

Dales Hang Gliding &



Paragliding Club

NEWSLETTER

SEPTEMBER-2007



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In Spring they perform this Aerial Courtship Display

Editor's note....

This is probably the shortest newsletter I've put together since taking over the position of Editor. With better weather (at least some of the time) in August, it's apparent from our web site that a lot more flying has been going on. Already though, the nights are starting to draw in, and opportunities for local evening flying becoming more limited - at least my boss will be pleased as I'll no longer be trying to slope off early.

I'd like to be able to sustain the quality of the newsletter for the last couple of issues before quitting, but in order to do that I need articles from you - the members. It's a bit of a mantra really, it's your club/your mag, and if you don't write anything, it's an empty space. The committee members have generated a number of articles but I'm sure there are a lot of members out there all with an interesting story to tell.

September has often yielded some nice flying. I've noticed that thermals are still being quite punchy at times. This is probably due to the fact that the land/air temperatures never really quite got going this summer due to so much inclement weather, so we still have the potential for a lot more thermic activity. Maybe I'll put together a Met briefing for a club night presentation.....Maybe.....Fly high, but fly safe.

Ian



How to fly - submitted by Trevor

REMEMBER

1. Straight Legs
2. Flap arms
3. Pray
4. Cape
5. Pants outside trousers....

Trevor has been spotted limping of late - maybe he forgot to pray?

A TRIP TO ADVANCELAND!

HQ VISIT AND INTERVIEW THOMAS

I think if I go abroad to go flying and I get 4 flyable days in a week then I am doing well and must have done something to appease the weather gods! In April this year I had the rare pleasure of 11 days excellent flying conditions (you remember, in the UK that was summer!). I was in Interlaken, Switzerland - home of Advance paragliders to visit the Advance HQ in Thun and speak to Thomas Ripplinger the Advance designer and attend an Omega 7 training camp run by Kari Eisenhut.

Thun, home of Advance's HQ is at the top north end of Lake Thunersee, Interlaken sits at the south end of the Lake, and below Interlaken is lake Brienersee. To the north of Thun the mountains give way to softer and smaller hills and ridges whilst a journey south will take you into the higher Alps and the peaks of the Eiger and Jungfrau mountains. The layout of the terrain draws the obvious comparison to the area around Annecy, another very flyable arena. The Interlaken area has been described as 'the equivalent to flying that Maui is to surfing' - a fitting description as I was to find out, my visit being blessed with the best April that anyone could remember!

My train arrived at Thun Station with typical Swiss clockwork precision and I was met with a smile by Daniel Frutiger, the Advance marketing manager. Daniel is a laid back character, his casual clothing, flip flops and ear ring are not necessarily what you would imagine the job title implies! Being born and bred locally, Daniel has returned home to work for Advance after leaving a job with Salomon. Daniel was very keen to put over to me the Advance philosophy, saying the company was very safety conscious and aims their products squarely at target groups. 'I would rather someone buy a wing from another manufacturer than buy an unsuitable wing from us'.

Tuesday morning dawned and we set off to the Advance HQ. I was introduced to the staff (all smiling) and shown around the facility. The large central workspace was full of shelves of prototype and demo gliders, racks of risers, boxes of lines, sewing machines and a long table with a strange measuring device bolted to it to enable line manufacture etc. Everyone seemed busy but friendly. I was introduced to the very young looking Chrigel Maurer and very English sounding Steve Cox, Chrigel having recently returned from the first PWC round of the year in Japan. Both were friendly and talkative but soon collected the risers, lines and other bits and pieces they needed and disappeared off to fly...

On the floor in the large main working area was a production version of the Alpha 4 - the new DHV1 glider - which had long strips of different colored repair tape stuck to the lower surface in preparation for being dispatched to EN for testing. These strips were to mark angles on the bottom surface of the wing to ensure the correct collapse was induced, at the correct angle for the EN tests to be satisfactorily conducted.



