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The Blade from Airbourne is the latest high-performance hang glider from Australia. The Blade utilises Defined Flex Technology, developed by AirBorne, to control leading edge flex during varying in-flight loads.

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Merry Christmas!

from the Sky Systems Team

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WINDSOCK

DECEMBER 1994

The Magazine of the Southern Hang Gliding Club

STOP PRESS!!

SATURDAY 7TH JANUARY

Parachute Re-packing Evening

Miss it at your peril!

**THE SOUTHERN
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P.O. BOX 1359
BRIGHTON
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**THE SHGC supports the aims
and ideals of the British Hang
Gliding & Paragliding Assocn.**

Chairman's Letter

Dear All,

For those of you who weren't able to make it, the Christmas do was a great success. Thanks to members Colin and Dee Morley for inviting us to their restaurant, the Pepper Mill at Dial Post which turned out to be ideal. Thanks to Steve Brewer for organising the event, to Mark Turner for organising the trophies and shields and to Lisa Brewer for helping me to give them out. And thanks to everybody who turned up making it a really good Club evening. I am already looking forward to next year's do.

Well, here we are again, approaching the end of the annual cycle - a time for reflection on the year's events. If you're like me, it goes something like this :-

January and February generally spent grabbing any flying opportunities that arise to keep your hand in in readiness for the spring.

March arrives. Anticipation grows - "This year is going to be great - just like the ones we always seem to be looking back on". A couple of good days to whet the appetite,..... expectations build.....and a really naff spell of weather arrives! This is not good for one's temper.

A couple of memorable flights later and its October. Quick, get in some flying while there is still some daylight. But of course, there's another naff spell.

The nights draw in and the Christmas Bash is here. Trophies are liberally distributed to the aces. The year was obviously good for some, maybe their best ever. How do they do it?

Alas, there's no use in brooding over what's been and gone. It's time to look forward and make some resolutions for next year : make more effort to take advantage of flying opportunities, get away on some flying weekends, find the time. Funny, I'm sure that's exactly what I decided last year.

Anyway, Steve Cook reckons next year's going to be a good 'un and I'll drink to that! Let's hope he's right.

Have a great Christmas.

Martin Brady

CLUB COACHES - Updated June 1994

Steve Uzochukwu HG/PG	Maidstone	0622 736219
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Reg Richardson HG	Eastbourne	0323 416366
Ron Richardson HG	Keston	06898 56723
Stewart Swanton PG	Hove	0273 732219
Dave Williamson HG	Brighton	0273 604752
Steve Brewer PG	Henfield	0403 710739
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Steve Cook HG	Littlehampton	0903 725724
Francis Cracknell PG	Isleworth	081 568 4184
Nigel Gibson PG	Feltham	081 890 7476
Harry Greene PG	Orpington	071 482 4927
Chris Jones HG	Ealing	081 579 2830
Dave Keepax HG	Burgess Hill	0444 245233
Dave Matthews HG	Brighton	0273 604752

THE ABOVE COACHES ARE HERE TO GIVE HELP AND ASSISTANCE TO NEW MEMBERS AND THOSE NEW TO OUR SITES - SO USE THEIR EXPERIENCE.

IF THEY ARE NOT READILY IDENTIFIABLE BY A 'CLUB COACH' ARMBAND, ASK SOMEONE ON THE HILL TO POINT THEM OUT TO YOU - THEY ARE THERE SOMEWHERE.

MARSHALLING ROTA

Lest You Forget.....

14/01/95 Edward Knight	0322 270684	0322 272711
14/01/95 Steven Bradley	0293 565461	0273 513177 x 157
14/01/95 Roy Barton	0634 579939	-
15/01/95 Mark Hastings	0234 273512	071 231 4474
15/01/95 Pamela Hughes	0234 273512	071 231 4474
15/01/95 Noel Venn	07372 21023	-
21/01/95 John Hansen	0273 461783	0273 268500
21/01/95 David Funnell	081 641 3283	-
21/01/95 Graham Hutton	0435 830753	-
22/01/95 Peter Banner	0306 884588	-
22/01/95 Tony Shay	0892 667115	-
22/01/95 Jonathan Lewis	081 546 0320	081 890 1111
28/01/95 Bill Blunt	0342 810928	-
28/01/95 Richard Britton	071 431 1661	071 638 1240
28/01/95 Peter Bernon	0903 245447	0903 245447
29/01/95 Bernard Clifford	081 948 5536	071 873 3000 ex 3601
29/01/95 Tim Cox	0273 888113	0273 609925/507794
29/01/95 Francis Cracknell	081 568 4184	-
04/02/95 Harry Greene	071 482 4927	-
04/02/95 James Gurney	0483 768719	0483 740958
04/02/95 John Harmon	0825 890248	071 860 4758
05/02/95 Tony Hobden	0273 721995	0273 203281
05/02/95 Albert Holder	0273 514383	0273 513818
05/02/95 Patrick Houston	081 994 8850	071 621 0011
11/02/95 Colin James	081 399 6278	071 753 5881
11/02/95 Christopher Jones	081 579 2830	0273 528755 ex 2611
11/02/95 Finn Kennedy	0273 858221	-
12/02/95 Andrew Keyte	081 7773495	081 697 9595
12/02/95 Alison Maddock	081 341 3383	-
12/02/95 Philip Maillardet	095992 3742	081 464 1111
18/02/95 Paul Rankin	0293 775021	0293 785544
18/02/95 Howard Rhind	071 585 2445	-
18/02/95 Andy Shaw	081 517 7945	081 593 5217
19/02/95 Steve Uzochukwu	0622 736219	081 827 7700
19/02/95 Peter Whichello	081 546 5619	0483 272121 ex 5537
19/02/95 Peter Butt	081 751 3644	-
25/02/95 Liz Cook	-	-
25/02/95 Gary Cook	-	0273 857700
25/02/95 Stewart Owen	0798 831402	0403 261086
26/02/95 Ron Richardson	06898 56723	06898 51823
26/02/95 Stephen Boalch	0304 374901	0304 361396
26/02/95 Andrew Jackson	081 542 4944	071 939 0267

