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**THE SOUTHERN
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P.O. BOX 1359
BRIGHTON
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COMMITTEE - Updated June 1994

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Johnny Carr 01444 84667
(W) 01444 84217

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Martin Brady 01444 233346
(W) 01273 745513

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Peter Day 01734 421481
(W) 01734-579740

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Safety Officer

Steve Brewer 01403-710739

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Fionn Kennedy 01273 858221

Sites Liaison Officer (2)

Sue Brooks

Sites Control Officer

Nigel Gibson 0181 890 7476

Schools Liaison Officer

3

Club Coach

Adrian Caple 0181 660 0824

Airspace Officer

Tim Cox 01273 888113
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Kenton Birch 01273-822194 HG
Mike Millwood 01273-624188
01273-857700 (wk) PG

Social Secretary

Ian Blackmore 01825-762473
0589-240815 (mob)

Windsock

Gail Hopkins 01273 771327

**THE SHGC supports the aims
and ideals of the British Hang
Gliding & Paragliding Asscn.**

Presidents letter

It was good to see a good cross section of our members at the AGM. The turnout was about average for our Club which is always poor considering the size of our membership. Full marks for all those who do care about the Club and came to share in the proceedings.

One thing that I did pick up on that gave me cause for concern was the drastic decline of hang gliding members in our club. It has been put to me that some members have joined other Clubs as a result of not being able to take off due to the amount of paraglider activity. This is a problem which is not exclusive to our club but due to the sheer numbers I can accept that the problem could be bigger in our club. I would point out that our Club was probably the first to see the potential problem and try to do something about it. Let me remind every one of the Club rules concerning Devils Dyke they are clearly printed in the site guide and were put in place to protect the interests of the hang gliders who after all did get the sites for us all to fly in the first place.

1. Hang gliders only can take off in the paddock.
2. Any paraglider landing in the paddock (emergencies only) must deflate the canopy pick it up and carry it out of the paddock before re-launching.
3. No more than 3 paragliders should be in the paddock airspace at any one time when below 150'
4. Paragliders must transit the paddock air space as quickly as possible when below 150'

Rule 1 and 2 are generally respected and insisted upon by the hang gliders. Rule 3 and 4 are a joke, have a count up next time you are up there. Having said that the hang gliders do have one more option open to them. The marshaling system. This when implemented works well. If conditions are such that the sky is full of paragliders don't just sit there, go up to a committee member or a responsible pilot you know and organise some time for hang gliders only, this also applies to red ribbon pilots. It is in the interests of both the hang gliders and the paragliders to use our sites in harmony. I have in the past put my neck on the line to ensure paragliders get a fair deal. I am not prepared to have a free for all situation that excludes hang gliders from using our busy sites.

One area that is not being taken seriously by many members is the marshaling duties this something the new committee will have to address.

Johnny Carr.

Chairman's Letter

Dear Members,

You have probably heard by now that Brighton Council is selling some land including the area at the front of the Devil's Dyke Hotel. On hearing the news in media reports, we wrote to the Council expressing an interest in making a purchase. However, from the reply it seems that, before it became public knowledge, a date had already been agreed for transferring ownership to the National Trust, namely March 31st. I am currently trying to get an assurance from the Council that our interests will be protected when it does change hands. I'll keep you posted.

Quite what the Trust's attitude to us will be is impossible to say for sure at the moment. One thing we can be fairly confident of, however, is that they will take a very dim view of reports about the behaviour of pilots that I've been hearing recently - swearing at landowners, upsetting the public with foul language, brawling in the Dyke car park and insulting a driver trying to get past. Consider this: even allowing for the years we've been at the Dyke, our position there is almost certainly going to be less secure than it was and this type of behaviour will jeopardise it. Confronted with this kind of ammunition, the Committee are going to find it much, much more difficult to resist any attempts to remove us. How would you feel if you were the one responsible for getting us kicked off?

Please be considerate when in the Dyke pub as well. We have a very good relationship with the proprietors who have been very accommodating to us in the past, but we have been stretching their goodwill as well. The management wish to have a atmosphere that will attract families so please respect this, which means try to keep the noise down and, yes, mind the language.

Of course, only a very small minority of pilots are actually responsible but unfortunately it reflects badly on all of us. We never know when we might need the support of those that we seem to be antagonising. If anything we should be going out of our way to be polite to them.

Well, as you can see I'm still here as Chairman having successfully contested the position against some immensely stiff and determined opposition. Actually, I lied. Anyway, I'm delighted, and relieved, to say there are enough people in the Club willing to fill all the Committee positions - but only just. Welcome to everybody who has just joined and very many thanks for past services to those who have stepped down, namely Gary Cook, Tony Turner, Chris Bere, and Mark Woodhams. Special thanks also to those who would really have liked a break but have stayed on in the interests of the Club. Congratulations to Tim Cox, who, after 3 years of perseverance, has finally got his proposal through to have a paid Club employee albeit on a six month trial basis.