I was shown into a meeting room where Thomas Ripplinger soon arrived wearing the customary Advance smile. We chatted and I asked questions. The interview is at the end of this article. Thomas came across as an out and out scientist, a real technical engineer with a passion for his work.

One of the consistent impressions my visit left me with was the philosophy adopted by all - the Swiss attitude and desire to build the best product - one that would continue performing for the lifespan of the glider. The attention to detail and quality of Advance products has always been a benchmark within the industry - I can see why!

Another philosophy which came across was that "Advance build gliders for pilots to fly not gliders to pass the DHV". These same sentiments were expressed by Thomas, Kari and Daniel when I spoke to them individually. As Daniel said "some people look at the DHV results to judge a glider but this does not tell the story. For example, a glider can be a demanding 1-2 or easy 2!" He explained that Advance split their market into 4 and build their gliders to suit the pilots in these groups.

I asked about the design process and Daniel explained how it starts with a meeting of all concerned to review the current glider to be replaced. Design, testing and marketing are all involved. "It is important to know the strengths and weaknesses of the current glider and use them as a starting point. To identify and keep the strengths is as important as improving the weaknesses. The changes aimed at improving the weaknesses must not weaken the existing strengths!" So from this meeting a book is started to detail the criteria required for the new glider. This 'bible' guides the development and gives the team a direction and goal. The glider is developed and then "flown, flown, and flown".

The team prides themselves on the amount of testing done in 'real' conditions -i.e. flying! One of the last processes is then the comparison with other gliders, then if all are happy then the glider is released.

OMEGA 7 CAMP WITH KARI EISENHUT

The following days saw the Omega 7 camp take place. This was a four day course run by Kari to familiarize pilots to the Omega 7 and obtain the best from the glider.

Kari retired from competition flying at the height of his career after winning the European Championships and PWC titles and opened a Paragliding school in the centre of Interlaken. He also heads the Advance Test Team and coaches the Advance Competition Team! He is a very busy man juggling testing, teaching and his many other duties yet he comes across as a calm and unflappable character befitting of the school name "Chill Out"!

The days were split between a daily morning briefing and two daytime flights, with the emphasis on a training flight as the first flight and a fun flight second as you have now earned it!



We visited different sites and flew around a large area around Interlaken. One memorable flight took me along the north face of the Eiger! That's one big lump of rock!!



We were presented with the 10 Point Omega 7 Training Plan as follows;

1. learn to fly at all speeds
2. know your brake range
3. fly fast while thermalling
4. learn point and feeling of spin
5. learn stall point
6. spiral more than 12m/s
7. Front Stall [symmetric deflation] with speed
8. know how to deal with cravats
9. 65% collapse with speed
10. fly in turbulent air until the wing collapses

So, over the space of four days we flew many different tasks each designed to concentrate on one or more of the exercises on the plan. One particular day we were driven to a ridge with booming conditions where we were introduced to Chrigel Maurer and Andy Aebi, two of Advances successful competition team.

That particular days exercise was number 10, so off we went racing up and down the ridge as fast as we dared. Interesting! Lots of collapses around, but nothing that caused any dramas. Kari told us afterwards that he was flying at 50-55kmh all the time and not turning in any lift less than 5m/s! These boys are seriously fast and are so used to flying like this that it was all a walk in the park to them! Seriously good...

Another day we flew out over the lake for a couple of SIV flights. The prospect of Searching for stall, searching for spin and full speed bar collapses was intimidating but in reality pleasantly uneventful. Even my overly zealous heavy handed riser pulling which resulted in an 85% collapse at full speed was easily controlled and recovered in less than 180 degrees. All confidence inspiring stuff and all with Kari's relaxed tones in the background.

All in all a great course!



SIV Day Boat



THINKING OF VISITING INTERLAKEN?

There is an excellent train service from Geneva Airport taking about 3 hours. I bought a 'Swiss Card' for about £90 which gave me a return trip from the airport to Interlaken and 50% reduction on nearly all trains, cable cars and funiculars, although the majority of the cable cars were closed when I visited.

