobs, which should satisfy the Battle of Britain nostalgia buffs. Just think about it, the Booker 15 versus the Dunstable 15!

I have thought about it.

Forget it, it's a lousy idea.

Some of the competitors in the 1985 Competition Enterprise at Sutton Bank went to Castle Howard one day when there was no task. They were surprised to see the Howard family motto *"Volo non Valeo"* – "I fly even though I am not well." Further inquiries revealed the alternative, more usual, translation "I am willing but I am not strong."

The Arm-Chair Pilot

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*Sorry about even more Platypedantry, but many pilots think *prone* means *lying on the back*, when it means the opposite; no wonder their sex lives are such a mess. But there's an idea: the truly prone-cockpit glider would not only offer a small frontal area and so reduce parasite drag, but would obviate many of the sanitation difficulties of which we are making such heavy weather in this discussion.

MICHAEL KITSON

A LOT OF MONEY...

The story of East Sussex GC's efforts to buy their own site

It did seem like a lot of money when we were first faced with the prospect of buying our rented field but there was no alternative. Over the weeks of discussion and action culminating in the actual purchase, the size of the problem decreased in financial terms until it not only looked eminently feasible but was obviously the most sensible, and in the long run, the cheapest course of action; albeit we were taking a mortgage on the future but without it there would be no future.

The East Sussex GC was started in 1974 at Ringmer near Lewes some ten miles NE of Brighton following the move of the Southdown Club from Firle to Parham in West Sussex. A small number of stalwarts acquired a K-2 and a barrage balloon style winch and persuaded a local farmer to rent them three fields totalling 55 acres, somewhat rectangular in shape with the longest axis running NE to SW.

Matters progressed and by the 1980s we had added another two-seater, two single-seaters, a hangar and a membership approaching the 90 mark. Over the years we had dallied with the idea of buying the field and had approached our friendly farmer but he was not interested. Since the rent was low we did not pursue the matter with any great energy although at the back of our minds was the knowledge that we could be on three months' notice at any time and over the years we had been unable to find another suitable site in the vicinity.

But it all changed very quickly. Our farmer decided he wanted to sell. We could have the field he said — at the right price. We offered £45 000 which wasn't the right price but we had to start somewhere. Eventually we arrived at a mutually agreed figure of £60 000 which was about what land around Ringmer was worth subject to its agricultural state. Visits had been made to our bank manager immediately a sale had been mooted so with £10 000 in the bank a loan of £50 000 was possible and agreed in principle; possible but not desirable since servicing costs of around 15%pa would be too high for the club to meet in its present form, but it did mean it gave the committee breathing space to arrange and organise other funding. We decided to explore the possibility of a Sports Council grant and approach all club members for a contribution.

No sooner had we got this particular ball rolling than our farmer decided that he did not wish to sell just the field but the whole of the farm, 150 acres in all with a Dutch barn thrown in for good measure. So it was back to square one for the Field Purchase sub-committee. No way would the farmer split his holding, it was all or nothing. We decided to go for the lot and hopefully find a buyer for the unwanted acreage by contract signing time. In the event, with some heart stoppers when we thought we had been pre-empted by another purchaser, we eventually fixed on a price of £155 000 for the whole, found a co-purchaser and finished up having to find £80 000 for 75 acres. This was somewhat more than we wanted since a corner of the land was not necessary for gliding purposes, but it wasn't suitable for our co-purchaser's needs so we had to take it or lose the sale.

We were now all set and **only** had the task of raising the money. Prior to any offers we had formed by committee consent a working group of five including a solicitor, accountant and architect who gave us professional advice free of charge. The chairman was given complete freedom to negotiate without the necessity of sub-committee meetings at every turn. Initially the sub-committee made two decisions; we would have the land valued and ask the BGA for help and guidance. For the valuation we chose the land agents who were associated with the club's bank; once we had the valuation we could talk to the bank about financing. Our *cri de coeur* to the BGA was met with immediate and constructive response. Busy BGA officials took time off to come and see us, look at our problems and offer us a wealth of advice, encouragement and particular guidance on Sports Council grants and loans.



The road alongside the site runs NE/SW and in the photograph the gliders are in the NE end of the field with the hangar in the SW corner at the bottom. *Photo:* Michael Kitson.

62% from members
25% from the Sports Council
13% from the club

Having finally made our offer, subject to contract, we called an Extraordinary General Meeting and put it to the members. The response was tremendous. Our members are the salt of the earth and when needs be they come up with the necessary, be it work or money. The final breakdown of who gave what was roughly 62% from members, 25% from the Sports Council with the remaining 13% from the club bank balances. Club members' contributions were either interest free or very low interest loans. We were extremely fortunate in having one club member whose contribution amounted to just over 35% of the whole. We had little left in the bank after this but we had our field.

Not that it all happened overnight; we had the agonising wait to contract signature and exchange and then another wait to completion but eventually it all happened. We have security of tenure and to keep it that way we have to go on flying and make maximum use of our asset to generate the income to pay back the monies borrowed.

We were forced into a decision but if you have the opportunity to buy your club site, decide to do it and maybe you can learn something from our experience.

1. Start a site fund immediately. You do need a respectable bank balance.
2. Appoint a small committee or working group to decide guidelines and then give them *carte blanche*.
3. Get the land valued by a valuer you know to be acceptable to your bank.
4. Prepare a feasibility study of some ten to 12 A4 pages giving the club history, anticipated membership levels and projected cash flow. Stress the loss of local leisure facilities should you not be able to purchase and continue as a club. Show your geographical catchment area and include other gliding clubs, if any.
5. Check your planning consent.

6. Get the help of the BGA. You will not succeed without them.

7. Ask the Sports Council for help and do not actually buy anything until you have the OK from them. The OK does not guarantee Sports Council financial help but you will not get any at all if you have already bought or contracted to do so.

8. Keep your bank manager fully informed of all that's happening and arrange a loan in principle. Hopefully it will at best only be a bridging loan.

9. Do not expect the purchase to be straightforward. You will probably not be the only prospective purchaser. Be prepared for shifts in the seller's stance. It's a bit like coming in to land through a severe wind gradient; one minute everything is under control and the next minute you're stalled. Keep something in hand just in case.

10. Get the members' backing. You need money — they have it — get it from them by donations, interest free loans, debentures or even standing orders for so much a month.

11. Don't consider for even a moment you are saddling the club with a debt for life. You are not. You are acquiring an asset which if the worst happens and you stop flying you can always dig it up and plant it or sell it, hopefully at a profit.

12. Finally keep talking to and about the BGA. Their national reputation and credibility will reflect on you however small a gliding club you may be and however small your current assets. They didn't come much smaller than the East Sussex in '82 and with BGA help we did it. With their help so can you.

Gliderwork

C of A OVERHAULS

and REPAIRS

By L. GLOVER senior inspector



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OOPS!

A glider pilot's nightmare happened to Eddie from Bannerdown GC last summer

I am struggling to work my way through the BGA badge system. Last year I finally completed my Bronze and I wanted my Silver duration *and* distance — but you know what the weather's been like. Twice I fell out of the sky after two hours. The other syndicate members wanted to fly (can't think why!), and I had to wait my turn.

One Saturday I trundled up to the airfield, DI'd the K-6E (Rhoda Partridge's original Broomstick), dragged it to the launch point and put a new paper in the barograph. The CFI decided the weather might improve enough to try a 50km O/R to Didcot railway junction; he said to stay local for an hour, see how the weather developed, then decide on 5hrs or task and 5hrs.

An hour later, having at one point descended to 800ft, I had to decide, local soaring or task? "Go on, you've got to get away from the airfield sometime, try the task." Clouds look good, base 3500ft. Following the route was no great problem, stayed between the railway line and the M4 until I got to Swindon, then a bearing of 10, to follow the railway line past Shrivenham, Wantage to Didcot. Sounds easy doesn't it?

Swindon was lots of houses and very little grass. I found a likely looking cloud and climbed to 3700ft. I pointed the nose at my safety field on the other side of Swindon and reached the other side without any problem. Now what? There was the railway line, receding off into the gloomy distance. There was a great expanse of blue sky over it, and a long, long way to the next cloud. Gulp. Well, I couldn't stay there forever. Onward!

And so I worked my way down route, from this cloud to that, and at last the railway junction was visible. I checked the map to make sure I'd got the right junction, and to see where the zone lay. 3700ft, over the line, I changed to right turn so that I didn't take a picture of the canopy's window. The camera had been made for a right-handed person to operate, but I was using that hand to fly the glider. No, I couldn't take the picture left-handed. Now what? Fly the glider left-handed, use the right hand to take the picture. At last I managed to control the glider with my left hand. Now for the picture. Click! — 360° turn — click — 360° turn — click. Just to be on the safe side. Stowed the camera. Got back to flying. Headed for the power station, climbed to cloudbase, and headed for home.

This bit was definitely more difficult as I was heading into wind, it was now mid-afternoon and there were wider blue spaces between the clouds which didn't appear to be working so well (or maybe I was tired). After attacking three or four weak thermals, I decided I'd have to be braver, as I was not actually making much progress into wind — for every 50ft climb I drifted three miles downwind! Smarten up your flying, girl, and look for a better thermal. At one point I was down to 1200ft, and had picked out a nice intowind brown field, no power lines, no cattle, clear approach. Right, now that was settled, I concentrated on staying up. Howl! (from the vario). Hard left-stick-over, 4kt, 6kt, 8kt — what a relief! Wound my way back up to 3000ft.

At last I was back overhead Hullavington at 3000ft, the clouds were working and I'd 40 minutes still to do. I idly flew back and forth, wound my way up — down — up — down — up to 3500ft, 5½hrs and time to land. Unwound myself out of the sky, checked the camera and map were stowed, windsock, runway, obstacles, mentally in gear, 55kt approach, didn't want to break the aircraft now. Spot landing, adjacent to the bus.

Wearily unstrapped myself, opened the canopy, to be greeted by my two syndicate members. Congratulations all round. 5hrs and 120km, collected up my belongings, unstrapped the precious barograph, still ticking away. Proudly displayed the trace — the trace, where was it? Oh no. The needle was not pressing on the paper. Although it was ticking, it still needed to be switched on! No, no, it can't be true! No barograph trace, no 50km. But I'd still have my 5hrs, you don't need a barograph if you're local soaring — oh no, I'd been away from the airfield. No 5hrs either!

Ah well — at least I now know that I can do it. This year maybe?

Sailplane & Gliding

The magazine can be obtained from most Gliding Clubs in Gt. Britain, alternatively send £9.50 postage included for an annual subscription to the British Gliding Association, Kimberley House, Vaughan Way, Leicester.

Red leather-cloth binders specially designed to take copies of the magazine and gold-blocked with the title on the spine are only available from the B.G.A.

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DIANE SPALDING

BEING DEDICATED

Diane recalls last year's BGA Dedicated Soaring Course which was run by Ken Stewart, national coach, for Coventry Gliding Club members

After a successful soaring course in 1984, Coventry GC decided to arrange another dedicated course for the HusBos members last summer during the first week of July. Conditions for enrolling were to bring a bicycle as well as a glider! The course started with 15 pilots, 12 gliders, six bicycles and bad weather; after the first two days we wondered if our aim was to do more kilometres on bikes than in gliders. We were able to practice TPs at 60° to the road (pubs!) *and* field selection and navigation, which became rather difficult on the way back in the dark. However, lectures on these two days kept our interest prior to the start of the "good weather".

The "good weather" started on the Monday with a total of 533km flown. After the initial outlandings, the day ended with a final glide practice from a dual-aerotow retrieve, one of which was successful!

A promising forecast on the Tuesday meant that most people tried for 300km or 500km badges. Ken, in the club SF-27, took the wooden gaggle (Cobra, SB-5E) round a 300km flight and ended up on the club ladder. Several pilots exceeded their longest previous flight. Four pilots attempted 500km, one getting round and one failing by a mere 7km. Our enthusiasm meant that we even managed a 16km O/R on bicycles that evening, the number of bicycles having swollen to 15 by now! Total kilometres flown for the day – 3820.

On the Wednesday the weather became blue and windy. An O/R task resulted in more kilometres and more outlandings, but we still managed 697km.

Thursday was also blue and very hot and alternative TPs were set to the north, resulting in landings at all airfields between HusBos and Saltby, including Ken and his follower starring in a TV car commercial, being made at Bruntingthorpe Airfield, in an attempt to get home.

By the time we got to Friday we were content to watch the rain on the TV at Wimbledon, listen to lectures and have a well-earned rest.

The good weather returned for the final two days, Saturday having an excellent forecast except for the too strong wind. The task was set to the west to try to reach wave near Shobdon. The wooden gaggle all landed at Little Rissington (80km) who had seven visiting gliders that day, including such distinguished glider pilots as Tom (the Met) Bradbury. Like everyone else, he wondered what he was doing there under such a fantastic looking sky! Total for the day – 2257km.

The final day was the day of days. Again 500s and 300s were set and the number at briefing had swelled from 14 to 40! The 500km task was: Lasham, Lutterworth, Newbury and the 300km task: Lasham, Eyebrook. The Twin Astir was sent on a 220km O/R to Newbury and on its return at 1500hrs, set off to try the task again with a different crew, landing 8km short on the way home. Several course members achieved 300 and 500km with a total distance flown that day of 3888km.

This enjoyable week resulted in over 12 000km, with many course members qualifying for their Silver distance on bikes – anyone for Gold this year? Our thanks to Ken and all the CGC helpers whose efforts and enthusiasm were an inspiration to us all. Apologies from the course for stealing all of 1985s weather – we have already booked this year's dedicated course!

Dear Agony Aunt . . .

ADDICTIONS

I am writing to your magazine to relay my story to your readers so that they may find a way to avoid some of the problems I have recently had in my life. I do ask that if anyone can help me, I am in desperate need.

I am "X" years old. I have done my share of drugs in the past and had no problem relieving their grip on me. I was proud to know that I was no longer dependent on something to get through the day. That feeling lasted until Easter 1984 when I experienced my first solo flight.

It is now October, and I have realised my problem — I am addicted to thermals. I find myself calling the local weather report every morning when I wake up. Like a heroin addict, I roam the streets, looking up in the sky for that cauliflower-like cumulus or the sudden whispering and movement of otherwise lifeless trees. I stare out of the window when I am at work looking for signs of lift. Worse, I have lost interest in the things I used to treasure — girls don't turn my head, parties don't excite me, gone is my social life. I am dependent on the signs of lift to get through the day.

It hasn't stopped there, either. Used to be, I was content with 2kt of lift. Now it takes a minimum of 4kt to turn me on. Tomorrow it will be 6kt. I don't know what the limit is, but I know I will reach it soon if I don't get help.

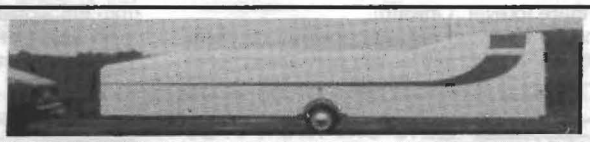
My question to you and your readers: Is there a Glider Pilots Anonymous group anywhere in the area? Is there anyone who is going through the same thing that I am right now? Is there any published material on this dependency. Who can I turn to?

If anyone has any information, or would like to share their story with me, please write. I am confident that we will survive and learn to live with the lift.

(The Editor has the name and address but suffice to say the letter came via Mike Smith of HusBos!)

"Sailing clubs have commodores, golf clubs have captains and gliding clubs have scapegoats." *Retiring CFI heard in the Ulster GC clubhouse.*

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OSTIV AT RIETI

PART ONE
The Sailplane Development Panel

The 19th Congress of the Organisation Scientifique et Technique Internationale du Vol à Voile (OSTIV) took place at Rieti from August 2-10, 1985.

It is, of course, traditional to hold the OSTIV Congress alongside the World Gliding Championships, so that participants in both events have the opportunity of meeting one another, talking together, attending lectures and so on. Last year, the trade was rather one-way because – in order to enjoy the excellent facilities provided by the Italian Air Force – we had to conform with their security arrangements. These were really intended to keep terrorists out of the Air Force area at Rieti but since they excluded anyone not on the OSTIV list, informal attendance by WGC crews was almost impossible.

The Congress was launched by the official opening at the Palazzo della Provincia, with a welcome by Dr Manfred Reinhardt, president of OSTIV, and addresses by the appropriate dignitaries. There followed a prizegiving. The OSTIV plaque and Klemperer award went to Dr Werner Pfenninger "for his outstanding scientific and technical contributions in the permanent quest for higher performance of sailplanes and aircraft". He is chiefly famous for inventing turbulators to suppress laminar separation bubbles, and is now predicting sailplanes with lift/drag ratios of 90.

This was a very popular award

The OSTIV prize went jointly to Heiko Friess, Klaus Holighaus, Wolf Lemke and Gerhard Waibel "for their outstanding improvements in Sailplane Technology". As students, they designed the D-36 and we all know what has happened since then. A very popular award.

OSTIV diplomas were awarded to Dipl Ing L. Boermans and Dr Terry L. Clark for papers presented at the Hobbs Congress.