SWAPS ARE OK - Just plan it in advance.

TELEPHONE other marshalls of the day to make arrangements

To: All Clubs

**THE SOUTH EAST WALES HANG GLIDING & PARAGLIDING CLUB
SPEED GLIDING "OPEN" COMPETITION.**

The SEWHG&PGC is to hold the first ever "Speed Gliding" competition. This event is run in conjunction with Airsports Associates, (the promoters of speed Gliding), and will be run as a "friendly" club competition, using their expertise. If you want to see what this new discipline has to offer, can you afford to miss it?? Similarly, if you are considering entering the real competition later in 95, you simply cannot afford to waste this opportunity to practise.

Primary dates for this competition are the weekend of 7/8 Jan 95, with a fall back weekend, (should the weather prove unfavourable), of the 14/15 Jan 95. In the event of this being unsuitable, a further weekend will be programmed giving competitors sufficient time to rearrange their programmes where possible.

Entry fee for this competition is £10, and entries should be sent to Mr D Sagan, 1 Merthyr Road Abergavenny, GWENT, NP7 5BU Tel: 0873 856333.

Cheques should be made payable SEWHG&PGC.

No entry will be accepted without the entry fee.

All entrants must provide the following information: their BHPA membership number and expiry date, pilot rating, experience (number of hours flown etc), and type of glider.

Entries will be accepted on a first come, first served basis, and this is expected to be heavily oversubscribed. If you are interested in the competing, you are advised to apply as soon as possible to avoid disappointment.

In addition to competing, anyone who wishes to help with the running of this event, marshalling etc should contact the Club Chairman, Mr D Fenwick, Joint Services Hang Gliding & Paragliding Centre, Cwt-Y-Gollen Trg Camp, Crickhowell, POWYS, NP8 1TH Tel: 0874 623111 Ext3260.

Safe flying,

Dave Fenwick.

THE AIRBORNE BLADE

FLIGHT ON THE CUTTING EDGE OF TECHNOLOGY

By Dennis Pagen

To become airborne is to enter a realm where few venture, yet those that do find a freedom of spirit that cannot be conveyed. Thus any company calling itself Airborne garners our instant attention. This company may not be familiar to most of our readers, so let's find out a bit about them before we look at their glider.

Somewhere south of the equator is a large island masquerading as a continent, known as Australia. There the deer jump on their hind legs, the bears smell like eucalyptus cough drops, the clocks spin the opposite way, all the women are blonde, all the men swill beer and hang gliding is a passion. Witness the fact that Australia has 1/15 the US population yet maintains three major hang gliding manufacturers.

The latest company to come out of the land of Oz is Airborne. Three of the principles are brothers: Ricky, Russell and Shane. Russell has been a member of the Australian World Team at various times since the first American Cup meet in 1978. Ricky won the World Championships in Australia in 1988. The last two principles are Rob Hibberd and Paul Mollison. Paul is well-known on the international circuit, for he was meet director of the '88 World Meet as well as many other meets in Australia, is a vice-president of the CIVL and devised the competition scoring system used in most competitions today.

The company started producing ultralight trikes quite some time ago. About three years ago they brought out the Blitz high-performance hang glider and refined it into today's Blade. Their mutual extensive background has served them well. To see how well, we present the Blade.

I brought a stock Blade home from the East Coast Championships in April. On my first flight I floated around for three hours. Very nice. On my second flight I again flew for three hours but I went on a 60-mile cruise. Hmm... what fun! On my third flight I had a 50-mile out-and-back ridge run. This was getting too easy. Subsequent flights were made in rain, gusts and strong thermals. I felt at home in the Blade by then and was ready to handle all of nature's artillery.

Besides these flights of mine, I let others fly the Blade. Their feedback along with the observations I made at the East Coast Championships helped me formulate my ideas about the glider.

WHAT'S NEW

The most notable thing about the Blade that distinguishes it from other gliders is its leading edge construction. The fore part is conventional aluminium, but the outboard section is a tapered fibreglass tube (even though it looks like graphite, it is in actuality black fibreglass). Does this make sense? It does to whomever designed trees, for observe how limbs and trunks taper from the attachment point to the tip. (Do you really want to argue with the designer of trees?)

Ideally, tubes or any structure should be stronger, and therefore larger, in the areas where they take the most load and smaller elsewhere to save weight. In fact, all the tubes should be tapered in various places on a hang glider to provide desirable flex patterns and save weight. Unfortunately, it's difficult to taper aluminium tubing - not so with composite tubes such as graphite or fibreglass.