There is accommodation to suit all tastes and pockets - I stayed at the excellent Backpackers Villa Sonnenhof. Everyone staying there was given an Interlaken Visitors card which gives free access to the excellent public pools, spa and gym and also free use of local busses. Kari's paragliding school is in the grounds of the Villa which is adjacent to the large central park where the main town landing area is - 5 minutes walk to my room! I was able to walk to the landing area and pay the local schools or tandem operators for a lift to take off (approx €5) with ease.

links-

Advance paragliders <http://www.advance.ch>

Kari Eisenhut Chill Out Paragliding <http://www.karieisenhut.com/>

Geneva Airport website <http://www.gva.ch/en/Desktopdefault.aspx/tabid-11/>

Swiss railways - has excellent online timetable info <http://www.sbb.ch/en/>

Backpackers Villa <http://www.villa.ch/>

The Thomas Ripplinger Interview....

JE Which wings have you designed?

TR Part time on the Alpha 3 and Omega 6, I designed the Sigma 6 onwards. In competition gliders from 2003 onwards - I designed the glider Steve Cox won the World Championships in Brazil and the Swiss League on.

JE My girlfriend flies an XS glider. How much does the size of a wing change the performance and handling?

TR The small sizes are more dynamic, performance suffers due to the effects of Reynolds numbers. Scaled down wings do not yet also have scaled down material and line thickness. To soften the dynamic reactions we use slightly less wing loading and change the cell openings to reduce the speed of re-inflation and to avoid shock re-inflation.

JE What do you think are the benefits of conducting lots of your own development rather than taking all the best bits from other gliders? (Thomas looks a little surprised at being asked this!!)

TR Advance aim to lead design not copy others, we have enough development ability to do this. Paragliders are more than just the individual components, each designer and company has an ethos, a style they use as the design criteria for their gliders so the idea of collection of individual elements from other gliders would not work - the sum of the individual parts would not produce a better 'whole'.

JE Do you conduct direct comparisons with other manufacturer's products?

TR Absolutely. When we are close to the completion of a model we will collect four or five of the best gliders from other manufacturers and test them all back to back with our own wing. Only when we are happy with the results of these tests will we release our glider.

JE do you see other manufacturers producing remarkably similar gliders to your designs? Thomas smiles wryly and chuckles at this!

TR Yes!

JE What do you see as the next big step in performance? 3 riser technology?

TR The improvements in internal structure. For competition gliders, for sure the 3 riser system will be standard. For serial gliders the problem is more complex. The DHV load tests stipulate that the C and D risers combined [or C only, if there is no D] must be able to take a load of 6G of the maximum certified load. To achieve this means fitting extremely thick C lines or end up with a mixture of line material. At Advance we are not happy with the use of Dynema for the long main lines

TR (continues) Although Dynema is stronger than Aramid for a given diameter the shrinkage on Dynema lines is measured at approx 1%, where Aramid lines the figure is only 0.3%. As you can imagine 1% on a line several meters long is a huge amount. So for safety and longevity we use Aramid lines - we want to ensure the minimum chance of the glider going out of trim. Maybe the DHV test requirements need revising and possibly bringing into line with the PWC requirements. For PWC load tests this figure is only 4G. The tests conducted by DHV to develop the 6G figure were conducted almost a decade ago!

JE What do you see as the 'next big thing' in safety?

TR The high-arc concept. This makes the canopy inherently more stable and able to be flown faster without collapsing. When it does collapse there is a lack of turn. One of the competition prototypes we have been testing would actually turn away from the collapsed side! In the past few years as designers are using better scientific tools the designs have become safer as there is a greater understanding of airfoil reaction. The gliders are generally better - there are not the same gliders with terrible reputations out there as there were in the past.

JE What is your opinion of the DHV vs. CE certification?

TR Having two certifications which are basically 99% the same [CE and DHV] is an expensive thing for paragliding companies, the costs of which get passed on to the pilots. A common certification would be good.

