## JULY 2 O 20




## CLUB FLY-INS

We hold club fly-ins each month (winter included) at various sites. These are informal events and are a great way of meeting other MKF members.

## MEMBERSHIP CARDS

Your membership cards can obtain you discounts for purchases from most kite retailers in the UK, and gain you entry to events and festivals free or at a reduced cost. Please keep them safe.

## PUBLIC LIABILITY INSURANCE

All fully paid up members are covered by Public Liability Insurance to fly kites safely for pleasure anywhere in the world. If you injure anyone whilst flying your kite the injured party may be able to claim on the club insurance for up to $£ 5,000,000$. The club has Member-to-Member Liability Insurance. A claim may be refused if the flier was found to be flying a kite dangerously - e.g. using unsuitable line, in unsuitable weather; flying over people, animals, buildings or vehicles. This insurance does not cover you for damage to, or loss or theft of members' kite/s.
BUGGIES, BOARDS \& KITESURFING
Unfortunately we are not able to cover these activities within the clubs insurance policy.

The MKFNEWS is pleased to print articles and photographs submitted by any interested party. All submissions are reproduced at the Editors discretion, however the Club cannot be held responsible for any views or comments contained in any such articles.

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I am sorry but I don't do 'Facebook', If you want me either email or phone ..... I'll always get back to you.

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| 'MKFNEWS' DEADLINES FOR 2O2O+ |  |  |
| :---: | :---: | :---: |
| MKFNEWS B. SOUTEN - EDITOR | 'COPY' DEADLINE | PUBLISHING DATE |
| 33 | $\begin{gathered} 25^{\text {th }} \text { September } \\ 2020 \end{gathered}$ | Mid October $2020$ |
| 34 | $\begin{gathered} 25^{\text {th }} \text { December } \\ 2 \mathrm{O} 2 \mathrm{O} \end{gathered}$ | $\begin{aligned} & \text { Mid January } \\ & 2021 \end{aligned}$ |
| 35 | $\begin{gathered} 25^{\text {th }} \text { March } \\ 2 \mathrm{O} 21 \end{gathered}$ | $\begin{gathered} \text { Mid April } \\ 2 \mathrm{O} 21 \end{gathered}$ |
| 36 | $\begin{gathered} 25^{\text {th }} \text { June } \\ 2 \mathrm{O} 21 \end{gathered}$ | $\begin{gathered} \text { Mid July } \\ 2 \mathrm{O} 21 \end{gathered}$ |

# SOCIAL DISTANCING IN OPERATION HERE 



# Please maintain a distance of 2 metres from others 

ADVICE FOR ALL KITE FLIERS FROM THE MIDLANDS KITE FLIERS OF GREAT BRITAIN.

With the recent change in Government advice on the actions to protect our NHS and Save Lives through the coronavirus Covid-19 pandemic, the committee have considered what advice should be given to kite fliers. We note that the advice in England is NOT the same in Scotland, Wales and Northern Ireland. We also note that there does appear to be some lack of clarity in the advice although we must acknowledge that advice specific to us is never going to be given, and frankly we wouldn't ask for it. The Prime Minister was at pains in the House yesterday to say that the British people will use their common sense. That in itself does raise the first issue, that whilst you might be flying, socially distanced and taking all recommended precautions, that won't stop some questioning whether kite flying is 'sport' or 'exercise' and therefore whether you should be there, notwithstanding any local byelaws which of course still apply. We need to be mindful of other people's fears (and for some, enthusiasm for rule enforcement as they see it), and as such we would urge everyone to be kind: accept their concerns, offer to stop flying and walk away. Similarly if a crowd starts to gather, take your kite down and walk away. There will be another day.

DCMS has issued the following advice.

- We are increasing people's access to local, outdoor physical activity for the purpose of wellbeing.
-This includes outdoors sports courts and facilities.
-People will only be able to use these facilities with people from their own households though or by themselves or, as long as they stay 2 metres apart, with one other person from outside their household.
- You can only exercise in groups of no more than two, unless you are exclusively with members of your household.
- This means that you cannot have five people from one household plus one person from outside the household playing sport together. But you can have two people, from two different households, as long as they are staying two metres apart.
- It is for individual facilities and organisations to develop their own guidance on reopening, to best fit their own situation, in line with the Government's advice.