The Blade takes advantage of composite technology and uses a 54mm to 30mm (2.12 to 1.18

inches) taper on the outboard leading edge. The result is a very tight sail through the root and midspan region with controlled flexibility at the tip. The payoff is in handling and weight savings.

Another Blade innovation is the combined main and backup hang strap. The main comes off the kingpost and the backup comes from the keel. They are sewn together below the keel and form a neat package. The bonuses are that you will never forget to hook into your secondary, there is less drag from the extra strap (often aligned poorly to the breeze) and there is less to foul the uprights when you fold them down during pack-up procedures.

The other item we'll mention in passing is the airfoil. Comparing it to my master of all the high performance gliders of the past several years, I find that it is very close to the TRX airfoil except that it has more camber in the forward 15%. In fact, the Blade's airfoil has a high point that is second only to the Xtralite in forward position. However, the most noticeable thing about this airfoil is that it appears to change about two-thirds out on semi-span. This makes sense if executed properly, for different parts of the wing fly at a different angle of attack range.

THE BLADE FINISH

The Blade looks sharp. It has very nice uprights, fittings and hardware. Various parts, such as the VG jam cleat and the pulleys, come from sailboat technology, but others are derived from the hang gliding realm.

Every year there is a well-organized hang gliding and paragliding trade show known as Induga at Augsburg, Germany. This show takes place in March and most of the latest hang gliding-related products are on display. Glider manufacturers are beginning to make great use of their access to materials through such a show, and Airborne is no exception. The control bar, uprights and corner fittings on the Blade are an example of this. They are the best available (and shared with the Klassic and other European designs) from Germany where they engineer that Mercedes you bought for your girlfriend. The uprights pop out with a detent button for quick removal, and the corner fittings are clean, simple and strong. We repeat: you'll find no more elegant solution to the corner/cable/tubing combination problem on a control bar.

Other parts of the Blade demonstrate an equal interest in finish. Everything seems to work, everything seems to shine, and everything seems to suggest flight.

THE BLADE SYSTEM

Perhaps the most important design feature of a glider other than its pure performance is its setup system. Nowadays almost all gliders opt for the simple, sensible rear pull-back umbrella-type opening. The only differences appear in control bar setup, number of battens to stuff and tip hassles. The Blade shines in all but one respect. The crossbar rear pull-back requires lots of force. In fact, it is on a pulley to give you a mechanical advantage. Even so, it requires a stronger arm than most. However, the rear attachment device is clearly designed so you just have to pull back and down and the shackle clips itself in.

One very sensible Blade feature is the pip pin used to attach the base tube to the corner bracket. This pip pin comes with an acorn keeper that protects the balls from dirt. Such a pin is very reliable and lets the control bar triangle assemble as fast as with a break-down base tube without the added complexity or weight.

The Blade battens go in easily. They are colour coded red and green for left and right respectively, with big plastic tips that look like they come from Mattel. There are four lower surface battens per side and they stay in place after being merely slipped in all the way - a setup curmudgeon's dream.

The reflex bridle compensator is automatically attached and internal so the fore and aft cables are

tight. Ton's of VG travel results in loose side cables, but as usual I take out some of the slack on launch by applying some VG takeup. The VG is very workable, although it takes three big helpings of pull to run it in all the way tight. I like the jam cleat design and placement. This is no small item, for when you're in a virulent thermal on a wing with other gliders slashing by, you don't want to have to look at your VG in order to find it.

The one less-than-perfect matter on the Blade is the tip attachment. To tune a turn out of the glider, you must drill out a pop rivet, twist the tip and put a new one in. In truth, this is a simple and functional system, and it is rare that you ever have to adjust a tip in this manner, but unless you bring a portable drill and a pop rivet gun with you, don't expect to tune the glider.

HANDLING A BLADE

When we speak about Blade handling we must mention the glider sizes. It comes in 153, 141 and 132 square foot formats. The one I flew with my 165-pound naked body was the 141. I know a 190-pound pilot competing on one. These types of wing loadings almost always lead to good handling. I have had reports from other pilots as light as 110-pounds about how they like the handling of this very size. However, I would advise pilots to fly the glider they intend to buy if possible, since it has been found that heavier wing loadings on some smaller gliders actually make handling worse, as the inner leading edge bows up and introduces more overall anhedral.

At any rate, I found that the 141 carried my weight well and handled fine. Its response to a roll input can be enhanced with a slight forward prod on the bar. This is a feature it shares with a few other gliders (the TRX and Desire for example) and should be well understood by prospective buyers. Essentially, when you make a roll control you apply a little quick forward punch with the basetube and the glider responds instantly. This method also works when you're correcting for a lifted wing.

The handling is very sensitive to the amount of VG applied, as with most gliders. With VG full on you'd better make an appointment in advance if you want to turn anytime this week. This is good in the sense that the purpose of a VG is to tighten the glider for fast, straight flight. The only problem arises when a wing gets lifted in the tight mode, which I found would only happen if I was going moderately slowly.

One nice handling feature is pitch bar pressure. With the VG loose the glider has a healthy desire to fly at trim with progressive bar pressure as you pull in more. With the VG strung full-tight the bar pressure is greatly reduced. This feature prevents fatigue during those long fast flights that often occur in desert flying.