Even with a full Committee, and a paid employee, there is still a lot to do so we could really do with some practical help. Here are some of the things you could do :-

- Helping with Site Maintenance - maybe looking after a specific site,
- Obtaining bits and pieces for the Club - we could do with a locker at the moment,
- Chasing Sponsorship,
- Helping to get Aerotowing going.

You might like to get involved in a project such as producing a Club video, or a quiz for a social evening. Please let me know if you're willing to help.

Finally, the year seems to have started well with Steve Cook flying from the Dyke to Rye in mid-February. After several non-flying months, I managed to get airborne two days on the trot. How good it makes you feel! Roll on the spring - you've got to be optimistic now, don't you?

Take care, oh, and watch those spring thermals.

Martin Brady

6/3/95

CLUB COACHES - Updated June 1994

Steve Uzochukwu HG/PG	Maidstone	0622 736219
Steve Pugh HG	Greenwich	081 692 8554
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
John O'Neil HG	Brighton	0273 541451
Mike Broadbent HG	Bexhill	0424 210951
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
James Hardiman		
David Massey		
Barry Phillipot		

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.....

Date	Forename	Surname	TelHome	TelWork
04/03/95	Adrian	Caple	081 660 0824	.
04/03/95	Warren	Simonsen	0344 844852	.
04/03/95	Hugh	Ginty	081 906 1640	.
05/03/95	Stewart	Swanton	0273 732219	0273 670583
05/03/95	Steve	Pugh	081 692 8554	0793 619999
05/03/95	Charles	Blackburn	081 840 1875	071 324 8325
11/03/95	Miyoko	Britton	071 431 1661	.
11/03/95	David	Williamson	0273 604752	.
11/03/95	Nigel	Jarvis	0883 349845	.
12/03/95	Barry	Puckey	081 693 8722	081 693 8722
12/03/95	David	Slater	01 660 0991	.
12/03/95	Ben	Stevens	0825 890461	0825 890461/0831 879613
18/03/95	Chris	Smith	0883 344792	0737 767006
18/03/95	Mark	Windus	0273 857235	.
18/03/95	Charles	Brockis	04834 27218	0483 292081
19/03/95	Russell	Crowley	0689 873873	0689 873873
19/03/95	Sue	Brooks	0273 834984	0444 441881 x 4859
19/03/95	Vicky	Jones	0424 222630	0424 32281 ex 320
25/03/95	Ian	Jenkins	0380 870193	0980 630351
25/03/95	Neil	Kinnear	081 697 1363	.
25/03/95	David	Matthews	0273 604752	071 240 9827
26/03/95	Peter	Rolinson	081 874 9522	.
26/03/95	Graham	Parker	0992 812910	.
26/03/95	Richard	Bonwick	0892 655754	0892 655754
01/04/95	Jerry	Cooper	081 674 9427	0831 180688
01/04/95	Bernie	Hewing	071 737 4849	081 986 3123
01/04/95	Robin	Hooper	071 794 6375	071 796 4664
02/04/95	Rob	Howe	081 748 0735	081 746 1700
02/04/95	Nick	Przybylski	081 467 4980	.
02/04/95	Elizabeth	Wild	01 674 9427	0831 180688
08/04/95	Mike	Allen	0444-450892	.
08/04/95	Mark	Turner	0903 812 504	0273 857700
08/04/95	Richard	Wragg	0689 853732	0322 287676
09/04/95	Steve	Brewer	0403 710739	.
09/04/95	Michael	Broadbent	0424 210951	.
09/04/95	Bernard	Hanning	081 908 1549	.
14/04/95	Edward	Lockhart	081 675 9889	.
14/04/95	Nicholas	Preston	081 871 1858	071 380 7571
14/04/95	Martin	van Willingh	081 546 6793	0895 431243
15/04/95	Ian	de Haan	0737 762895	.
15/04/95	Neil	Russ	071 586 6169	071 600 1000
15/04/95	Damian	Gordon	071 286 1937	.
16/04/95	John	Benfield	.	071 938 9498
16/04/95	Allen	Cox	0923 779037	.
16/04/95	Colin	Williams	081 657 4958	.
17/04/95	Sue	Day	0883 349845	.
17/04/95	Charles	Godfrey	081 994 5740	071 629 7666
17/04/95	Jonathan	Pritchard	081 698 8942	0322 863285

AIRWORTHINESS NOTICE

The DHV issued an Airworthiness Notice on 26th January 1995 regarding the following Paragliders.

Comet CX II 21	Gutesiegel Number	SS 01 209 91
Comet CX II 23		SS 01 210 91
Comet CX II 25		SS 01 206 91

In the course of periodic examination of Models CX II 21, 23, and 25, some unauthorised types of suspension lines were found. These lines showed lower strengths than the original lines. In agreement with the MONTANA FLUGSPORT GmbH THE DHV issues **THIS PRECAUTIONARY SAFETY INSTRUCTION.**

1. All pilot/owners of paragliders CX II 21, 23, and 25, must inspect the colour (identification) of suspension lines. The faulty lines can be identified as below.