Key messages for those wishing to exercise:

- You can take part in exercise or activity alone or with your household.
-You can also now meet one person outside of your household to exercise but you must stay two metres apart.
- There is a two person limit on gathering to exercise or take part in activity unless you are exercising with your household.
-Check in advance if the facilities you want to use have reopened.
-lf exercising in the countryside remember to follow the countryside code and act responsibly.
- Once you are home remember to wash your hands

BKFA takes the view that they key phrase here is 'wellbeing', and we all know the peace and wellbeing that kite flying can promote.
BKFA takes the guidance to mean that you can fly your kites PROVIDED you practice social distancing. You may fly with others in your own household or with one other person not in your own household, but not both. If you are with a person from outside your household you must socially distance from that person.

Advice from The British Kite Flying Association, courtesy of Jerry Swift.

## 2020

Stay Home and Stay Safe Best wishes Julia and Bill Souten

## SOCIAL DISTANCING IN OPERATION HERE



Please maintain a distance of 2 metres from others

SOCIAL DISTANCING IN OPERATION HERE


Please maintain a distance of 2 metres from ALL others especially any spectators !!*

ADVICE FOR ALL KITE FLIERS FROM THE MIDLANDS KITE FLIERS OF GREAT BRITAIN.


## SOCIAL DISTANCING IN OPERATION



Please maintain a distance of 2 metres from ALL others

ADVICE FROM THE MIDLANDS KITE FLIERS OF GREAT BRITAIN.

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& \text { IN OPERATION }
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Please maintain a distance of 2 metres from ALL others, especially any spectators !!*

ADVICE FROM THE MIDLANDS KITE FLIERS OF GREAT BRITAIN. Please feel free to use this artwork to make your own notices when flying


As displayed by Bognor Kite Fliers.




# CANCELLED DUE TO CORONAVIRUS 

## WE LOOK FORWARD TO SEEING YOU ALL NEXT YEAR!



## MIDLANDS KITE FLIERS OF GREAT BRITAIN

 52 Shepherds Court, Droitwich Spa, Worcestershire, WR9 9DF.email: chairman@mkf.org.uk - 07840800830
In the event of poor weather conditions the fly-in will be cancelled.

All our 'fly-ins' are Civil Aviation Authority and Site Owner approved.
 MKFGB


| 'Virtual' COMPETITION RULES AND REGULATIONS |  |
| :---: | :---: |
| 1 | The object of the competition is to design and make a kite that fulfils the brief of a 'PEAR TOP KITE' |
| 2 | The judging criteria are;Fulfils the design brief. i.e. A 'Virtual' Peartop Kite |
| 3 | Quality of Manufacture |
| 4 | Quality of Performance <br> The final kite must fly to at least a entaal $200^{\prime}$ when viewed by the judges. |
| 5 | Aesthetic Qualities |
| 6 | Excitement Factor |
| 7 | Originality - Innovation |
| 8 | Form - Entries to this "uirtual' competition can be in any form;drawings, models, diagrams, photographs, videos etc. (Anything except the kite itself!!) |
| 9 | All entries are to be sent to Bill Souten at the address below before the closing date. Entries will be acknowledged when received. |
| 10 | The closing date for all entries is 12 noon on Saturday $11^{\text {th }}$ July 2 O 2 O (The date of the cancelled Berrington Kite Festival.) |
| 11 | The judge's decision(s) will be absolutely final in the event of any disagreement(s). |
| 12 | There may well be some more rules, but we are still making them up....... |
| 13 | HAVE FUN AND ENJOY THE CHALLENGE! |
| 14 | All entries are to be sent to;- Bill Souten The Midlands Kite Fliers of Great Britain, c/0 52 Shepherd's Court, Droitwich Spa, Worcestershire, WR9 9DF. O7840800830 billy.souten@btinternet.com |




A few examples of Bill Souten's latest virtual Peartop Kites - just using my initials!!




