

# THE KITEFLIER

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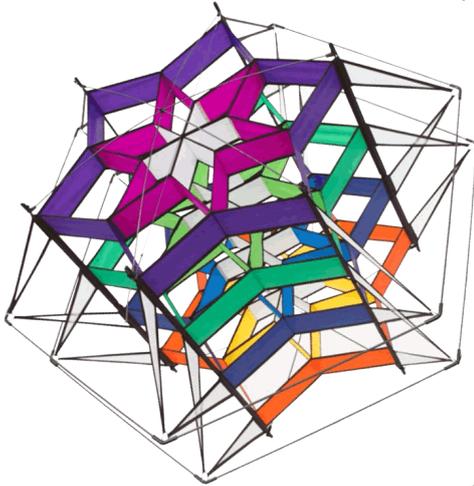


**Issue 147      April 2016      £2.50**

**Newsletter of the Kite Society of  
Great Britain**

# KITEWORLD

All The Fun Of The Air!



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## Editorial

It is the start of a new Kite Flying season. Times are hard for kites and kite festivals. Money for kite festivals in the UK is drying up and it is harder to get the support they need. Do we want to end up with just a few small scale events. Is that what kite fliers want? Let us know your thoughts,

On this subject we received the following about the Bristol Kite Festival.

**Update Bristol International Kite Festival** Last summer following our move from the Festival's usual site in Ashton Court we successfully held the event on the Downs in Bristol.

Moving the Kite Festival to a new site involved a huge amount of work and effort, particularly by the organising committee, all of whom give up their time for free to run the event on top of full time jobs and family commitments.

**Front Cover**  
**The Editors hard at work— it's a hard life but someone has to do it. At the Dubai Kite Festival.**

Looking ahead we have decided to look at holding the Festival every two years and to take this year (2016) as a breather so that we can plan ahead and secure the necessary sponsorship to make the event a real success in the future.

The Festival organisers would like to thank all the traders, site services, kite flyers and crew for helping us make the move and also the public for continuing to support the event. We hope to see you all again in 2017.

For further information contact Avril Baker, Festival Office on 0117 0977 2002 or [kites@abc-pr.co.uk](mailto:kites@abc-pr.co.uk)

See you on the field somewhere

Gill and Jon

Membership Type	Fee
Electronic Subscription (Individual or Family)	£5.00
Household (Individual, Family, Senior)	£15.00
Overseas (Europe)	£25.00
Overseas (Rest of World Airmail)	£30.00
Overseas (Rest of World Economy)	£25.00

*Whilst every effort is taken to get the details correct The Kite Society cannot be held responsible for any errors or omissions that occur. Opinions expressed in this magazine are not necessarily those of the Editors or The Kite Society.*

## Peter Powell—29th June 1932—3rd January 2016

Peter Powell, who has died aged 83, developed the first two-line steerable kite, selling millions worldwide and sparking a stunt-kite flying craze.

His interest began in the 1960s when he was trying to help a young cousin fly his new kite – a traditional diamond-shaped kite with a string tail. “The wind was wrong either too low or too high and he was so disappointed,” Powell recalled. “From that moment forward I became obsessed with creating a kite that would fly in any wind”.

Two years after he began experimenting with different designs he patented his first kite – a six-footer – with which he went for a world record of highest-flying kite: “The lines snapped and I lost the kites.”

After that he decided to go bigger and made 30ft kites and sat a 70-year old woman on a swing seat suspended from seven of the kites as they rose from the ground. The stunt was filmed by the BBC and his doughy guinea pig earned a Charlie Chester award for providing public amusement.

One day Powell was flying one of his 6ft kites and noticed a list to one side which he tried to correct by attaching a separate line to the other side. It caused the kite to loop, so for fun he attached a third line and found he could loop the kite to right or left. Then, one night, he thought about removing the centre line and just tethering the kite with two lines on either side: “To my greatest relief the kite controls behaved intuitively... The lines did not lock together and the kite [carved] arcs in the sky.”

After two more years of hard work, in 1972 he launched the 4ft steerable stunt kite on to the market. The kites came with a long, hollow polyethylene tail that was inflated by the wind, making them stable and adding to the visual effect as they performed stunts.

To begin with Powell sold his kites from the back of his car, then began to advertise them by flying the kites over the sea front at Paignton. A breakthrough came in 1975 when his kites were featured on the BBC’s Nationwide programme. As orders skyrocketed, Powell opened new factories to produce 75,000 kites a week.

“It quickly swept across the whole world,” he recalled. “Before then, only children had

flown kites, but after that everyone had them.”

In 1975 he won a silver diploma at the Exhibition of New Inventions and Techniques in Geneva. The following year his kite was chosen as toy of the year by the British Association of Toy Retailers. By the late-1990s, however, profits had started to dwindle and – believing his kites had had their day – he set fire to more than half a ton of equipment. In the meantime, however, his sons, Mark and Paul, had started to develop their own, revamped, take on his classic model, and in 2014 Powell and his sons launched an online shop with a new retail outlet in Cheltenham.

“Having a kite is freedom,” said Powell. “You’re up on the hilltops in the open air. There is no better feeling.”

Peter Trevor Powell was born in Gloucester on June 29 1932 and educated locally. After National Service in the RAF as a mechanic working on Gloster Meteors, he had a variety of jobs, before founding a company which specialised in painting white lines on roads. It was during this time that he started to experiment with kite designs.

Powell’s wife Christine predeceased him. He is survived by his two sons and four daughters.

Peter Powell, born June 29 1932, died January 3 2016

Obituary from The Daily Telegraph  
Monday 8th February 2016



## Pothecary Corner—Allan Pothecary

### Thanks from the family.

I have been asked by the family of the late Peter Powell to offer their thanks to everyone that attended the funeral of their father; particularly so to those who were unable to get in to the chapel due to numbers versus capacity.

Apologies too if they missed speaking to anyone personally afterwards but were deeply touched by everyone's affection towards Peter and the sympathy offered.



I am sure that many good things have already been said about this kiting legend but from my very first meeting with Peter about twenty years ago to having got much closer to him in recent years I have never known such a gentleman, always very well turned out (never without a tie), so polite, with time, a smile and a cheery word for everyone he met.

Peter was much more in to spiritualism than I had realised (probably because he never preached it to me) but I suspect it was that belief that helped create the verve surrounding him every bit as much as his love of kite flying. Having called at our house on more than one occasion, he told me of some of the many, slightly risky adventures and pranks he had got up to.

I got to realise that Peter was a lot more aware of what was going on around him that he let on and that he was genuinely proud that sons Paul and Mark were re-creating and carrying on the business and name of Peter Powell kites.

Peter's children are getting together to write a book about him and are inviting anyone with sto-

ries/anecdotes to please send them in to the company web-site.

### World Record

Jim Nicholls, in Christchurch, New Zealand, a kite flyer for whom I claim the responsibility of getting to join the Kite Society, was possibly the first person outside China to buy and fly one of the new Trilobite kites, with me closely after and then following up with an article here and You Tube/web-site video of it as a fairly large, easy flying inflatable that doubles as a reasonably good lifter.



Since then, Jim has built a collection of seven of them in three sizes, 7, 10 and 16 sq m.

In January, his friend Carl Gillard visited from Dunedin (also in NZ), bringing his own Trilobite, so of course all eight had to be flown at once, creating what may well be a world record. New Brighton beach, Christchurch, was the venue for the successful fly as the two fliers launched their combined collection.

### Competition

Jim tells me that a keen kite-flier in the Netherlands has hinted at a world record Trilobite challenge, as Trilobites are apparently starting to swarm over there. Maybe we can do better in the UK? Numbers here are definitely increasing - how about we give it a try at Portsmouth this year? It should make a fun and interesting spectacle! I'll take mine just in case.



NB: Never let it be said that I don't fully research these articles (sometimes!).

I discovered that there was no collective noun for a number of Trilobites so I asked fellow kite flyer and Lecturer in Ecology & Evolution at Southampton University, Lex Kraaijeveld, who, in turn, en-

## Pothecary Corner—Allan Pothecary

tered in to some debate with his colleagues including one lady who is currently researching them.

There apparently is not such a noun and so I was given the honour of choosing a name I suggested, one from Lex and "Tribe" from the researcher (Jessica Pollitt) - The name I went for is 'Tribe' - Will we trouble to give tribute to a tribe of Trilobites at Portsmouth?

Could I now go down in the annals of history as the one who chose the collective noun for Trilobites? - fame at last!?

### 7 metre Frog

Such is the growing popularity of the Trilobite, Jim and Carl's record may not stand for long, and since Jim says he has no intention of buying more he will not be trying to recapture it if it's beaten - I believe his loyalty could have been swayed by another kite every bit as good, although, in my opinion, slightly less of a spectacle, but more child friendly in the sky.



Jim brought my attention to Kaixuan Kite Company's release of a similarly styled, three cell 7 metre frog.

Jim tells me that it is a more powerful lifter than the Trilobite, flies at a higher angle and, likewise, being completely spar-less, packs down small into its own bag.

I will see if I can get one from Kaixuan Kite Company in time for a full report in the next issue - and produce a video, of course!

### Declaration

From time to time I use this column to declare my interest with the kites I review.

Close Encounters Kite Display Team of which I am a founder member are occasionally sponsored by various kite companies (wholesale, retail or manufacturer). A list of these companies can be found on the 'Home' drop down box of our web-site.

Sponsoring usually means a sharing of advanced information, trade information or, sometimes, the opportunity to buy a kite at a reduced price.

We will use our "Kite Kitty" and pay full price just to get exactly what we want - colours, size, numbers etc. If we are sent kites 'gratis' that does not mean that I will speak favourably of it.

There are many kites that remain only flown once or twice in our storeroom to be used as spare parts or, those that we have given away for someone to try to make better use of, that have not been reviewed - and that is why you don't see bad reviews from me here because if we don't like them they don't get written about!

We have been sent kites to just test as part of research and development and sometimes they may never get released at all.

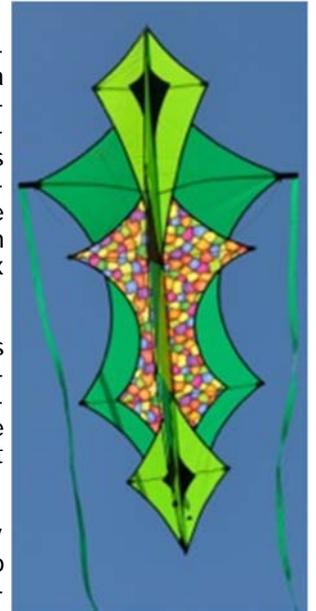
I remember taking a prototype Benson Deep Space to the Greek island Rhodes for testing (on holiday - Tim didn't pay for us to go there), before it had the now familiar panels - or even a name come to that, people were still speculating at the time.

Kite flyers have often told us that they appreciate seeing our reviews videos of kites as part of their decision making process to buy and my ramblings do help to fill the pages of this magazine - well you are reading them now aren't you?

However, it is important to remember that we like to make our videos entertaining as well.

Much time goes in to the smaller detail that doesn't get noticed like synchronisation with music or sound effects, tweaking the white balance and colour and making sure that it is comfortable to watch i.e. not zipping about all over the frame or lots of unsteady camera work.

Most of the video taken goes on the cutting room floor, so to speak, so, what you see is a few clips never more than a few seconds long edited together with smooth transitions of the kite flying at its best.



Our videos are rarely scripted before we go out, they are a collection of what were the best shots on the day.

Therefore, on any kiting video I would advise you to look closely, watch the video several times, hit the 'like' button on my ones please and, if you still can't make up your mind, find out if we are going to be flying near you soon so that you can try for yourself or, simply, ask!

### Coral Fish

Probably because of my involvement with the elephant line laundry/kite, I keep getting asked if I had anything to do with the design of the Coral fish from Kaixuan kites - well no, it was already flying at a far eastern festival when I first set eyes on it. In subsequent conversations with Jessica at the factory I was tasked with naming it because I had happened to say that it didn't sound right just calling it a 'Fish kite'.

The full name would be either 3 Metre Inflatable Coral Fish or 10 Metre Inflatable Coral Fish.

The kites can be made in custom colours although how you would get that over to them might be a problem; there isn't one of those clever colourisers that you see on the sport kite manufacturers web-sites.

Our three metre fish (it actually measures 2.5mtrs x 3mtrs so should I call it a 2.5mtr fish?) came in a comfortably sized, durable soft bag.

Launching was easy. Making sure the zip was done up we hooked the top of the fish to a lifter line using the provided carabina and the tow point using another clip lower down thus allowing it to find its own level.

Inflation was no problem in the good breeze that day. Inside the front vent there is a flap which is forced closed by the pressure of the air inside (and gravity) thus making unwanted deflation more difficult and improving the aesthetics at the front of the kite (better seen than me struggling to explain it!).



## Pothecary Corner—Allan Pothecary

I know that it is annoying for those who still refuse to use computers for me to keep mentioning our web-site or You Tube channel but the realistic swimming actions of the fish can clearly be seen on the video I produced.

The 3m Coral fish that we own doesn't just calmly sit rigidly it moves around and plays with anyone who gets too close and is an immediate attraction for the cameras.

We only have the one but whoever gets the big 10m one and sets it up with two or three smaller ones will have a spectacular shoal swimming in the middle of a field.

The smaller fish retails direct from the factory at \$260 plus shipping whilst the big one is a bit steeper at \$800 - we'd love to get one of those to try but it's out of our range.

In some quarters Chinese kites used to be another way of saying cheap and poor quality kites. That can still be the case if you don't do a bit of research but in the case of Kaixuan I have found that to be very different. They make kites not only of their own design but for companies in Europe and America too - even for Peter Lynn, so the standards have to be high.

You may already own a kite made there without knowing it!

When purchasing kites from many far off places there can be problems with cost at the moment. Added to the more expensive but much better materials, more detail in the construction to make the kites durable and quality control is the price of shipping.

Sometimes it can be cheaper to use the slower methods when you can wait for weeks and weeks thinking that your order has been lost or you can pay more and get it within a few days. Deals with shipping companies need to be made and it will be better for everyone.

Unfortunately, that's not the end of it as a friend of mine recently found out when a crocodile he had ordered from New Zealand was stuck in customs for three weeks before he discovered that he had to pay over fifty pounds import duty to get it released!

It kinda makes you think that someone could get themselves a big laser cutter and be competitive setting up over here.