Basic colour **PURPLE**, with **PINK** or **fluorescent yellow** identification thread, line diam 1.5 mm

or

Basic colour **GREEN**, with **YELLOW** identification thread, dia 1.5 mm

or

Basic colour **BREY**, with **GREEN** identification thread, dia 1.5 mm

2. These lines **MUST** be replaced. Until this is done, these paragliders may **NOT** be flown.

The line replacement should be carried out by MONTANA FLUGSPORT GmbH, Grube 25, 22377 Feneberg Tel: 08855/7044, FAX 08855/82024.

Brand, the 26 January 1995.

H Weininger

DEVIL'S DYKE WEATHER MACHINE

As you will be aware, the machine has been giving erratic readings for a while - I think the heads have been damaged by the gales recently.

Unfortunately, I'm still out of action after my recent accident, and cannot yet get down to the Dyke to repair it for while yet.

The unit that is installed there is a temporary one, a previous MK1 model I built, which has been on free access to you all on 01273-857002 for the past few months whilst I completed work on the new model, which will include other things, such as cloud cover, as well as wind info.

However, no one has phoned me to complain that the unit isn't working properly - I only found out by reading a comment in Windsock. This either means you're a very tolerant lot, or it means you don't use the thing. Living some distance away (Sheffield!), I can't personally check whether the readings tally with the actual on-site conditions. I rely on you lot to tell me if there's a problem.

If you don't tell ME, but just grumble to yourselves, (or each other) then I can't do anything about it, can I?

Now, I can't go on providing the machine free of charge, out of my own pocket. Therefore, I shall have to either:

A) Install the new model at considerable expense to me, and make a small charge of perhaps 20p/call to pay for it. (I don't intend to put it back on 0898 - I think it's too expensive for callers at 49p/min.)

If enough of you think this is a good idea, and call it, that'll generate enough cash for me to put up a second machine at another club site (suggestions welcome).

or

B) If no one wants to pay for the info, then it's uneconomic, and I shall have to close it down, and move the equipment elsewhere.

So, if you find the info useful, please tell me, or if you've found a problem with it, again please tell me.

I'd appreciate your comments one way or another to me on 0114-253-0372. Or, write to me at 106, Woodhouse Rd, Sheffield, S12 2AZ.

THE XTRALITE HAS THE EDGE FOR OZ

I've never written to WINDSOCK before, but I thought I should tell a little about my experiences with my Moyes Xtralite as others have had their opportunity with the SWIFT and the BLADE.

I bought mine from Tim Cox new, sort of, second-hand, his demo glider, but started flying it when I had only 25 hours myself. I had just swapped my Clubman for an Ace and already thought I was flying a real 'hotship'. So, a demo flight on an xtralite wouldn't be too much of a handful. I was told the normal things: check it's rigged right and wait for calm conditions. Where are calm conditions when you want them. While waiting, I was told some stories by pilots who had either flown or been told about the glider. "God, I flew it and did it dide slip", "That's the only glider that flies 360's the shape of a threepenny piece", "Pitch and roll have got to be spot on or else it will fall out of the sky", "you sure you've got enoh=ugh hours?" By this time, I wasn't even sure I had rigged the glider right.

It had been a great day at Firlle and I had given my Ace a good thrashing, so for the last flight of the day I thought let's give it a go. At first when you pick up the glider, the upright's are huge: my hand wouldn't go half-way round and it felt reat strange not being able to squeeze hold of the upright. But you do get used to it very quickly and now it is so easy to balance the glider between thumb and palm of your hand. At take-off, I was quite nervous, after what I had heard, but it all went well and there was no reason to worry. Within half an hour I loved the glider. Pitch and roll was really light, but it does need to be worked on to get it right. If you don't, the glider will not climb anywhere like its full potential and you end up looking up at everybody else and cursing the glider and luck when it really is you. The Xtralite does have one habit that you can explore while you are 'cocking up' your turns and that is its penetration: it will always be out in front and goes forward like a train. Its sink rate is superb. I believe with its small wing area it will not just 'waft up', so it must be flown up thermals. If this is done, it will out-climb other gliders or at least stay with them. As the weeks and months or last summer went by, I learnt to 360 the glider better with more pitch and roll co-ordination, and less high siding the bar.

Talking of the bar, it appears quite short so in strong thermals you tend to hit one upright as you skirt the edge of the core, hit the other as you fall, get thrown out of the thermal and then whack into the original upright as you try to bring her about to try and core the thermal (great fun!).