I tried spin entries on the Blade. These were performed on the basetube as if I were ham-handling a turn. The glider showed no interest in spinning by surprise and only dropped the inside stalling wing. Recovery was quick and uneventful.

Finally, we mention takeoff and landing in a word: easy. This word is relative, of course, to what you are used to, but the Blade requires flare timing similar to most other gliders (only the Moyes high performance gliders seem to have an expanded flare window).

BLADE PERFORMANCE

I was able to compare the Blade with my local pilot's performance and to watch it under the guidance of such formidable pilots as Tony Barton and Nelson Howe in the East Coast Championships. On the first day of the meet we had a windy ridge race. Tony was right near the top with speed. On the last day of the meet the front gaggle was heading north when we all caught up in the same thermal vying for altitude to cross the valley. We ended up with seven gliders in a daisy chain, nose to tail, at the same level. I recall Nelson Howe breaking away and getting a jump on the rest of us in a nearby pop of lift. We

all joined him in another merry-go-round going the other direction. The point is, Nelson's Blade was keeping him near the top of the pack when the pack included some of the nation's best pilots (as measured by competition performance).

Be that as it may, I would choose a 153 for Eastern-type conditions and a 141 for Western racing given my weight. Wing loading is still a factor in the performance equation. With the smaller one my speed and glide at speed was comparable to the better wings in the sky.

Performance and competition results depend on many things, including luck, so we again urge you to fly and compare before you start shuffling shekels.

So, whether you like to hover or hustle through the sky, get yourself a flight on Airborne's new Blade and ride the cutting edge.

NOTE
ALL BLADES NOW HAVE
A TRIM TIP ADJUSTMENT
WHICH IS NOW VERY
EASY TO USE, TO
TUNE YOUR GLIDER
OUT ON THE HILL

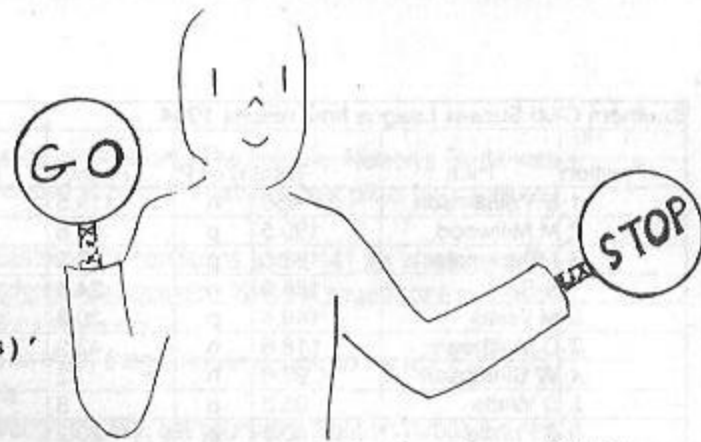
STILL LOOKING FOR
A SCHOOLS LIAISON FOR
OFFICER - TO TAKE UP
POSITION - A.S.A.P.
ANYONE INTERESTED -
CONTACT CLUB SECRETARY

Southern Club Sussex League final results 1994					All Distances in KM					
Position	Pilot	Total	H or P	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6	
1	D Williamson	458	h	119.5	66.2	72.3	128.3	36.8	34.9	
2	M Millwood	189.5	p	40.8	16.6	67.3	46.8	9.1	8.9	
3	I Blackmore	188.5	p	26.5	42.1	43.3	11.6	16	49	
1	S Cook	185.9	h	24.6	51.7	46.6	42.2	20.8		
2	M Watts	149.4	p	20.8	50.7	41.2	12.9	23.8		
3	D Matthews	118.6	h	42.9	42.4	33.3				
4	W Simonsen	99.6	h	22	22	6.8	48.8			
5	D Watts	95.8	p	8	14.8	19.8	15.8	20.3	17.1	
6	S Purdie	40.5	p	20.2	5.3	6.5	8.5			
7	J Carr	30.8	Swift	30.8						
8	R Richardson	26.1	h	26.1						
9	R Carter	24.6	p	24.6						
10	M Stansby	13.6	p	13.6						
11	S Uzochukwu	12.4	p	12.4						
12	I Lewis	6.8	p	6.8						

Southern Club Martini League final notified results 1994					All Distances in KM					
Position	Pilot	Total	H or P	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6	
1	R Carter	519.1	p	101.0	163.9	55.9	46.3	45.9	106.1	
2	D Williamson	458.0	h	119.5	66.2	72.3	128.3	36.8	34.9	
3	W Simonsen	372.2	h	50.0	49.7	81.7	50.1	51.2	89.5	
4	M Millwood	308.7	p	47.6	32.1	74.1	40.8	46.8	67.3	
4	S Cook	291.7	h	24.6	51.7	46.6	70.1	55.5	43.2	
5	M Turner	237.8	p	36.6	32.1	22.8	74.1	25.2	47.0	
6	M Watts	229	p	32.1	50.7	41.2	20.7	49	35.3	
7	I Blackmore	188.5	p	26.5	42.1	43.3	11.6	16	49	
8	D Matthews	158.6	h	42.9	40.0	42.4	33.3			
9	D Watts	95.8	p	8.0	14.8	19.8	15.8	20.3	17.1	
10	M Alien	66.0	p	36.3	29.7					
11	S Purdie	40.5	p	20.2	5.3	6.5	8.5			
12	K Grey	36.4	h	36.4						
13	J Carr	30.8	Swift	30.8						
14	R Richardson	26.1	h	26.1						
15	K Harland	14.1	p	8.8	5.3					
16	M Stansby	13.6	p	13.6						
17	S Uzochukwu	12.4	p	12.4						
18	J Gurney	11.9	p	11.9						
19	S Oliphant	8.8	p	8.8						
20	I Lewis	6.8	p	6.8						

