



BKFA Update

No 5 September 2006

Annual General Meeting

The AGM of the British Kite Flying Association will be held in the function room at

**The Lamb Tavern
94 Lamb's Conduit Street
London WC1N 3LZ**

on **Sunday 15 October 2006** beginning at **2.00 pm**.

This is the first Sunday after One Sky One World, as agreed at last year's AGM.

We have chosen one of the nicest and most traditional Victorian real ale pubs in central London in the hope that as many clubs as possible will find it possible to be represented there. Please make every effort to send at least one representative. For the same reason John Dobson our secretary has circulated this to everyone on his mailing list and not just the specified club representative(s).

Please let John know by 22 September of any items you want included on the agenda. He will then send the detailed agenda as soon as possible thereafter to this mailing list. Please let him know if you wish to be included on his mailing list.

It would help (but is not essential) if John could be informed of planned attendance by 8 October, by email to secretary@bkfa.org.uk

Please note that anyone, Council member or not, is welcomed to attend the meeting. Our constitution says that only Council members or their nominated deputies may vote on resolutions.

This is an opportunity for all kite fliers to get involved in the way BKFA develops – the Association was formed to represent all UK kite fliers.

We have recognised that not all clubs wish to become members but that some of their members wish to support BKFA. In order that those supporters can get involved, we have set up a supporters section within BKFA. The whole section is treated as if it were another club so that clubs still have the largest say on BKFA policy and development.

If the insurance question can be resolved (and we are still working on that) the intention is that insurance will ONLY be available through member clubs, and not to the supporters section: it has always been the intention to strengthen local clubs not to risk drawing members away from them.

BKFA Kite Inventor 2006

This year's Bristol Kite Festival hosted the BKFA Kite Inventor of the Year, which is intended to encourage invention and innovation in all aspects of kite flying, from design through to components and techniques.

Speaking at the presentation Judge George Webster said:

“Together with Bristol Kite Festival, The British Kite Flying Association seeks to recognise and reward innovation in kite flying. The judges were asked to consider an open competition for anything new, e.g. a new design of kite, a new method of kite construction, a new bridle design, a new style of decoration. They decided to interpret ‘new’ as meaning ‘done for the first time in 2006’. They agreed not to recommend an award if the standard was not high enough.

“There were seven entries from six individuals and it was clear that there was ample quality to merit an award.

“The judges are unanimous in making the award to Peter Lynn for his AP ‘foil.’”

The ‘adaptive profile’ is a new system of bridling where the profile of the ‘foil changes with the angle of attack. The award was made in association with the organisers of the Bristol Kite Festival who were celebrating the 200th anniversary of Brunel’s birth – so even more appropriate as we know Peter is a fan of the great engineer and 19th century innovator.

The competition was judged by George Webster, Martin Lester and Janneke Groen. They considered any entries brought to them and walked the field looking for other new ideas and designs. The final entrants were:

- Phil McConnachie of Australia and New Zealand with his Eo kite. This new ‘box’ kite consists of a number of interlocking ovals that hold a box form in the air but which can be squashed flat when not flying – and all without introducing any spars to spread the kite.

- Karl Longbottom entered a novel device designed to give a graphic indication if a ground stake moves. Karl is concerned with all aspects of kite safety and realised that a flier often doesn’t realise that a ground anchor is starting to move under load. His prototype device is designed to ‘pop-up’ a warning flag if there is any movement in the anchor. In a rather more light-hearted vein, he also entered his ‘pants’ kite, a totally new shape of flat kite representing a pair of Y-fronts.



- Anke Sauer entered her ‘Jack-in-a-box’ kites. The judges were impressed by these but they were not strictly new for 2006, having first been seen last year.

- Tessa Schlechtriem also from Germany entered her cat kite. This innovative shape combined the form of a Korean fighter surmounted by a cat’s head, and flew with the Ohashi style single leg bridle.



- BKFA Chairman Andrew Beattie, in a pretty dubious move, entered a method of untying knots that have been tied very tight. The judges felt obliged to consider the entry, for fear of upsetting the Chairman who does have very delicate sensibilities and is easily upset - they judged it as 'interesting....'!