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MIDLANDS KITE FLIERS OF GREAT BRITAIN 52 Shepherds Court, Droitwich Spa, Worcestershire, WR9 9DF. email: chairman@mkf.org.uk - 07840800830



From Jon and Gill Bloom of The Kite Society of Great Britain (KSGB) re Portsmouth International Kite Festival 2020:
Firstly, we'd like to say a huge thank you for your patience and support while we've been navigating our way through this difficult time - it really does mean so much to everyone here.
It is with heavy hearts that we announce that Portsmouth International Kite Festival 2020 will no longer be going ahead as planned. Working closely with Portsmouth City Council we have jointly come to the conclusion that the only safe and viable option was to cancel the 2020 event. We know this will be a huge disappointment to everyone who is part of our festival family but we will be working harder than ever and will return even stronger in August 2021 (final date to be confirmed but provisionally 14th \& 15th) at our fantastic seafront location.
The health and wellbeing of our kite flying friends and the many public who come to see the kites is the most important thing so please stay safe this summer, look out for each other and we will see you next year.
Jon and Gill
The official statement from Portsmouth City Council is:-
Unfortunately due to the ongoing Covid 19 pandemic, it is with deepest regret that we have decided to cancel the Portsmouth International Kite Festival this summer.
We have been closely monitoring Government advice and were hopeful we could deliver parts of the event. However, the UK Government's COVID-19 recovery strategy clearly recognises that public events present a high risk to public health and therefore it will not be possible to hold large scale public gatherings at this stage and for many months ahead.

We want to thank all our kite flyers, traders and suppliers for your support and for organising what would have been a fantastic event and we hope to bring this to you next summer.


## International Kite Festival 15th - 16th August

## Dear Kite Friends

Firstly, we'd like to say a huge thank you for your patience and support for the event while we've been navigating our way through this difficult time - it really does mean so much to everyone here.
We have been closely monitoring Government advice. The UK Government's COVID-19 recovery strategy clearly recognises that public events present a high risk to public health and therefore it will not be possible to hold large scale public gatherings at this stage and for many months ahead.
Therefore, it is with heavy hearts that we announce that first Billing Aquadrome International Kite Festival 2020 will no longer be going ahead as planned but is postponed to 14th \& 15th August 2021. Working closely with Billing Aquadrome we have jointly come to the conclusion that the only safe and viable option was to postpone the 2020 event.
We know this will be a huge disappointment to everyone who is part of our festival family but we will be working harder than ever to produce an amazing event on 14th \& 15th August 2021 at this fantastic new location.
The health and well being of our kite flying friends and the many public who come to see the kites is the most important thing so please stay
safe this summer, look out for each other and we will see you next year.

Jon and Gill

## CODY KITE

This kite was purchased by Hans-Peter Bönme in 1996 at Sotheby`s Cody auction. The form of the wings was previously unknown to me. This is a good piece of kite even though nearly 90 years old. It is exciting to think that CODY HIMSELF has handled this kite...
The spars are made entirely from bamboo. The sails were mostly in good condition considering the age, and were very tight. The design of the spar pockets is very specific.


Fig. 1. Left: Cody, back elevation Fig 2. Right: Side elevation


Fig. 3. Left main wing, nibbled by the teeth of time ... Fig 4. Right main wing

This is not intended to be a plan from which to build a kite, but rather a design description.
Important: All measurements on the diagrams are excluding seams and describe the situation after sewing all parts together. You have to add 2 cm to the upper and lower edges of the side and central panels, which are drawn separately. If you want to build the kite, it would be best to perform a sanity-check on all measurements. The following drawings describe the completed kite.

## Overview graphics:



Fig. 5. Upper surface
The white vertical parts on the wings are the places for the spar pockets. The bamboo spars in the main wings are slightly curved by air pressure (BÄNDER FÜR ABSPANNUNG = loops for supporting lines of the wing).

Vorne


Fig. 6. Lower surface:
The lower panels are made of four small pieces to prevent stretching due to flapping panels.(VORNE = front, WAAGEPUNKTE = bridle points)


Fig. 7. lower front panel


Fig. 8. Side panel
This is the left front side panel, referenced to fig. 5 . The other side panels are mirror images. The reinforcing piece $7.5 \times 14.0$ behind the hole for the diagonal spars is located on the inside of the sail.