Don't ask me - I don't do fiddly!

### Prism Bora 7

We got this lovely progression of the very popular Prism Stowaway Parafoil from Kiteworld as a small, go anywhere kite to keep in the car and an extra one for taking on holiday - providing of course that it behaved well.

## Pothecary Corner—Allan Pothecary

No need to worry though this kite is a winner! It comes with its own line on a reel, cleverly adapted to clip to and stay with, the ample bag in which the kite is stored.

There are instructions (which I really should read) inside and details printed clearly *on* the bag of where to fly and particularly drawing the pilot's attention to the wind speed limitations which are, in fact, quite wide.



The Bora 7 is the largest in a range of three, the others being the Bora 2 and Bora 5 and a range of colours Frost: Blue, Jade: Green and Blaze: Yellow/Orange.

As to why they are labelled as 2, 5 and 7 I know not - multiplying the sizes given in the specs does not match up in metres or square feet - but I don't think that's important.

If this does worry you then perhaps you should ask Kiteworld or maybe you need help of another kind? Size comparison can be seen in our video - remember I might have put on weight since you last saw me!

Prices, neatly, are just under each of twenty five, thirty five and forty five quid each respectively.

Being completely soft (no spars) the kite launches straight from the bag (you should attach the line first) and the tail easily unfurls as the kite floats away from you on the breeze.

Ours coped well with a very blustery wind low down (as shown in the obligatory to watch video) and, once let out downwind at head height, the reel was held tight and the kite accelerated upwards in spectacular style to gain a really nice presence in the sky and I was surprised at the attention it got from passers by.

The pull remains reasonably light for a kite of these proportions and there is no knot in the stomach thinking the line will break when the kite races away in a stiff breeze and we felt confident in its stayupiness, even in choppy conditions.

Clipped to the inside of bag is a carabina clip. Either peg the kite or have someone hold the line whilst you walk the kite down by walking towards it sliding the clip along the line.

The bridle is quite long and the less experienced flyer is likely to end up with a tangle if they don't daisy chain the line but folding the tail up in to the kite and attaching the tow point to the clip should save some time next time out of the bag.

The kite is already stationed permanently in the car ready for use at any time (emergency kite). Marilyn likes this one too - even though it's green!



### Where are they now?

I was going to try to start a constructive debate about the decline in numbers of those who participate in our joint passion.

There are so many factions of kite flying all under the same banner that shooting off at tangents in the course of discussion is inevitable and I, as much as any other, am guilty of allowing anecdotes to distract.

Even within the realms of sport kite flying there is dual line and quad line with differing disciplines of precision, ballet, figures, trick and freestyle and again on to individual, pairs or team flying - and then how many specialties from teddy bear drops to Indian fighter kites are there in single line.

### New blood

Many people talk about 'youngsters' needing to put down their phones and computers but I ask, "How old were many of us when we started? What is the the definition of 'youngsters' by that yardstick?" I believe the main, hard core of flyers are those who are in to the making of kites and the history of kites.

Whilst that may be appealing to a number of people we need to look at who were all those flyers back in the heyday - I would say that there were a hell of a lot that just wanted to buy and fly - which is where I have always pitched my articles and how we designed our flying demonstrations along with offers to help anyone who wanted advice.

Without the number of live events and less chances of one to one contact with flyers and traders, it follows that a different approach is needed. I don't know about you guys but every time we go out flying there are always several people that come over and say that that they are amazed,

they have never seen the like - and where can they buy them.

It just goes to show what a huge, untapped market of potential flyers is out there!

### Numbers

Reports to me are that club memberships are not accelerating as they were in the heady, late eighties/early nineties, instead many numbers are dwindling. The numbers of festivals are down as is sponsorship for kiting events.

Many of us see festivals as the best and most obvious way to capture the enthusiasm of the non initiated but lack of sponsorship and bureaucracy has sapped the energy of a sizeable percentage of the few people that have the skills and aptitude to put on and run a successful kite festival.

We should treasure and do what we can to support those that still do. However, I would like to express my exasperation at some of the organisers. I have become so exasperated in fact that I have given up asking.

Every week our web-site reaches over 1000 people with an interest in kite flying. We have always offered free advertising for any kite event and yet despite all the effort the organisers put in they always seem to leave advertising right until the last minute and very few have taken the opportunity to have the colour brochure they took such care in designing, splashed further across the world wide web.



I am sure we are not the only ones offering this free service - delegate someone to have a look at the forums, other kite clubs and kiting web sites and let's get more people motivated!

## Pothecary Corner—Allan Pothecary

### Kite gigs available

Marilyn and I have been used to spending our summers and even the odd winter outing, taking the Close Encounters Kite displays around the country showing off our single line and inflatable kites and synchronised pairs flying at country shows, fetes, schools and other events.

However we have come to a point where all this running around is becoming more like work than enjoyment. We miss the social atmosphere that properly organised kite festivals provide.

We want to try and attend more festivals this year, but, except in the odd occasion, not as an invited flyer because we enjoy chilling and flying what we want to according to the conditions.

That's not to say that we wouldn't still go in to the arena and fly demos if asked but turning up at the event under our own steam means that we can say "Well actually, we are just about to have lunch - or you are joking? - in this wind??" It will also be great not to be worrying over the weather forecasts knowing that we have to travel half the length of the country just to explain that we need wind to fly when there is none or to get drenched in a storm, trying.

This doesn't mean that the invitations will stop coming in.

### Who's interested?

Therefore, we would like to hear from those of you out there who would be willing to, at least, accept an enquiry from someone wanting a kite display. We don't want anything in return but we don't want to lose the opportunity that they book a kite show in preference to a motorcycle display or baton twirling marching bands - lets keep those kites in front of the public - it doesn't always rain and there's usually enough wind - honest!

If you are interested please don't just send us a link to your web-site, we are not planning to be an agency or kite team promotor and we wont pass that on. You need to tell us briefly what you do, where are you based and how far you are willing to travel - all the rest, including expenses, is for you to talk about with the event organiser, who we will put in touch with you.

Many of the events we have been attending are over two days and you may need to think about overnight stays. Contact can be made through our web-site at [www.closeencounterskites.co.uk](http://www.closeencounterskites.co.uk)

Well, that's my three thousand plus, words for this edition - if I can write this many, surely you can write a few?

I hope to have provided some fuel for debate and that you write in with your views on creating a resurgence of interest in the many aspects of kite flying.

Allan Pothecary

## Event News

### North Hants Kiter's Jolly Up 18, April 23rd & 24th

Gate open from 12noon on the Friday...

The site is located in the village of Cliddesden, just south of Basingstoke (not far from J6 of the M3). On-site camping is available from Friday midday onwards (£8 per tent/camper for Fri and Sat night). Fish and chips available on the Friday evening (via the zipwire!) from 6pm to 9pm.

The Saturday evening food will be the BBQ, tickets available on the weekend-(£7.00 and please try to bring a plate and cutlery!). Once again we will be doing Jacket Potatoes for those interested at lunchtimes over the weekend, and Bacon rolls will be available on both mornings.

The Auction will once again be held on the Saturday evening, and any donations gratefully received before or on the week-end (before 4pm please if possible to give us time to set it all up)

We may run the Beer Lift competition, wind permitting, same rules as before. Please contact Roy Martin for any info on the Sled competition. Roy's Refreshment Tent will be open for Business, normal rules apply.

For further info, please either contact:

Roy on 07778 352825  
Colin on 07770 338419  
Or e-mail [roy@kitesup.co.uk](mailto:roy@kitesup.co.uk)  
For orders: [hayley@kitesup.co.uk](mailto:hayley@kitesup.co.uk)

You can pre-order your tee-shirt / poloshirt, etc. Please email Hayley if interested in doing so.

(The dates for this same event taking place later this year again are Aug 6<sup>th</sup> & 7<sup>th</sup>)

Please Note: this is NOT a Buggy/Boarding weekend, thank-you.

### Kites on the Beach, May 29th

Kent Kite Flyers are linking up with Walmer Parish Council to host "Kites on The Beach, Beach Road, Walmer, nr Deal CT14 7HJ in Kent. This is a one day event by the seaside in the lovely little town of Walmer.

Come and fly kites and have a paddle in the sea, eat your ice cream and enjoy local fish and chips from the shops nearby. Both the parish council and Kent Kite Flyers are hoping sufficient funding may be available next year to extend to two days, and use a local park which would then allow camping.

Contact [malcolmf@kentkiteflyers.com](mailto:malcolmf@kentkiteflyers.com)

### Basingstoke Kite Festival, 4<sup>th</sup> & 5<sup>th</sup> June

At Down Grange Sports Complex, Pack Lane, Basingstoke. From 10am to 5 pm (both days)

Come along and help us to celebrate our 24th Festival and join in the fun! Guests from Home and Abroad will be joining in, and as well as things going on in the display arena, there will be the usual array of activities, along with various Kite & Food traders. This year's theme is BUGS.

A raffle is held over the weekend with lots of donated kite related prizes, donations gratefully received!

On Saturday evening we will have our usual Social Get Together in the marquee, and all are welcome (There is a small fee if you would like to join in with the Buffet, please pre-book and pay on the Saturday morning, from the Raffle Team as available numbers are very limited!).

Camping is available on the Friday and Saturday evenings only, for £10.00 (payable on the weekend) and you will be able to get onsite from 1pm onwards on the Friday, no earlier please! (Council stipulation) There are Showers and Toilet facilities on site.

Come along and join in, and we look forward to seeing you there!!! Contact:  
Alan Cosgrove (Main festival Organiser) 01256 421800 or Roy Broadley (Kites Up) 01256 812487.

### Kites at Sellindge, 25th & 26th June

Kent Kite Flyers are linking with the Sellindge Sports and Social Club, Swan Lane, Sellindge Kent TN26 6HB, to offer a weekend of kite flying with camping from the Friday, on a field next to the social club. Camping is £5 per night per unit. The clubhouse facilities will be open to Kite Flyers. No parking on the sports field.

Contact [rokbottom@kentkiteflyers.com](mailto:rokbottom@kentkiteflyers.com) or [malcolmf@kentkiteflyers.com](mailto:malcolmf@kentkiteflyers.com)

### Teston Kiteability Weekend, 13th & 14th August

Teston Country Park, Teston Bridge Kent

Continuing the long tradition started by the late Ron and Pat Dell, the weekend has been re-named in memory of Pat and Ron, under their former trading name of Kiteability. Open to all.

As those who have taken part previously will testify, it is a very informal and relaxing weekend of kite flying and socialising with no formal programme of events. Members of the public mix with flyers and are encouraged to have a go at flying kites, becoming a long term leisure pastime. A food trader has been booked for the

weekend.

Camping as usual will be on the flying field and the field will be accessible from the Friday mid-morning until Monday morning for those who wish to make a long weekend of the event. Donations of minimum of £10 per camping pitch for up to 4 people for the weekend, which goes towards the costs of putting in the event.

Access to the flying field for day visitors with vehicles will be allowed up to 10.am with the entrance being closed until 5pm. Otherwise the main carpark will have to be used.

Kent Kite Flyers are working towards resurrecting the Teston June weekend and to this end are holding an informal fly-in on Sunday June 12<sup>th</sup>, again all are welcome, although parking will be in the main carpark.

Contact [Malcolmf@kentkiteflyers.proboards.com](mailto:Malcolmf@kentkiteflyers.proboards.com)

### **Exmouth Kite Festival, 27 & 28 August**

At the Imperial Recreation Ground, Exmouth, Devon EX8 1DG, from 11 to 5 both days.

Organised by Exmouth Rotary the kite festival is their charity fundraiser beside the beautiful Exe estuary. There will be a schedule of flying displays in the arena and a range of activities and food traders.

Camping is available next to the festival site at Exmouth Rugby Club from Thursday to Tuesday at £9 per night.

For further info [exmouthrotaryclub.co.uk](http://exmouthrotaryclub.co.uk) or email [ellisondavid@me.com](mailto:ellisondavid@me.com)

### **The Capstone Festival, 25<sup>th</sup> September**

Capstone Country Park, Capstone Road Chatham Kent ME7 3JG

Unfortunately Medway City Council who coordinated this event, still do not wish to return the festival back into a two day event, which would involve allowing camping.

Last year was a tremendous success as the weather was perfect, with thousands of visitors. The main flying arena being kept separate for members of kite clubs to fly a variety of kites without interference from the public, although there was plenty of interaction by the kite flyers present with those attending. It is anticipated the festival will operate under the same lines this year. Entry and parking for kite flyers is free, being allowed to have their vehicles adjacent to the flying arena. Vehicle numbers will be required in advance.

Contact: [events@medway.gov.co.uk](mailto:events@medway.gov.co.uk) or [malcolmf@kentkiteflyers.com](mailto:malcolmf@kentkiteflyers.com)

Kent Kite Flier events are all relative small festivals and do not have the funding to invite demonstrators or international flyers, but it is the intention of Kent Kite Flyers to work with those in Kent who wish to put on a kite day or weekend, in anticipation of supporting the event(s) to grow.

This does need the support of other kiteflyers who do not necessarily live within a short radius of Kent. However Kent Kite Flyers members are frequently seen at kite festivals and events outside Kent and have travelled many miles and spent many hours going there and back in a day in the past to support others who are putting on kite events. We feel it is something we wish to do to encourage the public to take up our leisure activity.

Kent Kite Flyers have had donated a number of used Kites by families of local kites who have had to give up flying, and have been requested to put up for auction to raise funds in part for specified charities. These all seem to be still in reasonable condition although the power kites are somewhat dirty. There are some classic kites amongst the power ones, which have been mostly used for kiteboarding and kitesurfing.

There are still kites available including two and single line, as well as power kites. If interested please follow the thread Buy, sell or swap at [www.kentkiteflyers.proboards.com](http://www.kentkiteflyers.proboards.com).

### **Proposal for a Kite Fliers Convention 2017**

Accommodation—Pontins Holiday Camp Workshops, Talks, Lectures, Time to Socialise, Bring & Buy, Swap it There, Presentations, Exhibitions, Demonstrations, Trade Stalls and kite flying on Ainsdale Beach.

This whole thing is just an 'idea' at the moment, but before I continue with any planning, organising etc. I really wanted to know if it's something kite fliers would be interested in attending. Accommodation would be at Pontins, Southport costing approximately £200 for a self catering chalet for the whole weekend (sleeping 3). I know Southport is miles away for some folk. Perhaps the event could move in future years, who knows.