Gerhard Waibel then presented the keynote address' "A Visit to the Ridge Runners at the Appalachian Mountains". This was indeed stiring stuff, illustrated by some splendid slides. Unfortunately the projector had a will of its own and we saw all of the slides in rapid succession, several times.

We then adjourned for a curiously one-dimensional reception, held in a corridor mostly filled with tables and waiters.

The following day saw the start of the scientific sessions, devoted mainly to meteorology. The meetings of the Sailplane Development Panel were held simultaneously, so I am unable to report on the scientific papers, some of which looked to be of great interest, particularly those relating to the First Himalayan Soaring Expedition.

The Sailplane Development Panel is normally chaired by Professor Piero Morelli, but he was otherwise engaged in running the WGC and deputed the chair to our own Cedric Vernon. The chairman's task not only involves running the meeting in the usual way, but also includes grappling with Piero's tape recorder, trying to keep some back-up notes and occasionally calming the more voluble and excitable members. All of this was done with Cedric's usual professional efficiency.

Much of SDP's activity is devoted to up-dating the OSTIV Airworthiness Requirements, partly for the benefit of those countries who do not enjoy the blessings of JAR 22 (the European Joint Airworthiness Requirements for gliders and motor gliders) and partly to act as a sort of unofficial source of ideas which might influence JAR eventually.

All sorts of formulae were bandied about

The topics started with gust loads on tail surfaces, particularly V-tails, stalling speed limitations for powered sailplanes and Design Diving Speed. Gerhard Waibel suggested that the existing V_D formula gave unnecessarily high values for modern sailplanes like 348km/h. A long discussion followed, in which all sorts of formulae were bandied about, finally leading to an interim agreement to use Wolf Lemke's variant of the existing rule. Meanwhile some possible "upsets" are to be analysed in the hope of providing a more rational rule. This writer's computer is already at work.

There was then a discussion as to whether OSTIVAR should state some max weight for sailplanes. Operational and economic matters were aired at some length, resulting in agreement to state a 750kg applicability limitation, which need not inhibit the design of heavier sailplanes.

Automatic connection of controls is, of course, a hot topic at present and a discussion about the elevator and ailerons, initiated at the previous meeting, was continued. The eventual wording of a requirement, too long to reproduce here, agreed that it is virtually impossible to devise anything which is absolutely foolproof. Wieslaw Stafiej from Poland gave a further presentation of pictorial placards which are intended to eliminate words – and the consequential international confusions – by simply having pictures and numbers. For example, waterballast is represented by a bucket being filled from a tap. As originally presented, some were decidedly complicated, particularly when there were several seat positions and three baggage storages. The later versions were much simpler but the Panel continued to boggle at the potential permutations of two-seater placarding. The chairman was volunteered to look into the matter.

Fatigue is an on-going topic and we had an excellent presentation from Mr Kensche of Akaflieg Stuttgart on tests of glass and carbon specimens. Alan Patching of Australia has been taking great interest in fatigue since the Australians pile up the hours at a great pace, and found himself undertaking to draft suitable requirements for various types of construction. Meanwhile, some 500hrs of fatigue-meter testing has been done on a 'Janus'.

Unpleasant thoughts about wings folding forwards

At the previous meeting, Jan-Eric Olsson of Sweden pointed out that the accelerations specified for Emergency Landing Conditions were rather low and proposed some higher figures. These were agreed. Meanwhile, Gerhard Waibel was having some unpleasant thoughts about wings folding forwards and squashing the pilot after a sudden stoppage. Wouldn't it be nice, we agreed, if the wings could be arranged to fail half-a-metre outboard of the fuselage.

Mr Stafiej then brought up the stirring idea that for sailplanes permitted to make inverted flight, there should be a gust case superimposed on the initial load factor of minus one. This was not a particularly popular idea, on the grounds that one does not normally mix aerobatic and gust cases. He will come back next time, trying to persuade the Panel that such a case could be critical.

Class Structure re-opened a discussion which went on in OSTIV at Prague and CIVV at Frankfurt in 1984, and looks like going on for ever. The various new possibilities were rehearsed yet again: two-seaters, cheap Standard Class, and so on. It was certainly agreed that 17 or 18m was out, that the 15m Class was firmly in and that any Two-seater Class would need some limitations to stop it getting out-of-hand. If the ASH-25 is any guide, that is a lost cause before the Class even exists!

The SDP's specification for photo-time cameras had been accepted by CIVV, subject to some requirements turning into recommendations.

Heiko Friess reported that the JAR 22 study group had received a letter from the BGA about emergency exits from sailplanes. I quoted some calculations which suggested that the air loads on the canopy of one type of sailplane were unlikely to suck it off after operating the jettison knob, even at V_{NE}. Messrs Freiss and Waibel were to draft suitable words about baling out and jettison controls.

After various further minor discussions, we agreed to meet again either in Europe in 1986 or, if sufficient people could make it, in Benalla, in 1987. Then we adjourned to the OSTIV Technical Sessions.

JULIAN ROSS

AEROTOW CABLE REWIND SYSTEM

This is a summary of the work Julian did for his final year project of his BSc course in aeronautics and astronautics at Southampton University and which was supported by the BGA *via* the 1984 Churchill Award.

We are all familiar with tug aeroplanes and accept that they land trailing their tow cables, not questioning the hazards or inconvenience this causes. If it were possible to rewind the tow cable fully into the tug, four important benefits would be realised.

First, operations would be safer — persons and objects would not be struck.

Secondly, the cost of replacing broken cables and repairing damage caused by cable strikes would be saved.

Thirdly, tug utilisation would be improved by as much as 20% on a typical launch cycle — the absence of a cable trailing below the tug allows a lower approach, hence a touchdown closer to the boundary fence, and less time is spent taxying back; also for reconnection, the cable has only to be pulled out from the tug's tail.

Finally, cables longer than the current norm may be fitted, being rewound for landing. Longer cables would reduce the danger resulting from the glider rising too high on tow.

I discussed the potential for a cable rewinding system during 1984 at Lasham and Southdown GCs. The opinions and comments received were most encouraging and I decided to design and evaluate an aerotow cable rewind system for the third year project section of my degree course.

An elementary rewind system had recently been tried at the Booker GC. It was unsatisfactory for a number of reasons. Rewind took 90-120sec and was only completed when the tug was very close to the ground. The control system was too simple, the pilot being expected to switch off the rewind motor when all the cable was wound in. The jettison system severed the cable; apparently quite a few cables were accidentally broken in this way and, once spliced, they would not fit into the small bore conduits used. Perhaps most significantly, no indication was given to the pilot when full cable rewind had been achieved. The pilot was forced to use a crude mirror system to view the cable periodically, seriously adding to his already high workload close to the ground.

Based on the results of discussions and the Booker experience a brief specification was drawn up.

1. Rewind time: to be 45sec for a 200ft cable.
2. Cable type: to be up to 300ft of conventional 7mm diameter cable fitted with Ottfur or Tost rings.
3. Operation: a single command from the pilot should initiate rewind. The pilot must be informed by indicator lamp of full rewind. After landing the cable must be unwindable without pilot intervention: nevertheless it must not wind out under air or taxying loads. Whenever fully unwound the cable must be jettisonable.
4. Pilot workload: this must not be increased by the system.
5. Tug performance, weight and balance must not be significantly altered.

A system layout was developed and is illustrated in Fig 1. The system is electrically powered, using the tug's 12v DC circuit. An electric clutch is used in conjunction with an irreversibly geared motor: if the clutch is kept energised then the cable will not drag out. A tail mounted microswitch, pressed by the launch point helper who will pull out the cable, releases the clutch.

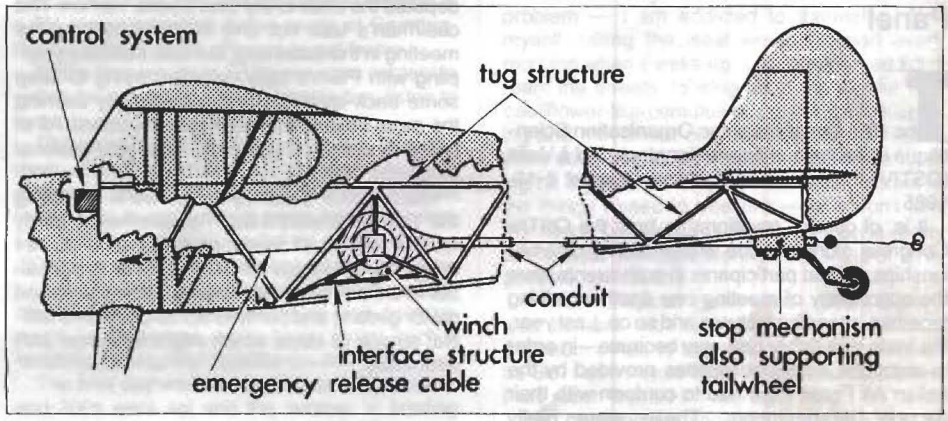


Fig 2. The system fitted to a tug.

A switch in the cockpit starts both clutch and motor, rewinding the cable. A stop piece is attached to the cable, very close to the glider end: this activates a second microswitch at the tail, stopping the motor, but allowing the clutch to stay energised.

Direct tension forces are reacted at the winch itself, through the interface structure to the tug airframe. Sideloads are reacted at the tail.

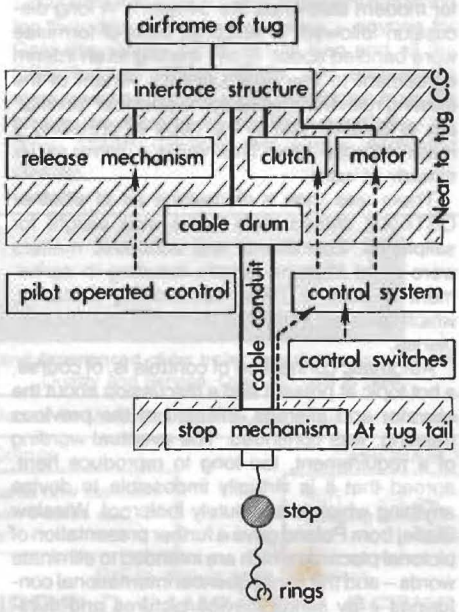


Fig 1. The system layout.

Light alloy is used for much of the system, giving low weight combined with good strength. The notable exception is the 300mm diameter cable drum, which is of GRP.

A modular approach is applied to the design: this permits simple maintenance, rearrangement for different tug types and easy upgrading or modification of individual modules. Fig 2 illustrates the system fitted to a tug.

Winch unit dimensions are: max height 300mm; max length 300mm; max width 420mm. Weight is approximately 5kg without cable.

A prototype system was constructed.

Static load testing showed the prototype winch to have a safe margin of strength. Strain gauge results showed that no stresses were sufficiently high to give anxiety regarding fatigue.

Bench running demonstrated correct functioning of the winch and control system. A drum rotation speed of around 240rpm was found to be necessary to obtain the specified rewind time.

One interesting result showed that the quality of cable winding on to the storage drum is very much dependent on the distance between the coiled cable surface and the point of feed. Unless this dimension is kept above a critical value, chaotic coiling occurs, taking excess volume and leading to tangling on unwinding.

A production system is estimated to have a unit material and parts cost of £100, with unit construction time of between four and six man days. This should lead to a basic cost of £200-250, to which must be added fitting costs,

profit and a proportion of the development and certification costs. A sale price of £500, including fitting, may well be possible.

Manufacture is envisaged as a subsidiary activity by a repair or manufacturing organisation. Fitment to the tug would be undertaken by the winch system manufacturer or other approved repair organisation.

In completion of this account, it is anticipated that the savings to be gained from such an aerotow cable rewind system are substantial, embracing safety, economics and efficiency. The system is technically and, I believe commercially, viable. It would be to the benefit of British gliding that aerotow cable rewind systems be widely adopted.

CHARITY FLYING

Don Puttock, public relations officer for Surrey Hills GC, has written about the vital need to promote gliding and mentions one of the successes of their club.

We tried charity flying – don't go away, it works and it creates revenue. Take a look around and see which local charities are looking for money. When you have found out that they all are, select a good one. Talk to the organisers and put together a suitable financial arrangement.

In our case we chose the RAFA Wings Appeal because:

(a) We are based on a famous fighter base.
(b) Wings is all about flying.

The financial arrangement was:

(a) Each air experience flight costs £8.50
(b) For each flight in a given time period, £2.00 would be donated to the charity (the time period in this case was three weeks).

The larger charity organisations can arrange media cover for you, the smaller charities may need help from you.

Don't kid yourself gliding is interesting

The media liked it, they need interesting items and don't kid yourself, gliding is interesting.

Some other ideas to get your grey matter going:

(a) Appeal to local businesses to pay for the underprivileged to fly.
(b) A sponsored gain in height, distance or duration. Let the newspapers discuss the problems the pilot will face – the safety aspect, previous club or world records etc.
(c) Approach local ATC, Scout groups etc and arrange discount air experience flights and invite the press to cover the event.

BGA INSTRUCTORS' INSURANCE

Do we need it? A note for instructors

The decision by the BGA Executive Committee to continue the instructors' back up insurance policy and to use the new instructors' rating renewal fee to help pay the premium has caused something of a stir around the clubs. I don't propose to write about the rights and wrongs of the rating fee, but, as many people seem to be confused about the insurance cover, I have been asked to explain why we believe it is necessary and what it provides for you, the instructor.

In aviation, as in every other walk of life, people are becoming more "claims conscious" and claims for personal injury and other losses or damage are increasing as a result. One reason for this is that people are being made aware of their rights as consumers, customers or individuals; another reason is that it is now generally assumed that a responsible organisation will be fully insured. People are often more inclined to make a claim if they think that it will be met by an insurance company rather than being paid directly by an individual or a small organisation such as their own gliding club.

How does this affect you, the instructor?

As an instructor, you are undoubtedly fully aware of the great responsibility you carry when instructing in the two-seater – a responsibility which encompasses your technical ability as an instructor and also your personal liability in legal and financial terms if there is an accident. In most instructional situations, of course, your club will have insured adequately and you have nothing to worry about on the financial side. Or have you? How sure are you?

- Do you *know* that all your club's insurance policies are always fully up to date?
- Do you *know* whether the cover is adequate? (£½m is now the minimum figure recommended by most lawyers or insurance specialists.)
- Are you sure that there are never any technical loopholes that the insurers could use to avoid liability? For example, flying with an out of date C of A or outside the ballast limitations, or flying in cloud without parachutes; there are a host of minor breaches of technicalities which insurers may use to avoid liability.

No club instructor can answer these questions with absolute confidence.

So if your pupil is hurt in an accident, makes a claim and finds that the club insurance is inadequate, where does he look next? To his instructor. Yes, you. Whether you are a full-time professional or a newly-fledged weekends-only assistant rating, it makes no difference – you are equally at risk. Some instructors already know this from the bitter experience of being sued by one of their own pupils – the risk is a real one.

Of course, if it is proved that the accident was not your fault at all, then you will be all right, but let's admit it, most accidents come down to pilot error in the end. If you're the PI on board, then you're the one who's made the error of failing to take over in time, if nothing else. In any case, proving that it wasn't your fault can be an expensive business.

Now for the next question – "But I don't have any money, it wouldn't be worth anyone's while suing me."

What about your house? Your car? Your share in a glider?

Oh yes, most of us who glide have enough, one way or another, to be worth suing.

Going back to the risks you run, it isn't only when you're sitting in the back seat that you could be in trouble. How about sending someone solo; briefing them for their first long soaring flight; sending a Silver C hopeful cross-country? In the last case we may not even be thinking about a club insured glider.

"But I couldn't be held liable if he prangs in a field 20 miles away!"

I'm afraid you could. If you made an error of judgment when you sent him off you could be in for a claim if his insurance is inadequate to cover any damage done to a farmer's property. Suppose he crashes on someone's house, or in a stud farm? Both have happened. It can be very expensive.

This sort of liability – the general supervisory responsibility of the instructor – is something which your own club's insurance is very unlikely to cover. It is quite difficult insurance to buy and you cannot assume that you are protected.

This is where the BGA policy comes in. It is designed to cover every rated instructor for:

- Liability to a pupil or anyone else arising out of an accident in a two-seater.
- Liability to any third party arising out of an error of judgment made in the "supervisory" role.

In other words, if you are a BGA rated instructor and you make a mistake in dealing with any instructional matter, if there is no other insurance policy to cover you, the BGA policy should be available to you.

There is one note of caution. This policy has been negotiated on the assumption that clubs and all aircraft continue to carry full third party insurance. The cover available is quite limited (£½m in any one year) and so the policy is only viable as a "back-up" to fill the gaps left by other policies. Clubs should already have been contacted on this point direct by the BGA office. We will try to negotiate improved terms on the policy by the time the next renewal date comes round. In the meantime the policy should enable us all to sleep a bit easier at nights.