I fly a 137 size glider - there is also a 145 (Dave Keepax flies that and even he can stay up on it - fat bastard!). I told myself, I flew a Clubman 160, and Ace 160, now the Xtralite 137, well, it must be too small. So one day on the Dyke I flew the 145. It was blowing 20-25 mph westerlies. I was full of confidence - I finally had a glider the right size above my head - how wrong could I be. I took off and hit some rough stuff so I pulled on more speed, then a wing lifted so I jumped on it. The opposite wing lifted, so I jumped on that and pulled on more speed. I went from take-off to dutch roll all the way to the bottom landing field. I was 150ft above the ground before I slowed down and realised what was happening. But then it was too late so I landed and did a pope. I flew the 145 once more, just to prove to myself that I could fly it, but with my weight it is just too big. I am very happy with the Xtralite. It is built well and can take the odd ree landing, unexploded bomb and broken upright even if the pilot can't.

Rigging is a knack. You have to lift the keel to put on tension expecially on the 145. Putting the nose wire in place you have to first unzip the sail along the keel pocket - a must in strong winds - then hold the keel and aim the nose an nose wire loop at each other, - takes preactice. The Xtralite now has a BHPA C of A so everybody will be able to fly it and I'm sure share my enthusiasm for the glider.

OZ HAINES

ACPUL vs DHV: Brief comparison of test procedures

To fairly compare any airworthiness standards, their aims, content and methods of test need to be examined before the conclusions are reached. The ACPUL (now AFNOR) vs DHV debate has been going on for a while especially since the introduction of the new AFNOR test where canopies are graded in three categories. I've looked into this as part of a bigger project I'm doing and would like to have a brief look at the two standards. I'd like to start by considering the two separate organisations.

The DHV (Deutscher Hangeleiter Verband) is the controlling body for hang gliding and paragliding in Germany, similar to the FFVL, FSVL or the BHPA. They issue tested canopies with a Gutesiegel if they pass.

ACPUL is a manufacturers association based in Europe. AFNOR is an independent test body, aero testing is done by a company in France.

For the purpose of this article, dual(biplane) gliders will not be considered. Neither will parachutes, although both organisations test them and issue them with certificates.

Both regimes have a load test and flying tests. The static load test tests canopies to 8 G (8 x maximum flying weight). This ensures that the canopy as originally built is strong enough. There is also a shock test. However canopies age and failures at much lower loads are not unknown. Sail material porosity has caught out many manufacturers and line breakage is also a problem. These issues are dealt with by safety notices from the controlling body in each country. Additionally, within Germany, canopy aging and checks on the airworthiness of it are dealt with by a mandatory check every two years (2 jahres check). This check is needed to extend the Gutesiegel past the second year of the canopy life. This check leads to a lot of good, potentially life saving information. Some manufacturers run a voluntary yearly safety check but the only one that springs to mind is Airwave.

The AFNOR flying test has three grades for canopies plus a dual category. These grades are standard, performance and competition. The Gutesiegel has three main categories; 1, 2 and 3. There are also two overlaps (1/2 and 2/3) where some tests place the canopy in a more advanced category. AFNOR standard canopies are those regarded as suitable for beginners and recreational pilots. Performance canopies are suitable for regular pilots from club up to competition level, with some SIV experience. Competition canopies are designed for very experienced pilots, who are highly skilled at avoiding or correcting departures from normal flight. The Gutesiegel 1 is suitable for beginners and Gutesiegel 3 is for advanced pilots.

The Gutesiegel has 13 flight tests, and the AFNOR has up to 17 tests, depending on the category of the canopy.

The first point to be made is that canopies tested to Gutesiegel must pass ALL the tests regardless of the intended market. For AFNOR they have to pass only the tests for the intended category. This means competition canopies will not be tested for spin, asymmetric stall, b-line stall with slow riser release, symmetric tuck or pitch stability, whereas a standard canopy must pass all tests.

The second point to be made is that each AFNOR test has one or two results, and that result will determine whether the canopy passes in the intended category. Each Gutesiegel test will yield several results, and each result will have a mark allocated. The overall mark for that test is a combination of the individual marks. The final result is the results in the worst tests, e.g. a canopy with 12 grade 2's and one grade three will be graded 3. This is where the testing philosophies of the two organisations start to diverge.

Let us take the example of the asymmetric tuck. Both standards examine how far the canopy turns before recovery, whether pilot intervention is required and how long it takes to recover. In addition, the Gutesiegel examines the turn rate and whether there was a tendency to accelerate or decelerate into the turn. The ease with which the manoeuvre was provoked also enters into the equation. The Gutesiegel takes into account the altitude loss, and the level and skill of pilot intervention required. The "altitude loss" idea appears in almost all the Gutesiegel tests, it isn't mentioned once in AFNOR.

Another example is the full stall. There is no longer a full stall test in AFNOR. The full stall is a very easily avoided manoeuvre. The Gutesiegel tests full stall with two types of recovery, symmetric and asymmetric recovery. The symmetric has nine sub sections and the asymmetric has six; the need for a canopy to successfully survive and recover from a full stall is unquestionable. However, is such detailed examination required of a manoeuvre that is normally avoided at all costs??