The convention events could include a wide variety of kite related activities, Ainsdale Beach has a very strong Sports Kiting ethos which might interest other kitesers.....

PLEASE, PLEASE let me know your views, thoughts etc, and perhaps we might have the start of a regular (Bi-annual) event.

[Bill.Souten@mkf.org.uk](mailto:Bill.Souten@mkf.org.uk) 07840800830

## Paddy Kite—Jan van Leeuwen (Translated by Jolanda Van Leeuwen)

This distinctive kite is a Willy Koch design. This German artist has developed many beautiful kites. His designs often have the famous braiding, a skill for which he is well known. This model is a derivative of the diamond kite and meant to fly in a gentle breeze (2 to 5 BFT.)

This model is a little harder to build for the starting kite builder. It's a quite complicated kite to make and it is impossible to describe every move—so some experience is necessary.

### MATERIAL

- ± 1.5 m black spinnaker for the edges.
- ± 1 m white spinnaker for the applique panel.
- Multiple colors spinnaker of choice for the braiding.
- Black edging tape.
- 1 rod RCF Ø 6 mm for the horizontal spar.
- 1 rod RCF Ø 6 mm for the central spine.
- 4 arrow nocks/tensioning caps.
- Dacron for reinforcements.
- Bridle line: 1 or 1.5 mm for the bridle, support and tension line.
- 1 aluminum bridle ring
- Paper or cardboard for a template.

### SAIL

To make this kite a template is necessary. We make an equilateral triangle for the lower section of the kite. The sides of this triangle are 138 cm. For the upper section we need a smaller triangle, sides 46 cm.

Place this template against the bigger one, exactly in the middle of the side where the tension horizontal spar has to be. Check the two sides next to the small triangle. They have to be 46 cm. Now we have the contours of the kite.

Draw on the template the black strips 7 cm wide. This way you can see the spot where the applique will come, as well as the areas of the braiding. This braiding is made with strips 5x 15 cm without a background.

Start by making the lower part. First draw a seam allowance of 7 mm around the applique panel. Put the spinnaker around the panel and draw the lines on the spinnaker. Draw the panel as well as the seams. Now cut the spinnaker with the seams. Then tape the spinnaker to the template.

Cut the 7 cm black spinnaker strips. The three strips for the lower panel have to be at least 140 cm long and have to be seamed with edging tape. By putting them on to the template, you can determine where they have to be stitched together. The strips have to be stitched overlapping (see detail B), there will be two layers of fabric on those places.

When the largest black triangle is constructed, put it back on the template. Now you have to put the short strips in the top corners. Put them next to the lines on the template, on top of the strips which are already there. Sew the short strips behind the long strips, through the edging tape. On this spot cut the fabric at the back away, so that you have one layer left. A stitched zigzag gives it a firm connection.

Now lay the strips again on to the template, on to the white panel and pin both sides together. As soon as it is without wrinkles, take the white fabric carefully off

the template and stitch the white panel on the black strips. You can use a stitched zigzag for a firm connection again.

When the lower part is finished, you have to compose the upper smaller triangle. With two black strips about 50 cm long shape the triangle.

Put the lower triangle again on the template. Above put the strips on the template. On the top corner they overlap and you have to stitch them together at the lower corner. The attachment against the lower triangle has to be with a 7 mm seam. By doing the upper connection first and stitching this, the upper corner is fixed. Now put everything again on the template and pin the strips against the back of the big triangle. Also make this a firm seam.

Now you have the base (step 3).

Next is the braiding. Make 5 cm wide strips. Put edging tape on both sides. Cut them later at the right size. To put the braiding correctly in the triangle, you have to draw it first on a piece of paper. Draw a bigger size of braiding, the same width as the strips you have made. Put the strips on the drawing and make the braiding. It has to be larger than the actual triangle.

The strips are pinned together, so the braiding can't move. When it is all pinned together put the triangle on top of it and move it around so you can get symmetry. Now pin the braiding on the seams of the triangle. Sew it all together and fix the braiding together and add edging tape of the triangle with a stitched zigzag.

Now you have to cut the surplus of the braiding, because you have to cut the back layer of fabric at the places where the strips cross. This is because you will get a different color where there are more layers of fabric.

Reinforce the top with Dacron and make a loop with a sewn line on top of the reinforcement, where we can put the arrow nock of the central spine (etail A).

At the bottom, put also a reinforcement, on which you tie a tension line. With this line tension is put on the central spine. At the two wing points also put reinforcement for tension lines.

Make the sleeves, using black dacron, for the horizontal spars, 2 strips at least 5 cm wide and 46 cm long. Fold them together to give the sleeve shape, put a mark on this fold. Place this mark against the edge of the kite, where the sleeve has to be. Pin the sleeve against the edge at the back side. Make sure you cannot see the sleeve on the front!!

Stitch the sleeve at the side of the middle fold together with the edging tape and fold the tunnel together. Then close the pocket.

Finally attach a lace at the crossing of the central spine with the horizontal spar to fix the frame with the sail. This is the place where the bridle is attached. Burn a little hole in the Dacron so you can attach the bridle with a loop around both spars.

### FRAME

## Paddy Kite—Jan van Leeuwen (Translated by Jolanda Van Leeuwen)

Put the arrow nocks on both side of the central spine. Put the upper one in the loop of the sail. Now you can tension on the spine with the line at the bottom.

Make the horizontal spar at the right length, a bit longer than the sail, so you can put some tension on it later. Put it in the sleeve. Put on the arrow nocks and put tension with the tension lines. This spar can always stay in place.

Now make a tension line for bowing the spar. A loop at both ends, so you can hook them in the arrow nocks and bend the spar. The curve has to be at least 15 cm for creating the right stability. No tail is necessary if you have the right amount of curve. To prevent turning of the spar, we attach a support line. This line also has two loops and goes from the left to the right cap and runs through the upper cap of the central spine. There should not be much tension on this line. It is just for keeping the sail from deforming. Too much tension will be counter productive.

### BRIDLE

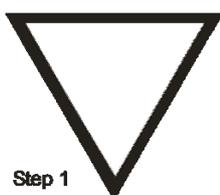
The bridle is attached around the frame at the crossing of the spars. The loop has to be wide enough to pass the spine with the cap. At the bottom of the spine the other end of the bridle is attached with a knot. Total length of the bridle is the half the length of the spar plus the length measured from the point where you put the tension on the spar to the lower point of the spine. Put the bridle ring into the bridle with a larks head, so adjustment is possible.

### FLYING THE KITE

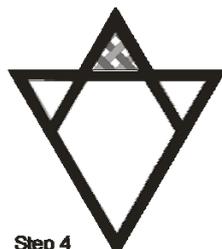
Go to your favourite spot and try to fly the kite with 3 Bft wind. Attach the kite line to the bridle ring and give about 10 m line. Correct the bridle ring if necessary and give line!!

Enjoy!!

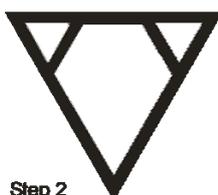
#### Assembling step by step



Step 1



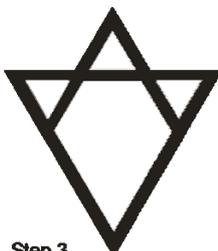
Step 4



Step 2



Step 5



Step 3



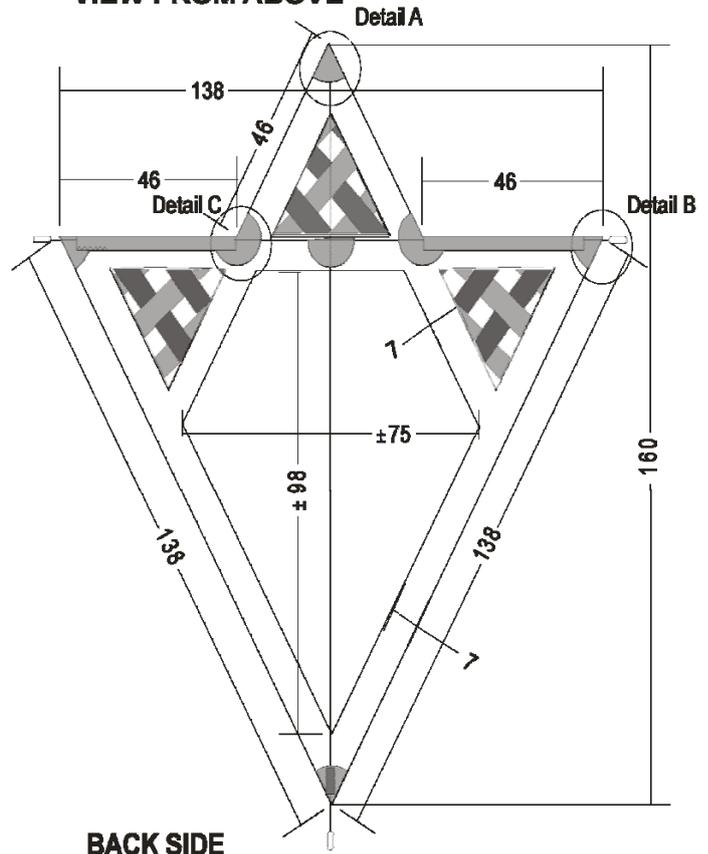
Step 6



FRONT

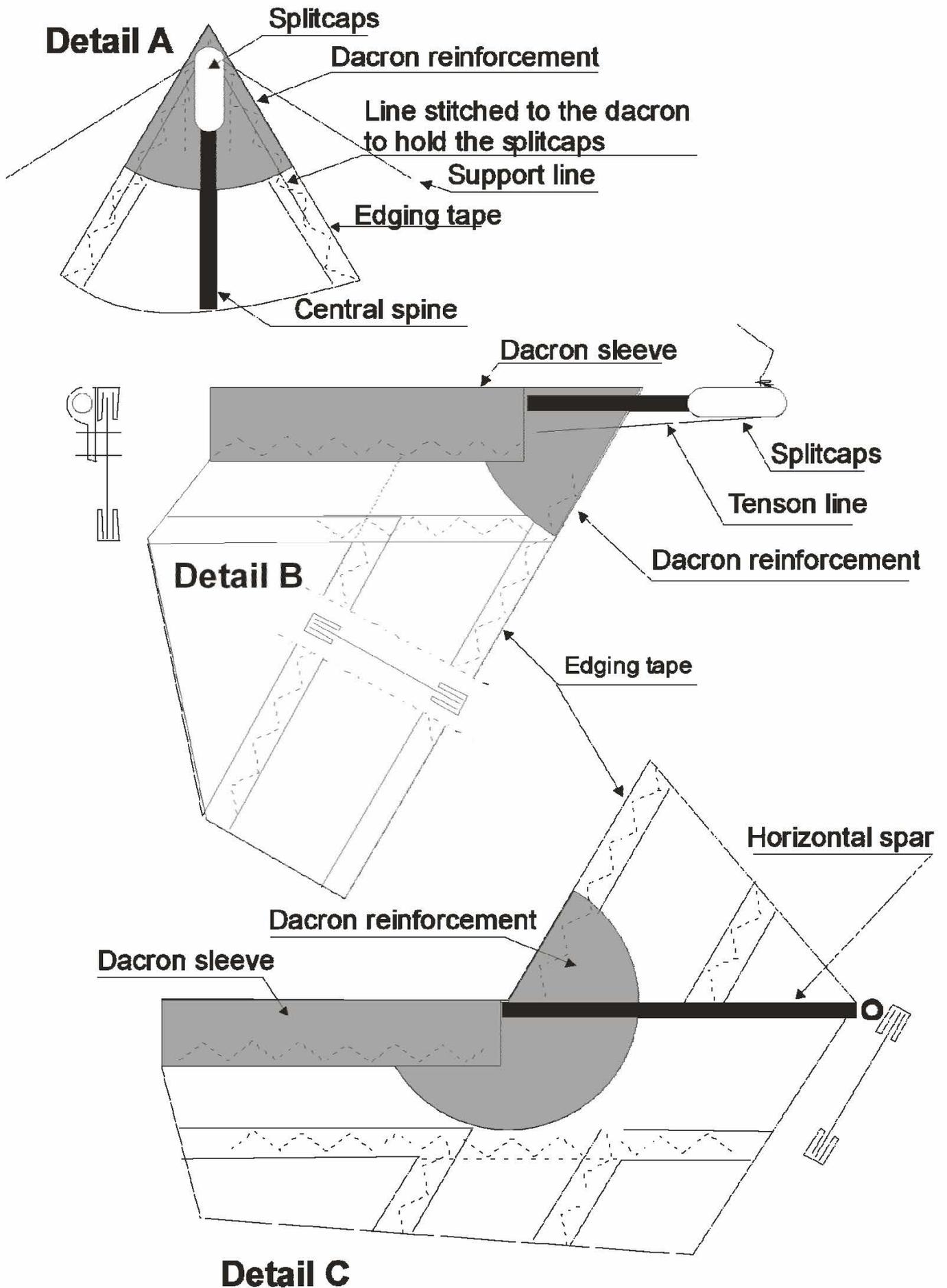


VIEW FROM ABOVE



BACK SIDE

**Paddy Kite—Jan van Leeuwen (Translated by Jolanda Van Leeuwen)**



**Correction**

George Webster writes:

An eagle-eyed reader of the last issue pointed out that the red/white/blue kite shown flying was rigged not as a hexagon (leading edge) but as a rok (two leading edges come to a point).



The explanation is that all happened as described in the article and the 36" blue/white flew perfectly (see photo attached). As the article mentioned, there was something odd about the length of the central bridle of the smaller kite which I remedied by eyeballing and shortening. It then flew as shown, i.e. sideways.

Apologies from an elderly flier who had put the skin on months before.

**Seen on Ebay**

18thc Oil On Panel , Young Man With Kite

Not much detail other than: Set in period frame, 34 x 25 cm, Good condition, couple marks, small hole at top, Frame has some cosmetic damage. £240 starting price—no bids so far. Rare Kite And Model Aeroplane Association Solid Silver Collectable Medal.



Details provided: Hallmarked Silver, Birmingham and Dated 1913. Presented on September 6th 1913 to J.C.H. Warwick on Behalf of Wimbledon Common. Total Weight Approximately 31.5 Grams. Diameter Measures Approximately 44.5mm. Fantastic Condition in Fitted Leather Box



**Jewels du Jour**

Van Cleef & Arpels Unveils Flying Beauties with Cerfs-Volants

The sky's the limit for Van Cleef & Arpels's latest collection where whimsical kites soar in jeweled form.