MIKE JEFFERYES

INTER-CLUB LEAGUE



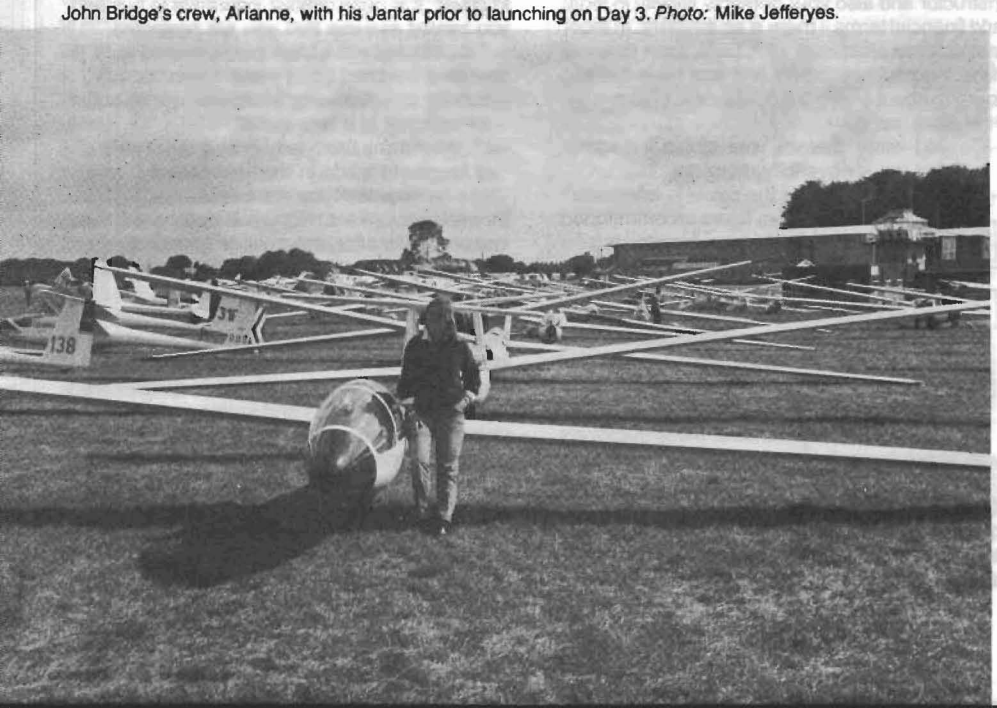
All seven Leagues were enthusiastically represented in the 1985 League final from August 24-26. Many thanks to Booker, our hosts, to Paul Bryce (director) and Chris Rowland (scorer) and to Brian and the rest of his team for the time they devoted to giving us a memorable and enjoyable weekend. Three contest days were achieved in better weather than many had experienced during the earlier contest weekends of the season.

At short notice in early '85 the Eastern League were pleased to welcome RAF Marham (Fenland) into the fray, the first RAF participants in the League. Their captain, Martin Durham, was their only representative on our first meet at HusBos, and won the Pundit Class scoring 5pts. We were therefore somewhat anxious when they produced a full team at Saltby. To our relief their combined efforts on this second weekend followed the trend established by their captain – they scored a total of 5pts again. However, I'm ashamed to confess being obliged to score them equal first with Coventry when it came to bar frolics!

They fielded their heavy artillery for the weekend at Dunstable in the shape of their new Open Class National Champion, Ken Hartley. He was put off as much as most of the rest of us by the poor weather and landed back after a prolonged local scratch. JJ's task aimed us twice round an 87km triangle, and the majority of pilots landed back, or landed out within 20km. *Hours* later it was rumoured that local Pundit, John Cardiff (ASW-20BL), had actually completed the first lap and was back overhead. After a few radio calls to confirm the downfall of his key competitors, he landed back to a warm, liquid welcome from his team.

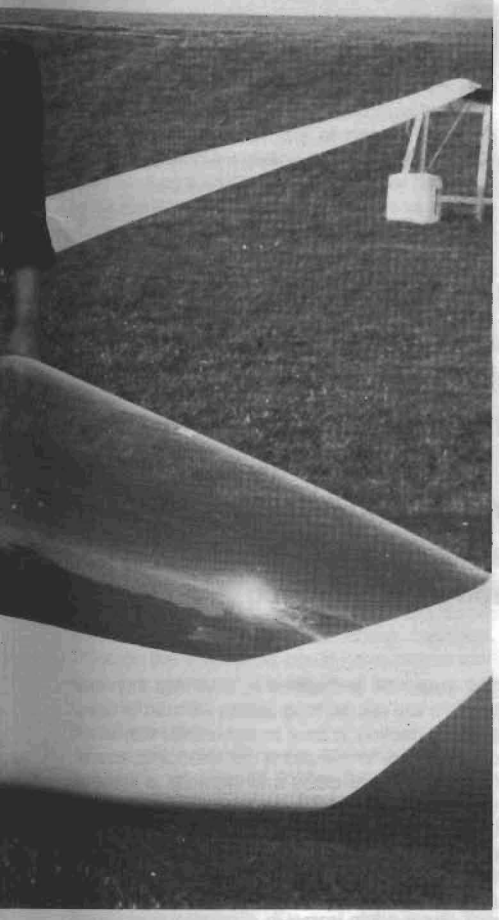
The 1985 winners. From left to right: Maggie and Dave Clews, Dave the winner of the Novice Class, Craig Lowrie, Pundit, and Ian Ashdown, Intermediate. *Photo:* Evening Argus, Brighton.

John Bridge's crew, Arianne, with his Jantar prior to launching on Day 3. *Photo:* Mike Jefferyes.



'The spirit of the League dictated that he should be rewarded with a scored contest.'

Neither the Essex team nor his own crew were aware that John Bridge (Jantar 1), Essex Pundit, ears open and mouth shut, had also completed the first lap. He trickled on to land at Halton with enough distance to win the day. Being a no contest weekend for both Novices and Intermediates it is written that the whole weekend should be declared no contest. However, it was felt, notably by Essex, that as John, who had never entered a rated Comp, had beaten both the current 15 Metre and Open Class Nationals Champions simultaneously, the spirit of the League dictated that he (and Essex) should be rewarded with a scored contest.



This put Coventry, London and Essex within one point prior to our last weekend of the season – sorry HB that this clashed with your Standard Nationals preventing you sending a full team. We'll plan our timetable more carefully for this year.

The Eastern League did meet at RAF Marham, but not as a scoring weekend, and Crowland and Norfolk were able to join us. Saturday was a no contest day won by Eric Arthur of Crowland. No soaring flights commenced before 1500hrs and by this time a spot landing competition had been declared. "Woody" Woodhouse (Norfolk) winch launched and surprised himself by soaring. On his return he failed to find the spot which had meanwhile been moved! Sunday's weather was less soarable and several serious attempts were made at the world individual daily launch total record – our thanks to RAF Marham and the old bus winch!

The Final

The seven clubs competing in the final were Booker (Southern League), Southdown (South Eastern), Usk (Rockpolishers), Newark & Notts (Northern), Avon (Midland), Norfolk (East Anglia) and Essex (Eastern).

Saturday's Pundit task was 148km O/R to Moreton in the Marsh won by Craig Lowrie (Kestrel 19) of Southdown with Dave Findon (Nimbus 2) of Avon 2nd. The Intermediate task, 110km O/R to Enstone, was also won by Southdown, Ian Ashdown (Kestrel 20), with Brendan Sargeant (DG-101) of Norfolk in 2nd place. Several Novices landed out in bold attempts to reach their TP, Oxford (Headington), for a 62km O/R, but no contest resulted.

Ian Ashdown still winning

Sunday saw a surge of effort by Booker. Chris Rollings (ASW-20) won the Pundits 164km Thame, Henlow, Buckingham quad, with Angelos Yorkas (Jantar 1) of Usk in 2nd place. Booker's Graham McAndrew (Pegasus) landed at the first TP of the Intermediates' 145km, Thame, Henlow, Thame task. Two aerotows later he re-started (if that's allowed?) and came 2nd – and if it's not allowed then Mark Newland-Smith (Libelle) of Essex came 2nd (at his first attempt!). Intermediate winner for the second day running was Ian Ashdown of Southdown.

Booker played another joker in the Novice task – 100km Thame, Dunstable, Thame. Peter Wells beat his nearest rival by 30% on handicapped speed, while the organisation argued vociferously that the organisation's word was final on such matters as whether Novices should be allowed to compete in PIK 20s! The 2nd Novice was Rance Noon (SF-27) of Newark & Notts.

Ambitious tasks but slow start

Most ambitious tasks were set for Monday's initial forecast, but these fell back with the slow start to the day, Dave Clews (K-6E), the only Novice finisher, won the 125km O/R to South Marston and brought Southdown up into 1st place for the weekend in the Novice Class. Gill Dalgleish (K-6E) of Booker was 2nd.

Garry Humphries (Cirrus) won the Intermediate task, a 150km triangle, Blakehill Farm, South Marston, and put Usk 2nd for the weekend in the Intermediate Class. Ian Ashdown was 2nd for the day, retaining a significant overall lead for Southdown for the weekend in the Intermediates.

Only the Pundits prevented Southdown winning all three Classes. The 321km triangle, Waterbeach, South Marston, was won for Booker by Brian Spreckley (ASW-17) who then talked John Bridge (Jantar 1) into staying up late enough to get home in 2nd place for Essex. This put Essex into overall lead in the Pundit Class. Craig Lowrie achieved sufficient distance and score in 3rd place to put Southdown 2nd for the weekend in the Pundit Class – and, together with their 1st place for the weekend in both the Intermediate and Novice Classes, into a commanding overall team lead for the weekend.

Congratulations to Southdown – Inter League Champions for 1985 by an impressive margin.

The 1986 Final

During the 1985 final we received two invitations from clubs eager to host the finals in the next few years. One was Southdown at Parham near Brighton – this would give some a long journey, but they assure us that the new motorways are making life much easier. The other was Avon Soaring Centre at Bidford on Avon.

Anyone with strong views for or against, please let me know before plans are finalised. Copies of the rules, other information, advice, encouragement and sympathy are all available from me at 15 Sycamore Way, Chelmsford, Essex CM2 9LZ, Tel 0245 261145.

John Bridge (Essex) in his Jantar waiting to launch on the Sunday, his practice day! *Photo:* Mike Jefferyes.



RAF GLIDING TRENDS

The RAFGSA has been aware of certain trends in their movement which have been a cause for concern. These trends are a mirror image of those within the civilian movement that have been a cause for discussion in recent months. However, their suggested solutions are in some instances radically different and this précis of Sq Ldr Max Bishop's paper by John Holland, chairman of the BGA Development Committee, should provide much food for thought and discussion.

Levels of Service membership in RAFGSA clubs have been a matter for some concern in recent years. There have been frequent complaints about the difficulty of recruiting young Servicemen into the gliding movement, and of then retaining them. It is generally felt that the average age of RAFGSA members is increasing and that the pyramid of experience is becoming distorted, with experienced soaring pilots outnumbering *ab-initios*. Trends such as these, if substantiated, would have serious implications for the future functioning of the Association and it is therefore important to establish a sound factual basis for management decisions.

Available statistics have been examined in an attempt to identify recent trends in the size and structure of RAFGSA membership, determine likely causes for these trends and point out their possible consequences.

The aim of this paper is to identify ways in which any undesirable trends in the membership of the RAFGSA can be reversed.

Size and structure of RAFGSA membership

Total strength. Over the last 15 years, total RAFGSA membership has remained broadly in the 1100 to 1400 range. Sudden changes have usually been attributable to the closure or opening of a club. The last reported total membership figure (February 1984) was 1291, which is entirely in line with the average historical figure. There is therefore not yet any clearly identifiable declining trend in total membership.

***Ab-initio* membership.** Reported *ab-initio* membership levels have varied historically in the range 100 to 400. Again, there is no clear downward trend. The last reported figure was 299 (February 1984). However, it is clear that there is a large discrepancy between the pre-solo figures reported and the numbers actively under training.

Experienced membership. There appears to be some statistical substance in the notion that experience levels are increasing. Whereas ten years ago, twice as many unqualified solo pilots were reported as pilots with Silver C or better, the proportions are now reversed. There is no doubt that gliders with better performance make it easier for inexperienced pilots to obtain certificates, but there does appear to be a clear centre of gravity shift towards the experienced end of the spectrum.

Ab-initio training

First solos. This impression is strongly reinforced by the figures for first solos — RAFGSA produced fewer than half as many new solo pilots in 1983 (102) as in 1973 (234). In 1978 the then Air Member (Flt Lt John Williamson) drew attention to the RAFGSA's declining productivity and called for the trend to be reversed. Far from this happening, the decline has continued unchecked.

Just over half the clubs said they had some difficulty in recruiting Servicemen, but more reported problems in retaining them. Eight out of ten clubs identified the pre-solo stage as being the period when most members left.

When asked how long it had taken for recent pilots to go solo from starting training, clubs reported periods ranging from 2½ weeks to 13 months. The average period was 16 weeks. Assuming 64 launches as average needed for solo, this works out an average of four launches/week. Clearly, there is much scope for making *ab-initio* training more intensive.

Causes of pre-solo wastage

Club managers were asked to assign a degree of importance to each of a number of factors commonly cited as being responsible for the RAFGSA's failure to retain new members. Their answers revealed the following perceived order of importance:

a. Alternative attractions (14pts)
b. Family commitments (13pts)
c. More time spent ground handling than flying (11pts)
d. Inhospitable atmosphere for newcomers (10.5pts)
e. Poor accommodation on site (9.5pts)
f. Lack of transport to sites (7pts)
g. Service commitments (5pts)

When invited to list any other contributory factors, clubs mentioned the following:

a. High launch and membership fees.
b. Low instructor availability, caused by lack of recognition by service authorities of the importance of the task.
c. Boredom at the launch-point; requirement to spend long periods of time on the airfield for very little flying.
d. Lack of proper two-seater training list.
e. Poor continuity of instruction — pupils fly with too many different instructors.

The RAFGSA has become more and more top heavy, and as experienced pilots leave it will decline in size unless appropriate countermeasures are introduced. Whereas in the early 1970s about one fifth of the total RAFGSA membership at any one time had gone solo in that year, the proportion is now less than one tenth. It will not be long before we start to see a marked decline in total membership, with attendant serious implications for financing, size of fleet, number of clubs and capacity to manage the clubs and the Association. There is therefore an urgent need to tackle the causes of pre-solo wastage identified above. The internal factors will be treated first.

Accommodation. Good on-site accommodation was considered by clubs to be a moderately important factor in retaining members.

Inhospitable atmosphere. Clubs frequently referred to the growth of cliques which made for an atmosphere hostile to newcomers. Club managers need to take specific and effective steps to make newcomers feel at home, to prevent the development of cliques and to ensure that "pundits" communicate their expertise to others in a sympathetic manner. A properly organised "buddy" system would be a great help in shepherding newcomers through their first weeks of gliding club membership.

Boredom at the launch point. Many new members are put off by the fact that they are expected to spend long periods of time on the airfield, ground-handling or merely standing around, waiting for occasional five minute flights. It has long been an established canon of RAFGSA law that all, or most, of the day must be spent on the gliding field, despite the fact that there is not normally work for more than about six people at any one time. This is calculated to put off all but those who are already "hooked". The final straw is often when a newcomer, eager to help and to become involved, attempts a task (signalling or tractor-driving) without having had adequate instruction or briefing and then does something wrong and is subjected to a torrent of abuse from an instructor.

The all-day attendance requirements need formally to be laid to rest, at least as far as new members are concerned. Newcomers must be properly taught the various ground-handling

tasks (by their "buddies") and then encouraged to practise them, and *ab-initios* must be given a satisfactory amount of flying on each day (nine winch launches is probably about right, six is a minimum). A "duty crew" system could be instituted, whereby the number of people required for safe and efficient gliding operations would be nominated on a roster for each day or half-day. Those nominated would be required to remain on the field and other members would be free to come and go at will (although they would not necessarily retain their place on the flying list if they absented themselves).

Continuity of instruction. Lack of instructional continuity is often attributed to the "whole-day-attendance" principle. Far more effective use of resources would be made if one two-seater was dedicated on any half-day to two (or at the most three) instructor/pupil pairs. Both instructors and pupils would then know that they would do six or nine launches in a space of about four hours, and would organise themselves accordingly. This would imply that at any one time there would be a limited number of students on the official *ab-initio* training list. The number would depend on how many two-seaters were available, and on the club's launching capacity. Those on the waiting list could have passenger rides, but would not be required to pay a full subscription until they started formal semi-intensive training.

This system would be far more satisfying for instructors, who would follow the progress of individual students rather than sitting in a two-seater for nine or 12 trips in a row, with three or four different students, of whom their total knowledge is gleaned from brief comments scrawled on a training card.

Family commitments. Several clubs made the point that gliding, as currently organised, is difficult to reconcile with normal family life and that even girlfriends are reluctant to sit around on airfields all day.

This problem can be approached in two ways. First, gliding clubs can be made more attractive places for wives, girlfriends and families to come to, and secondly (as already discussed) members should be allowed to attend for shorter periods of time. New members must not be allowed to feel under pressure to commit all their spare time to gliding. Most often this pressure is applied not so much by instructors and club management as by rank-and-file hardcore members. They must be thoroughly briefed on the dangers of putting newcomers off. Some clubs have already made great efforts to improve clubhouse facilities so as to attract non-gliding family members. Videos, colour TV, barbeques, comfortable furniture and attractive decor are amongst the potential attractions which club management should evaluate.