Southern Club Sussex Weekend League final results 1994					All Distances in KM					
Position	Pilot	Total	H or P	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6	
1	D Williamson	350.8	h	119.5	36.8	66.2	128.3			
2	D Matthews	118.6	h	42.9	42.4	33.3				
3	W Simonsen	99.6	h	22	22	6.8	48.8			
1	S Cook	89.8	h	46.6	43.2					
2	M Millwood	57.4	p	40.8	16.6					
3	D Watts	53.2	p	17.1	20.3	15.8				
4	M Watts	50.7	p	50.7						
5	I Lewis	6.8	p	6.8						
6	J Hardiman	4.1	p	4.1						

YOU HAVE READ OF THIS IN SKYWINGS
NOW AN INSIDE STORY ON THE BIG
ONES - AIR MISSES HAVE BEEN IN
THE NEWS AGAIN THIS SUMMER.



The gravity of how "the unthinkable" is discussed by ATCOs was summed up by one Prestwick - based controller. He said: "If I am ever responsible for a disaster I will walk up to the roof and throw myself off", (CANDIDATE FOR CLASS 3 PILOT). Those responsible for "air misses" say the experience leaves them with a feeling of guilt, lowered self-esteem and self-doubt.

Opinions on counselling vary, it should only be done by someone who really understands what the counselled person is suffering. "Whoever is doing the listening must understand the highly-specialised nature and language of the work involved or the exercise is meaningless. While a surgeon has responsibility for one person at a time we are always mindful that those little blips on the screen can represent 2,000 people".

Doug Maclean, chairman of the 180-strong ATCOs northern section based at Prestwick, Ayrshire, said: "In this job the PILOT you are talking to can be alive one moment and dead the next". "This happened to me when the pilot of a twin-engined plane made a mistake in navigation and crashed into a hillside. It was his error but I was left with a feeling of guilt that if I had spotted what he was doing wrong 20 seconds earlier he would be alive today". Maclean, who started his working life as a fire extinguisher salesman, said: "A huge IQ is no help to a controller.

In fact, university graduates can be the hardest to train. The essential ingredients are COMMONSENSE and SELF-CONFIDENCE. The controller's worst enemy is self-doubt".

"It is not a question of shortage of staff. It is a matter of AIR TRAFFIC FLOW. If the skies are not congested we can cope".

He cited the example of two passenger jets which came close to disaster over Tyneside last summer. He said: "Because of circumstances that day it was beyond anybody's ability to cope. The controllers thought they could manage but because of the CONGESTION they were under severe pressure".

He added: "There is a myth that because technology is so advanced everything works like a dream and computers can achieve anything".

"The reality is that decisions are still made by HUMAN beings. A pilot is responsible for one plane while a CONTROLLER can be responsible for 30 at a time. Pilots are well qualified and rewarded for making major decisions on landing and take-off. Controllers make these difficult decisions every few minutes during a ten-hour shift".

Controllers are generally reckoned to be at their peak between 30 and 35. Because there are no bolt-holes into admin jobs any more, most have to remain until the compulsory retirement age of 60.

After every incident controllers are automatically relieved of their duties for 24 Hours pending investigation. One said: "It is a terrible feeling being sent to the canteen for a cup of tea knowing that your colleagues are all working and that you are not wanted on the voyage, so to speak.

"You start doubting your own ability and you shake at the thought of fouling up a second time. You wonder what your colleagues are saying about you and you naturally worry about the end of promotion prospects or the sack".

"This is a one-skill profession and you know you will have to find

another occupation if you lose your job.

Management make you feel like a Pariah. When it happened to me, neighbours somehow got to know about it and a few shunned me and my wife. One day out shopping people turned their backs and she just burst into tears".

One ATCO said that managements attitude was appalling and he would never forgive them. "They suspended me for six days and made me feel like a criminal. They made me have a brain scan and tested my short-term memory. I would love to retire but I am too young and with a mortgage and family responsibilities I cannot afford to quit".

Many air misses are caused by pilots guilty of Level Bust, which is flying above the ordered altitude as a result of flying too high too fast. A controller, knows the meaning of stress, e.g. whilst working in Qatar, the pilot of a passenger jet insisted on landing during a tropical storm and 64 people were killed. The ATCO escaped injury when both blazing engines flew off but stopped short of the control tower.

In another incident one plane almost hit the rear of another while approaching the airport. Most the blame was attached to him although later one of the pilots involved apologised for his role in the drama.

Pilot pressure is another problem, "If they make it clear they are fed up by delays and want to take off we simply say: 'would you prefer to hit another plane'".