Cerfs-Volants evokes the light, airiness of the kite fluttering and floating in the breeze, its every whim dictated by the errant winds.



## Bits & Pieces

The youthful spirit of the kite, a symbol of protection in Asian culture, is brought to life in the collection with colorful kites playfully gliding amongst the clouds as earrings, rings, necklaces, bracelets and clips.

There are several items in the collection but this one looks really interesting looking like a Thai Kite fight in progress—£16,400. This is the cheapest. The range goes through a number of watches (ladies only—from £67,900) though to a necklace at £108,700.

For the lady in your life!

Some more information about the collection:

Van Cleef & Arpels celebrates the opening of its Bangkok flagship store by introducing its kite-inspired Jewellery.

A faithful interpreter of lightness and movement, Van Cleef & Arpels today pays homage to kites fluttering in the breeze. Symbols of protection in Asian culture, they offer their vitality to a brand-new collection of jewellery "Cerfs-Volants" featuring pieces that are both fluid and sophisticated.

To express the motion of a kite in mid-flight, the "Between the Finger" ring has been crafted in three dimensions and arranged on several levels so that the volumes of its various elements evoke the energy of the kite, its sails swollen in the wind and ribbons twirling. The intricate marquetry work on the motif - in different shades of mother-of-pearl - contributes a play of materials and contrasts that adds to the piece's lively character. The body of the ring, representing a ribbon spinning in the breeze, enables the two parts of the motif to catch the light and reveal their full brilliance at every moment.

A pair of asymmetric earrings is equally surprising, bringing together two distinct representations of a kite: one in white and grey mother-of-pearl, the other set with diamonds and coloured stones.

The kite motif is accompanied by a cloud on the chatelaine clip, The two motifs are connected by a diamond-set chain and can be positioned however their wearer desires. An ingenious mechanism also enables them to be worn separately.

On each piece in the Cerfs-Volants collection, the use of different kinds of setting and cut - brilliant, pear-shaped or square - bears witness to the jewellery-making expertise that brings Van Cleef & Arpels' creations to life.

### Kite Power

Grant boosts Kite's flight.

A consortium led by Kite Power Solutions has won a £1m grant from the UK government's Innovate UK Energy Catalyst to help the development of its kite power generation technology.

The grant will be used to scale-up KPS's technology to a 500kW kite turbine and validate the commercial viability of 3MW floating offshore arrays.

KPS is aiming to deploy its first 3MW power system onshore in 2019 and offshore by 2021. The company is targeting the offshore wind power generation market because it said the kite technology can reduce the capex of conventional offshore turbines by as much as 50%.

This is because its power system doesn't require large quantities of steel or specialist installation vessels, KPS said. The system has two kites that are flown on a man-made fibre tether between 500 and 750 metres in length; the tether is attached to a winch system that generates electricity as it spools out.

By achieving flight speeds of up to 100mph in 20mph winds, the kite's tether tension causes the line to rapidly spool out from a drum, which turns a generator producing electricity. The consortium involves six partners. They are: BVG Associates; Artemis Intelligent Power; Imperial College; The National Composites Centre; Keynvor Morlift; and Banks Sails.

The two-year project also includes engagement with the public and environmental interests to assess the impacts of the rollout and operation of the kite power technology.

### Youth wins innovation award for harnessing high-altitude wind energy using kite

It was on the beach when, Roystan Vijay Castelino, 22, from Srinivas Institute of Technology, Mangaluru saw a man controlling a kite that he stumbled upon a novel idea of harnessing high-altitude wind energy using kite.

His kite works on the principle of converting kinetic energy (pulling force) to rotational motion. This project has won him the Gandhian Young Technological Innovation Award recently.

Castelino says existing wind power systems have an impact on the ecology, whereas his has none.

He notes the problems posed by electric energy generation from fossil sources include high costs, pollution and the geopolitics. These problems can be overcome by alternative sources that are renewable, cheap, easily available and sustainable. However, current renewable technologies have limitations. Based on the survey of different methods, he

concluded kite energy was the economic way of harnessing high altitude wind energy.

He started with the initial experiment which had a simple control system to control a two line Kite. "By studying thoroughly, I came to know the power from the kite is greatest when it is rotated in eight shape or infinity shape in the sky. I also observed that four line kite gives maximum power than dual line kite. So I started to build a rigid strong base with four line Kite control system," he observes.

Castelino hails from Nakre village in Karkala. The project was undertaken in 2015 as part of his final year BE (electrical and electronics engineering) course under the guidance of Prof Lokesh B. The objective was to increase efficiency of wind-power generation, make it more economical, and help in rural electrification.

The four-line power or Para foil kite was ordered from China and materials used for project were bicycle parts, crank wheels (which formed the chain drive) and bicycle sprockets. The generator is made by modifying the ceiling fan with permanent magnets. Threads are wound over the rims of the bicycle for easy controlling.

Wireless transmitter/receiver circuit controls the motor for handling of the kite and for winding back the thread. Chain drive is used to increase the speed economically.

Regarding the scope for future work, Castelino says the output of this project can be improved by increasing the area of the kite and also the project can be made fully automatic by installing sensors on the kite which determines the position of the kite and sends the data to the base station.

"As energy generated here is intermittent, two similar kites can be used to produce continuous power. By installing two similar kites, energy can be transferred to the utility grids directly. This project can be made highly portable by using a vehicle as a base station which consists of generator and control system," are his observations.

Castelino's idea had won the "Project of the year" award by the Karnataka State Council for Science and Technology conducted by the Indian Institute Of Science (IISc), Bengaluru last year. Castelino, who has already applied for a patent for his invention, wants to call the project 'Winds of Change' because if implemented, it will certainly bring a revolution in renewable energy scenario.

**Experts Say Kite Wind Energy is a Game-Changer in the Energy Industry**

Young Power is excited to announce its latest invention – Kite Wind Energy. This is the first efficient, eco-friendly, and cost-effective solution that uses kites to produce renewable energy. However, to bring this revolutionary technology to

the world, the team launched an IndieGoGo campaign to raise \$1,000,000. Funds received will develop the prototype, which will be handed over to the NASA or any University who wants to use the technology.

It's clear a new energy source is needed to protect the world's future. The Kite Wind Energy technology is the answer society has been searching for. It uses less carbon energy, which means there isn't any air pollution and will prevent the climate crisis from getting worse. This will also recycle 100% of the natural resource back into the atmosphere so the natural wind can be used all year round. The company is excited to reveal the Kite Wind Energy device to the world.

For more details on how this technology works, visit the IndieGoGo campaign. Click here to make a contribution to pave the way for a better life for future generations. Backers can choose from a number of attractive rewards such as a waterproof Bluetooth speaker, worldwide adapter, mini-USB fan, and much more.

This is also an incredible opportunity to be a part of a special project! Help the campaign reach its goal by sharing this on Facebook, Twitter, and other social networks. The more people know about this, the more support the campaign will receive.

<https://www.indiegogo.com/projects/kite-wind-energy-to-stop-climate-change#/>

**Kite Knitting Pattern**

Seen on Etsy.

What a simple way to transform your little one's bedroom! Simply attach a beautiful kite - or two - to their walls or hang them from the ceiling to create an instant impact.

The ButterflyLove pdf Kite knitting pattern gives you clear step by step instructions and handy hints along the way.

This pattern only involves knitting flat and is suitable for a beginner or intermediate knitter. It's also a great way to use up those odd ball ends you have lying around the place!



<https://www.etsy.com/uk/listing/74142823/knit-your-own-kite-pdf-knitting-pattern?>

## Dubai 2016—Gill Bloom

Due to the date of this festival being changed at relatively short notice there were not quite as many kite fliers gathered this year—however the display did not seem to suffer from this.

The people who were there simply put more kites in the air. What a wonderful sight—a perfect temperature and a great wind blowing off the Persian Gulf—all day.

There were some problems—as always—no large anchors for the big kites—just small sand bags again. No crowd control—so lots of people thinking they know how to fly all manner of kites—without actually knowing. The worse thing—no ground stakes supplied until lunchtime on the last day—I had taken my own being pessimistic but Linda Sanders had to wait for them to arrive.

Oh—and the toilets were a good 5 minute walk away and limited in capacity—so long queues.

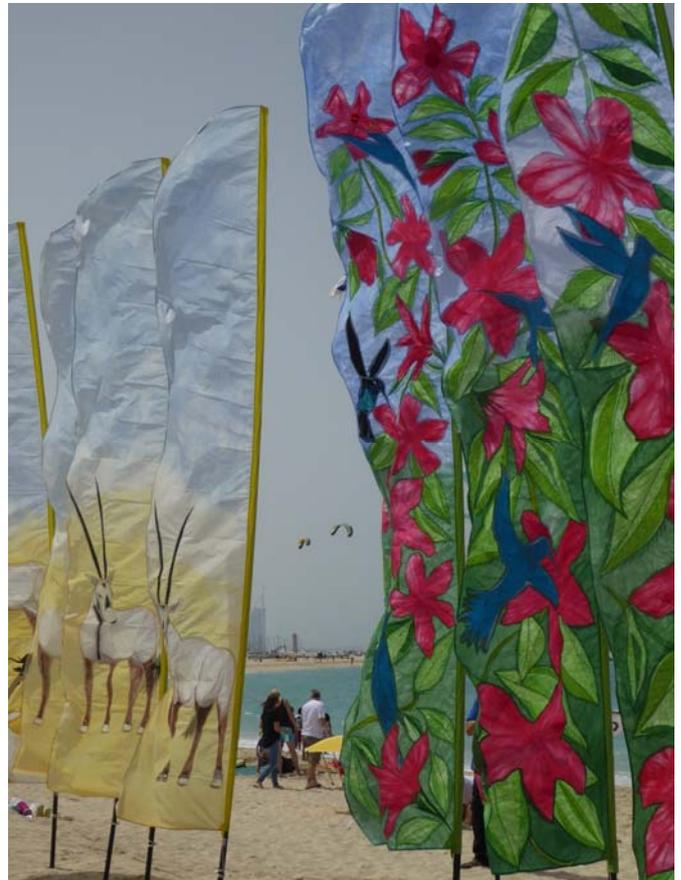
But even so a wonderful three days.



Almost there. The toilet queue.



Susie Gomberg holding the rubbish bin anchor in place whilst David Gomberg builds a proper anchor.



Oryx at home on the sand. Not too sure about the Hummingbirds.



## The Experiments of 1899: Wilbur and Orville Wright Fly a Kite—Tom D Crouch



*Reproduced with Permission of The Drachen Foundation.*

The names of the places where Wilbur and Orville Wright made history are familiar to people everywhere who know and cherish the story of the invention of the airplane. The brothers tested their first kite/glider at Kitty Hawk, North Carolina in 1900, then shifted their seasonal camp four miles south to the Kill Devils Hills, where they flew from 1901 to 1903. They perfected their invention at Huffman Prairie, eight miles east of Dayton, in 1904 and 1905, and opened their flying field there in 1910.

Wilbur astonished the world with his first public flights from the race course at Hunaudieres, France, in the high summer of 1908, while Orville demonstrated the airplane to the Army trials at Ft. Myer, Virginia in 1908 and 1909. Wil-

bur taught the first three U.S. Army airmen to fly in 1909 at College Park, Maryland. And there are other familiar places, from Gardiner's Island in New York Harbor, where Wilbur took off for his flight around the Statue of Liberty in 1909, to a field near Montgomery, Alabama, where Orville made the first night flights and began to instruct the young men who would fly as members of the Wright exhibition team.

Ironically, the precise spot where Wilbur tested their first experimental aircraft is unknown to all but the most knowledgeable students of Wright lore. Many of the circumstances surrounding that first Wright flight test remain hazy. Over a century after the Wright brothers began their period of active experimentation with the flights of their wing-warping kite of the time has come to clarify the record of those initial experiments.

In February 1912, when Wilbur Wright was asked how he became involved in the flying machine problem, he responded that a local news article announcing "...the death of Lilienthal... [August 10, 1896] brought the subject to our attention and led us to make some inquiry for books relating to flight."

"But the only serious books we found were by Prof. [Etienne Jules] Marey and these related to the mechanism of birdflight rather than human flight. As our interest at that time was mere curiosity as to what had been done, we did not pursue the subject further when we failed to find books relating to human flight."<sup>1</sup>

Orville Wright recalled that their early interest was a bit more serious than that. "From the date of the death of Lilienthal," he remarked, "we were so interested [in aeronautics] that we discussed matters in this line almost daily."<sup>2</sup> As Wilbur explained, their smoldering interest in flight finally burst into flame in June 1899. It was "...while reading a book on Ornithology that we became interested in studying the appearance and habits of birds, but it soon occurred to us that the really interesting thing about birds was their power of flight."<sup>3</sup>

"Our own growing belief that men might nevertheless learn to fly was based on the idea that while thousands of creatures of the most dissimilar bodily structures, such as insects, fishes, reptiles, birds and mammals, were every day flying through the air at pleasure, it was reasonable to suppose that men might also fly. Of course, there might be, and doubtless would be, many serious difficulties to be overcome, but we thought that by learning what these difficulties were and finding methods of overcoming them, the problems of human flight might be solved,

## The Experiments of 1899: Wilbur and Orville Wright Fly a Kite—Tom D Crouch

and we thought that probably the cheapest and best way to take up the subject would be to acquaint ourselves with the troubles which others had met in attempting to solve the problem."

On May 30, 1899, Wilbur Wright wrote a letter to the Smithsonian Institution. "I am an enthusiast," he explained, "but not a crank in the sense that I have some pet theories as to the proper construction of a flying machine." Noting that he was "... about to begin a systematic study of the subject in preparation for practical work to which I expect to devote what time I can spare from my regular business," he requested "such papers as the Smithsonian Institution has published on this subject, and if possible a list of other works in print in the English language."<sup>4</sup>

Assistant Secretary of the Smithsonian Richard Rathbun replied just three days later. It was a testament both to the speed of the U.S. Postal Service in the closing years of the old century, and to the Smithsonian's emphasis on rapid response to public inquiries, even by officials at the highest levels of the Institution. Moreover, the response was full and satisfying. Rathbun provided the Wrights with free copies of our Smithsonian reprints: translated extracts from Louis Mouillard's *Empire of the Air*; Otto Lilienthal, *The Problem of Flying and Practical Experiments in Soaring*; Samuel P. Langley, *The Story of Experiments in Mechanical Flight*; and E.C. Huffaker, *On Soaring Flight*. He also included a list of recommended publications on the subject, including S.P. Langley, *Experiments in Aerodynamics*; Octave Chanute's *Progress in Flying Machines*, and the 1895, 1896, and 1897 issues of *The Aeronautical Annual*.