Alternative attractions. Clubs mentioned the following specific activities as being in direct competition with gliding, sailing, wind-surfing, sub-aqua, parachuting, power flying, winter sports and mountain activities. The Sports Board is not aware that any of these associations is faced with declining membership. All are challenging, individual activities sharing many characteristics with gliding, but offering to those participating a much higher ratio of active time to total time invested. If the RAFGSA is to compete effectively with these other associations, and with even less productive leisure activities, it must try to eliminate the frustrations, the time-wasting and the inefficiency of our present training machine.

Semi-intensive training

A semi-intensive system of training, with pupils allocated to particular instructors for half-day sessions and no obligation to stay on the airfield afterwards would help beginners reach solo standard more quickly and encourage the development of intrinsic motivation. A financial incentive could also be considered, since some pupils might not feel able to pay for nine or more launches/day. A block fee of, say, £60 could be charged for a semi-intensive course to solo standard (regardless of the number of launches required). The fee could be paid in instalments (*eg* £15/month for four months). To encourage regular attendance during the *ab-initio* training period, a credit of, say, £10-£15 could be allowed towards future flying if the student went solo within three months. Credit would also be allowable if the student went solo in fewer launches than the course fee would have bought at normal club rates. Students would not be accepted for a semi-intensive course until they had had some air experience rides and one of the limited number of places became available. To ease the initial financial burden annual membership fees would only become payable once a student had gone solo. Loss of income to clubs should be offset by advance payment of block fees. At a rate of nine launches/day the average *ab-initio* should not require more than about eight sessions to go solo. Given financial and other incentives the majority of students should achieve this within three months (about 24 possible weekend flying days, allowing eight for bad weather and eight for other activities).

Conclusion

Overall RAFGSA membership has not yet started declining, but it soon will. The structure of the membership is becoming distorted because not enough new members are being trained to solo standard. This is largely due to problems in retaining new members rather than recruiting them. The RAFGSA has ample training capacity (in terms of training aircraft, instructors and launching facilities), but the capacity is not being used effectively. Levels of productivity (*ie* the number of solos compared with the number of training launches) have declined dramatically in the last ten years. There is a lot of wastage during the pre-solo.

Recommendations

It is recommended that the Executive Council should give consideration to the following measures:

(a) Seeking General Council approval for a standard RAFGSA *ab-initio* training pattern, based on the principle of the semi-intensive course, and comprising:

(1) A series of half-day sessions with one instructor looking after one pupil.
(2) Block fees payable by instalments, with credits for prompt course completion.
(3) *Ab-initio* training targets for each club, derived from previously demonstrated training capacity, with insurance premium reductions for successful achievement.

(b) Persuading the General Council formally to abolish the "whole-day attendance" principle and to substitute a "duty crew" system.

(c) Urging clubs to institute a "buddy" system in which existing members are made responsible for retaining new members.

(d) Encouraging and helping clubs, where necessary, to improve their accommodation and leisure facilities.



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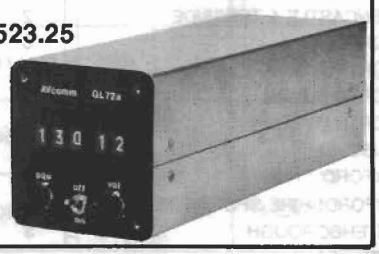
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GLIDING CLUBS	AIRCRAFT				ALL LAUNCHES	NO. OF AEROTOWS	HOURS	CROSS-COUNTRY KM	MEMBERSHIP		Estimated No. of Temporary Members
	Club 2s	Club 1s	PO	Tugs					Flying	Non-Flying	
ALBATROSS	1	1	0	0	0	0	0	0	0	67	0
ALTAIR	4	0	5	0	2040	0	278	274	15	0	122
ANGUS	3	2	4	0	3069	0	431	352	56	26	200
AQUILA	2	1	6	1	1652	800	359	500	39	0	160
AVON	2	3	20	2	5300	5300		8500	70	10	
AVRO	4	2	0	0	4278	0	614		120	81	400
BATH & WILTS*	2	3	20	3	3999	697	1475	7435	110	9	262
BLACK MOUNTAIN	3	1	10	1	1600	–	2500	N/K	70	0	420
BLACKPOOL	2	3	20	0	2814	0	1592	973	112	41	400
BOOKER	10	11	60	8	13000	13000	11000	150000	420	0	2300
BORDERS	2	1	12	1	2291	2204	1398	2200	63	9	123
BRACKLEY	1	0	8	0	6019	8	1093	618	71	5	510
BRISTOL & GLOUCESTERSHIRE	3	3	30	2	7566	4245	2677	27044	242	49	882
BRITISH AEROSPACE	1	0	0	0	90	0	52	2150	12	0	15
BUCKMINSTER	2	2	13	1	3402	2724	1181	12885	81	0	731
BURN	3	3	19	2	5967	1825	2005	6850	132		680
CAIRNGORM	2	0	5	0	996	25	260	1100	37	–	198
CAMBRIDGE	4	4	34	2	7716	2201	3606	38401	165	47	1194
CHANNEL	4	1	3	0	6286	0	1113	N/K	66	5	913
CONNEL	3	2	1	0	1750	0	510	2600	30	–	490
CORNISH	3	2	2	1	2765	112	480	0	49	40	261
COTSWOLD	3	2	30	0	7900	0	2500	21000	163	90	960
COVENTRY	6	4	54	6	8012	5793	3976	51000	297	18	357
CRANFIELD	1	1	14	2	1255	1255	492	1500	63	0	162
DARTMOOR	2	0	3	0	0	789	68	0	26	0	205
DEESIDE	3	2	11	2	3580	3580	3571	N/K	132	2	294
DERBY & LANCS	3	4	26	0	6703	0	2791	6550	148	100	974
DEVON & SOMERSET	3	3	25	1	8873	808	2630	5366	191	76	806
DORSET	3	3	10	1	4255	672	776	1500	110	29	300
DUMFRIES	2	0	4	0	334	0	127	1200	23	0	30
EAST SUSSEX	2	2	14	1	6007	574	1022	4500	139	50	920
ENSTONE*	2	1	9	1	3440	520	2672	42336	60	5	180
ESSEX	4	1	30	1	8833	800	2690	36000	205	5	2370
ESSEX & SUFFOLK	2	2	12	2	2372	2372	1162	3000	101	0	436
EYE FLY	2	0	2	1	480	80	103	207	25	0	19
HAMBLETONS*	2	4	2	1	2927	523	857	8100	80	0	0
HEREFORDSHIRE	3	0	10	1	1500	1500	1000	1500	67	0	155
HIGHLAND	2	3	5	0	3474	0	597	700	48	2	364
IMPERIAL COLLEGE*	0	3	0	0	300		210	2700	45	15	
INKPEN	2	1	7	1	1250	1250	570	7500	55	6	718
KENT	3	3	30	1	9000	3570	9780	4800	230	17	1662
LAKES	2	1	7	1	N/K	N/K	N/K	N/K	35	0	70
LASHAM	8	0	120	6	34449	13066	14650	195860	680	140	3580
LONDON	5	6	78	4	17496	7284	6572	50000	338	75	4329
MARCHINGTON	2	0	15	1	1492	1392	849	1684	50	10	290
MENDIP	2	3	12	0	3950	0	770		58	0	350
MIDLAND	3	3	22	1	10304	109	4451	6966	227	71	1361
NENE VALLEY	1	1	5	0	1474	0	169	200	30	5	250
NEWARK & NOTTS	2	2	9	0	3629	0	500	2008	70	0	408
NEWCASTLE & TEESSIDE	2	1	5	0	1170	0		N/K	32	–	150
NORFOLK	3	2	26	2	4186	3631	2132	15000	162	35	465
NORTHUMBRIA	3	2	23	1	1434	560	507	500	96	17	200
NORTH DEVON	7	1	6	2	3025	485	1110	450	15	10	2850
NORTH WALES	2	1	2	0	1951	0	219		51	0	41
OUSE	2	2	21	1	6595	679	982	6000	125	35	1150
OXFORD	2	3	13	0	4474	0	960	3628	75	4	260
OXFORDSHIRE SPORTFLYING	2	0	0	0	1480	0	1537	80000	40	0	25
PETERBOROUGH	3	1	11	2	1745	1745	710	4500	64	2	348

RAE (Bedford)	0	0	6	1	324	324	170	N/K	14	6	4
RATTLESDON	2	2	9	0	2900	30	550	1000	60	0	80
ROYAL AIRCRAFT ESTABLISHMENT*	2	3	5	0	3439	0	946	3100	48	12	15
RSRE	2	2	1	0	1303	0	196	150	21	11	50
SGU	4	3	30	2	6305	4013	4292		255	–	890
SHALBOURNE	2	1	12	0	2540	0	438		43	–	185
SHROPSHIRE	0	0	12	1	660	660	995	12893	30	0	20
SOUTHDOWN	2	3	24	2	6066	3764	3126	30115	216	57	495
SOUTH WALES	2	2	20	1	4300	1000	1100	6700	106	0	370
STAFFORDSHIRE	1	2	3	0	2467	0	393	180	72	5	230
STRATFORD ON AVON	3	1			N/K	N/K	N/K	N/K	84	10	150
STRATHCLYDE	3	1	0	0	700	50	125	20	40	2	130
STRUBBY	3	1	7	1	3636	34	280	0	41	0	141
SURREY HILLS	3	2	0	0	478	0	142	0	58	1	1
SURREY & HANTS	0	11				included in Lasham's return			231	52	0
SWINDON	2	2	8	0	1466	41	298	N/K	34	3	73
TRENT VALLEY	2	3	16	0	4805	10	1132	6500	80	2	370
ULSTER	2	1	7	1	1500	1500	600	500	45	0	333
UPWARD BOUND TRUST	3	0	2	0	1560	0	166	0	25	0	245
VALE OF NEATH	3	0	9	1	2580	200	580	N/K	38	–	100
VECTIS	1	1	0	1	190	184	60	200	27	0	25
WELLAND	2	2	5	0	2419	0	283	1000	44	9	240
WEST WALES	3	0	8	0	1250	7	210	60	30	10	240
WOLDS	4	1	15	1	8223	392	1260	5443	155	21	1786
YORKSHIRE	3	4	42	2	6300	3400	11000	12500	284	27	530
CIVILIAN CLUB TOTALS	221	169	1186	81	327360	101787	134678	909678	8397	1436	44003

**No statistics received, last year's figures used.*

ROYAL AIR FORCE GSA											
ANGLIA	2	2	4	0	3654	3654	456	1285	62	0	200
BANNERDOWN	3	4	6	0	6494	74	1512	12053	80	15	116
BICESTER	6	7	17	4	16094	5378	5062	36597	250	10	800
CHILTERNS	2	3	2	0	3333	39	661	892	44	0	165
CLEVELANDS	2	3	14	2	3285	1833	1114	17850	137	0	204
CRANWELL	3	3	8	1	6151	353	1231	3083	125	0	300
FENLAND	2	4	3	0	4745	107	828	5618	92	0	150
FOUR COUNTIES	3	3	7	0	6347	81	1320	15552	89	7	314
FULMAR	2	3	1	0	3744	289	705	1486	48	5	200
HUMBER	2	3	3	0	3452	19	516	2391	56	0	170
WREKIN	2	2	5	1	5546	520	1214	2128	100	0	500
ARMY GLIDING ASSOCIATION											
KESTREL	2	4	4	2	4012	308	763	1690	110	25	300
SOUTH WEST DIST (Wyvern)	2	4	6	1	6237	204	1248	8018	120	0	135
ROYAL NAVAL GSA											
CULDROSE	3	2	2	3	1659	905	339	500	39	3	300
HERON	2	2	5	2	1356	840	495	4521	50	5	200
PORTSMOUTH	5	5	4	7	3460	2476	853	1015	200	50	40
SERVICE CLUB TOTALS	43	54	91	23	79569	17080	18317	114679	1602	120	4094
CIVILIAN CLUB TOTALS	221	169	1186	81	327360	101787	134678	909678	8397	1436	44003
GRAND TOTAL	264	223	1277	104	406929	118867	152995	1024357	9999	1559	48097

FROM THE SECRETARY'S DESK

Barry Rolfe, BGA administrator



The Executive Committee were heavily engaged during November and December with the question of insurance cover against liability for rated instructors and terms for renewal of the BGA block policy for 1986. Our insurance advisors were consulted, and all member clubs were circulated with proposals during October to which just over 50% replied.

Steeply rising charges in the aviation insurance market have in the end ruled out the possibility of the BGA taking out "front line" cover for 1986 to protect all instructors and we have instead renewed the previous "back up" cover which provides insurance to fall back on if for some reason the instructor is not properly covered by his club. We have also advised clubs of a suitable clause which should be inserted in all glider insurance policies in future, at little or no cost, in order to maximise the instructors cover against liability incurred whilst flying. This will be raised at the AGM in March with a view to making it an operational regulation in future.

The BGA "Back up" policy is still required to give cover under certain circumstances which are explained in an article by Diana King on p35. To renew this insurance for 1986 and give £250,000 worth of cover we have been faced with a premium of 66% over last year and a charge of £7,500. This amount will be mostly funded from the £5 annual renewal fee per instructor which was invoiced to all clubs in January. The whole position will be reviewed by the Executive during the course of the year in the hope that an improvement in the liability cover offered to instructors under the glider policies may lead to a reduced premium of the BGA "back up" cover, if still required, in 1987.

At present the BGA officers and Executive Committee are spending a lot of time on the early stages of preparing a "Forward Plan" for gliding which projects the association's activity and finances through to 1990. We receive considerable assistance from the Sports Council towards the cost of coaching and administration, international teams etc and direct to clubs for purchase of sites and equipment. The Sports Council are reassessing the basis for their grants in future and, to this end, require to see our long-term plan of activity for the whole movement in some detail before negotiating new terms with us for future financial support. This is a major administrative task for us but we hope that it will produce a clear indication of our aims for the next four years and a sound financial basis from which to achieve them.

You may have noticed that towards the end of last year John Taylor took over the reins as chairman of the Competitions and Awards Committee from Ted Lysakowski who had served his maximum five year period (sorry – that makes it sound like a prison sentence!). The Executive passed a vote of thanks to Ted for his great efforts during those years in one of our most demanding voluntary positions.

GLIDING HONOURED

Both the British Women Pilot's Association awards for 1985 are to glider pilots. The Brabazon cup, for a single noteworthy performance in aviation, goes to Pam Hawkins for her world record breaking 765km triangle in Australia on November 14, 1984, and the O. P. Jones cup, for a noteworthy performance in gliding, to Dorothy (Doc) Souper of the Norfolk GC.

Doc still flies her K-6CR at the age of 79 and has made a generous contribution to her club, being treasurer and a committee member for many years. Incidentally she didn't start gliding until 1961, going on to gain her Silver C and PPL.

BGA COMPETITIONS AND AWARDS COMMITTEE

The 1986 team squad consists of John Cardiff, Andy Davis, John Delafield, Bernard Fitchett, Brian Forrest, Chris Garton, Ken Hartley, Ralph Jones, Alistair Kay, Ted Lysakowski, Chris Rollings, Brian Spreckley, Mike Throssell, Dave Watt, Martyn Wells and Justin Wills. (Pilots who came 1st or 2nd in the 1985 Nationals were automatically included, the remaining ten being voted in by the top 40 Nationals pilots.)

The British team for the 1987 World Championships at Benalla, Australia will be selected from the squad plus the winners of the 1986 Nationals if they are not already in the squad.

Ben Watson has been re-elected as team manager for Benalla and, by the time you read this, Ben will have just returned from the "pre-Worlds" competition at Benalla with six of the squad. Results should be in the April issue.

There will also be a British team entry in the European Championships at Mengen, West Germany this June. Selection for the next Europeans, in 1988, will follow the same system as the Mengen, *ie* priority will be determined on the results of the previous year's Nationals in the same Class.

Returning to the UK competition scene, we are once again offering organisers the choice of a conventional startline or a "pilot operated start" using either a ground clock or time cameras (see S&G, October p213). The latter method proved popular with the pilots at the 15 Metre and Standard Class Nationals last year and we expect more competitions to be run this way in the future. Any type of 35mm or 126 cartridge time recording camera may be used provided that the time controls can be sealed to the satisfaction of the organisers. Full details will be in the **1986 Competition Handbook.**

John Taylor, *chairman*

TALK BY HANS ZACHER

Hans Zacher, the doyen of German glider test pilots, is to give a talk on the German Akafliegs, covering the history and activities of these aeronautical student groups, at a meeting of the Royal Aeronautical Society's Light Aeroplane Group at 4 Hamilton Place, London W1V 0BQ on April 21 at 6pm.

Hans first flew "Zögling" and "Hols der Teufel" gliders at the age of 15 and gained Silver C No. 221 in 1936. He joined Akaflieg Darmstadt and graduated in 1938.

He worked for the German Research Institute for Soaring (DFS), carrying out flight tests on the D28 "Windspiel" and D30 "Cirrus". After the war, he worked with Lippisch and Klemperer on an early delta aeroplane. When soaring re-started, he was employed by the German airworthiness authority on sailplane testing and latterly, until his retirement, by DFVLR.