SO IS THERE A DIFFERENCE BETWEEN US AND THEM ONE MAY ASK, -PILOT ERROR, ATCO ERROR, CHANGEABLE WEATHER CONDITIONS, AIRCRAFT TYPE, COMMONSENSE, AIR TRAFFIC FLOW/CONGESTION, HUMAN ELEMENT, IMPATIENCE. ALL ARE COMMON FACTORS

Andy Sutehall.

'ATTENTION ALL MARSHALS (minor ATCOs)'
STRESS.

Indeed the appalling prospect of an air disaster caused by human error is uppermost in the minds of all 3,500 air traffic controllers.

A Controller responsible for an air miss which could have caused a major catastrophe over one of Britain's biggest cities said: "When I realised the enormity of what I had done I just broke down and cried. I don't think I will ever get over it and I dread the thought of such an incident ever happening again".

The horrifying prospect of mid-air collisions is the biggest talking point for air traffic controllers (US TOO/HG/PG) when they get together off duty. They admit it is the "unthinkable" but know that modern navigational accuracy is so efficient that an error of judgement by any one of them could result in a PINPOINT collision. In addition to those very human fears many believe that commercial pressures induced by the proposed privatisation will encourage skimping on safety and reduce staff.

Dr. Sue Baker, an independent industrial psychologist employed by the CAA, has recommended voluntary counselling for STRESSED ATCOs. She said: "The biggest worry is that when confidence goes, competence is likely to follow. Controllers are an expensive and scarce resource and economic reality dictates that everything should be done to help them". Marriage guidance counsellors like Relate are ideal for the task since they have experts in post traumatic counselling, not just marriage breakdown and divorce.

SOCIAL CALENDAR

Well, the big event of the year went off without a hitch. For those of you who didn't make it, the Christmas Dinner and Prize Giving at The Pepper Mill was a lovely evening with excellent food and surroundingsI think I can say the same about the company! I'm sure all those who came along would join me in saying a big thank you to Colin & Dee Morley who worked so hard.

With Christmas just around the corner and the dreadful weekend weather we've been having, let's hope we get a couple of good flying days over the holiday for all the weekend fliers.

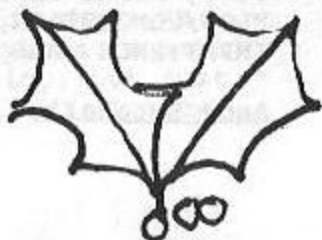
As far as further social events are concerned, the next get-together on 7th January at the Dyke Inn will be a reserve parachute re-packing evening. I will try to coax as many people along to help as I can.

As yet, there is nothing further organised, but watch this space for details.

Happy Christmas to you all.

STEVE BREWER

PS: I understand that a large van hire company is still awaiting the return of the truck that Dave Williamson used to cart home all his trophies this yearor is this just an ugly rumour?!



TUNING MAKES YOU BREEZE MORE EASILY ?

(Oh dear, slagged off again Windsock, Dave Williamson makes references to Nigerians and bent aluminium in Wales etc., etc. I have retired from hang gliding, ok!)

TUNING

There are several ways of tuning a glider for more performance, and usually at the same time you get worse handling.

Shim the leading edges: Bin leading edge shims to improve handling.

Tighten bungees: slacken them off to improve handling.

Tip adjusters: turn down for more performance, winding into turns etc. Turn up slightly for easier turns with almost no performance loss.

Cross Boom tension: tighten for better glide and min sink, and much stiffer handling. Loosen for better handling. Not usually adjustable nowadays.

Do not adjust unless you are sure. Do not adjust without first consulting the manufacturers hand book. Battens must be profiled only according to the supplied profile unless the hand book says otherwise.

STEVE U.

THE GREAT TUBING DEBATE avec Steve Jacuzzi

Ok, Johnny Carr reopened an ongoing debate, but I'd like to look at things generally and not specific gliders. Material science time. For aviation use, we need to consider three things for our choice of material.

Suitability

Price

Availability

Please ask agents and manufacturers about these criteria and satisfy yourself that answers given are good enough for you. Here below are some of the facts I think relevant, but it's up to YOU to make up your own mind.

Seamless tubing is structurally better for aviation than seamed tubing. This is because it has no join. Joins concentrate stress, and may provide the discontinuity that eventually fail due to fatigue. As alloys go, 6061 and 6082 may be more corrosion resistant than 7075. This has NOTHING to do with the way the tube is drawn.

Seamed tubing is cheaper than seamless by up to 75%.

Seamed tubing is more widely available than seamless tubing.

This means that importing seamless may push up the price to unrealistic levels.

Seamed tubing can be vigorously inspected for flaws. This pushes up the price. Seamed tubing may be specified in heavier gauges to get around strength problems. This makes gliders heavier. Some manufacturers have made gliders out of seamed tubing for ages without problems. Others stopped in the late seventies because of quality control problems leading to failures and accidents.

The one thing stronger than all airworthiness debates is the power of pilot's wallets. Please find out the whole picture before you decide. The manufacturers will respond to the pressures of the market place. Quoting airworthiness certificates in support of an argument without knowing what they require means little; for example the HGMA (USA) standard does not have ANY rules about what you make a glider out of; the material suitability is the sole responsibility of the manufacturer.

Lastly, Bill Moyes wrote an outstanding article in the USA magazine hang gliding; in it he addresses a lot of the problems of hang glider design, including choice of materials and tubing selection and I would like to see that article reproduced in Skywings. It represents the views of the organ grinder himself, and Lord knows, we've had far too much from the monkeys lately.