Wilbur immediately replied, thanking Rathbun for the pamphlets and enclosing a dollar for the Langley volume. An entry for the second week in June, 1899 in the ledger in which the Wrights kept a meticulous account of the receipts and expenditures of the bicycle shop includes an expenditure of \$5.50 "for books on flying." In addition to ordering the Langley book, the brothers must have taken Rathbun's advice and purchased the Chanute volume and the available issues of the *Aeronautical Annual*, as well.<sup>5</sup>

The spring of 1899 had been a busy time for the residents of No. 7 Hawthorne Street, Dayton, Ohio. The *pater familias*, seventy one year old Bishop Milton Wright, as usual, spent a great deal of time on the road, visiting far flung congregations, calling on relatives in Ohio and Indiana, and attending church conferences. When at home, he made periodic visits to the dentist who was fitting him with a "vulcanized" upper plate; supervised the workmen who were refurbishing the kitchen and the "east room" of the house; and handled family business, includ-

ing the sale of timber on an Indiana farm.

But there was always time for his grandchildren, especially his son Lorin's eldest boy and girl, Milton and Ivonette, who lived just around the corner on Horace Street. At young Milton's request, he took them on walks to their grandmother's grave in lovely Woodland Cemetery. On May 10, 1899, the three of them cheered from the upper story windows of a church office as Col. William F. "Buffalo Bill" Cody paraded his Wild West Show through the streets of Dayton. Grandfather and grandchildren alike were looking forward to fireworks on the Fourth of July.

It was a busy spring for twenty-four year old Katharine Wright, as well. Katie, as her father and friends knew her, was the only college graduate in the family, Oberlin, class of '98. Recently "elected" a teacher of English and Latin on the regular faculty of Central High School, she spent the spring and summer preparing for and enjoying her high school reunion and entertaining visiting college friends. She and a group of friends hosted a supper for a visiting Oberlin professor on May 20. A college chum, Margaret "Mag" Goodwin, arrived for a visit after June 8. The two of them took a train for Oberlin, and their first college reunion, on June 15.

Orville would later recall that serious discussions of aeronautical issues were well underway "while Miss Goodwin ... was visiting in our home."<sup>6</sup> The first step was to assess the state of the aeronautical arts. "As to the state of the experimental knowledge at the time we began our experiments," Wilbur explained:

"...we reached the conclusion that the problem of constructing wings sufficiently strong to carry the weight of the machine itself, along with that of the motor and of the aviator and also of constructing sufficiently light motors were sufficiently worked out to present no serious difficulty; but that the problem of equilibrium had been the real stumbling block in all serious attempts to solve the problem of human flight, and that this problem of equilibrium in reality constituted the problem of flight itself."<sup>7</sup>

From the outset, as Wilbur explained, "we were actively studying the means of controlling [an] aerial apparatus in the air..."<sup>8</sup> Lilienthal, the great German gliding master had been killed when his craft went out of control, as had Percy Pilcher, an English experimenter. Determined to avoid that fate, the Wrights set out to devise an effective control system before they built their first flying machine. They immediately recognized that the real problem related to control in the roll axis, raising or lowering either wingtip at will to maintain balance in the air. "[We] ...

## The Experiments of 1899: Wilbur and Orville Wright Fly a Kite—Tom D Crouch

conceived the idea of adjusting right and left wings to respective difference angles of incidence," Wilbur explained, "for the purpose of controlling lateral balance."<sup>9</sup>

How was that to be achieved? Orville suggested "...mounting the wings ... upon axles extending laterally from the center of the machine with gears attached to the two wings meshing so that when the lever attached to either wing was pushed forward or backward the wings would face forward at different angles to each other."<sup>10</sup> Wilbur, however, argued that the scheme was impractical because of the weight of such a mechanism and the difficulty of incorporating it into an adequate structure.

Harriet Silliman, another one of Katharine's college friends, arrived for a visit on Thursday, July 20.11 Wilbur was working late in the bicycle shop a day or so later, while Orville and Katie were off somewhere entertaining Miss Silliman.

"One evening while studying the movements of a little square paper tube which I was using for the purpose of noting the movements of one side which I conceived to represent the upper plane of a double deck structure and the Opposite side which I conceived to represent the lower plane, I noticed that the upper plane could be moved bodily forward or backward with reference to the lower plane which would be useful in controlling the fore and aft equilibrium of the apparatus, or if the top plane were moved forward at one end and backward at the other the whole structure would be twisted so that the right ends of the plane would be pulled down at the rear while the left ends would be elevated. Thus each plane would assume a screw form or helicoid and the right wing would have a greater angle than the left wing."<sup>12</sup>

By twisting or "warping" the wing in that fashion, the operator would increase or decrease the angle of attack, and the amount of lift, on one side or the other, banking into a turn, or simply restoring lateral balance.

When Orville returned home with the ladies later that evening, Wilbur was waiting with the box. "By marking vertical and diagonal lines on the ... two vertical walls... [Wilbur] represented the upright posts and the diagonal truss wires of a superposed aeroplane."<sup>13</sup> Wilbur carefully positioned his index fingers and thumbs on either end of the box and twisted. Orville recalled that they became "...very enthusiastic..."<sup>14</sup>

Wilbur then proceeded to build "...a little model made out of bamboo having lateral spars and upright standards connecting them, the whole being braced by truss threads."<sup>15</sup> It was an

even clearer demonstration of the warping principle, and indicated a means of incorporating the technique into an actual structure. His next step was to design, build, and test their first real aircraft, a kite that would enable them to test their control system in the air. "The kite had two slightly curved planes," Wilbur explained, "about thirteen inches from front to rear, and about five feet from tip to tip, one being placed above the other and connected to it by two rows of upright standards, one near the front edge and the other row near the back edge."

Wilbur attached the upright struts to the wings with flexible connections, "...so that the top plane could be thrown forward or backward with reference to the lower plane."<sup>16</sup> A single rod attached to the mid-point of the middle rear strut supported a rectangular, horizontal elevator. When the top surface of the kite moved forward or backward, the trailing edge of the elevator rose or fell to assist the kite in climbing or diving.

Orville knew that the classic box kite, introduced by the Australian Lawrence Hargrave in 1892, offered a light, strong aeronautical structure. Such kites were braced across the front and back with light wires forming a Pratt Truss, a classic American bridge truss, and across both ends. In 1896, the Chicago engineer Octave Chanute had sponsored successful flight tests of a hang glider based on that pattern. If the wire bracing on the ends was removed, it would enable the top surface to move to the front or rear of the lower wing, causing the kite to climb or dive. The wings could also be twisted for lateral control, like the box and the bamboo model, but could not move to the right or left.

Control lines leading to wooden sticks in the operator's hands could be connected to the top



Side view of glider flying as a kite near the ground, Wilbur at left and Orville at right, glider turned forward to right and tipped downward.

## The Experiments of 1899: Wilbur and Orville Wright Fly a Kite—Tom D Crouch

and bottom of the outside front struts on both the right and left sides. The lines on the right and left were crossed, so that the operator could tip the top of the two sticks in his hand forward to allow the top wing to move back, causing the kite to climb. Pointing the top of both sticks to the rear would cause a dive, and pointing the top of one stick forward and the other to the rear would cause the kite to bank in one direction or the other. It would be the first flying machine of any kind capable of maneuvering under the control of the pilot.

The structure of the 1899 Wright kite was built entirely of pine. The wings were covered with fabric and sealed with shellac.<sup>17</sup> An examination of the ledger book in which the Wrights recorded all of their income and expenditures reveals a number of interesting purchases that might have been related to the kite, including several entries for ten cents worth of muslin, and Wilbur's purchase of a ten cent ball of string in the last week in July or the first in August. In any case, the book records that Wilbur reported a great many unspecified expenditures during late July, any of which might have been related to the kite.<sup>18</sup>

Wilbur later recalled that he was at work on the kite "within a few days" of having experimented with the cardboard box and the bamboo structure. "The actual work on the kite was done mostly by myself," although "...it embodied the results of numerous conversations between us."<sup>19</sup>

While Orville was helping Katharine entertain their guest, Wilbur spent long hours at the bicycle shop, waiting on customers, performing repairs, and constructing his kite. "I was not able to be present when the structure was flown as a kite, but I operated the machine in ... our store before it was taken out to be flown," Orville recalled. "My brother held the kite in his hands while I warped the wings by means of the four cords." Katharine, Harriet, Orville, and a group of other friends left for a camping trip at a spot near Dayton's Fairview Park during the first week in August, 1899. The party returned home on August 7, the first Monday of the month.<sup>20</sup>

The tests of the kite, Wilbur recalled, were prior to the trip. Orville agreed with his brother, recalling that he had returned from the camping trip on Tuesday, August 8, and that Wilbur had visited him in camp on Sunday, August 6, at which point they discussed the kite tests that had been conducted prior to his departure. In the late summer of 1899 the Wrights did not have an assistant who could man the bicycle shop in their absence. Presumably, Orville did not witness the kite tests because he had to mind the store.<sup>21</sup>

Wilbur reported that he flew the kite "a number of times about the end of July."<sup>22</sup> He had given the question of where to fly it considerable thought, and selected an open area on the grounds of the Union Theological Seminary, at the corner of West First Street and Euclid Avenue in Dayton, Ohio. "This field is now part of the city," Wilbur explained in a deposition offered just a month before his death. "But at that time [it was] a retired place where I thought no one would intrude."<sup>23</sup>

Officials of the Church of the United Brethren in Christ opened the doors of the impressive three-story structure in 1878. Since that time, it had become a landmark on the western edge of Dayton. Eight years before, Katharine, then a high school student, had mentioned the place in an essay describing the sites encountered by passengers on a horse car traveling east long West Third Street. Having begun the journey at the Third Street car barns, and passed the already historic Miami City school, the tour guide directed the attention of her readers to the next noteworthy site along the route.

"To the left, about two squares distant, is another school, sometimes irreverently called "the preacher factory." Its official name is Union Biblical Seminary. It stands in the center of a beautiful campus on high ground overlooking the valley of Wolf Creek, and is the first building to attract the eye of travelers entering the city by railroad from the west."<sup>24</sup>

Wilbur remarked that he had flown the kite more than once. The fact that the drawings of the kite which he prepared for use during a deposition on the morning of March 30, 1912, show a short section of pipe tied to the center forward strut certainly indicates that he had flown it enough to realize that it was tail heavy. In spite of Wilbur's desire for privacy, there were witnesses to the tests. Fred Fansher recalled that he had been flying kites with ten or twelve other boys in an empty lot adjacent to the Seminary at the corner of Summit and West First, when Wilbur Wright walked by carrying "... what looked to us like a peculiar sort of box kite." Curious, the boys pulled their own kites down and followed Wilbur onto the Seminary grounds.<sup>25</sup>

John Myers remembered that Wilbur had asked him to hold the kite as far above his head as he could and to let it go when instructed. "There was quite a big wind that day," he noted. "I recall that when he tilted the planes the kite came down very rapidly, darted in other words.... He made several attempts and then boxed it up and put it away."<sup>26</sup>

John Reiniger had been there, as well. "At times

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it would have a tendency to come down." He recalled, "which would be overcome by the manipulation of the sticks in Mr. Wright's hands." Once, he remembered, the kite had gotten completely out of control and swooped down to the ground.<sup>27</sup>

Of course, Wilbur gave Orville a detailed account of the tests. Several days later, John Reiniger and his brother Walter stopped by the bike shop and provided what we can safely assume to have been a spirited description of the proceedings. "According to Wilbur's account of the tests," Orville remarked, "the model worked very successfully."

"It responded promptly to the warping of the surfaces, always lifting the wing that had the larger angle [of incidence]. Several times, according to Wilbur's account to me, when he shifted the upper surface backward by the manipulation of the sticks attached to flying cords, the nose of the machine turned downward as was intended; but in diving downward it created a slack in the flying cords, so that he was not able to control it further. The model made such a rapid dive to the ground that the small boys present fell on their faces to avoid being hit, not having time to run."<sup>28</sup>

During the course of a series of patent suits that began in 1909 and ran for over a decade, the origins and operation of the 1899 kite would repeatedly become a matter of some legal importance. It was, after all, the starting point of the Wright experiments. As a result, the brothers were forced to reconstruct events that had occurred more than a decade before, and which seemed much more important in hindsight than they had at the time. In general, their method of dating the small steps leading to the kite tests involved remembering the comings and goings of guests, the camping trip and other household events occurring at the same time.

There is one puzzling anomaly, however. The brothers relied on their father's meticulous diary to establish a basic timeline of events in the Wright household during the spring and summer of 1899. In his entry for July 7, Bishop Wright reports that his grandson Milton visited that evening, "to see the flying machine."<sup>29</sup>

According to the chronology reconstructed by the brothers, however, there was no "flying machine" in early July. The incident with the paper box, which set everything in motion, did not occur until on or about July 20. Perhaps young Milton came to look at pictures of flying machines in the books and pamphlets that his uncles had recently acquired.

In addition to reconstructing the weeks when they had taken their first steps toward the invention of the airplane, the Wrights had to locate witnesses who could testify to having seen the kite maneuvering in the air. Some of the boys were easy enough to find. John Reiniger was still living in Dayton, as were Fred Fansher, who was serving as Secretary of the Chamber of Commerce in 1912, and John Myers, who had become an electrician. The Wrights wrote letters to other men, now living as close as Cincinnati and as far away as Georgetown, Texas, whom they thought might have been among the ten or a dozen youngsters who had seen the kite fly thirteen years before.<sup>30</sup>

Apparently, there were no responses. Opposing counsel in the various patent suits would also express curiosity with regard to the ultimate fate of the objects that had played such an important role in the initial involvement of the Wright brothers in aviation. "I do not think that we have parts of any of our kites or gliders before the motor aeroplanes [sic] of 1903," Wilbur explained.<sup>31</sup> While he did not actually remember, he presumed that the little bamboo model had been "thrown in the waste basket or wood box."<sup>32</sup>

"The kite remained about the store for three or four years," Wilbur recalled, "and was used at various times in making experiments with an automatic stabilizer." During one of those tests, probably in 1905, "...it was so badly broken that no attempt was made to rebuild it."<sup>33</sup> The 1899 kite had outlived its historic progeny, the 1900, 1901, and 1902 Wright gliders. Like them, however, it ultimately found its way into "the waste basket or wood box."