Hans has flight tested an astonishing number of gliders and his reports are universally respected for their honesty and accuracy. He has continued his attachment to the Akafliegs and the encouragement of student enthusiasm throughout his career. He has been most active in OSTIV and had a major influence on the development of the Standard Class and on motor gliders. His lectures display his immense experience and a very individual sense of humour.

GLIDING CERTIFICATES

In the autumn's migratory rush across devolutionary boundaries to Aboyne, Portmoak and Talgarth in search of wave, no one remembered to tell Richard Short that the thermal season had finished! On November 2 he soared his L-Spatz 57km from Middleton, Leicestershire off a wire launch, to complete his Silver Badge on the day his club, Welland, celebrated its 30th anniversary.

I would remind official observers and pilots attempting Diamond goal that the requirement specifies a closed circuit from a departure point and finishing at the same departure point. Last year a number of Diamond goals were rejected where pilots released some distance from their base airfield when this was the declared finish point.

The departure point must be pre-declared and can take the form of a defined feature such as you would employ as a TP, or it can be a startline no longer than 1km. To establish a valid departure, you must release from aerotow or wire launch over the departure point, or be observed crossing a startline, or simply take a

photograph (as you would if declaring a remote departure-cum-finish point). The photograph zone in all such cases is based on the bisector of the angle forming the triangle or O/R course you are claiming.
Gordon Camp, *FAI certificates' officer*

ALL THREE DIAMONDS

No.	Name	Club	1985
203	A. Durbin	Inkpen (in USA)	26.5
204	M. E. Carter	Yorkshire	28.5
205	C. J. Mayhew	Lasham (in France)	17.7

DIAMOND DISTANCE

No.	Name	Club	1985
1/312	A. Durbin	Inkpen (in USA)	26.5
1/313	C. C. Lyttelton	Booker	28.5
1/314	M. E. Carter	Yorkshire	28.5
1/315	C. J. Mayhew	Lasham (in France)	17.7

DIAMOND GOAL

No.	Name	Club	1985
2/1457	P. S. Wybrow	in USA	20.6
2/1458	D. Richardson	Booker	28.5
2/1459	S. A. Foster	Cambridge Univ.	6.7
2/1460	D. M. Jones	Phoenix	7.7
2/1461	M. B. Judkins	Imperial College	6.9
2/1462	N. H. Wall	Bristol & Glos.	7.7

DIAMOND HEIGHT

No.	Name	Club	1985
3/700	A. C. Garside	Kent	1.9
3/701	R. W. Smith	Kent	29.9
3/702	J. M. Ley	Essex	1.10
3/703	G. Richards	Kent	3.10
3/704	R. A. Hall	Oxford	4.10
3/705	G. H. Keates	Deeside	29.9
3/706	M. F. Cuming	Booker	7.10
3/707	Mary Charlett-Green	Bicester	7.10
3/708	P. Davis	Lasham	11.10
3/709	V. J. Spencer	Lasham	11.10
3/710	M. J. Philott	Booker	23.10
3/711	G. E. McAndrew	Booker	23.10

GOLD BAGE

No.	Name	Club	1985
1116	P. S. Wybrow	in USA	20.6
1117	D. Richardson	Booker	28.5
1118	M. B. Judkins	Imperial College	6.9
1119	S. C. Foggin	Swindon	28.8
1120	Cynthia Chambers	Lasham	7.10
1121	S. M. Turner	Southdown	7.10
1122	M. R. Dawson	Bannerdown	10.10
1123	Jane Turner	Southdown	11.10
1124	G. Richards	Kent	1.10
1125	M. J. Sesemann	Kent	1.10
1126	S. D. Wright	Heron	1.10
1127	G. Wilson	Surrey & Hants	11.10
1128	W. J. Murray	Inkpen	23.10
1129	J. P. Ashcroft	Wyvern	20.9

GOLD HEIGHT

Name	Club	1985
S. C. Foggin	Swindon	28.8
G. E. Johnson	Kent	1.10
N. W. Johnston	SGU	3.10
Gillian Bull	Essex	3.10
Ann Johnson	Kent	5.10
Cynthia Chambers	Lasham	7.10
S. M. Turner	Southdown	7.10
M. R. Dawson	Bannerdown	10.10
Jane Turner	Southdown	11.10
J. S. McCullagh	Surrey & Hants	11.10
G. Richards	Kent	1.10
M. J. Sesemann	Kent	1.10
Pauline Day	Bicester	1.10
S. D. Wright	Heron	1.10
C. M. Davis	Heron	1.10

BGA ACCIDENT SUMMARY — Compiled by KEITH MITCHELL, Chairman, BGA Safety Panel

Ref. No.	Glider Type	BGA No.	Damage	Date Time	Place	Pilot/Crew Age	Injury	Pl/Hrs	Summary
59	K-13	3112	S	1.6.85 16.50	Old Sarum	35	N	6min	Very early solo pilot. Turned away from airfield after making high final turn. Height was lost rapidly and being unable to return to airfield a downwind field landing was made resulting in serious damage to port wing.
60	ASW-19	2354	M	25.5.85 14.15	Enstone	22	N	142	Minor undercarriage damage caused by heavy landing due to incomplete roundout.
61	Club Astir	2450	M	6.5.85 18.00	Farnborough	65	N	38	After flying a poor cramped circuit pilot made a bad approach and round out. Bounced twice causing minor damage to underside skin of nose and tail wheel fairing.
62	PIK 20B	2078	S	7.6.85 17.35	1 mile W of Axminster	44	N	1260	Pilot found himself in a serious overshoot situation during field landing. Overshoot field was small so landing was made in a field to the right which sloped downhill. Glider collided with hedge on ground run.
63	Skylark 3B	870	S	29.5.84 17.25	Trotton, Nr. Midhurst	41	N	51	Field landing being made in young crop. Surface was soft and glider slewed to right. Left wing touched down and inertia caused damage to glider's centresection. Attempted soaring retrieve into wind after downwind Silver distance. No brieling by launching club.
64	ASW-15	1562	M	25.5.85 14.45	Cowdray Park	28	N	300	Pilot selected a good field and started approach, saw a horse out of the corner of his eye and decided to land in adjacent field. This field was small and pilot was forced to groundloop to the left causing scratch damage to the underside of the wing.
65	ASW-20F	2596	M	8.6.85 14.00	2½ m NW of Towcester	21	N	245	Glider had landed out on private airstrip. In an attempted aerotow retrieve two attempts were abandoned because of crosswind and long grass. A third attempt was made in a direction more into wind. The farmer running with wingtip held on too long and initiated a swing developing into a groundloop. Pilot released and braked but could not prevent wing hitting a post.
66	K-13	2610	M	29.5.85 12.45	Challock P1 P2	64 52	N N	988 18	Simulated cable break. P2 turned upwind rather than downwind as expected by instructor. P2 made a fast crosswind landing bouncing over rough ground. Damage caused to skid mounting.
67	Pilatus B-4	1849	M	17.2.85 14.00	Aston Down	36	N	63	After a cable break at about 300ft pilot made a series of misjudgments and mistakes which culminated in a fast heavy landing with the undercarriage unlocked.
68	K-6E	1696	M	10.4.85 15.05	Tormarton	53	N	218	During high approach for field landing pilot decided field to left was better. 90° turn gave a strong downwind component so overshot and attempted to land in a third field with insufficient height.
69	Std Cirrus	2015	S	25.5.85 15.30	Broadway	29	N	991	During field landing in gusty conditions pilot closed airbrakes to land further into field. Airspeed was lost in last 20ft and glider landed nose down on main wheel drifting to the left. Groundlooped to the left. Pilot unsure if glider was stalled or hit by gust.
70	Bergfalke 4		M	3.4.85	Aston Down P1 P2	35	N N	248 40min	Previously cracked canopy broke up during winch launch with clear vision panel open. (Note: Yawing with clear vision panel open can create appreciable pressure inside canopy. A.K.M.)
71	IS-29o	2065	M	15.6.85 16.45	Hus Bos	54	N	178	Pilot returning from local soaring joined circuit on downwind leg with three gliders in circuit ahead of him. Finding normal landing area obstructed when these three had landed, pilot closed airbrakes to overfly gliders awaiting take-off. He then opened airbrakes fully and a heavy landing resulted followed by collapse of undercarriage.
72	DG-101G	3126	S/WO	17.6.85	Lasham	51	M	692	Pilot attempted to reach airfield with insufficient height during competition flight. Hit ground on approach road and struck parked cars.
73	SF-25E		M	5.5.85 1500	Lasham P1 P2	62 –	N N	3000+ –	A series of touch and go landings were being carried out. Final touchdown was well held off but not quite tail down. As aircraft landed it pitched forward causing damage to the propeller.
74	K-21	2922	S	25.6.85 19.40	Lasham P1	55 –	N N	900 0	Pilot took off with brakes closed but unlocked. Canopy misted over as glider entered heavy rain on tow. Pilot failed to see tug's 'brakes open' signal and pulled off tow at about 200ft unaware that his brakes were open. Glider struck row of trees and bushes near airfield causing substantial damage.
75	Sport Vega	?	M	31.5.85 12.55	Lasham	65	N	30	On approach in gusty conditions pilot was caught out by turbulence near ground and made a heavy landing.



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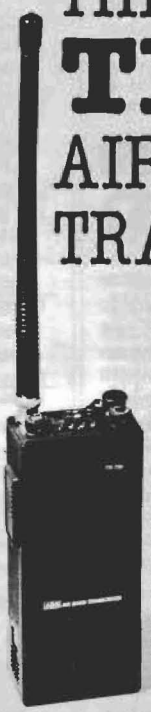
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GOLD DISTANCE

Name	Club	1985
P. S. Wybrow	in USA	20.6
D. Richardson	Booker	28.5
S. A. Foster	Cambridge Univ	6.7
D. M. Jones	Phoenix	7.7
M. B. Judkins	Imperial College	6.9
Edwina Bonser	Wyvern	7.7
N. H. Wall	Bristol & Glos.	7.7

SILVER BADGE

No.	Name	Club	1985
7126	J. A. Cowie	SGU	15.9
7127	G. R. Bond	Lasham	13.9
7128	B. Amos	Booker	13.9
7129	D. M. Charles	Lasham	16.6
7130	I. D. Booth	Kestrel	7.7
7131	J. M. Airey	Buckminster	10.8
7132	R. Andrews	Midland	5.9
7133	M. Stevenson	Marchington	6.9
7134	J. F. Mills	Cranwell	22.9
7135	Jill Burry	Dorset	29.9
7136	M. K. Papworth	Cambridge Univ	29.5
7137	F. P. Bibby	Avro	9.8
7138	A. P. Howley	in USA	10.8
7139	C. J. Borrill	Swindon	28.8
7140	A. D. W. Hyslop	Phoenix	6.10
7141	G. A. Hawkins	Bristol & Glos	11.10
7142	G. E. Cox	Booker	18.10
7143	Susan Cavener	Phoenix	5.10
7144	R. H. Short	Welland	2.11
7145	N. E. Thomas	London	10.11

Ref. No.	Glider Type	BGA No.	Damage	Date Time	Place	Pilot/Crew Age	Pilot/Crew Injury	Pilot/Crew Pl/Hrs	Summary
76	Puchacz	2992	S	26.6.85 19.00	Hus. Bos P1 P2	31 52	N N	273 20	After pupil had 'completed' pre-flight checks the winch launch went ahead. AT 100ft the airbrakes were seen from the ground to be open. Climb continued to approx 600ft when P2 lowered nose, released and began a circuit. With a heavy rate of sink instructor took over but did not realise brakes were open. Glider was flown between trees and while still banked starboard wing caught wing of glider picketed clear of flying area. Aircraft then pitched heavily nose-down onto the perimeter track.
77	K-23	2998	M	2.6.85 15.15	Dunstable	51	N	2	After soaring for 45mins on a second solo flight the pilot joined the circuit. On base leg airbrakes were opened to reduce height. Turbulence and sink were encountered but brakes were not closed and in the undershoot which ensued a heavy landing was made onto rising ground short of airfield boundary.
78	AS-20L	2520	S	30.5.85 11.40	Dunstable	54	N	370	During aerotow launch glider was seen to release when a few feet above the ground. It then performed a series of nose-down pitches, striking the ground heavily each time and finally came to rest 100yds from upwind boundary. Elevator control had not been connected.
79	K-13	AGA A2	M	15.6.85 16.00	RAF Upavon	N/A			On landing K-21 picked up a cable with its tail skid. As cable moved the parachute deployed and caught over the wing of a parked K-13. K-13 was swung round with the wing hitting a club member behind the knees causing her to fall onto the wing.
80	DG-202	2788	M	8.6.85 16.00	Lasham	50	N	418	Pilot returned too low after cross-country flight. Rather than land downwind attempted a 180° turn very low and groundlooped.
81	K-6E	1428	M	15.6.85 12.15	Standon, Ware, Herts.	30	N	60	Pilot approached chosen field too high. Whilst attempting to clear fence to reach overshoot field, rear of fuselage struck fence.
82	Janus	2737	S	25.6.85 17.40	Portmoak	44	N	162	Pilot left decision to land too late to make a satisfactory choice of field. On final turn glider flew into a gust and pilot was unable to level wings. Wingtip caught ground and turned glider through 90° before breaking free and then landed sideways, causing substantial damage.
83	Swallow	1061	S	4.7.85	Bum GC	18	N	12	Pilot aimed to land beyond a tug and glider combination lined up for take-off. As he approached the tug it moved forward. Pilot attempted to stretch final glide and subsequently stalled and made a heavy landing.
84	Skylark 4	1116	S	7.7.85 2.30	Berkshire	29	N	47	Pilot felt unwell on cross-country attempt and decided to land. Landed in crop which caused damage to tail plane.

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Ref. No.	Glider Type	BGA No.	Damage	Date Time	Place	Pilot/Crew Age	Injury	Pl/Hrs	Summary
85	Bocian	1834	S	18.6.85 14.00	Aboyne	36	N	7734	P2 placed glider too high on final approach. P1 took over and carried out two S turns. During second S turn the airspeed dropped to 38kt which with wet wings and turning was sufficient to semi-stall the glider. Recovery action together with downdraught caused the glider to land short into a steeply sloping bank just short of the runway.
86	K-13	1481	S	6.7.85 18.21	North Hill P1 P2	52 27	N N	464 5	Cable back released at about 150ft. Brakes were seen to be fully open although neither pilot used them and they had been checked before the flight. Due to high rate of sink landing was made in small field ajoining A/F. Groundlooped and struck fence.
87	Blanik	2173	S	4.7.85 12.35	Stockhill, Yorks	39	N	540	Returned to selected field with insufficient height for proper circuit. Extended base leg to make use of diagonal length of field. Decided speed was excessive, opened spoilers, turned into field too low and wingtip hit crop. Glider groundlooped and came to rest 20yds from boundary fence.
88	K-21	2817	M	6.7.85 11.45	Long Mynd P1 P2	31 30	N N	1264 25 min	Having flown a satisfactory circuit and approach the pupil rounded out in the normal manner, but then while glider still had flying speed he pulled the control column hard back. Glider ballooned to 10-15ft while instructor was closing brakes and lowering nose. At this point insufficient speed remained for round out and glider struck ground heavily, nose-wheel first.
89	Oly 463		M	16.6.85 18.12	Pershore	42	N	73	Pilot on last flight of day was making a hangar flight. Approach and touchdown were satisfactory, but during the last few feet of ground run the underside of port wing caught a metal post, causing damage to underside of D-box and aileron.
90	Libelle	1598	N	23.6.85 14.30	Challock	52	N	565	Pilot experienced vibration from the tail at 90kt. Slowed down and landed normally with no damage. Perhaps excessive latteral play on tail-plane. To be examined by inspector.
91	Vega	2576	M	16.6.85	Burn A/F	58	N	1210	On ground run port wing caught long grass bordering the runway. Groundlooped through 180° breaking the tailwheel and leaving stress marks on the fuselage.
92	K-6E	2527	M	27.2.85 18.15	½m NE of Brookthorpe, Glos.	29	N	98	Pilot returning from 6hr flight realised field landing was necessary and selected one of several fields considered. In spite of a long base leg and use of full airbrake on approach touchdown was half way down the length of the field and a groundloop was induced to avoid running into upwind fence. There was a down slope on the field visible from circuit height. (Note from AKM. Club took pilot back to field in motor glider next day. Good.)
93	Sport Vega	2792	M	25.6.85 13.00	5nm NW Shobdon A/F	26	N	133	Pilot sought lift downwind of site, but encountered rather heavy sink. At 800ft he realised he could not reach base and elected to land in a cropped field as the only one available at that stage. A normal approach was made, but after touch-down the glider groundlooped 90° to port.
94	Dart 17	1197	S	2.7.85 11.30	5m NE of York	43	N	705	Having noted field from 1400ft pilot made final selection at 800ft. Low wires were seen along downwind boundary and approach was made over trees along left side boundary. Trees proved higher than wires, forcing touch-down well into field. Groundloop became necessary to avoid running through upwind hedge. No overshoot field was available.
95	Std Cirrus	1743	S	15.6.85 16.45	Huntly	46	N	1500	Deteriorating weather caused pilot to get too low over unsuitable terrain. Too low to go elsewhere he was faced with landing in a field with substantial slope. Approached to land diagonally uphill. At round out he tried to parallel the slope but misjudged it. Wingtip touched, groundlooped, fuselage broken – possibly during short ground run backwards.
96	K-6CR	2674	M	6.7.85 15.30	Weston-Super-Mare	55	N	35	Pilot found himself low whilst attempting to ridge soar. Could not reach A/F. Landed in crop causing damage to tail area of glider. Inexperienced pilot not briefed for flight.
97	Kestrel 20	1685	S	28.6.85 14.00	Horspath, Nr Oxford	30	N	235	Cross-country pilot selected field and commenced circuit at 1000ft. Approach was made with full flap and variable brake. Pilot selected tail 'chute deployed to shorten ground run. Right wingtip touched and glider groundlooped 180°, tail falling first and breaking fuselage and elevator, then nose struck cracking canopy. Tail 'chute had failed to deploy.
98	Jantar	2088	M	4.7.85 16.00	Readmire, Yorkshire	36	N	142	Glider ran into tree at far boundary of field during field landing.
99	Mosquito	2321	M	14.7.85 17.00	North Hill	25	N	570	After a long ground run glider became airborne with low airspeed. A stop was called at the launch point as parachute appeared to be going over wing. Launch was abandoned at 30-50ft but glider failed to round out causing damage to U/C.