The CE certification and the DHV is basically the same test. To sell a glider in the German market it must have DHV and to sell in the French market it must have CE! This means duplicating the testing. For each glider that we require testing we have to give a complete glider in all sizes to the testing body plus an additional glider for the load testing. So for a glider like the Omega 7 with 4 sizes that's 5 gliders to each! So that's 5 gliders for DHV, 5 for CE and if we want the glider passed for paramotor use then that is another 5 for the DULV! We reckon it costs €20-30,000 to test all the sizes of one model!!

We currently have an issue where the Alpha 4 test results are inconsistent. The DHV and CE have come up with greatly different results for the descent rate in spiral dive, due to the technique of the test pilots. As a manufacturer this means a lot of time explaining to our importers and dealers that there is no difference between the gliders tested, just the amount of brake the test pilots pulled to achieve the measured result!

JE The CE tests will enable manufacturers to test their own products. What are your feelings on this?

TR Advance wants independent testing of their products.

JE One thing all my friends want to know - winglets? Thomas smiles, I'm sure it is not the first time he has been asked

TR Well, there is definitely a small benefit from the winglets due to the reduced tip vortices. However one can argue whether this is cancelled out by the extra form drag. In addition to this there are at least a great tool for the brand recognition.

JE Thomas, thank you for your time.

TR Thank you.

AROUND THE CLUBS - CUMBRIA SITES NEWS

Nothing to report this month. The Foot and Mouth outbreak and restrictions seems to have gone away for the time being.

BCC

The Dales BCC team finished in a well deserved second place. The weather at the Final in Wales did not allow a task to be set so the final result was decided by the scores from the rounds. The Northumbria club took first place, followed by the Dales, and in third was the Cumbria Club. Thanks to everyone who took part in this year's competition, let's win it next year!

Regards

Kevin



Dales BCC Team 2007

CLUB NIGHT

At the Riverside in Ilkley - check the Web site for details.

FOR SALE

Wether Fell - or at least bits of it. Peter Balmforth "I checked and the land in the pictures seems to be towards Gayle....".

Thanks for the heads up. I have checked the details on a 1:25,000 map and although lot 3 is actually pretty close to Wether Fell it is to the north of both take-off and the bottom landing field (the one with lumps in). Although we will be flying over the land the change of ownership it shouldn't affect us. Hopefully the new owners will build some nice thermal triggers for us!

Martin Baxter - Sites Officer.

| HANG GLIDING CLUB COACHES | | | |
|--|----------|--------------------|---------------|
| <u>Trevor Birkbeck</u> | Various | Ripon | 01765 658 486 |
| Kevin Gay | Weekends | Ripon | 07973 293707 |
| Nick Devlin | Weekends | Otley | 01943 463420 |
| Alistair Irving | Various | Huddersfield | 01484 844898 |
| Steve Mann | Weekends | Kirby Moorside | 01751 433130 |
| PARAGLIDING CLUB COACHES | | | |
| <u>John Ellison</u> | Various | Gargrave | 07791 887693 |
| Les Cowling | Various | Haworth | 01535 646048 |
| Noel Whittall | Various | Leeds | 0113 2502 043 |
| Steve Mann | Weekends | Kirby Moorside | 01751 433130 |
| Liz Addy | Weekends | Settle | 01524 251682 |
| <u>Pete Logan</u> | Various | Shipley | 07720 425146 |
| <u>Peter Spillett</u> | Weekends | Skipton | 01756 760 229 |
| <u>Sara Spillett</u> | Weekends | Skipton | 01756 760 229 |
| Graham Laycock | Various | Rastrick | 07717 375594 |
| John Callum | Various | Wensleydale | 0797 417 1175 |
| Tony Pickering | Various | Otley | 01943 466632 |
| Zena Stevens | Various | Otley | 01943 466632 |
| Sean Ogi | Various | Howarth | 01535 642304 |
| Kevin McLoughlin | Weekends | Lancaster | 07767 652233 |
| Alex Colbeck | Various | Harrogate | 07717 707632 |
| Martin Baxter | Various | Catterick Garrison | 01748 830748 |
| Richard Cardwell | Weekends | Teeside | 01648 812184 |
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