"Following these flights [of the 1899 kite]," Wilbur recalled, "we decided to build a much larger kite sufficient to support a man, and we made a search for grounds in the vicinity of Dayton but found nothing that suited us."<sup>34</sup> This time they would have to look a bit farther afield than the Union Theological Seminary. Just a year later, on Thursday, September 6, 1900, Wilbur Wright boarded a Big Four train at Dayton's Union Station. He was bound for Elizabeth City, North Carolina, where he would hire a boat to carry him across Albermarle Sound to the little village of Kitty Hawk, on the Outer Banks of North Carolina. Safely packed away in the baggage car were the prefabricated makings of the 1900 kite/ glider, the first full-scale Wright airplane. The freight charge was \$2.53, several times the cost of the small kite that had started it all.<sup>35</sup>

### SIXTEEN YEARS LATER

I wrote this essay 16 years ago, in the spring of 1999, as a first step toward the Centennial of Powered Flight, which I assumed would be cele-

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brated with great fanfare in 2003. The kite experiments of 1899, so often overlooked by historians, marked the serious entry of these two Dayton men into aeronautics, a field in which they would write their names large across the sky. The essay was an experiment in microhistory, an attempt to see just how much detail I could uncover about those few weeks in the summer of 1899. Rereading it now, I found the need to do some re-writing, not to correct errors, but to clarify what occurred and to put those events in a bit more context.

I am more than pleased that my friends from the Drachen Foundation have chosen to offer the revised version to a new generation of readers in their online journal. I enjoyed re-visiting my own account of the story, and am grateful to have been able to make some improvements. My thanks to Ali Fujino and Scott Skinner for the invitation, and to editor Katie Davis who helped make it more presentable.

Tom Crouch  
Chantilly, Virginia  
October 6, 2015

## ENDNOTES

1. Wilbur Wright testimony, U.S. District Court, Western Division of New York. The Wright Company vs. Herring-Curtiss Co. and Glenn H. Curtiss. In Equity No. 400. Complainant's Record. Vol. 1, pg. 474.
2. Orville Wright deposition, The United States District Court, Southern District of Ohio, Western Division, Charles H. Lamson vs. The Wright Company, In Equity No. 6,611, pg. 78, Defendant's Copy, The Papers of Wilbur and Orville Wright, Manuscript Division, Library of Congress, box 63.
3. Wilbur Wright testimony, Wright Company vs. Herring-Curtiss Co. and Glenn H. Curtiss, Vol. 1, pg. 474.
4. W. Wright to the Smithsonian Institution, May 30, 1899, in McFarland, *PWOW.*, vol. 1, pg. 4-5.
5. Entry for June 15 (?), 1899, 1899 ledger book, Box 77, pg. 13, Papers of Wilbur and Orville Wright, Manuscript Division, Library of Congress.
6. Lamson vs. the Wright Company, pg. 78.
7. Wilbur Wright testimony, Wright Company vs. Herring-Curtiss Co. and Glenn H. Curtiss, Vol. 1, pg. 478.
8. Lamson vs. the Wright Company, pg. 14.
9. Lamson vs. the Wright Company, pg. 14.
10. *Ibid.*, 78.
11. Bishop Milton Wright, Diary, Paul Lawrence Dunbar Library, Wright State University.
12. Wilbur Wright, Lamson vs. Wright, pgs. 14-15.
13. Orville Wright, Lamson vs. Wright, pg. 79.
14. *Ibid.*
15. Wilbur Wright, Lamson vs. Wright, pg. 15.

16. Wilbur Wright, Lamson vs. Wright, pg. 16.
17. Wilbur Wright to Octave Chanute, August 10, 1900, in McFarland, *Papers*, vol. 1, pg. 22.
18. For the string see: 1899 ledger book, pg. 59, Wright Papers, Box 77.
19. Wilbur Wright, Lamson vs. Wright, pg. 17.
20. Orville Wright, testimony, U.S. District Court, Western Division of New York. The Wright Company vs. Herring-Curtiss Co. and Glenn H. Curtiss. In Equity No. 400. Complainant's Record. Vol. 1, pg. 807. "While Miss S. Was visiting us we spent a few days camping north of the city, that is, my sister, Miss S- and I camped with some friends.... We were camping about one week and we returned to Dayton, as I remember it, the first Monday of August 1899."
21. For Orville's recollections see, "Orville Wright on the Wright experiments of 1899," in Marvin W. McFarland, ed., *The Papers of Wilbur and Orville Wright* (New York: McGraw-Hill and Company, 1953), vol. 1, pg. 11.
22. Wilbur Wright, Lamson vs. Wright, pg. 16.
23. Wilbur Wright, Lamson vs. Wright, pg. 17.
24. Katharine Wright, "Rambles in Miami City," [*Central*] *High School Times*, December 1891, pg. 7.
25. Deposition of Frederick W. Fansher, Dayton, Ohio, February 2, 1921, Regina Cleary Montgomery et al. vs. the United States, Court of Claims of the United States, No. 33852. Typed copy of the deposition in the John J. Montgomery biographical file, National Air and Space Museum. See also Fansher's earlier deposition, in Lamson vs. Wright, pg. 90.
26. Deposition of John K. Myers, Dayton, Ohio, February 2, 1921, Regina Cleary Montgomery et al. vs. the United States, Court of Claims of the United States, No. 33852. Typed copy of the deposition in the John J. Montgomery biographical file, National Air and Space Museum.
27. Deposition of John D. Reiniger, Lamson vs. Wright, pg. 95.
28. "Orville Wright on the Wright experiments of 1899," in McFarland, ed., *Papers*, vol. 1, pg. 11.
29. Bishop Milton Wright, Diary, July 7, 1899, Paul Lawrence Dunbar Library, Wright State University.
30. Wright brothers to Horace Hiscy, April 13, 1912; Wright brothers to Joseph Scholl, April 13, 1912; Wright brothers to Horace Drury, April 13, 1912, all in The Papers of Wilbur and Orville Wright, Manuscript Division, Library of Congress, box 63, materials relating to Lamson vs. Wright.
31. Wilbur Wright, Lamson vs. Wright, pg. 49.
32. *Ibid.*
33. *Ibid.*, pg. 17.
34. *Ibid.*
35. For freight charge see: 1900 ledger book, pg. 153, Wright Papers, Box

## Maple Leaf Kite Plan

**This plan may not be used for commercial purposes!**

The original idea for the maple leaves came by chance. On the flight back from Windscape Kite Festival in Canada, the Canadian airline offered their food and drinks on a menu that was decorated in the style of the Canadian national flag with painted maple leaves.



I had almost 10 hours on the plane to look at these leaves in red, yellow and green, and to think of them as a kite. - A new project was born! The idea was to produce contrasting coloured interior profiles on the skin front surface, which should come as close as possible to nature, resulting in the creation of new colour schemes.

On different kite festivals the maple leaves have already found a lot of friends. Although initially no blueprint publication was planned by me, the story took its own course. On request I sent a graph paper drawing in the assumption kite builders could work with it. But there was a few who were not satisfied with this drawing and wanted more. There were people interested in Canada, in Argentina and in the friendly Kite Forum. I did not expect that, independent from one another, diligent drawing and construction was underway. Soon there were various digitized drawings available, and the Toronto Kite Flier even organized its own Maple Leaf workshop, in which 15 leaves have been built. It was similar at the Kite Club BATOCO in Argentina. In Germany, Frank and Susann Luge from the team WEIMAIR took on the leaves. They also made some changes to the air inlet and the internal profiles, so that the leaves also fly stably without a lifter. As demand is still large we have decided to publish this plan for private purposes only. The plan of the Maple Leaf is relatively simple and should be doable for experienced kite builders.

Anyone who has studied the preceding plans or even built one will find repetitions and similarities in some parts and steps of this plan. This is intentional, because these plans have been praised for being understandable and comprehensible. Why deviate from this style, it also offers a guaranteed easy introduction to the subject of soft kites for newcomers!

The leaf is comparable in size and material requirements with the previous building plans. However, one should not be misled by the simple form, sewing complexity and difficulty are involved! Sewing and kite building experience should therefore be present.



## Maple Leaf Kite Plan

### Approximate Material Requirements:

Ripstop—Leaf Colour	10 x 1.5 metres
Ripstop—Inner and Elliptical Profiles	5 metres
Ripstop—Drogue	1 metre
Bridle Lines—50 daN (~110lbs)	2 metres
Bridle Lines—70 daN (~150 lbs)	60 metres
Bridle Lines—100daN (~220lbs)	4 Metres
Reinforcing low stretch line	12 metres (approx.)
A Repair opening is not required as the leaf remain open at the air inlet	

### The Leaf Form:

This plan describes the 3-meter version of the leaf, for that, ripstop with a width of 150 cm is ideal. Front and rear of the skin are cut with scissors. Whilst cutting the main skin make sure that the back is somewhat longer than the front. The position of the profiles is drawn onto the skin, this will be of help later when the panels are sewn together. This plan can be doubled in size without problem albeit reinforcing and bridle lines have to be strengthened accordingly.



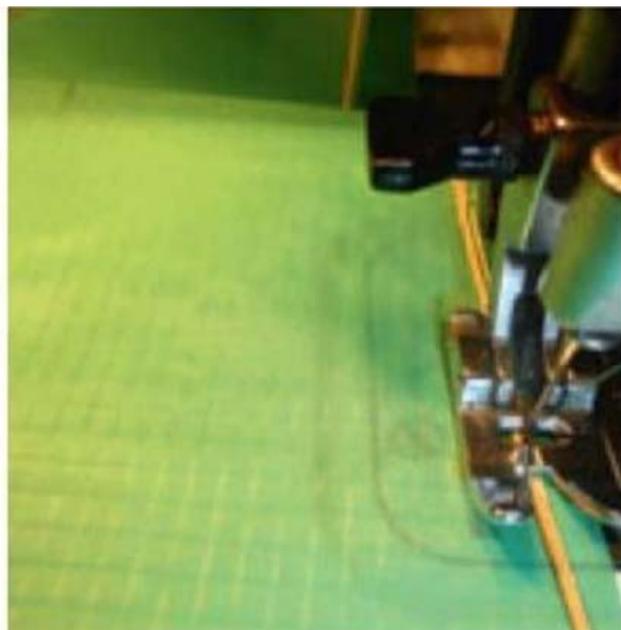
### The profiles, triangles and ellipses:

As already described above, beautiful colour effects can be made when a darker contrasting colour is chosen for the inner profile and the circumferential elliptical profile segments. Yellow leaf with red interior profiles, red with blue, light green with brown, orange with green ... Here the creativity knows no boundaries. A beautiful contrasting colour, when backlit, contributes to the leaf's vitality. The ellipses can be kept in the same contrasting colour as the inner sections.

Since the inner profile is not directly visible here can scraps be used. Apart from the long middle section all other profiles, triangles and ellipses are needed double. It makes sense to cut the longer and larger profiles first, so that many of the smaller segments can be cut from left over scraps. It is advisable to label the cut pieces to keep track of the total of 33 parts. After the profiles the vent holes should be cut out. This can be done easily with a hot cutter. As a template, a cup, a plate or the like (approximate diameter 6 -10 cm) can be used. Then the tops of the long profiles and the part "h" can be, reinforced with a cord, hemmed.



## Maple Leaf Kite Plan



The overview drawing shows all of the segments.

This drawing is to scale and can be enlarged by hand whereby the thicker lines are in a grid of 50 x 50 cm.

For whom this is too much work, we offer the templates as a pdf file which can be printed 1:1, on this site or <http://kite-and-friends.de/bauanleitungen/bauanleitung-maple-leaf/>. Since the outline should be visible through the fabric, you can directly draw or cut along the lines. Please be sure to know that there are a left and a right half of the skin, and the material must be turned accordingly. This should be taken into account when labelling.

The templates are drawn with a seam allowance of 0.7 cm, and at the upper edges of the longitudinal profiles and the part "h" has a seam allowance of 1 cm (air intake). When a wider hem is preferable then this allowance should be taken into account before the individual segments are cut with a sharp pair of scissors. When all the parts are cut out, you can then begin sewing.

### Construction specification:

All seams are sewn from the inside. At stressed points line is sewn in for reinforcement as is into the hems of the upper edges of the longitudinal profiles. In particular the leading edge of the inner profiles should be well reinforced to accommodate the pull of the lifters. Additional tip: When flying, the lifter should have a steep angle or even better the leaf be attached to the tow point otherwise it will overfly the lifter. The reinforcing lines should cross at the points where the bridle will be later attached so to avoid the fabric ripping. It is easier to sew the lines in before assembly, position shown as dotted green lines. At the trailing tip of the centre profile a loop is sewn in to be later used for the drogue (see point 10 on bridle image). The bridle points are marked in yellow and the lifter attachment in red.