DERRICK RODDIE

TWO-SEATER 'NATIONALS'

Have you noticed how all the best gliding club bar stories are about retrieves? Well I don't think this is necessarily because they are the funniest or most exciting events, but because they are shared between a number of people. The pilot can unfortunately only revel in his lonesome struggle with nature, without ever being able to fully share the moments of true elation and despair (yes we have those too!). That is unless he flies a two-seater.

At the Wolds GC we have something of a tradition of flying two-seaters cross-country, be it in task weeks, competition Enterprise or Regionals (is the Northerns ever quite the same without a Pocklington K-7?). We know then the joy of being able to share the exhilaration of a successful cross-country and also the more usual "how we nearly did it" feeling, as well as the retrieve.

Another aspect is the value of these flights to early solo and Bronze C pilots, particularly in a competition which is a quantum leap from their usual club flying. It's also great fun and the team spirit which comes from having the entire crew involved in the flying just has to be experienced.

So a two-seater team has a load of laughs; imagine then what a gaggle of two-seater teams thrown together on one airfield can come up with? This was our view at Pocklington and why we are launching the first "Nationals" Two-Seater Competition, to be held from August 11-15 on our site. By limiting the entry to 15 teams flying only K-7s, K-10s and K-13s we will save the problem of handicapping and may satisfy those people who hanker after an Olympic Standard Class competition.

The reason for choosing five week days is so that those hiring club gliders won't deprive their members of a two-seater at the weekend. However, depending on the response this year, we may consider extending our next competition to seven or even nine days. As our chairman, Les Cooper says: "It's very much a case of 'let's suck it and see' for the first year."

What about the competitors though? Well as long as the P1 is an instructor or cross-country flying passenger carrier at their own site, then they're welcome to enter. We aren't bothered how you organise your teams; same two flying each day, constantly changing the P1 and P2 or even two Nationals Champions laying their reputations on the line – it's completely up to you.

The competition will be run along fairly orthodox lines with briefing, task setting, start/finish lines and TP photography, but you must be prepared to enjoy yourselves. That's another good thing about two-seaters, even if you lose you can still have as much fun as anyone else – believe me, I know!

For further details please write to Les Cooper, Wolds Gliding Club, The Airfield, Pocklington, E. Yorks, or phone him on 07592 3579. Alternatively you can contact me on 0757 707326 most evenings.

HANG GLIDERS

The pilots of hang gliders are human, too, and have a perfect right to be sharing the air with us. As with all other aviators they deserve polite consideration. Even though you may disagree with these statements their presence has to be reckoned with, and there is no point in courting the disaster of a collision. The problems are most acute where gliders and hang gliders share a hill site and soar together on a ridge. In order to minimise the risk of collision it helps to consider the nature of their mounts and how this affects the pattern of their flight. Now that most glider pilots fly glass ships, the contrast in performance with hang gliders is very marked and it may be hard for glider pilots, especially those reared on glass, to appreciate this.

The modern hang glider has a stalling speed of about 16mph with a cruise of about 22mph. It will be hill soared in winds of from 14 to 30mph, 20 – 25 being favoured. So hang glider pilots like the same conditions as us glider pilots. If they are flying at 22mph in a wind of 22mph then their ground speed will be zero. With the bar held hard in, the max speed will be around 35mph which means that if they do try to move forward their ground speed will be no more than 13mph. Such a high airspeed, however, is accompanied by a very high rate of descent (the glide angle at normal cruise is about 12:1 and penetration at higher speeds is extremely poor). So hang gliders cannot be expected to move forwards out of the way of glider traffic.

If a hang glider meets a thermal while sitting in the hill lift it will ascend almost vertically, often in jumps of 50ft or more. So **never** aim to skim over the top. And remember, too, that the king post of a hang glider, which is not very clearly visible, stands about 4ft above the wing.

If you pass close in front and below, you can take their wind rather as sailing boats can be affected by being passed upwind. This can induce an involuntary dive. So avoid this manoeuvre, too. Remember also that your tailplane may stand 4ft above your head, so the clearance could be less than you think.

With their slow speeds hang gliders can turn in very tight circles, which means that if they find the core of a thermal they can climb at a very high rate. The view downwards from a hang glider is uninterrupted. But the view upwards and to the rear is masked by the kite. This means that the hang glider pilot cannot be expected to see other aircraft above and to the rear. Since glider pilots cannot see down through the floor of the cockpit, it is possible for the vertical separation to be reduced while the pilots of both aircraft are oblivious to the presence of the other. Beware.

When hill soaring it is common for hang gliders to push forward in search of thermal lift. This will be a slow process because of the slow forward speed. As height is lost the pilot will usually turn back to the ridge before he reaches the point where he is committed to a bottom landing. When he does this his forward speed will increase dramatically, probably from about 5mph to 30mph. So if you see a hang glider which has pushed forward from the ridge that is not thermalling, be prepared for it to turn sharply to run back into the hill lift. Remember, the pilot probably cannot see you if you are beating along the ridge above and behind him.

Ref. No.	Glider Type	BGA No.	Damage	Date Time	Place	Pilot/Crew Age	Pilot/Crew Injury	Pilot/Crew Pl/Hrs	Summary
100	K-13	1457	M	12.7.85 17.00	Lee Farm, P1 Patching P2	47 58	N N	663 60	Practice field landing being made by P2 who approached too fast and too high. Touch-down was made well into field. P1 (who should have taken over earlier) was forced to groundloop. Wingtip hit fence.
101	Astir CS	2144	M	2.7.85 18.05	¼m E of Weston on the Green	34	N	174	On fast final glide pilot experienced high frequency vibration, most noticeably through rudder pedals, accompanied by droning noise and rapid variation in pitch, these ceasing when speed was reduced to 80kt. After normal landing, inspection revealed excessive slack in tailplane and cracking in gel-coat at base of fin, not present at DI. Thought possibly resulting from an earlier groundloop.
102	Sport Vega	2792	S	20.7.85 14.30	Woodford	40	N	41	During ground-run on a winch launch the starboard wingtip of glider touched the ground and glider groundlooped just as flying speed reached. Pilot released and glider cartwheeled about tip to land heavily on nose, coming to rest facing launch point and 75yds from it.
103	PIK 20E	G-POPE	M	14.6.85 10.00	Bidford A/F	55	N	624	Motor glider on take-off suffered momentary loss of power. Pilot abandoned take-off and landed straight ahead. A/C over-ran into standing corn at end of runway and a groundloop ensued.
104	Astir CS77	2391	S	19.7.85 14.40	Long Mynd	20	N	23	Pilot returning from second flight on type made the approach at 65kt. Glider bounced on landing before touching down again and running on into rough grass and bracken. Wingtip dug in and A/C groundlooped sharply through 90°
105	K-8	1451	W/O	20.7.85	Long Mynd	45	N	65	Prior to catapult launch airbrakes were held open to operate wheelbrake. Pilot closed brakes for launch, but immediately after launch they were seen open. Pilot discovered this only when he had decided on a field landing. Brakes were closed in an attempt to clear trees, but tailplane caught tree and glider brought down into trees. (Holding on wheelbrake is only acceptable practice when not attached to airbrakes. Once upon a time we lay down in the mud to hold the tail skid – AKM)
106	Ventus	2853	N	2.7.85 12.30	Lasham	65	N	1500	Pilot of glider allowed his aircraft to get very high during early part of aerotow. Tug pilot was forced to release glider. Both A/C landed safely.
107	Astir CS77		M	30.5.85 15.00	Aston Down	55	N	27	After satisfactory touch-down minor wing damage caused by groundloop whilst steering on runway unfamiliar to pilot.
108	K-8	2830	S	2.7.85 13.09	Daglingworth	40	N	25	Approach was made too fast and a deliberate groundloop was made to avoid hitting woods at the end of the field. (Pilots first solo field landing.)
109	SF-27	2515	S	23.7.85 15.00	½m NW Tarlton, Glos.	28	N	60	Pilot rounded out too high during field landing, stalled in and groundlooped.
110	K-21	AGA 11	M	7.7.85 12.30	RAF OdihamP1 P2	33 35	N N	980 65	P1 failed to take over in time after failed winch launch at 25-30ft and a heavy landing resulted.
111	K-6CR	2476	W/O	21.7.85 13.00	Tydd St Marty, 5m N of Wisbech	58	M	15½+	Pilot on cross-country met with poor lift and at 1000ft selected a small playing-field ½ mile away. Approach was over houses and trees. Port wing struck a tall tree. Glider, wing entangled, was swung round tree before falling vertically onto nose, pulling 10ft section from top of tree.
112	Bocian 1E	2034	S	14.7.85 10.34	Keevil P1 P2	59 40	N N	709 0	Sudden increase in wind speed due to nearby storm caused pilot to be too low and too slow for conditions during approach. An attempt to dive then pull up over hedge failed when port wing struck the remains of a dead tree in hedge. Glider dropped about 10ft to the ground rotating to the left.
113	K-18	2150	M	15.7.85 15.30	Lambourne	25	N	94	During field landing pilot noticed steep downhill slope at far end of field. Attempted to turn onto a diagonal course but groundlooped.
114	LS-4	3109	M	17.7.85 15.15	Thurleigh	38	N	1100	Pilot misjudged height for field landing. Sink on downwind leg eroded already reduced margins. Starboard wing touched corn whilst turning finals. Groundlooped into standing crop.
115	Mosquito B	2382	S	27.7.85 16.30	Dunchurch	32	N	420	Pilot on cross-country selected a grass field and made a normal approach and landing with a gentle slope across his landing path from right to left. Right wing dropped onto slope and glider ground-looped, damaging fuselage and tailplane.
116	K-13	1746	M	11.7.85 17.00	Long Mynd P1 P2	51 37	N N	1250 54	Early solo pilot was flying dual because of strong winds. Circuit and approach were satisfactory. Sheep were seen ahead during approach but it was considered by P1 that landing run would be completed before reaching them. On breasting slope sheep appeared much nearer and airbrake struck one, damaging airbrake.

S=serious; W/O=write-off; M=minor; N=nil.

YOUR LETTERS

PERHAPS MORE 00s THAN YOU THOUGHT

Dear Editor,

In the last issue, p294, Doug Edwards reported difficulty in unearthing official observers when needed. Let us analyse his problem. There are currently 1600 00s appointed by the BGA, which is equivalent to about one member in six, or about one 00/glider. Indeed at Doug's own club, Booker, there are theoretically 69 00s in a membership of approximately 400 (again about one in six).

Whilst it is not BGA policy to limit the number of 00s (preferring instead to leave the initiative with individual clubs to request appointment of the number they feel they need), it is however not desirable to dilute the status too much, for generally the best 00s are those who perform the function most frequently.

Doug's suggestions regarding the appointment and conduct of observers merit consideration, although every instructor or Silver C pilot does not necessarily make a good 00, who ideally is a patient, reliable and conscientious person not already encumbered by the pressure of instructing duties or other organising work.

The immediate solution to any difficulty in finding an 00 is for clubs to review the names and numbers they need, then publicise the list of their 00s on the club notice-board and in club newsletters, so that members can at least know whom they are seeking.

GORDON CAMP, FAI certificates officer

APPRECIATION OF OUR NEW LOOK

Dear Editor,

I had intended writing to express my disappointment with the cover photograph of the October issue as I always look forward to removing the magazine from its plain brown wrapper and seeing a superb photo of a glider, but I never got around to writing my complaint.

But this month I must write!!

– A superb cover photo.
– A greatly improved layout and appearance inside.
– A brilliant centrespread colour photo of a beautiful glider in splendid flight.

Great. And let's have more of the same.

VICTOR CARD, *Monmouth, Gwent.*

TRY A BGA COURSE

Dear Editor,

May I add a belated postscript to Brenda Snook's article in the August issue, p165.

Last summer, I was organised by enthusiastic friends on to one of the BGA's courses, and as an indifferent pilot with no competition ambitions, who hadn't read the large, let alone the small, print, I was horrified to find, on arrival at Husbands Bosworth, that we were in the hands of the national coaches, no less! If I hadn't already paid, (my middle name is Macdonald) I would have quietly towed my appendage and self away; as it was (and the weather was foul throughout) I stayed on – for a thoroughly stimulating and entirely enjoyable week.

Far more lectures than envisaged, of course, because of the rain, but spiced with John Williamson's reminiscences and Ken Stewart's anecdotes, and the excellent use of slides and video, one grasped, in spite of oneself, obvious, and less obvious, points on very many aspects of gliding. At the first hint of a dry interval we were out and up, and though I may never differentiate between "tilt" and "lift", my flights with John were exhilarating ventures into new aerial pastures – cloud flying, small field landing, and cross-country speed flying.

We were a mixed bunch, but youthful keen-eyed ace or over-relaxed oldie, no one was left out or made to look silly, and there was something – in fact as much as each could assimilate – for all of us.

So, for a first class holiday, providing new ideas, companions, horizons and pubs, whatever your age, experience or aspirations, get out your diary, and write off **now!**

JOANNA DANNATT, *Cambridge*

MIDLAND GC's WINCH

Dear Editor,

As the operator of a retrieve winch system over many years, perhaps I am as biased towards it as John Jeffries (see the last issue, p295) may be towards the van Gelder winch, for which he is the agent, or for similar reasons, Gordon Peters towards the Supercat. Bob Rodwell (October issue, p224) has justifiably championed our system having used it – and he probably knows, as the annual statistics show, that around 11 000 winch launches take place here on single 3.8mm stranded cables, each of which accomplishes 3-4000 launches of 1800-2000ft with very few breaks. K-8 launches in still air at summer/winter temperatures from 3300ft of cable are regularly achieved.

Equally regularly achieved, without any special prior organisation apart from pilots being ready, is a launch rate of 20+/hr, though this has been exceeded for task launches by an athletic and orderly ground crew. During one of our open days, I'm assured by none less than our chairman, gliders timed over a significant period were departing to at least 1000ft every 1½min. This would doubtless be acceptable at the Dutch Nationals, as long as they didn't mind launching on grass, and it would have the possible additional advantage over multidrum launching of a regular interval between each launch rather than rapid bursts of six followed by a longer interval.

The lightweight and uncomplicated launching winches at this site are powered by high performance petrol engines running on propane at the equivalent cost of red Diesel. Coupled to a standard automatic transmission and torque converter they are capable of rapidly lifting a glider through the wind gradient after a very short ground run, with the climbing sector of the launch then optimised for given conditions by a rapid response to the varying power requirements during that sector which *only* a petrol engine will allow. No cable parachute is needed in the cable system, since the descent of the cable catenary is sufficiently retarded by the thin retrieve wire "gossamer", and is generally well on the way back to the launch point before landing. Our launching winches are driven exclusively by professionals for club and course flying throughout the whole year.

Comprised in the above paragraph are some of the mechanical and operational factors that essentially influence the success of retrieve winching and which, apart from the obvious one of a sufficiently unobstructed and unabrasive site, may help answer any "puzzlement" as to why the method is not adopted by more clubs, in a way that could well bear closer examination than John seems prepared to acknowledge in his letter.

PETER SALISBURY, *chief winch driver, Midland GC.*

MORE ON WINCHES

Dear Editor,

In the last issue John Jeffries takes issue with Bob Rodwell for overlooking one word in his advert but permits himself a dig after barely glancing at mine which simply invited everyone to North Hill. Plugging the virtues of Supercat produced the calculated flow of visitors but the "lateral thinking" lead to confusion of identity and has been abandoned.

JJ need have no fears that my words will persuade anyone to buy a Supercat without considering the claims of van Gelder, Tost or the homebuild just as the Devon & Somerset GC carefully weighed the evidence before deciding.

Our old winch will go on for years just doubling at peak times. The RAFGSA use a stack of single-drum winches and Derby & Lancs announce their third two-drum winch, so most clubs avoid having all their eggs in one basket and grow by addition.