The turns test is another worthy of comment. AFNOR checks for an acceptable rate of turn for the canopy and, for a beginner's one, the ability to achieve the turn without weight shift. The Gutesiegel in addition examines brake line travel and force required as well as the steerability of the canopy without brakes.

The Gutesiegel has a special last category where abnormalities in canopy behaviour may be noted and these, if necessary, will have a bearing on the final result.

The AFNOR norm has more tests than the Gutesiegel, they are simpler and very easy to understand. The Gutesiegel has fewer tests but they are done to a much greater depth. For this reason it seems that the AFNOR tests will be more easily reproduced and hence easier for manufacturers to do as part of their development work before submitting canopies for test. The AFNOR competition category I am not so sure about. For the level of skill these canopies are aimed at, pilots at that level will have no problem coping with their flight characteristics. However, given the small size of this market, and the fact that all competition pilots will want

new machinery, the potential for selling a second hand "competition" canopy to another "competition" pilot will be small, and the three or four year old "competition" canopies will slowly find their way into the hands of the ambitious but not yet suitably skilled pilot who may not fully understand the implications of the reduced testing. It would be far better to allow the manufacturer supported pilots to fly registered prototypes, not for sale to the general flying public, which, when the development is finished, may then go through all the tests. The supporters of the "competition" class argue the object of the reduced level of testing is to allow the building of higher performance machines for very skilled pilots to advance the sport and continue research out in the real world. The Gutesiegel does not have a reduced level of testing for this class of canopy.

Ultimately the cost of certification is borne by us, the purchasers of canopies. This alone gives us the right to put our own feedback into the process. Each organisation does its best to certify and test according to the perceived risks. However they are not the same type of organisation and will have different objectives and ways of achieving them.

I'd like to see the "altitude loss" criteria from the Gutesiegel in a CEN or AFNOR standard. In a country like England where a lot of flying is done in dynamic lift not far from the ground this is a critical factor in avoiding accidents. The flying on the continent is mostly light wind, thermal flying and this is reflected in the tests, with nothing about reverse launching being included in either of the tests. The AFNOR asymmetric tuck held in and maintained for two 360s test is also worthy of comment: this represents a realistic approach to what might happen to the "ordinary pilot" in turbulence. The pass/fail criteria for this test are very straightforward. I feel that some of the negative comments from the manufacturers about the Gutesiegel could be avoided if the standard was slightly easier for them to check themselves before presenting for test. This simplification if it happened must not lose the very thorough nature of the Gutesiegel; one of its great strengths. Individual pilot opinion is not a reproducible test factor and if included in a scheme must be open to appeal or challenge. The fewer times a canopy has to be presented for test the lower the manufacturers expenses which are passed on to us the customer. I would like to see a more detailed presentation of the argument about the Gutesiegel producing "worse gliders" naming specific tests, how they lead to bad design and a better way of testing that safety parameter. There are a number of good gliders which have passed both AFNOR and Gutesiegel (without re-rigging).

I am a cynic; therefore I don't believe in buying products which have just entered the marketplace unless I can see evidence of very thorough testing. Several canopies in very recent times have been reduced to almost valueless when problems arose that had not been foreseen in design and development. For this reason the testing associations will have to police the certification process and protect us, the ordinary weekend pilots who make up 95% of their customers. For similar reasons I like to see both DHV and AFNOR stamps on a wing. Both certification regimes are very good - the two test schemes just have different ways of doing things, but with the same objective: Prevention of accidents. The Gutesiegel is a test for the German market, but the DHV

are now the custodians of an internationally accepted standard and I feel must therefore direct more of their communications on the subject to all flyers at the international level.

Both standards have a lot to offer and have, since the mid '80s, prevented accidents. Where a debate like this is run, those concerned have a duty to both educate and inform the ordinary pilot, and hence some the comments made in the past may not have been in the best interest of the sport.

This article could not have been written without the co-operation of Gary Cook, the DHV(documentation), the SHV/FSVL(documentation) and Robbie Whittall, to whom I am grateful.

STEVE UZOCHUKWU

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The ITV Merak Performance for Everyone!

by Noel Bertrand

translated from Vol Libre Magazine December 1994 by Gary Cook

A new wing from ITV is always a landmark. When they announce a rival to the Phebus, P50, Superspace, UP Vision and other top intermediates, everyone sits up and takes notice!

The Search is Over!

For several years, Michel Le Blanc has designed and conceived windsurfing sails, boat sails and paragliders at ITV. He combines this essential role with that of director of the company. His prototypes are conceived and then laser-cut, test flown and refined in and around Annecy and then given a good workout over the lake! The ITV team is young and well-motivated, and the overall image of the premier French manufacturer is very dynamic. Of major importance to the ITV story is the history of their products - including such excellent wings as the Agena, which has sold more than 1,000 in 1994 - but also their commercial attitude, which rode out the porosity problems which dogged manufacturers at the beginning of the '90's.