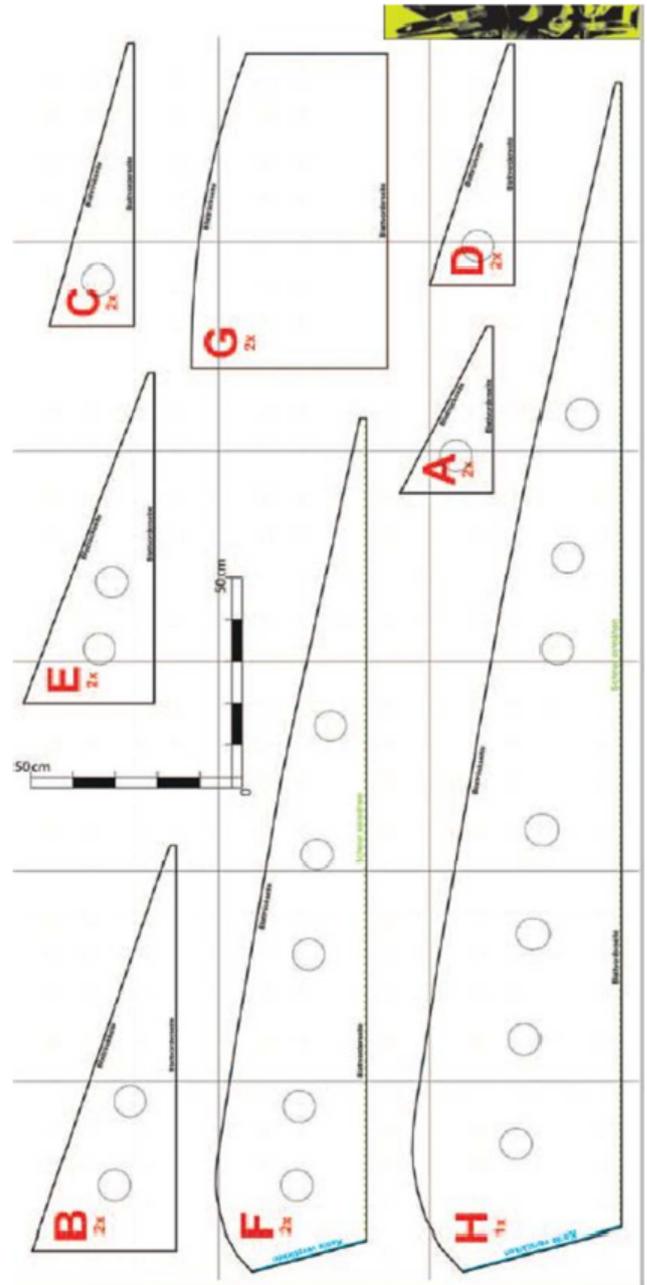
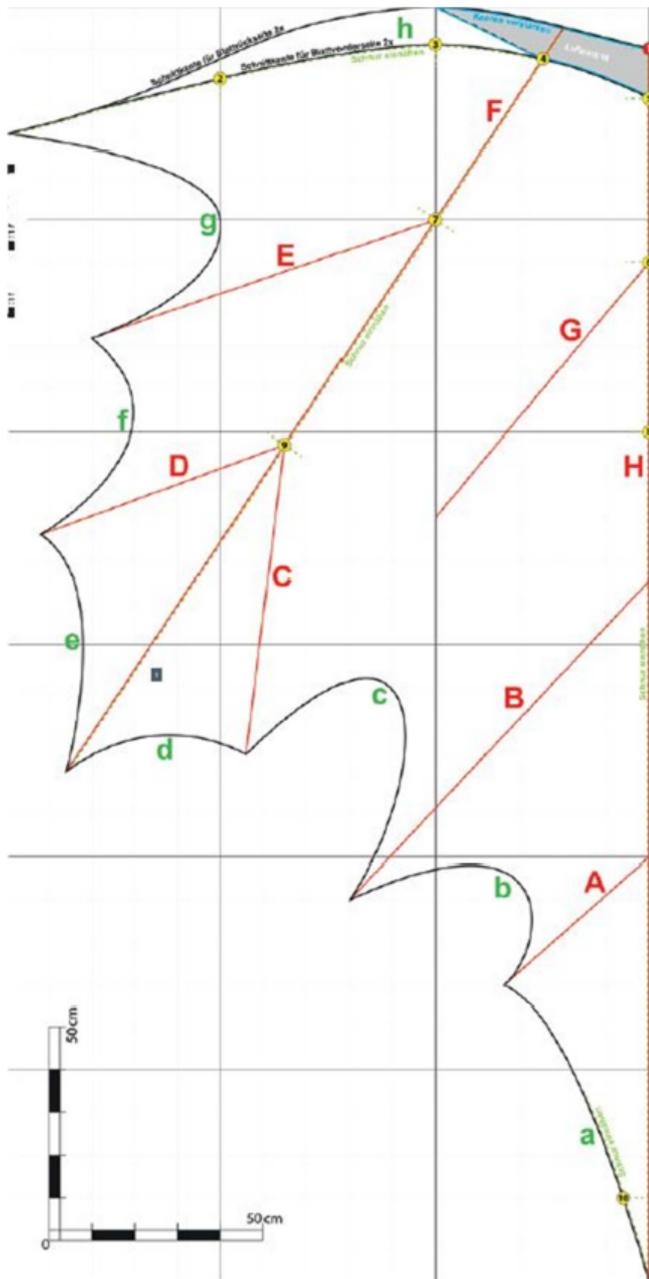
### Sewing:

Having found the wanted colour scheme, the pieces cut out and marked, we can begin to sew.

Basically there are two different ways to sew the skin together. One would be to sew the two halves first and then join them at the middle, the second would be to complete the rear side and then attach it to the front skin. Whichever way, it is your choice.

Here is the second method: Firstly the front and the rear halves are sewn together in the middle with a simple stitch making up the complete leaf form. Starting top left, sew the ellipses to the rear skin, followed by the profiles. As explained above follows the reinforcing and hemming of top edges of the air intake middle profiles, also the vent openings cut out and the cord sewn onto the appropriate markings, after which the long profiles, starting at the rounded air intake side, are sewn to the rear skin.

# Maple Leaf Kite Plan



This done, the short triangle profiles can be sewn all the way into the tips being careful that the right angles of the triangles will be attached to the front skin. This means that the hypotenuse will finish on the rear side of the leaf. The triangles are only sewn to the front and back of the leaf, but stay open toward the profiles. When all profiles and ellipses are sewn to the rear skin most of the work is done. Now for the difficult part, joining these pieces to the front skin.

Those who have already built a foil or wings (i.e. the parrot) know how tricky it is to sew profiles from the inside, but no worries, it is possible if you keep the order of sewing. Starting from the left, sew the top edge to the outer tip.

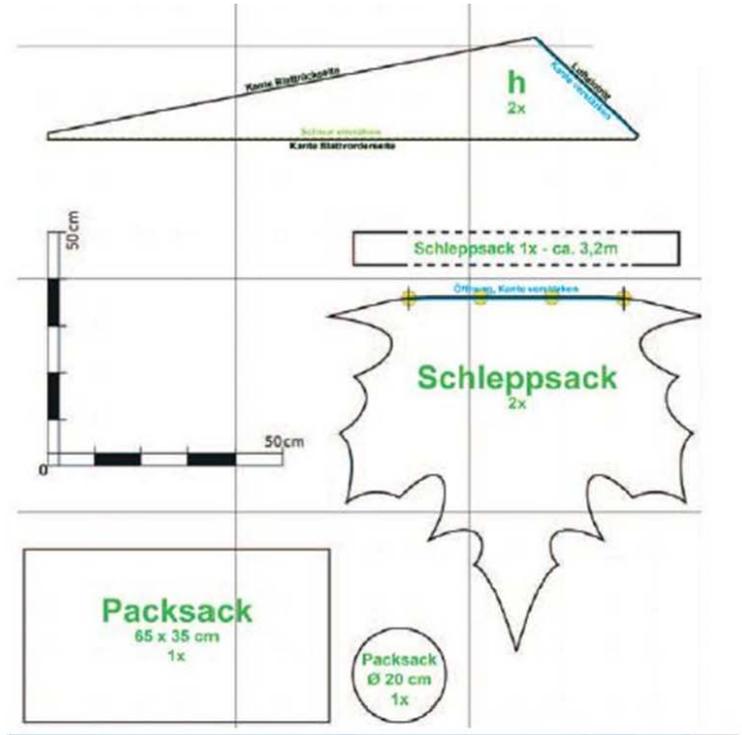
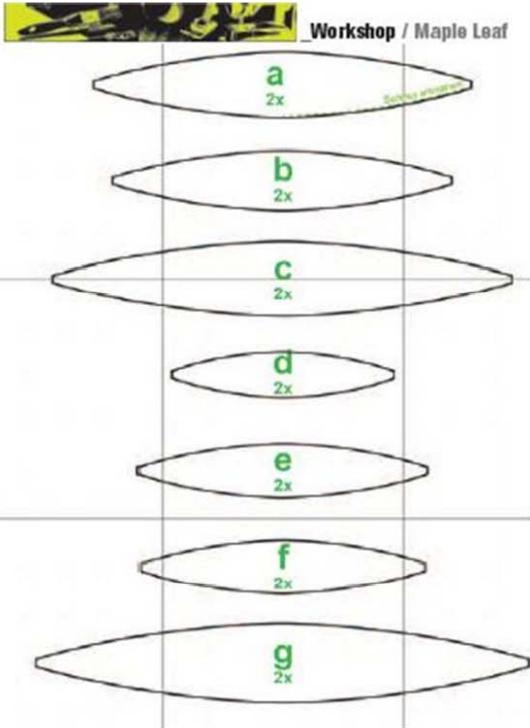
First step; the ellipse "g" is sewn to the front skin followed by the first profile with the triangle "E" and finishing off with the ellipse "f" into the tip. Now the triangle "D" can be sewn in. Before the next profile can be sewn through into the tip, the 3rd. ellipse "e" must be fitted in.

From the closed tip it continues with the 4th. ellipse "d" to the triangle "C". Sew the rib "G" next before continuing with the next ellipse "c" and triangle "B". Continue this procedure for the follow-

# Maple Leaf Kite Plan

ing profiles.

Always try to remember that the rounding still to be sewn stays open until the next profile hinders the placing of the machine foot. It is also recommended to check the fitting of the next profiles and ellipses before continuing to sew, any miss fitting can be corrected by stretching or cutting away the material. Before the tip of the leaf is reached a loop for the drogue has to be sewn in. Continuing around, step by step, until reaching the top right profile.



It seems sensible to leave the piece "h" until last so long a large enough opening is available for sewing. All the sewing been done, the leaf can be turned outside-in.



Now for the drogue.



Zuschnitt des Schleppsacks und umlaufendes Band als Profil

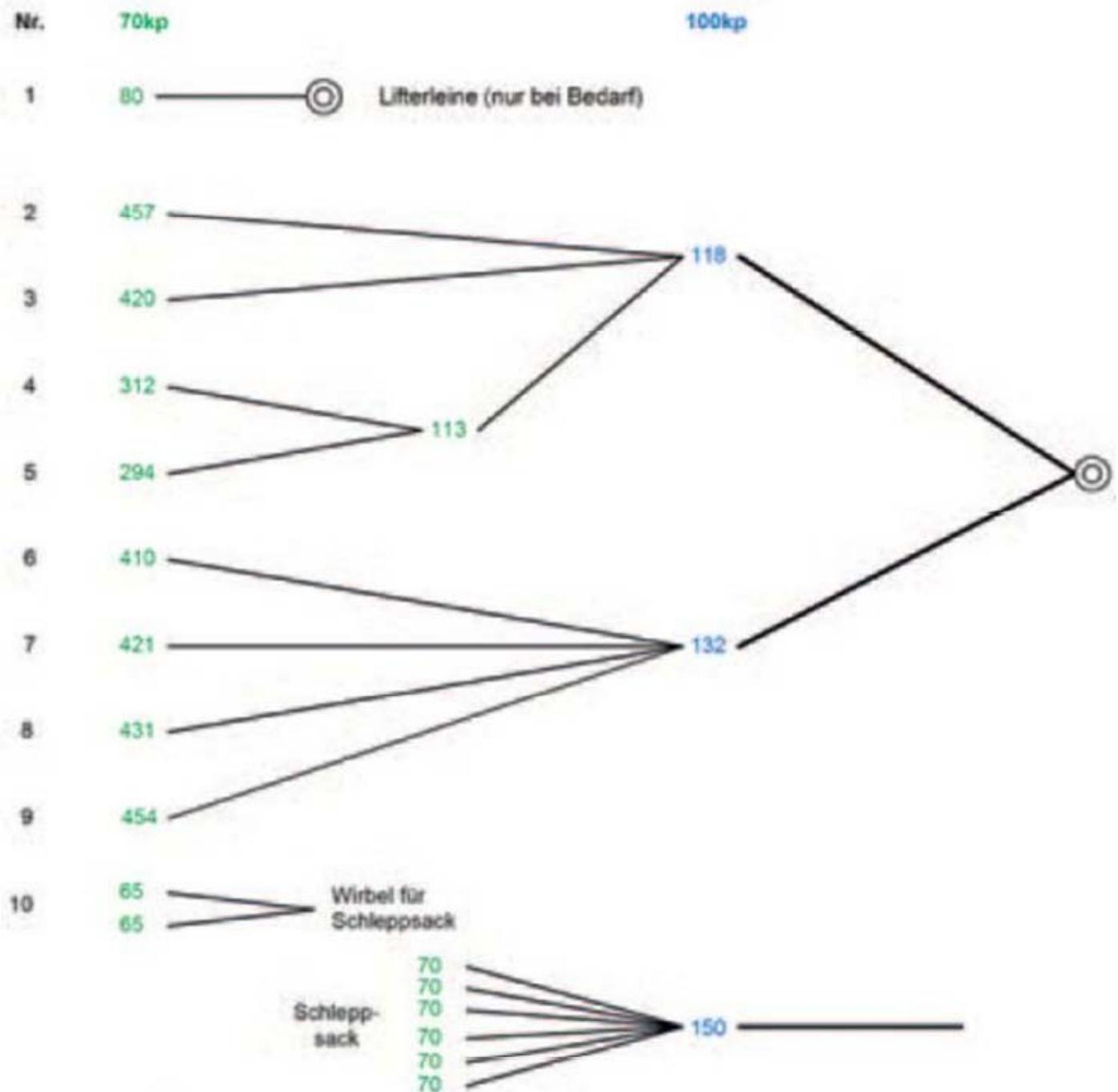
**The drogue:**

A small leaf is ideal for a drogue.

So that the drogue can be filled with air, a band (7 cm wide, approx. 320 cm long) is sewn between the two leaf halves. The top edge of the air inlet should either be hot cut or hemmed. 6 short lines (about 70 cm) are sewn on and attached to longer (150 cm) line, this is then knotted or attached with a swivel to the top of the leaf (see bridle plan #10).



# Maple Leaf Kite Plan



**The bridle:**

Using a 50kp (1kp = 2.204lb) line, knot the bridle connecting points by pushing an upholstery needle through the material and close to the cord crossings, pull the lines (about 10cm) through and knot them to loops, these will later be connected with a lark's head to the bridle lines. The composite bridle is cascaded into lines of different strength. Starting at the leaf with a 70kp, followed by a 100kp and ultimately connected to a short piece of 130kp line or directly to a karabiner.

All bridle lines are finished with a stopper knot at one end and a loop (for the lark's head) at the other end making it easier for connecting and tuning. The bridle plan is read from the top, starting at the skin, down to the middle of the leaf.