My other assailant Alan Sands, (October issue, p225) has more justification when he rapped my knuckles for leaving the launch costs out of my article. This should only have been 20p on the old winch for fuel, wire and maintenance, the capital having been cleared long ago.

The new winch presents interesting variations on the calculation. The capital repayments dominate the sum and these are most dramatically influenced by the the number of launches/year.

One new club plane would do more flights than one private owner. Shifting the ratio of club to POs towards the German level would release a lot of poorly utilised capital allowing members to fly more frequently. More launches would equal lower capital cost/launch and dare I suggest a more profitable club?

I rest my case (I promise).

GORDON PETERS, *Wellington, Somerset*

BGA ties in navy or maroon are available from the BGA Sales Dept at £3.55 including p&p.

SPECTRUM 900

Dear Editor,

A new fibre called Spectrum 900 has been developed by DSM Chemicals, St Antonius Plein, 21, 6129 Ev Urmond, Netherlands. It is twice as strong as carbon fibre and has the same stiffness (modulus). Strangly enough it is a form of polythene so it may well be cheap to produce eventually. It is light enough to float and has a softening point about 90°C so you won't be able to boil your golf clubs.

Plants are coming on stream to produce it this year in Japan, USA and Europe. When that happens you can chuck away your glass or carbon gliders as they won't be worth anything!
BRENNIG JAMES, *Marlow, Bucks.*

THE HARD WAY

Dear Editor,

The glider trailer was obvious on the hard shoulder: the raised bonnet looked rather sad. I managed to leave the fast lane, and reversed back. Real trouble was obvious from the air filter nestling on top of a pile of components at the roadside. Anyone who can not only peer into a car by the side of the road but also actually *do* something useful impresses me. The story unfolded gradually. The car, necessarily large to tow a glass ship, had been bought only days before. Uneven running had necessitated a call to a garage where he had changed most of the fuses which had blown, and the points.

Repeated loss of all power had suggested a fuel fault hence the carburettor being dismantled. I offered to send for help as he seemed to be alone. "I do not think that there is any help I can get especially this weekend". Oh, of course, the Bank Holiday.

The vibration of the uneven running had also shaken loose the exhaust system which was hanging down and which would require complete removal before any further travel. Straightening up after surveying this latest revelation I realised that inside the car was a wife, a child and a dog. What impressed me most was the total lack of panic or stress. With my family this chapter of disaster would have needed all the emergency services in the county. Here he was so unbelievably cheerful. In the face of so much competence I could offer only the assistance of my nearby club, and leave him to it.

You have to be tough and resourceful to glide, but fortunately not often to this extent. If the pilot recognises himself I would like him to know that he has my admiration. I do hope he had some good flights that weekend. He deserved them.
A. MURRAY WILSON, *Sheffield*

So You Have Problems . . .

The BGA Development Committee are compiling a number of brochures covering the various aspects of running a gliding club.

To date three of these have been completed. If you are a chairman or new committee member of a new club and are wondering what on earth has hit you, then you need to get a copy of **Starting a Gliding Club.** This little booklet starts off with site criteria and site management and moves on through marketing, watching your own statistics, club management and concludes with a section covering basic club accounts and financial management. It's free and won't be any good at all to Booker, but is just the job if you are trying to start a gliding club the hard way.

You will need more members

Assuming that you have been through this stage you will need to start developing your club and the first thing you will need are more members. All clubs need to cover their annual wastage and many have problems that a little local public relations won't do any harm at all. What you need is Nikki Campbell's brochure on **Public Relations and Publicity.** I don't mean to keep getting at Booker but Nikki Campbell flies from there so they probably won't need this either! However most other clubs are not so well blessed and most club secretaries and chairmen should read it!

The popular theme these days is site purchase. Many clubs have already grasped this nettle and successfully pulled it off, but others are in the throes of it or believe they could never afford it. **Financial Help for Gliding Clubs** covers all the aspects of fund raising. It tells you where to get help, how to organise debentures and loan funds yourself, the addresses of all the various bodies you will need to contact and what is available from The Sports Council in cash or literature. This is a useful brochure be it a gliding site, a glider or a canteen refrigerator you are struggling to buy.

More of such gems are coming but these titles are available from the BGA office. The next brochure, to be available soon, aims at showing how other clubs pulled off site purchases and should be followed by a **Guide to Insurance.** If there is any other subject you think requires covering in such a way (by pooling all the experience gained by the other clubs that have passed that way), then ask and the Development Committee will try to do something about it.
JOHN HOLLAND, *BGA Development Committee chairman*

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CLUB NEWS

Copy and photographs for the April-May issue of S&G should be sent to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, telephone 0223 247725, to arrive not later than February 11 and for the June- July issue to arrive not later than April 8.

GILLIAN BRYCE-SMITH
November 28, 1985

ANGUS (Arbroath)

Our club ladder, introduced two years' ago under the supervision of Ally Eddie and Les Horribine, is very popular with 1st and 2nd places closely fought between R. Smith and M. Davies.

Ron Smith has completed his Bronze C and won the Martin Davies' bottle of Champagne trophy.

Our recent batch of new solo pilots are having winch training. The fancy dress dance was very successful.
B.J.M.

BANNERDOWN (RAF Hullavington)

We held a very successful *ab-initio* week at the end of October giving us five solos with two more at the weekend. Congratulations to Rachel Barnes, Mark Pountney, Steve Rayfield, Haydn Ratcliffe, Huw Thomas, Steve Hodge and Nick Annis.

Mel Dawson gained Gold height at Talgarth to complete his Gold C and, with John Joiner, has gained a MGPPL.

Congratulations also to Brian Logan and Alan Quartly on becoming full Cat instructors.
V.R.D.

BICESTER (RAFGSA Centre)

The Aboyne expedition returned with a Diamond height for Mary Charlotte-Green and Gold heights for Pauline Day, Mossie Williams and Martyn Spalding.

Max Bishop has taken over as chairman from Jack Alcock, whom we thank for all his work.

Congratulations to E. Wooler, G. Taylor and M. Hayes on going solo.
S. & J.

BLACK MOUNTAINS (Talgarth)

October was marked by a lot of unsoarable anticyclonic gloom but we had frequent blue days when strong easterlies whipped up some spectacular wave. Expeditions from Hullavington, Oxford, East Sussex and Lasham enjoyed their soaring and their height claims included two Diamonds and three Golds.

November saw a return of more unstable conditions. Pete Johnson led a group from Dunstable who soared six out of seven days, with extensive ridge runs to the Beacons and two wave days included.
W.D.M.

BORDERS (Milfield)

The weather badly curtailed summer flying. The Super Cub is having a complete engine overhaul which has put a strain on finances already stretched by plans for a new hangar on the Galewood site.

We have a tug on loan from Booker, delivered and flown by Mike Munday, as well as the BGA Twin Astir for our autumn courses.

Ewan Cameron had the honour of landing the first glider on our new site during the summer.
T.P.

CHANNEL (Waldershare Park, Nr Dover)

Now that plans are being drawn up for a long lease at the Park we are hoping to have a proper clubhouse. Tony Goodman has recovered and is back instructing.

During the winter we have a number of two-day training courses on Thursdays and Fridays using the Motor Falke for advanced exercises and cross-country preparation for the season. Anyone is welcome to join us.

Congratulations to Dave Jones, Jim Edwards, George Grist, Alan Charman and Steven Fysh on going solo.
L.S.

CHILTERNS (RAF Halton)

Our recent intensive course was a huge success giving maximum training on thermal and ridge soaring. Congratulations to John Hart on going solo after 25 launches and to the hard-working instructors, John, Les and Oscar.

While the Portmoak expedition didn't have the kindest of conditions, it was enjoyable with wave on two days and ridge lift experience. We thank the Fenlands GC for the loan of their aircraft and Terry Lacey for all his hard labour.

We have an increased membership and a good atmosphere with the anticipation of good ridge soaring this winter.
T.S.

CLEVELANDS (RAF Dishforth)

The main talking point at the AGM was the lack of gliding weather. Despite that pots collected by Steve Ollander, Colin Walker and others were well deserved. There was a welcome first solo by Keith Hopping, our keenest Army *ab-initio* for years.

We have just about finished our hangar improvements and given the bunkhouse an efficient heating system.
P.W.

CRANFIELD (Cranfield Airfield)

Congratulations to Joe Connelly on going solo. On September 21-22 we participated in the British Women Pilots' Association's annual meeting, giving many their first glider flight.

A new Skylark 3F syndicate has been formed by Mark Burton, Ray Marriott and Robin Whitfield.

Soaring continued until the first weekend in November.
P.J.W.

DARTMOOR (Brentor)

Our treasurer, John Bolt, has gone solo and his son Steve has reached the standard but is too young. We were delighted when Brian Cordier, a very loyal member who was severely disabled in a hang gliding accident a few years ago, went solo in the K-7.

Our practice of inviting groups for air experience flights is producing a steady flow of new members. Westward TV made a film of the deaf school pupils flying with us, which was shown twice on Remembrance Sunday.

We had a very happy autumn with glorious flying weather, one of the lighter moments being when the hunt arrived. With sheep at one end of the common and steers at the other, two foxes whizzed across in front of the winch. In spite of all this, we managed over 40 launches with two gliders on the hunt day.

We had a splendid barbecue in September and for the winter have a full programme of outdoor work, including levelling the EW runway, making a NS runway and erecting a hangar which will look surprisingly like an agricultural building, as well as lectures and meetings.
F.J.M.

DEVON & SOMERSET (North Hill)

Sharon Binns, Guy Adams and Dave Farmer have gone solo. Ron Jones had his Bronze C and imported a K-18 to the site. Several members are working for their PPLs and the syndicate Motor Falke is increasingly in demand.

Developments since July: purchase of the on-site YS-53; tug hangar, doorless but operational; planning permission granted for site extension – credit; Astir out of commission awaiting mandatory mods for four months – debit.

Friends from Weston-super-Mare and Usk joined us again for the August task week. Strong winds limited our tasks but to compensate Ian Mitchell (Eagle) aerotowed to the Quantocks each day, enjoying several hours' soaring with some beats out to sea beyond Dunster. On the second day he was joined by a K-13 and the Motor Falke. On the Thursday, Mendip's Phil Hogarth (Skylark 4) took the only areotow and disappeared downwind. Phil won the week with Ian Mitchell runner-up, in spite of damaging the Eagle in a groundloop.

Air experience evenings have gone well, particularly a most satisfying evening for a group of disabled.

Don't forget, Competition Enterprise 1986 is back at North Hill.
I.D.K.

EAST SUSSEX (Ringmer)

While 1985 wasn't a good season the enthusiasm following the purchase of our site has ensured a continuing growth in membership. While we are not well off financially, all members are contributing with both cash and their skills to keep us in the black and run the club.

The new Tost winch has given exceptional launches with CFI, Fred Bishop, claiming the record at 2000ft plus in the club K-8. It also

ensured we carried on flying when the Piper Cub engine cut out on a flight to Challock by our tugmaster, Hugh Grenham, and deputy CFI, Joe Batchelor. The final glide back to the field demonstrated Hugh's field selection skill and final glide techiques. The tug is now back in business.

Our air experience evenings have proved a great success and, combined with the weekly courses run by Ian Smith, provided much needed income.

There have been several visits to Talgarth to sample the exceptional conditions and hospitality at the Black Mountains GC.

With all the hard work badge attempts have been restricted but congratulations to Ron Speer (Gold height), Mike Kitson and Godfrey Herrin (Silver Cs), Mark Hampton and Brian Woods (Silver height) and Cliff Kindell and Mike Pierpoint (Silver distance). Godfrey Herrin's Silver C was a just reward for all his hard work rebuilding the Skylark trailer.
J.S.

HAMBLETONS (RAF Dishforth)

The end of summer brought improved weather and an influx of new members, many from Leeds University.

The first snow coincided with a pleasant evening with our American friends at Menwith Hill – our thanks to Bill Jaques, the organiser, for a much appreciated event.

We are working on the hangar and hope to have heating in the clubrooms for the winter.
J.P.

HIGHLAND (Dallachy)

1985 has been another record year with 3474 launches compared with 3001 in 1984. In spite of the wet summer we had four successful courses, a record number of air experience flights and membership is thriving.

Congratulations to new solo pilots Bobby Smith (Ailsa GC), Phil Penrose, Howard Bell, Mike Bowley, Bill McDonald and Robert Tait who went solo on his 16th birthday.

Bronze Cs were completed by Tony Kane and Steve Young who also gained Silver heights and their 5hrs with Silver Cs for Stuart Youngson and Robyn Smith, Robyn also gaining Gold height and the year's club duration of 6hrs 30min. In July Bill Hill and Hendry Dyce took our Bocian to 11 000ft.

In June Gerry Robson flew the Skylark after an 18 month rebuild and Trevor Armstrong (Kestrel) completed a 310km triangle in 3hrs 11mins, the first 300km from Dallachy.

After two years as CFI, Trevor has temporarily left us to work in Sarawak. We wish him well and welcome Angela Veitch as our new CFI.
G.A.

INKPEN (Thruxton Airfield)

This autumn we investigated the possibility of merging with the power flying club who share our site with the hope of giving us more facilities, particularly on the social side. But it came to nothing. However we are completing some previously planned and urgently needed changes to the club organisation which should improve our financial structure and make future operations more efficient.

Pat Hudson starts the new season as our CFI with David Williams as course instructor. Clive Swain joins the instructors and Ray Godwin, Mel Ireland, Ken Summers and Terry Baulk have passenger ratings.

Congratulations to Ray Godwin and Jim Nipe on their Silver Cs.
I.D.

KENT (Challock)

The annual excursion to Aboyne was most successful with Diamond heights for Glyn Richards, Alan Garside and Ray Smith and Gold heights for Mike Sesseman and Geoff and Ann Johnson.

The annual dinner-dance was a huge success with Ben and Trish Watson as guests. Our thanks to Ben, BGA chairman, for his amusing talk on "behind the scenes" at the World Championships.

We are servicing the winches under the supervision of Jim Lambert and Richard Brown who deserve thanks for all their work.
J.W.

MIDLAND (Long Mynd)

At our AGM in November all our officers were re-elected including Paul Davies who took over as treasurer a few weeks previously after the resignation of Dave Woolf. Our thanks to Dave for all his work. As Paul manages the financial affairs of pop group UB40, we are pleased to have him looking after our finances.

We also have a new CFI, Phil King, Chris Alldis having retired after four years during which he did a tremendous amount of work and established our glass two-seater fleet.

Despite an overall impression of poor weather during 1985, there were 24 flying days in August of which 23 were soarable. On one, during the combined task week and Vintage Glider Club rally, we flew 143hrs – believed to be a club record for a single day.

With "Tuggy" Bradley continuing to lead a programme of airfield surface improvements, we can now operate in all wind directions.
N.B.

Obituary – Tony Spicer

In the autumn we were saddened to learn of Tony's death after a short illness. Tony had been a member for over 30 years. He was our clubhouse manager from 1976 to 1983 during which period he contributed much to the well being of members and visitors alike.

Tony retained a quiet but great enthusiasm for gliding – a sport which he loved.
Neil Backes

NORFOLK (Tibenham Airfield)

The August task week was a washout with few flying days and little cross-country flying, but we had excellent soaring during the Indian summer in October.

The end of the season party was a great success and our Inter-League Club pilots enjoyed the final. Tony Walsh has replaced his Mosquito with a tipped ASW-20.
B.S.

NORTHUMBRIA (Currock Hill)

Rob Thompson did an excellent job organising the dinner-dance and prize giving for the second year. The guest speaker was Alan Shaw, a senior Air Traffic Controller at Newcastle Airport.

George Cuthbertson has his 5hrs and Bruce Grant and Mark Harwood have gone solo, Mark also gaining a Bronze leg. James Morgan's first solo only lasted seconds when he had a cable break – he is still waiting to become a fully fledged solo pilot.

We said a fond farewell and wish success to Dave Mitchell who is going to live in Australia.
S.M.H.

PEGASUS (RAF Gütersloh)

Congratulations to Ian Smith on passing his instructors' course. The expedition to Innsbruck was enjoyable though not productive in badge flights.

We are sad to say goodbye to Pip and Jackie Barley and their son on their posting to the UK. Bob Bickers has taken over as CFI. We welcome M. Owen, our new aircraft member, Dave Scott, Graham Budd, bar member, and Paul Goddard. Dave Scott has taken over as MT member from Richard Hill who has broken his arm.

We now have a tractor to retrieve the cables so our fuel bill has gone down a bit.
R.D.G.H.

SHALBOURNE (Rivar Hill, Nr Hungerford)

The well attended AGM produced a surprising motion to increase the annual subscription. Never mind, at £50pa we still claim to be amongst the lowest priced. We have elected our first president, David Mitchell, MP for North Hampshire. Up to the last shuffle he held an aviation office in the Department of Transport, and he is no stranger to gliding.

Air experience flights are being slotted in at weekends, thanks to new passenger ratings for Rod Harris, Nigel Kent, Dave Maleham and Jonathan Mills.

Financially, we are a bit down on last year due to the weather, but are crashing on with field improvements and loan re-payments. We have a grand bunch of promising *ab-initios* but are short of instructors, so would welcome any assistant or full Cats.