ITV's contribution to paragliding can be measured by the number of models they have produced, always original designs, never copied from the competition. ITV were the first marque to use laminated cloth for their production models, and to offer the choice between laminated or conventional cloth for most of their models. In 1994, the range consisted of the Topaze (for beginners), the popular Agena (for intermediates), the Atiks (for competition/advanced, and the Pegase for tandem.

The Merak, flight tested by Joel Favre, Patrick Avenue and Xavier Remond since March '94, went through no less than 6 prototypes before reaching the final version tested here by Vol Libre.

The Approach

The ITV rucksack is pretty good when compared to the many other products available at the moment: it's easy to carry, with discreet colouring in shades of green, adjustable volume, and 3 pockets; the base of the bag is extremely well made, the whole sack opens completely, there are lots of adjustments, etc. One idea that Vol Libre found excellent: a removable pocket on the outside of the sack, with a transparent plastic surface, which unclips, forming an excellent hold-all or map-carrier for the pilot! This is the type of indispensable accessory isn't usually found as part of a rucksack...

The Merak is provided complete with an inner stuff bag, with a large and adjustable volume. This is a good idea, because rucksacks are often a bit tight to accommodate a wing after flight unless all the air is squeezed out and it's packed really neatly.

The colour of the 4 risers are even co-ordinated with the rucksack! The front risers are easily identified in three ways: by the line colour, by a red tag, and because the accelerator system is covered, keeping it neatly in place.

The accelerator itself works by pulling the A-lines by one centimetre, then pulling the A, B and C lines (50%) all together. A trim system with a 4 cm adjustment allows you to optimise your flight, especially in thermals. The trim only has the smallest influence on your speed. The supplied maillons are Stubai white and gold aluminium, the plastic line tidies used are Edel's, the pulleys are the Australian Riley's, and the brake retainer is a solid Inox ring, while the brakes themselves have an integral supple handle. It is this kind of attention to detail which gives the feeling that this is a real "top of the range" glider.

Suspension lines are in the classic layout with 4 sets. Manufactured by Cousin in 1.7, 1.4 and 1.1 mm, they are triple woven on the undersurface. A half-moon shaped Trilam reinforcement spreads the loading onto the intercell walls.

The Merak is available in 2 types of cloth: 44 GSM Nylon Porcher Skytex or laminated Porcher. The trailing edge is reinforced with a braid sewn in a 6-point zigzag pattern. When seen in flight, the cell openings have a rarely-seen and unusual shape - rectangular in the back part and slightly triangular in the front. This eliminates risk of collapse at high speeds on this area, and gives the designer better control of the transverse tension. Only 2 out of the 43 cells are closed at the front. All the other cells have a trilam reinforcement at the leading edge which also keeps an excellent profile. Manufacture of the glider, (1000 gliders per year produced in Annecy, the rest at the Edel factory), is of very high quality.

The "teeth" pattern on the Merak is very distinctive! The longest "tooth" on the pattern graphically shows the centre of the wing, and allows easy positioning for takeoff. The general shape of the Merak is a little less elliptical than we have become used to... This development is becoming common to many manufacturers: US Voiles, Edel, Advance, Firebird...

In Flight

We tried the Merak with the two fabrics available. There was no perceptible difference between the two in flight, either in handling or performance. The laminated version is a little bulkier when packed, but the choice is really made because of the glider's lifespan, looks, maintenance, and also finance - the laminated version of the Merak is (1,000FF) dearer.

Arranged in a normal way (in a slight arc), the launch method which seems easiest in nil wind is with the trims released, brake position high, using the front risers firmly but gently allowing time for the wing to inflate regularly, without any difficulty. Then accelerate for takeoff - which is achieved quickly and cleanly.

The Merak maintains its course well, and has no tendency to overtake the flier. The test pilots recommend setting the trims at 50%, (there is a little mark), which is a good idea in an established breeze. At the first control input, the Merak performs impeccably - immediate precise response, with no tendency to deviate too much in a turn, with pretty ideal pitch/roll co-ordination. When asked about this very subject, Joel Favre had no difficulty in recalling that he was looking for turn characteristics like those of Advance's Omega 3. According to him, this was not easy to find. According to us, he has been successful in his search!

One word of advice... the pilot will obtain optimum efficiency by firmly initiating turns by brake, then releasing just a bit to give an "easy" roll, without becoming "too much" roll, especially if you are using a loose harness - the Merak is sensitive to harness adjustment.

The Merak has excellent stability in a spiral right up to 45°. Maintaining 360° turns in thermals requires about 6kg of pull with the trims on. At 30km/h and with the hang points set 37cms apart (not a standard setting for an easy to fly wing), people with weak arms may have to use the old trick of sticking their thumb into a buckle on the harness. If you actively weightshift in the harness, the force required drops to 5kg, (like most of its contemporaries), and at 32 km/h it drops to 4.5kg.