All given bridle measurements are without the addition of knots and loops!

If this has not been done yet then a loop should be tied at the bridle point "1" to make a connector for the lifter and also a loop on both sides of the leaf tip, point "10" for the drogue.

## Maple Leaf Kite Plan



### Storage sack:

If you wish you can quickly sew a storage bag. Sew a rectangular piece (35 x 65cm) onto a circular (20cm diameter) bottom, close the side and hem the top for a toggle line. Now the leaf is ready for the maiden flight. The hooking up of the leaf to a lifter can ease the first flight. The bridle should be correct but because of possible sewing and knotting differences it may have to be tuned. After some air time the material and lines will have stretched and depending on the type of line used sometimes the knots may loosen but after they have been taught this should not happen.

When everything is correct the leaf will fly in a steady wind even without a lifter. A flying line, depending on wind speed, of about 70 – 100kp will suffice. Enjoy building and flying at home or at kite festivals.

We would be pleased to have feedback about the plans/pictures.  
 Questions and/or contact to the author: <mailto:info@drachenbernhard.de>  
 Further pictures and plan download: [www.drachenbernhard.de](http://www.drachenbernhard.de)

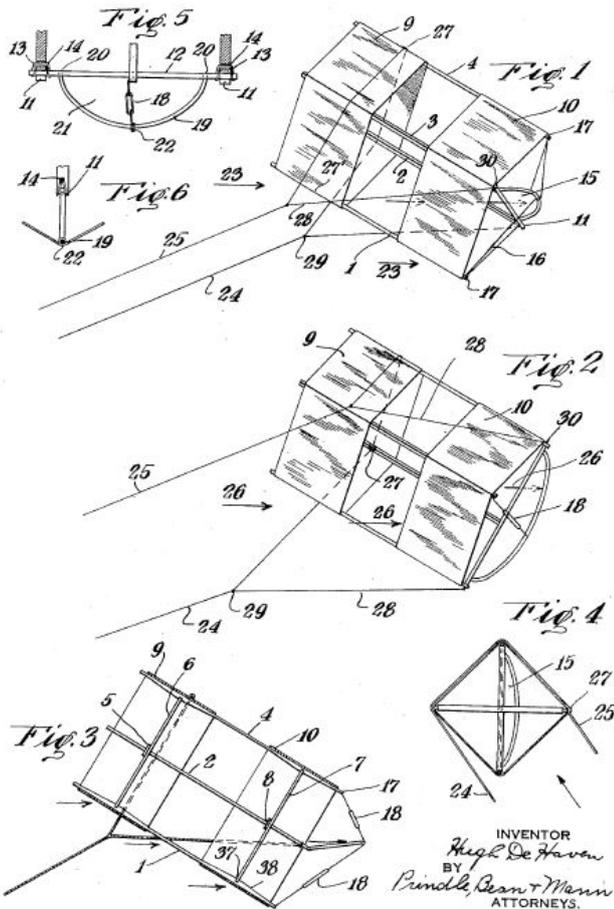
### Note of thanks:

Special thanks go to Frank and Susann Luge from the Team WeimAir: <http://www.weimair.de/> for the fantastic implementation of the drawings, to my kite friend Karl-Ulrich Körstel: <http://www.raberudi.com> for his continuous advice and for the compilation for the homepage Andreas Napravnik: <http://www.drachenbaendiger.de>  
 Translation: Christian Baden Powell

## Spirit of Air-o-bian—Lex Kraaijeveld

Some time ago, I wrote about my plans to [recreate the Air-o-bian kite from the 1930s](#). If you've been following [me on Facebook](#), you'll know this project has been progressing steadily. I guess it's time now to tell you the full story.

Stage 1 of the project was to try and recreate an Air-o-bian kite as close as possible to the original patent



To achieve that, I got myself a pair of [Spirit of Air box kites](#) (the idea was to end up with a pair of Air-o-bians, so we could fly them as Flying Fish). I created a rudder from a plastic storage box, and mounted that on a 5.5mm carbon tube, inside which was a 3mm carbon rod.



Note that, according to the patent, the rudder is **not** connected to the bridle lines, but is connected to the upright spars with a piece of elastic. Kite was bridled, and we were ready for the first test flight!



So did the Air-o-bian fly? Yep, no problem at all. Did it steer as it was meant to? Nope ..



The rudder basically didn't do anything, and any attempt at pulling one line or the other merely resulted in the kite rotating around its longitudinal axis, but not moving

into the direction of the pulled line.

To be perfectly honest, I would have been surprised to see the kite steer, as the rudder wasn't controlled by the bridle lines, or by anything else for that matter! So on to stage 2 ...



For stage 2, I decided to move away from the original patent, and link the bridle lines directly to the rudder. This way, the rudder would move

## Spirit of Air-o-bian—Lex Kraaijeveld

as the lines were being pulled. I decided to use the second box kite I had for this, and leave the other kite as it was. If it worked, I could simply adapt that one.

Test flight number 2 showed this direct rudder control had no effect whatsoever! It still was the case that pulling on either line resulted in the kite rotating rather than steering in a particular direction.

Now I was still following the patent regarding the attachment points of the 'uphaul' part of the bridle, i.e. on the lateral upright spars as you face the kite. What about making the two 'uphauls' attach together on the flyer-facing upright spar? I know I'm moving further and further from the patent, but I just wanted the box kite to steer ...

So here's what the improved bridling looks like. At the lower (rudder) end of the kite, the bridle lines connect directly to the two sides of the rudder; pulling on one line will make the rudder go one way, pull on the other, and it goes the other way.



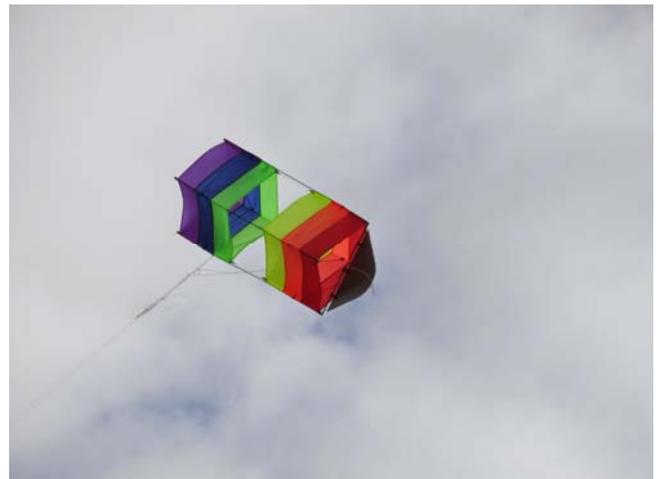
And at the top end of the kite, the two 'uphauls' come together on a single spar; that ought to reduce the rotation of the kite, as all pulling will now only go to the rudder



Test flight number 3! Will it steer now?



Well, yes, actually! After getting used to the kite flying to and fro a lot, I actually managed to fly it into loops left and right!



It turned out that the position of the tow point was pretty crucial. Too low down, and the kite wouldn't have enough angle to fly; too high up, and the bridle lines connected to the rudder would remain slack, and it wouldn't steer at all. But a bit of trial and error seemed to give me the sweet spot.

Even though I managed to steer the kite in the end, control is not even close to what we would need to fly two of them side-by-side, so it'll remain a one-off for now (unless I get a sudden brainwave as to how to improve control massively).

So here's our "Spirit of Air-o-bian"! The name is a nod to the maker of the original box kite, and to the fact that that the end result has the 'spirit' of the original Air-o-bian in it, even though I've veered further and further away from the patent. It definitely was a fun experiment!

## Portsmouth

### Portsmouth International Kite Festival

Portsmouth City Council continues to support the kite festival. This year the festival will take place Saturday 13th & 14th August, just a two day event as the normal Bank Holiday weekend has been reserved by the Victorious Music Festival and they want the whole of Southsea Common. There is no reason why people cannot fly on the Monday but this would be unofficial.

We have been assured that there will NOT be a stage on the site this year—not that it caused any problems last year.

This year is a very special one—the Silver Jubilee Kite Festival—25 years of the Portsmouth Event. So the theme for this year's event is "Retro"! This will include kites from the 90's onwards—so dust off those kites. We would also like to see some retro sports kite flying—as it was then, outfits and all.

**Free parking** is available for KSGB members on request from us IN ADVANCE. No passes will be available at the site. Send SAE or email us with your name and car registration number. Please note that each pass will be specific to you and NOT transferable. Your name and registration number will be printed on the pass. Also note that if you do not supply the registration number you will not get a pass.

You will be able to unload your vehicle on the main festival site but once unloaded, you MUST move your car to the car park. The car park location will be shown on the car pass as we are unsure which end of the site entry will be made from. The entrance will be manned enabling access. At least this is what we have been told so far. Watch the web site for any changes to details of access.

Finally a CAR pass does not equal a CAMPING pass—a separate pass is required for CAMPING.

**Camping** is not officially permitted on site by the council. This year the festival is again being run in conjunction with Portsmouth City Council and they are being pressured by local residents and councillors to keep the number of campers static.

Please understand both their and our positions on this. It is an unfortunate fact that the participation of the campers is not, over the past few years, what it could have been and when local councillors walk past and make comments like "all I saw was people sitting around all day, talking and generally hanging around in the campsite and from my point of view, not

flying kites".

Some passes will be available to other non guest kitefliers.

The process and rules are:

Camping is only open to Kite Society members or affiliated club members.

A ballot will be used to allocate any spare passes. Therefore anyone who wishes to enter the ballot **MUST** request a pass from us together with the vehicle registration number.

All requests for camping must be with us by **31st May**. We will notify both successful and unsuccessful people by the **8th June**.

It is important to note that this concession is only between **Friday 12th August 10am until Monday 15th August noon**. You will be moved if you arrive earlier or stay later. Please do not abuse this concession.

Send postal requests to P O Box 2274, Gt Horkeley, Colchester CO6 4AY or email to [portsmouth@thekitesociety.org.uk](mailto:portsmouth@thekitesociety.org.uk).

If you are one of the keen ones and already sent your request—please send it again with the additional details requested above.

Note requests for camping will NOT be acknowledged—we have better things to do! - unless you ask for a read request via your email system.

The nearest alternative camp site is Southsea Leisure Park, Melville Rd, Southsea PO4 9TB

For details of local accommodation please contact the Portsmouth Tourist Centre on 023 9283 6722, [www.visitportsmouth.co.uk](http://www.visitportsmouth.co.uk).

The University Halls of Residence, where the invited kitefliers stay, can be booked online at [onlinestore.port.ac.uk](http://onlinestore.port.ac.uk). Look under the "Conferences & Events" > "Conferences & Lettings" > "Conferences" headings. It is called PCC Kite Flyers Accommodation. We have been told the rates are the same as we pay. You can also book for the period Wednesday 10th to Tuesday 16th. (Note you have to register to use the site). Or call 023 9284 4884.

Look at [www.portsmouthkitefestival.org.uk](http://www.portsmouthkitefestival.org.uk) for up to date information.

We look forward to seeing many of you at the event—supporting one of the few remaining UK international kite festivals.

## Events List

<b>2016</b>		
<b>April</b>		
9-17	Berck sur Mer International Kite Festival, Nord-Pas-De-Calais, France	www.cerf-volant-berck.com
21-1/05	Cervia International Kite Festival, Pinarella, Cervia, Italy	www.festivalinternazionaleaquilone.com/web
23-24	Jolly Up 18, Roy's Field, Cliddesden, Basingstoke	roy@kitesup.co.uk
<b>May</b>		
15	Streatham Common Kite Day, SW16 3EN	www.streathamkiteday.org.uk
28	Kites on Walmer Beach - The Beach Walmer, Deal Kent CT14 7HJ	Malcolmf@kentkiteflyers.com
28-30	Birdoswald Hadrian's Wall Kite festival, Birdoswald Roman Fort, Gilsland, Brampton, Cumbria, CA8 7DD	info@infinitearts.co.uk
<b>June</b>		
4-5	Basingstoke Kite Festival, Down Grange Sports Complex, Basingstoke	Alan Cosgrove 01256 421800
25-26	Barmouth Annual Beach Kite Festival in conjunction with the Mawdach Paddle Reggata, on the beach by the lifeboat station Barmouth	waine@barrikiteflyers.com
25-26	Kites at Sellindge - Sellindge Sports & Social Club, Swan Lane, Sellindge Kent, TN25 6HB	Malcolmf@kentkiteflyers.com
<b>July</b>		
2-3	Bognor Regis Kite Festival, West Sussex	dave@kiteweekenders.com
8-9	Brighton Kite Festival, Stanmer Park, Brighton (Provisional)	www.brightonkiteflyers.co.uk
16-17	Leominster & Hereford Kite Festival, Berrington Hall, Herefordshire HR6 0DW	bill.souten@mkf.org.uk
30-31	Dunstable Kite Festival, Dunstable Downs.	www.dunstablekitefestival.co.uk
30-31	Far Horizons International Kite Weekend, Beverley Racecourse, HU17 8QZ	info@infinitearts.co.uk
30-31	St. Annes Kite festival, on the beach, Lytham st Annes, near Blackpool, Lancashire	www.stanneskitefestival.co.uk
<b>August</b>		
6-7	Jolly Up 18, Roy's Field, Cliddesden, Basingstoke	roy@kitesup.co.uk
7	Royston Kite Festival, Therfield Heath, Royston, Herts	www.roystonkitefestival.com
13-14	Portsmouth International Kite Festival, Southsea Common, Portsmouth	Portsmouth@thekitesociety.org.uk
13-14	Teston Bridge Kitebility Kite Weekend, Teston Bridge Country Park, Teston Lane, nr Maidstone, Kent ME18 5BX	Malcolmf@kentkiteflyers.com
13-14	Prudhoe Kite Festival, Highfield Park, Prudhoe, near Newcastle, Northumberland NE42 6EY	john@johndobson.info
27-28	Exmouth Kite Festival, Imperial Recreation Ground, EX8 1DG	ellisondavid@me.com
<b>September</b>		
10-18	Dieppe International Kite Festival, Dieppe, France	infos@dieppe-cerf-volant.org
25	The Capstone Festival, Capstone Country Park, Chatham Kent ME7 3JG	Malcolmf@kentkiteflyers.com
<b>2017</b>		
<b>April</b>		
29 - 1st May	Broad Haven Returns	bil-ly.souten@btinternet.com