I still need to know: WHY SEAMED IN PREFERENCE TO SEAMLESS?

I'm researching airworthiness standards worldwide and would welcome any debate or feedback on this article. Once the airworthiness criteria can be satisfied pilots should have the choice of what glider they fly and what tubing it has.

STEVE U.

MINUTES OF THE SHGC COMMITTEE MEETING 1.11.94

PRESENT: M.Brady, G.Hopkins, D.Williamson, A.Caple,

A.Chisholm, M.Turner, T.Cox, G.Cook, F.Kennedy.

APOLOGIES: P.Day, A.Turner, M.Woodhams, N.Gibson, J.Carr,

C.Bere, S.Brewer.

1.0 MINUTES OF PREVIOUS MEETING:

- | | |
|---|-----|
| 2.1 Airwave Challenge report. | M.T |
| 2.2 Theory lectures. | A.C |
| 2.6 Marshalling guidelines.(also 10.00) | N.G |
| 3.0 Airwave letter. | M.T |
| 6.1 Flying video prizes. | S.B |
| 7.0 T-shirts. | S.B |
| 8.0 D.Fletcher. | S.B |

1.2 CARRIED OVER FROM 6.10.94:

- | | |
|--|-----|
| 2.0 Sponsorship. | All |
| M.B to contact clothing companies, TSP and Whitbread | M.B |

1.3 CARRIED OVER FROM 7.6.94:

- | | |
|-----------|-----|
| Voice box | M.T |
|-----------|-----|

2.0 ON GOING

2.1 FROM 6.10.91:

- | | |
|---|-----|
| 7.2 Will Hole - £250 to be paid to the farmer for bottom landing field. | T.C |
|---|-----|

10.0 Ditchling- M.B read a report from J.Carr giving details of the SDCB meeting where the use of Ditchling for hang gliding and paragliding was discussed. The previous owner of the land had been very keen for this site to be used for hang gliding and paragliding, and this wish has been noted by the SDCB.

2.2 FROM 1.11.94:

- | | |
|---|-----|
| 1.0 - 11.0 Buying sites - ads. to be placed in farming magazines. | F.K |
|---|-----|

- | | |
|--------------------|-----|
| 9.0 Club trophies. | M.T |
|--------------------|-----|

3.0 WINDSOCK:

- | | |
|--|----------|
| 3.1 Airwave Challenge-Report to be written, especially to encourage new pilots to enter competitions (c/o) | M.Turner |
|--|----------|

3.2 Club member are to be asked if they would be interested in attending theory lectures.(c/o) A.Caple

2.6 Basic marshalling guidelines.(c/o) N. Gibson

3.0 WEST FIRLE:

Many thanks to Finn Kennedy for moving the fence at West Firle.

4.0 COMMITTEE MEMBERS:

4.1 The committee was sorry to receive a letter of from Mark Woodhams stating that due to pressures on his time, he would be standing down from the committee as soon as a replacement could be found. The committee, on behalf of the SHGC, would like to thank Mark for all his hard work done and efforts made over the years.

4.2 A notice is to be placed in Windsock asking for an immediate replacement for the schools liaison position. G.Hopkins

4.3 A notice is also to be placed in Windsock reminding all club member that they can stand for any of the committee positions at the next AGM, as all positions have to be re-elected.

G.Hopkins

5.0 SITES GUIDE:

N. Gibson is to be contacted concerning an error in the sites guide. The map reference for Beachy Head should be TQ 478059, not TV 478059.

6.0 HELMET STICKERS:

£158 has been quoted for the 1995 SHGC helmet stickers. They are to be ordered. G. Cook

7.0 CLUB COACHING:

15 people have already enrolled for the course. There are still places available.

11.00 NEXT MEETING:

6.12.94 - 7.30 PM at Devil's Dyke Hotel.

The Probe: A Review

The Probe is made by Sky Systems, who've been involved in paragliding since the early days of footlaunching. They made good, basic harnesses like the Flightstyle 1&2 and at the top end of the range, the very successful SAS. The Probe is their latest top of the range harness, superseding the SAS II of which a large number were sold.