On the other hand, at the same speed and with the same trim positions in straight flight, the required effort is ridiculously small: just 1.5 kg!

The glider is mellow when leaving a 360, or when reversing a turn, because (like the P50 for example) the Merak is a very solid, reassuring glider to fly. Control of any oscillation by control input at the outside of your turn is effective. According to the polar curve of this wing, which is very flat with a glide angle better than 7 between 31 and 36 km/h, it is a bit foolish to tire yourself out by using masses of brake to fly very slowly. Not only does the glider not fly at its most efficient, but it can end up "sausaging", as well as being at its most sensitive to spinning. When you are looking a spin, you can always find it easily! However, the

Merak returns to normal flight straight away when you release the brakes. ITV recommend setting the trims half-way, on the line of the mark, for flying in bouyant air.

In pitch, the Merak is a very well behaved wing, especially when trimmed in the "thermalling" position - this is particularly reassuring when flying in turbulence. Nicely co-ordinated on the brakes, the Merak remains solid in consistently thermic conditions, and we never experienced a cell closure even at the tips. When we induced collapses, just to see... the glider resisted course changes really well, and re-opens gently on its own. One small touch on the brakes makes the closure open instantly.

Conclusion

A very well constructed paraglider; high-performance, solid in turbulence, pitch-absorbent, pretty fast, excellent spin recovery - the Merak is an excellent whole, genuinely the type of paraglider which will satisfy lots of pilots. Without doubt, the Merak will be a success in 1995. The less experienced flier, flying with a tightened harness, will find that reassuring "ITV solidity" on the brakes. More experienced pilots will enjoy using this glider to the full, using weightshift and skill to achieve their goals!

Conditions when the Merak was tested by Vol Libre:

Temperature:	14 degrees C
Pressure at sea level:	1031 Hpa
Takeoff altitude:	950m
Flying load:	3.13 kg/m ² on the 29
Max. Speed trims off:	36 km/h
Max. Speed trims 50%:	35 km/h
Max. Speed trims on:	34 km/h
Max. Speed accelerated to the hilt:	42 km/h measured w/ Skywatch Pro
Takeoff Speed:	22 km/h with hands at the bottom of the harness
Brake pressure to stall:	more than 10kg (a lot!)
Brake pressure at 30 km/h in a turn, trims on:	6 kg
Brake pressure at 30 km/h in level flight:	1.5 kg
Brake pressure at 27 km/h in level flight:	4.5 kg
360 degree turn reversal at 30 km/h:	3 seconds
30 degree turn reversal:	almost nothing - unnoticeable in thermic flight.
Spiral behaviour:	Stable up to 45 degree inclination. Small possibility of instability at greater angles.
Big-Ears (no brake):	- 4 m/sec at 32 km/h Automatic gentle re-opening, immediate with action on brakes.
Min. Sink for speed:	1.57 m/s at 25 km/h 1.24 m/s at 27 km/h 1.19 m/s at 31 km/h 1.30 m/s at 34 km/h, hands up, trims on 1.33 m/s at 35 km/h, trims halfway 1.38 m/s at 36 km/h, trims off 1.66 m/s at 40 km/h, almost full accelerator
Glide angle for speed:	4.30 at 25 km/h 5.96 at 27 km/h 7.16 at 31 km/h

7.19 at 34 km/h
7.24 at 35 km/h
7.17 at 36 km/h
6.61 at 40 km/h

Tech Spec.

Manufacturer: ITV

Model: Merak

Sizes:	25	27	29	31
Surface Area m ² :	25	26.7	29	30.9
Span (m):	11.3	11.7	12.2	12.6
Aspect Ratio:	5.1	5.1	5.1	5.1
All-up weight (kg):	60/75	70/80	80/95	95/110
Recommended				
Pilot Weight (kg):	53	62	72	85
AFNOR label:	Perfo	Perfo	Perfo	Perfo
Price (£):	2150	2150	2150	2150

Manufacturers: ITV Wind Concept

10 Rue du Pré Félin, ZAE Les Glaisins, 74940 Annecy-le-Vieux.
Tel: 50 64 01 83, Fax: 50 64 00 53

UK Importers: Sky Systems Ltd

Edburton, Nr. Henfield, West Sussex BN5 9LL.
Tel: 01273 857700, Fax: 01273 857722

Just when you thought that Hang Glider
design had no where to go...
along comes
the

Scandal

with



JOHNNY CARR HAS A DEMO GLIDER

Telephone for a demo flight on
0444-471667
or see him on the hill
DON'T MISS IT!

Wind control ! Do we have a problem ?

How we would all like to control the wind, its speed, its direction, the rain, or should I say, no rain today please! and can you set the wind at 12mph. Come on we can dream can't we? We don't have to dream, we can all try to make it happen.