November 10 was the first ridge day for months. Congratulations to Jonathan Mills on Gold height at Talgarth, and to Duncan Powell on going solo. Also to new syndicate members John Garrett (Dart) and Phil Innes (Skylark).
R.S.

SOUTHDOWN (Parham Airfield)

Ian White soloed two days after his 16th birthday on October 23 in an 18min flight off the winch, having waited 3½yrs for the day. He has now completed his Bronze C. Congratulations also to Jane and Steve Turner on completing their Gold Cs at Portmoak.

Although our launches are down this year due to the poor summer, cross-country kilometres are up!

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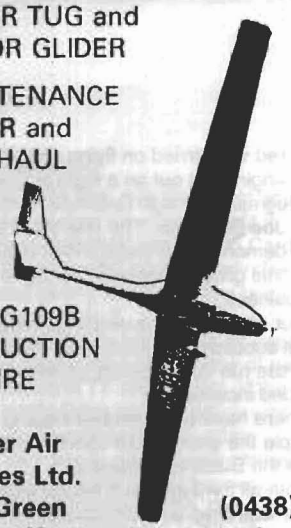
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now exists at the club and if expanded to include local schools etc it could well increase the number of young members coming into gliding, much as they do in Germany.
R.A.W.

STRUBBY (Strubby Airfield)

Although the weather has been poor, we have had more soaring this year due to the almost constant westerly wind keeping our sea breeze at bay.

We have enjoyed aerotowing with the Citabria and hope this will continue. Dave Horton has been flying his 1947 Nord 2000; one of only two (we believe) in the UK.

Congratulations to Andrew Scoffin on going solo, to Tony Welch on his Bronze C, to Bert Barker and John Turney on their 5hrs and to Stuart Bailey on gaining his passenger rating.

Our club fleet consists of two T-21s, a Bocian and a Skylark 2.
N.J.B.

ULSTER (Bellarena)

At the end of November we heard several months' negotiations had been in vain: we had been outbid for our site and the entire farm had been sold *en bloc*. The new owner had yet to show his hand, except to indicate that we can stay for 1986 – during which we can perhaps arrange a secure lease or buy one of several suitable fields in the immediate vicinity. The DoEd grant offer stays good to March 31.

With this year, at least, secure we are confidentally planning a full programme – open day, wave and task weeks, summer courses – and you will be very welcome at any of them.

Despite the wettest summer in more than 140 years' records – an agricultural disaster in NI – and very little cross-country flying, we handsomely overshot the budget figure of 1200 launches and the target of 1400 by logging 1600+. Some pleasnt late-autumn/early-winter weekends helped; on one of them we entertained NIO Minister, Nick Scott, and his wife, who both flew. Most satisfying development of all was the pronounced surge in membership; the November figure of more than 60 being the highest I can recall.

After years of selfless service by Bill Craig – from a 14 year-old schoolboy trainee to 31 year-old retiring CFI – and his wife Mary, herself a solo pilot, we have lost them to job promotion and Cheshire. Some mainland club will reap the benefit but we hope to see them back as visitors. Laurence McKelvie is our new boss and Harry Hanna was the first to go solo under his regime.

To recruit the future Bill Craigs, we have slashed the subscription by more than half for all members under 18 and full-time students under 24.
R.R.R.

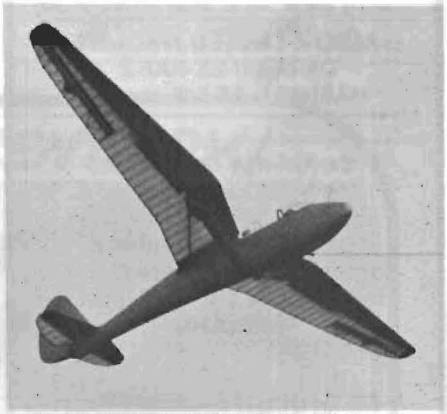
VECTIS (Sandown Airport)

Despite the poor weather we have had an active summer with Ken Taylor gaining his Bronze C and several members making thermal flights of more than an hour, which isn't bad for a coastal site.

We start the winter with a second site for operating our home brew winch and are looking forward to some ridge soaring.

Congratulations to Neil Watts on his instructor's rating.
A.H.B.

VINTAGE



The Harbinger, flown by Geoff Harrison and Austin Wood, which shared the restoration prize. *Photo:* Ian Tunstall.

12 vintage gliders were present at Booker for the end of season rally in September. Alan Yates, guest of honour, gave an entertaining

Ian White of Southdown GC who went solo two days after his 16th birthday.

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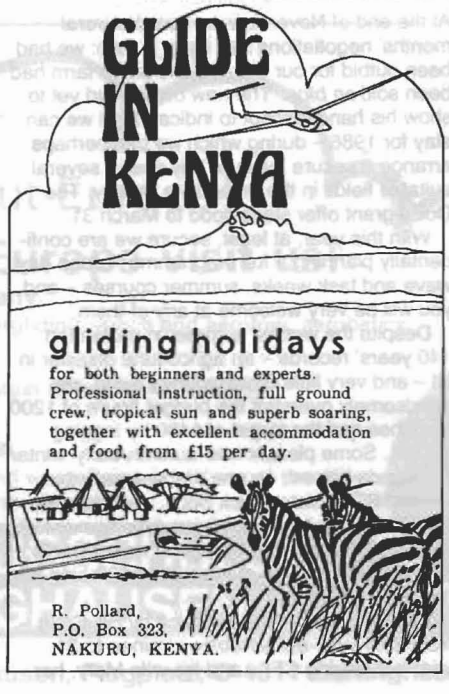
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speech and Sadie Yates presented the following awards: Rodi Morgan trophy (best performance at the Long Mynd rally), Dereck Staff (Olympia 2) for a straight line 75km; Frank Reeks' trophy (best turned out Grunau Baby), Terry Stevens with restoration prizes to Adam Downham (Slingsby Prefect), Geoff Harrison and Austin Wood (Harbinger) and Paul Serries and Rainer Willeke, (the Munster Old Timer Club owned Minimoa), two German members who were unable to be present.

Our thanks to Booker for hosting the rally and organising the magnificant buffet.

The International Rally will be at Lasham from August 3-9. For further details contact the Vintage Glider Club Secretary, c/o Lasham Gliding Society.

I.T.

WEST WALES (Templeton Airfield)

We have had an encouraging trickle of new members and congratulate Chris Davies on going solo and Alwyn Jenkins on his Silver height and duration.

Due to the indifferent weather, only one distance flight was attempted in 1985 when Graham Passmore gained his Silver distance on the milk run to Llandovery.

The club fleet consists of a T-21, which is being repainted and overhauled, and two K-10s. In case you don't know, a K-10 is a K-7 that has had the wings altered from the original high-wing configuration to the mid-wing position of a K-13, hence K-10! The purpose of this modification was so that the instructor could see at least as much as the pupil.

M.J.G.

WYVERN (RAF Upavon)

Obituary – Barry Perks

Barry has flown with the Army Gliding Association since its early days at Netheravon and with the Wyvern GC since 1979. He has been an enthusiastic, hard working and well loved member of the club. Barry's sane, logical and friendly outlook on life gained him great respect and, with his wife Phillipa, was always to be found working on club equipment or aircraft. One of Barry's main projects was the refurbishment of our bus canteen which was taken over by Phillipa who provided the food and drink to the tired and grateful pilots.

He had been suffering from a form of leukaemia for sometime and knew the result was inevitable. This, however, did not affect him and he gained the full enjoyment life could offer to the very end. He last flew just a year ago.

Barry will be sorely missed by us all. Our sympathy and best wishes go to Phillipa and his family.

H. R. Jarvis

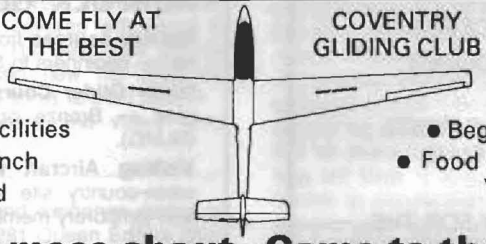
COTSWOLD GLIDING CLUB

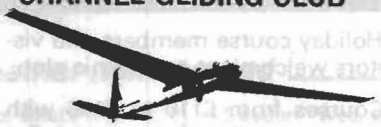
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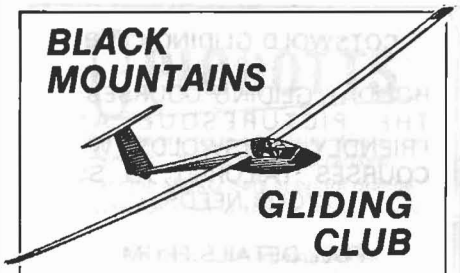
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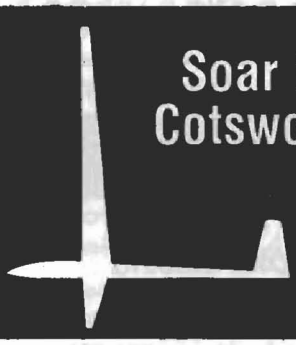
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OVERSEAS NEWS

ITALIAN CHAMPIONSHIPS

D. Peters (LS-6) won the Italian Open Class Nationals with 8436pts and Mantica/Maestri (Janus C) the Two-Seater Class, both held at Rieti from August 15-24 with superb conditions giving nine contest days and tasks averaging 504km for the Open Class and 388km for the Two-Seaters.

A. Pronzati (Venus B) was 2nd in the Open Class with 8152pts and Muzi/De Orleans (Janus C) 3rd with 7993pts. *Details from Smilian Cubic.*

GLIDERS LIFTED BY HELICOPTERS

The High Alpine Gliding Camp at Jungfraujoch (11300ft) in Switzerland from August 27 to September 3 was quite an experience and celebrated the 1935 International Contest held on that site. Chris Wills explained how they stayed in the valley and took the 14 gliders up to the site by helicopter, fixed on a heavy metal frame which looked like a tray. The helicopter could only take one pilot on each trip, the rest going by the mountain train — it was far too steep for roads.

Three pilots in the original contest, Peter Riedel (Germany), Willi Baur (Switzerland) and Alexander Stanojewic (Yugoslavia) all flew as well as Hans Nietlispach and Frederico Blätter, who represented Switzerland in the World Championships, Frederico coming 2nd in the Open and Hans 11th in the Standard Class.

The catapult launches were from a wooden ramp which was often covered with snow to make it more slippery. The best flight was by W. Schwarzenbach who flew his S-18 for 5½hrs and climbed five times to over 3000m.

Chris said the scenery and views were beyond imagination.

Please send news and exchange copies of journals to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, England.

NEW ADJUSTABLE FUSE

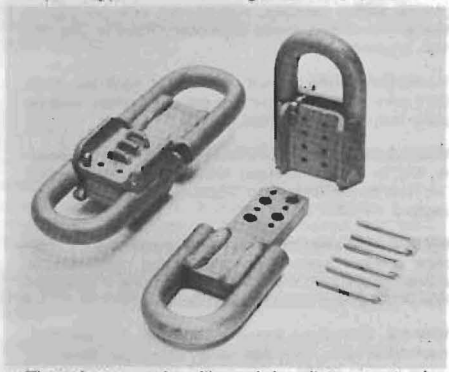
Two ancient aviators occasionally take time off from any otherwise profitable business to make Mity links which, during the past six years have perhaps helped to make glider launching a safer business. Records show that the major clubs are now convinced that the use of 10mm diameter polypropylene rope about 150ft long with an 1100lb fuse at the tug end and 900lb at the glider end gives the best compromise to date for safety, durability and cost.

Elastic systems using nylon and fuses made from knotted string are now used only by those who drive happily on bald tyres.

But problems remain. When Mitys break they are usually lost and we have not so far managed to think up a design to overcome this and still retain the virtues of the original.

And then there is the problem of upending tugs, a constant nagging challenge to those who think and worry about such things.

One bit of good news is that we have solved the inadequacy of Mitys for winching, especially in view of the increased loads recently approved particularly for two-seaters. Fortunately the new links (Mitier – what else?) have been approved by a big Electricity Board for pulling cables so they may even have some sort of commercial future. Mitiers are MIG welded stainless and can be rated as mechanical fuses from 480lbs in 14 steps up to 2500lbs according to how many and which type of staples are fitted. When they break the two ends stick with whatever pulled them apart so, unlike Mitys, they are not so easy to lose. The winchers at HusBos are delighted with two prototypes used during the last six months.



The photograph will explain all to most who have struggled this far but to elucidate, consider what happens if one 480lbs red coded staple is loaded and the ends bent over to secure it. If pulled for ages it is probable that wear will allow one leg of the staple to sheer at slightly less than 480lbs whereupon the link will open out a little until the edge of the larger hole in the "jam" of the sandwich comes into contact with the unused second leg and takes the full 480lb load. Should that be exceeded then it too will shear and the fuse will blow. It is a prime duty of the glider hooker to ensure that all bent staple legs are present (a primary break will allow one bent leg from each staple to become loose or drop away).

Mitiers may be reloaded repeatedly using just a pair of pliers to fit the new staples. Staples may be mixed to give the required rating which has been proved accurate to ±5% in tests to date.

We purposely sell staples very cheaply, currently 10p each, to discourage the use of any old wire. The shear strengths and work hardening properties of wires vary unbelievably and it is essential to use Astley batch tested staples if you are safeguarding anything of value with your Mitiers.

Mike Astley and Tony King

Come gliding in Sweden!

BO HENRIKSSON, who has been instructing at Lasham, makes it sound tempting

What's gliding like in your country? That's a question I've often been asked while working as an instructor at Lasham. Well, here's the answer:

Gliding in Sweden has old roots. The first successful flights took place in the early twenties. It wasn't however until the advent of the war that gliding became a strong movement. The desperate shortage of pilots for the new SAAB-aircraft prompted the government to turn to gliding. No doubt inspired by the Germans, a national centre was established on the top of the hill Ålleberg near the small city of Falköping. The 350 yard grass strip is hardly suited to modern gliders, but Ålleberg is still *the* beloved gliding site and all advanced and instructors' courses are done there.

Sweden is a fairly large, but sparsely populated country. There are about 75 gliding clubs and around 5000 active glider pilots, hence the clubs are small. They are all unsubsidised and non-commercial. The fleet is not unlike the English except we don't have any old airworthy gliders. A Luftfartsverket (our CAA) decree grounded all (yes, all!) gliders permanently in the fifties due to a single glue failure. (Oh, this Government interference in matters they don't understand!) So, Swedish gliding had to start from scratch.

The result was a consequent rebuilding of the fleet with two-seater Bergfalkes, a glider every pilot holds dear to his heart. Private or syndicate ownership is very rare, probably because most clubs are fairly generous to pilots wanting to go cross-country and to fly in Comps. They are, in fact, sometimes rewarded by the club for doing so. There is however a tendency for members to form syndicates outside the club to buy the new lovely Dimona and Grob motor gliders, and the last couple of years have seen a dozen or so of them enter the country.

Weather more settled

So, what's it like to fly in Sweden? Well, the average UK pilot would have no difficulties. You'd find the visibility much better than you're used to, the weather a bit more settled and stable, and the thermals generally slightly stronger (8 to 10kt not unusual). The airspace is relatively uncluttered and cloud flights to altitude normally perfectly feasible. Cross-countries present no unusual problems; farmers are generally friendly and helpful. The nothern parts of the country is noted for its good thermic conditions and for its spectacular outlanding attempts, the area being heavily wooded. The north is however the most beautiful part of the country, and the long drive with the trailer on tow would be well worth the trouble.

Flying, on the whole, is much cheaper than in Britain. Be current on aerotows though because we don't use winch or autotows as aerotows cost approximately half of what they cost here. Should you wish to hire a glider you would probably be agreeably surprised by the cost too. Many clubs would be able to accommodate you cheaply on site. We would however insist upon you wearing a parachute, as this is the law, and radio, although by no means mandatory, might be a good idea. For further details and suggestions on clubs to visit, contact the Swedish BGA equivalent KSAK-S, Box 20081, S-16120 Bromma, Sweden.

CLASSIFIED SECTION

Advertisements, with remittance, should be sent to Cheiron Press Ltd, 7 Amersham Hill, High Wycombe, Bucks. Tel 0494 442423. Rate 35p a word. Minimum £7.00. We can accept black and white photographs at £3.00 extra. Box numbers £2.40 extra. Replies to box numbers should be sent to the same address, the closing date for classified advertisements for the April/May issue is 4th March.

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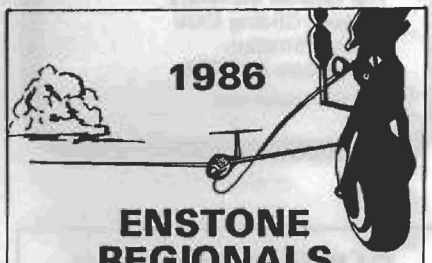
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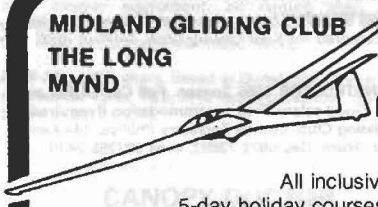
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