The initial impression is of a large harness, until you look closer and see that the Probe is complete with all the pockets and containers you will ever need. Parachute container, multi layer backplate, internal pockets for both one and two litre Camelbak in flight water containers, as well as underseat provision for ballast and for glider bag storage are all standard. There are also two external zipped pockets for other things like cameras, with loops for attaching back-up cords to for in flight safety. The back plate is a new design, with an outer layer of polypropylene for puncture resistance, then a layer of high energy impact absorption foam, (sold under the trade name CONFOR) then another layer of polypropylene, and yet another layer of the high impact energy absorption foam, but with different characteristics both in terms of stiffness and the way that stiffness varies with temperature. CONFOR has found many applications, from rifle shoulder pads through to exercise mats and aircraft seats. The outside of the Probe is finished in Cordura, with the inside of the seat being trimmed in a sandwich material with a brushed nylon outer. Leg loops are click buckles which require two release buttons to be pressed simultaneously to allow the loop to release. Once the leg loop length has been set, it may then be left without the usual need to adjust and tighten each time you fly. The Probe also has adjustable cross bracing, unlike the Flightstyle and SAS which used "semi cross" type geometry which was brought into play when the chest strap was tightened. Adjustable cross bracing can be set and forgotten, or adjusted in flight to suit. The cross bracing may also be stowed away and the harness flown as a Standard (full weight shift) harness. The chest strap is the conventional two piece buckle. The seat board hinges forward, which allows the centre leg loop attachment point to move forward when on the ground, making walking around strapped in a lot easier. The leg loops are joined to the back of the harness on the outer side, so lifting your legs gets you back into the seated position very easily. The harness has side panels which are capable of taking further (optional) polypropylene reinforcement pieces. The parachute container deserves special mention. The parachute container is a clover leaf design and uses the well proven twin pin release system. The flap that covers the twin pins is transparent, which means the pins may be inspected without having to peel back the outermost flap. This (outer) flap tucks into the edge of the clear material so there is nothing that may accidentally catch and deploy the parachute by mistake. The deployment handle may be for right or left handed deployment and comes up the side of the harness to point where it may be seen, and again where it is far less likely to catch on anything during launch or landing. A wide range of parachutes is catered for including biggies like the Custair 38m. Parachute bridle routing is up the back of the harness, all covered to protect against UV and secured at the shoulder straps to the main (continuous) webbing.

Before flying with any harness its always worth having a hang in it somewhere else where the adjustment can be perfected without the stress of flying at the same time. The angle of recline on the back is conventionally set, and when the shoulder straps are adjusted correctly the ends of the straps may be tucked away out of sight. The same goes for the leg loops. Having set all this and acquainted myself with harness the next step was the flight test.

Fitting to the canopy is straight forward and purchasers of the harness will find two Sup-Air karabiners included in the retail price. The harness for test was attached by the usual maillons. The speed bar routes through a pulley and a ring further down to locate it when its not being used. With the leg loop buckles the harness is very easy to get into. Whilst moving around on the ground two things are immediately noticeable, first the weight of the harness feels a lot lower down than with front or side mounted chutes and that walking is a lot easier. With adjustable cross bracing the tightness of the chest strap is not as critical as it would be for a semi cross harness and with the strap set comfortably it was very easy to lean forward between the risers and run even into a moderate breeze. As soon as the ground receded the rotation into the sitting position was performed; very easy it was too. Sitting in the harness gives a feeling of supreme comfort, and within seconds the harness is forgotten completely. Weight shift was as I'd set it to limit on the cross bracing; this facility is easily and fully adjustable in flight. For this reason it's suitable for a club pilot upwards, there is no need to change it with canopy progression. Seperate tests on light and nil wind days showed the set up of the Probe to be ideal for Alpine take offs or forward inflations. This is one area where it excels, and getting the shoulders down whilst running improves take off technique no end. Rotation for landing was also very good, even being drilled in from 30ft whilst still seated in some nasty sink required very little effort to get into the PLF position, which was necessary for the rate at which I hit terra firma. No damage and the tough Corudra exterior showed no marks. Walks up from slope landings showed how easy it is to walk with the harness still done up, a lot of harnesses require the leg loops be loosened for long walks but not this one. Getting out of the harness takes no time at all with the leg loop buckles.

The Probe is a very good harness, but none the less has some drawbacks. It's large harness compared to the SAS and Edel Force or similar, and will not fit in the older, smaller canopy bags. Newer canopies like the Rave have a large enough bag to accomodate a Probe, but my Edel ZX bag is way too small. Sky Systems intend to sell a new version of their stuff sack as part of a deal for Probe purchasers. Some people are not very keen on the rear mounted parachute but it's the tidiest one I've seen yet. The Probe costs quite a lot of money at £475. It's still very good value for money because it's complete, no hidden extras, just put the parachute in and it's ready to fly. I've been unable to think of any options that could be added to improve it. To fairly assess it against competition on price one would have to look at another harness with all the same options, which would inflate costs to a similar level. The first impression was of a very comfortable, easy to use harness which was reinforced the more I flew it.

Harness lent by Sky Systems, no agent or sale relationship. The reviewers present harness is a Force, purchased just over two years ago.

Steve Uzochukwu has been flying paragliders since 1989. He has no commercial interests in the Sport.

NOTICEBOARD

IF ANYONE HAS AN OLD SCHOOL LOCKER, OR SIMILAR, WHICH THE CLUB CAN USE IN THE STOREROOM AT THE DYKE, WOULD THEY PLEASE CONTACT MARTIN BRADY. THANKS.

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Matthew 0903-821956

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CLUBS SEC.

NOTICEBOARD

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Tel: numbers as above

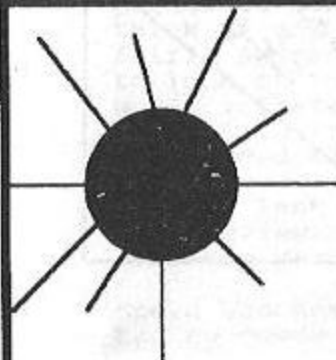
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0273 857002

See notices in Windsock for
updated services.

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- Handwritten clearly (my eyesight's fading)
- Typed - onto A4 (if poss., reduced to A5 size -
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Thanks!

All and any (well, most) contributions
welcome - Any ideas you have are
welcome - they may be ignored, but they
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of the last committee meeting. Overseas
trips, memorable XC's, ideas for Club
events, advice etc, etc, etc,

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