But the winner was Peter Lynn with "AP 'foil". George Webster described it:

"This was first flown at a recent Sarawak kite festival. It was shown to the judges twice and Martin flew it.

"AP is a revolutionary bridling system which allows the profile (or wing section) of the kite to change as the angle of attack is changed. So on the four line 'foil the flier can operate at full power or by pulling on the top lines seamlessly move to a de-powered kite whilst always remaining in control.

"Peter claims that the bridling system will soon be universal on all his foils and will then be extended to other traction kites. We agree."

Peter has been working on this idea since the early '90's. "The theory underlying AP is that the appropriate profile for minimum pull, when very low angles of attack and maximum luff resistance are required, is not the same as the best profile for maximum pull, when high angle of attack and good stall resistance are desired."



Peter continues: "finding the right solution is a bit like trying to find the top of a mountain in thick fog: you find an upward slope and start to climb. You get to a point where the ground levels out but until the fog lifts you don't know whether you have reached the top. With AP you try a solution, fully develop it and then try it on other kites, only to find it doesn't lead where you hope. This time I believe I have it right and although the 'foil is the only fully working model, I believe it can be adapted to other types of kite.

"The C-Quad version, perhaps the most promising of all, is unluffable, and has 100% de-power but cannot be adapted to a bar and requires impossible wrist strength when flown on handles."

Overall, we feel the award was a success and we hope to run the competition again in future years.

Hinckley Ban averted

BKFA has been supporting Steve Sutton, Shirley Turpin (of the Highwayman) and local buggy flier Andy Etherington in their successful work with Hinckley Council to avoid a kite flying ban on council owned land in the borough.

Concerns had been raised about the risks posed by kite fliers, and buggiers and boarders in particular, to other land users. Using the BKFA risk assessment, Shirley, Steve and Andy met with council officials and agreed controls that would give the council the assurances they needed that kite fliers could and would ensure they acted in the interests of all users.

Amongst plans now being worked up are a permit system, where permits will only be issued to fliers who can show they carry appropriate insurance and who have signed up to a local code of practice.

Some fliers may be concerned that this approach is limiting their freedom to enjoy their sport where, when and how they wish. BKFA's view is that as kite fliers, we all need to demonstrate a responsible attitude and that we need to show we can share the land with other users. For their protection we need to carry adequate insurance and if the permit system is required to prove that we have that insurance and that we are committed to flying safely and reasonably, it is a small price to pay for continued enjoyment – much better than an outright ban.

Our thanks to Shirley, Steve and Andy for their efforts on behalf of all kite fliers.

Schools education

Jerry Swift represented BKFA at the end of June when he went to Oadby near Leicester to support Steve Sutton and his partner Helen Hancock. Steve has got together with Flexifoil to promote kites in schools, and what a job he is doing of it. Steve and Helen are members of MKF who are supporting their work: David Buckland was along for the Leicester session.

Steve and Helen are working in Oadby and Wigston district. They have set up a schools kite league that currently has 22 schools involved. They have created a 'schools only' forum within the MKF website. They have arranged, through Flexifoil, for a 'bank' of kites to be available for schools to draw upon and Flexifoil are offering discounts to schools.

A number of trophies are now available including The Highwaymen Trophy for display flying, The MKF Craft Trophy for kite construction and the Schools Project Trophy for an altitude race – first to 250' with a Cody!

The team are also launching a 'Safe Flying Certificate' in association with Flexifoil. The certificate will be awarded to kids and teachers who can show they know all the kite safety rules, that they can assemble and fly a number of simple manoeuvres with a two line kite and that they can dismantle and stow the kite.

They have been out teaching the teachers, and indeed the day Jerry joined them was a taster day for local teachers. They all got to make a workshop kite and fly it, and then got an opportunity to fly sport and traction kites.

Commenting on the day, Jerry said "it was clear the teachers got a lot out of this, It is also clear why so many kids are getting hooked on kiting through this programme. Only two issues – a suit (he came straight from work) and forgetting the hay fever tablets were not a smart combination in the middle of an uncut hay field!"