Let us open our minds and perhaps we could find somewhere very large with controllable wind, no rain and a very nice looking bit of man made ridge or bowl constructed from wood, covered in simulated grass (No Trees or Barbed Wire) and placed it in a large Exhibition Hall like the NEC or Earls Court for example, position a good supply of speed controlled fans and, getting any ideas yet! A bit of indoor ridge soaring maybe! Did you know that in France they have indoor wind driven Sail Board competitions, with wind speeds of up to 15mph and using wooden jump ramps set in the water they do fly!

So, who's going to organise all this? - Me? - *"How the cotton risers do I know", besides I'm a bit short of cash this week.*

But if you know a person who can help, A. - Fund some feasibility tests and B. - Is professional enough to run The Big Event: (*"The Great Indoorparafly International 1995" - Please note New Word for English language - Indoorparafly*) with all the World's Top Manufacturers and Paraglider Pilots attending (*Sorry Hang Glider Pilots, you just may be too fast for indoor flight, but who knows?*)

We can then see how any one canopy performs under set conditions and, with some clever controls on the fans, putting in a bit of a mixed storm front, this could be even more fun, - *"give me the controls".*

Also there could be demo flights and a spot landing competition, indoor 24 hour school, etc. etc. - you get the picture. Don't get me wrong now, I would still much prefer to fly outside, but to have choice is a good thing. If you like the idea or have any of your own, then please let me know by writing to me at the address below. Oh! and thank you, my Wind Control! is better already.

Simple Tip of the month: Photocopy your Log Book Today, before you lose it tomorrow.

Andy Chipling - 207 New Haw Road, New Haw, Addlestone, Surrey, KT15 2DP.

NOTICEBOARD

MAGIC IV 166 (C of A) with speedbar, not flown for over a year (pilot unable to fly now). Quick sale as a barain £300.
DAVRON 500 TEC alti-vario in good working order (a giveaway at £90).
Give me a bell on Brighton 0273-687336
Peter Myers

MEDIUM TYPHOON S4 PLUS excellent condition. Superb colours. Less than 10 hours airtime from new £475.

DAVRON BULLET HARNESS with new Justra Stratos parachute. Suit pilot up to 6ft 3ins. Offers £295.

Also, **full face helmet** £40 and **Davron vari-alti** £65. Ian 0171-987-2762 (wk) 0181-850-6790 (hm)

MAGIC KISS 154 red, white, blue. Average condition 0181-686-5947

EDEL SPACE (24/medium) Pink. Less than 1 year old, in good condition.

ACPUL 12A's, flies beautifully, harness with backplate available if required.

Will be buying new glider. £1250 ono
Tel: Tony 0273-464466(Hm)
0273-526564 (Wk)

TANGO DUAL PARAGLIDER as new £1500. The bomb proof wing from Airwave. Chris/Helen 0303-272272 (wk) 0935-825270 (weekends)

7.0 BEACHY HEAD:

7.1 Further to recent meetings the council will be calling a follow up meeting.

7.2 A map of the new launch area will be placed in Windsock.

G. Hopkins

8.0 DEVIL'S DYKE PADDOCK:

A notice to re-affirm that paragliders should not take off or land in the paddock for reasons of safety is to be placed in Windsock.

C. Bere

9.0 CLUB COACHES:

9.1 The next club coaching date was originally set for 25/6 March, but this may have to be postponed due to low numbers.

A. Caple

9.2 The club coaching list is to be updated and placed in Windsock.

A. Caple

10.0 DEVIL'S DYKE PUB:

Following a recent incident, a note is to be placed in Windsock, reminding club members that polite behaviour towards the staff, is important if we are to maintain a good relationship with the owners.

M. Brady

11.0 NEXT MEETING: 7TH March 1995 at 7.30 p.m. at Devil's Dyke Hotel.

WINDSOCK

Send contributions, gossip etc, etc, to:

WINDSOCK

c/o P.O. Box 1359

Brighton

East Sussex BN1 4QX

(This is your mag - help to make it interesting)

Readers Please Note:

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- The views expressed in articles, letters, etc herein are not necessarily those of the SHGC, its Committee or the Editor.

WEATHER MACHINE

Devil's Dyke:

0273 857002

See notices in Windsock for updated services.

COPY FOR WINDSOCK

- Handwritten clearly (my eyesight's fading)
- Typed - onto A4 (if poss., reduced to A5 size - I'm as lazy as you are)
- On a floppy (disk), readable by WORD
Thanks!

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

ADVERTISING DISPLAY RATES

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quarter page	£7	£13	£24	£42
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full page	£21	£37	£66	£105
back page	£31	£48	£75	£125

SMALL ADS:

Small Ads are free to members or £2 each to non-members. They will appear for 3 issues of Windsock before being removed

PAYMENT FOR AD

Cheques and postal orders (no cash) should be made payable to The Southern Hang Gliding Club and sent in with your copy.