The pack issued by Steve and Helen contained useful websites, a description of the Beaufort scale, poems on kite themes for younger children, notes on using kites as part of the curriculum and information from both Highwaymen and Flexifoil – all in a very professional presentation and one that will undoubtedly bring more kids into kite flying.

Franchesca Caton is providing assistance with patterns for making kites and is offering telephone assistance to teachers with kite making projects.

The project now has a social worker, Helen, on board who is conducting case studies into the project: there is already evidence of the changes that the project has brought to a few difficult kids so it is vital that this is documented and shared to encourage others into this approach.

Steve and Helen, working with Flexifoil, are planning a big press launch for the project in October or November – BKFA are hoping to be there.

BKFA will continue to provide what support we can to Steve and Helen, and of course we would be delighted to come and support other groups if we can add value.

Royal Aero Club update

A somewhat overdue report on the RAeC AGM.....

Jerry Swift attended the AGM of the Royal Aero Club earlier this year, and received a very warm welcome from other members across air sports. Many felt that kite flying had finally 'come home', and several recollected how their aviation careers had been inspired by early adventures with kites.

There is a fundamental change under way in the regulation of aerial activity, with much now being carried out by the European Aviation Safety Agency (EASA). EASA take the lead on most matters relating to the safety of aircraft and their operation and as a result the Air Navigation Order was re-published in 2005 to take this into account: BKFA are currently undertaking a review of the ANO to determine what effect (if any) this has on kite flying.

With this switch in regulatory activity and the move towards common European standards, RAeC and its members are very active in Europe, shaping the agenda for the future. Indeed, much of the work, particularly in general aviation, is led by the British.

One of the key shifts in European regulatory policy is the move towards self regulation by standard and risk assessment. This means that regulators expect lead bodies to have a comprehensive suite of standards backed by risk assessment. Regulatory activity is directed towards compliance with standards rather than setting standards in the first place.

RAeC has an extensive archive at the RAF Museum at Hendon. There is much of interest to kite fliers. Work to conserve and archive the collection is coming to an end. If you are interested in accessing this material, please contact Jerry.

We receive a constant flow of information from RAeC (two or more emails a day – they have a full time paid general secretary). Most relates to general aviation matters. Anything of interest to kite fliers will be added to the BKFA website and where appropriate it will be circulated to clubs. If anyone has wider in general aviation matters (the current 'hot' topic is Mode S Transponders (!), please contact Jerry and arrangements can be made to forward material.

KARA 2 attempt



BKFA was on hand to witness the second weekend booked to attempt to break the current UK altitude record for a train of kites, generally accepted as Cody's 14,000'. The first weekend in Lincolnshire achieved a height of 3,966' – this time it was hoped to go all the way (a report of that first weekend can be found on the BKFA forum).

The record is being sought with a train of 1m and 2m rhombus kites. Chosen because of their stability and high flying angle, these kites

have performed well when in trains of up to three. This attempt would see four 1 metre kites followed by three or four 2 metre kites.

Attempts on Saturday 26 August were abandoned completely – just not enough wind. The day was used to ensure that equipment was ready and that everybody taking part knew what they needed to do.

Sunday 27 August saw the day dawn bright and clear. Cloud cover was variable throughout the day, varying from around 10% to 90%. Winds were also variable, generally in excess of 6 mph but gusting to 19 mph plus, and averaging around 9mph – with the gusts right on the upper limit of these kites.

The team started to arrive from around 06.30. Led by Dennis England, it included Peter Musk, Mick & Carol Beasley, Damion Tyson, Scott Butler, Chris Addicott, Kevin Heasman and John Ostler, Steve & Derek Neal. BKFA was represented by Jerry Swift whilst Carolyn assisted the team.

The first kite was launched at 0756. It didn't stay in the air long. There was a problem with its trim so it was recovered and re-trimmed. This is a fairly time consuming procedure and is probably one of the biggest risk areas of this attempt.

The second attempt started at 0824. More successful, this launch saw four 1m rhombus kites fed into the air, followed by the first of the 2m kites. This was where the real problems started. With some 11,000' of line out, kite number four was looping wildly. It was hoped that the 2m kite (number 5) would calm it down, and to a certain extent it did. But number five was also pretty unstable and by this stage the only way the train could be managed was by extensive use of 'line grabbers', large ground stakes and a car to pay line out: it took four people to hold the kites which were running through a 'sky pulley' attached to a tractor, then through another ground pulley before being attached to the car.

With a total of 13,000' of line out, it was decided that the unstable number five kite needed to be retrieved in order to trim it. A 'line grabber' was attached and then it was noticed that the line was showing signs of damage, probably by the grabber. With wind strength increasing, less than 2 hours before recovery would have to start in order to complete it before dark and a weakened line, the decision was taken to abandon the attempt. By this stage number four kite rear cell had collapsed and number three was looking unstable.

Number one was stable throughout the flight whilst number two showed varying degrees of stability. All kites were flying on a single line, with the line passing through the front and back longerons of each kite. Whilst this is undoubtedly a very strong arrangement, never relying

on the structural integrity of the kite to transfer the load between each element of the train, it does limit the ability of the kite to compensate in anyway for varying wind strength.

This is evident from the fact that number one was stable, whilst identical kites further down the train had varying degrees of stability problem.

Recovery was a slow process. The line was fixed to the tow car which then slowly pulled the train down. When it got to the end of its run, the line was secured, the tow vehicle returned to the start and the process was repeated. The 2m rhombos and two of the 1m kites were all successfully recovered; on kite number four both cross spars in the rear box were shattered.

Again a line grabber was secured. What happened next is not entirely clear but looking at the end of the line it is believed a sharp metal edge on the grabber cut into the line sufficiently to sever it. Two kites, the barograph recorder and some 4,000' plus of line were lost. They were last seen heading out across The Wash, climbing. They probably suffered a watery grave in the North Sea, possibly with the top kite flying on, the bottom acting as a sea anchor.

Clearly the team were bitterly disappointed. Estimates of height reached, based on angle and amount of flying line out, vary between 6,000' and 9,500', but in truth we are unlikely ever to know.

Discussing the event with the landowner, John Atkinson, Dennis expressed concern that he could not afford to repeat the attempt next year. To everyone's surprise and delight, John volunteered to sponsor the purchase of a further barograph recorder if the team return next year for another attempt. He has turned out to be a real star, totally supportive and totally committed to success.

A number of lessons have been learned and the team are now discussing what kites to use and how to handle the vast length of line required for this attempt. It is clear that more than six rhombos are simply not manageable. Three require hauling with a car and securing the lines is very tricky. Multiple reels of line present real line handling challenges, even more difficult when lines need to be joined, despite the very clever metal joiners devised for the record attempt.

Running the line through the kite appears to induce significant stability issues. An alternative approach may be needed.

The 'line grabbers', whilst ingenious are clearly a weak point in the system and the team generally agreed some other method is required. There is general agreement that any further attempt will require fixed loops in the flying line that can be used not only to join lines but also to add kites and to enable the line to be attached to a strong point: inserting 'line grabbers' is too likely to damage the flying line.

Some critics may feel that all these lessons should have been learned whilst this project was in development. BKFA feels that would not be fair. Until the whole system was pushed to the limit, in terms of height and wind speed, the weaknesses would not have shown up. Moving from two or three kites in train to four plus a 2m rhombo demonstrated far greater handling difficulties than had ever been encountered before – there was no rehearsal for this.

Some may also suggest that Cody and others had already demonstrated the method required (even if the kites that should be used were open to challenge). That may be true but remember the Germans who achieved 31,995' over Lindberg on 1 August 1919 spent years perfecting their techniques, and flew very high with huge resources on a virtually daily basis as part of their meteorological research. Cody for his part was perfecting his system over many years, again with huge resources at his disposal including much of the Royal Balloon Establishment at Farnborough.

So BKFA would suggest Dennis and the team achieved a great deal, and would further wish them every success with a further attempt next year.

And finally.....

A huge thank you to Franchesca Caton for doing such a marvellous job with the banner that she has kindly donated to BKFA. First seen at Portsmouth, it got a further outing at Bristol.