Fig. 9. Central panel
The measurements include the hem; this panel is sewn along the 0.5 cm seam to the upper and lower panels.


Fig. 10. Front elevation
The diagonal front spars are 260 cm long, the diagonal back spars are 200 cm long. The longerons are 190 cm long.
The supporting lines for the wings are drawn as dashed lines. Each line goes from the tips of the outer sail spars to the lower wing tip on that side.

The diagonal spars are fixed on the lower end with tape loops on the wing tips, on the top end the spars were fixed with hemp cord.
Unlike other Cody kites, the side panels are not parallel.
The semi-circular marks are the places for the longeron pockets. The pockets for the sail spars are sewn to the outside of the wings; the sleeve pockets for the longerons are sewn between upper- and side-panel. All sleeve pockets are made from 4 cm cotton tape.

## Material:

The sail consist of very fine cotton and is very stiff (age ? impregnation?). The edge binding tapes are also made from very tight cotton. The spars are bamboo and the rigging lines are made of hemp ( 2 mm ).

## General construction tips:

All parts of the sails are hemmed before sewing together. You therefore have to sew hem to hem and not sail to sail. On each side of the edge bindings you have to add 10 cm to get additional loops for the spars.

## Details:



Fig. 11. Lower wing tip with pocket. The pocket here is drawn before sewing for clarity.


Fig. 12. Hole for diagonal spar with pocket

## Individual parts:

- $\mathbf{A}=$ Wing: trapezium with base line $58 \mathrm{~cm}, 22 \mathrm{~cm}$ height and an upper side of 9 cm .
- $\mathbf{B}=$ pocket sleeve tape: rectangle $4.5 \times 11 \mathrm{~cm}$
- $\mathbf{C}=$ Edge binding tape 4 cm , sewn to 2 cm : length 60 cm
- $D=$ binding tape 5 cm : lenght 52 cm
- $E=$ edge binding tape 3 cm , sewn to 1.5 cm , length 125 cm
- $F=$ edge binding tape 3 cm , sewn to 1.5 cm , length 15 cm
- $\boldsymbol{G}=$ reinforcing trapezium with base line 16 cm , height 4 cm and upperside 9 cm .
- Base line of (A)is sewn to (C).
- The upperside and 2 cm along both sides to the base line is sewn to (F).
- Spreader pocket and pocket loops are one unit. Before you have sew the reinforcement trapezium ( $\mathbf{G}$ ) in the center of baseline.


## Preparing the sleeve pockets:

- The tape ( $D$ ) is aligned and sewn together with $(B)$ in a wedge shape so that the pocket is 14 cm wide at the start, narrowing to 9 cm after the fold. The binding tapes overlap each other by 1 cm . The two halves are sewn together in the centre for 5 cm after the fold, the remaining 11 cm stays open to make the loop.


## Sewing together:

- It is best to draw the sewing lines for the spar pockets on the wing. They are sewn along the 9 cm line of the wing. On the bottom side, the spar pocket is compressed as it is 16 cm wide instead of 9 cm . This causes a sort of funnel at the opening of the spar pocket.
- Lastly, the edging tape is sewn on. It is important that it overlaps $10-12 \mathrm{~cm}$ at the beginning and the end. Then, after the other parts of the sail have been sewn together a loop can be sewn around the longeron, which will reduce the strain on the sail.

IMPORTANT: Edging tape must also be sewn round the loop, and the remaining loop pieces folded (not shown in the drawing) so that the pressure from the spars is spread evenly over the sail area.


Fig. 13. Half upper back wing

- $\mathbf{A}=$ Wing. Trapezium with base line $58 \mathrm{~cm}, 22 \mathrm{~cm}$ high and top edge parallel to the base, 9 cm wide.
- $\mathbf{B}=$ Pocket sleeve tape rectangle $6.6 \times 17 \mathrm{~cm}$.
- $C=$ Edge binding tape 4 cm sewn to 2 cm : length 60 cm .
- $D=$ Binding tape 5 cm wide, about 80 cm in length.
- $\quad \mathbf{E}=$ Edge binding tape 3 cm wide, sewn to $1.5 \mathrm{~cm}, 125 \mathrm{~cm}$ long. (The 10 cm overlap not shown.)
- $F=$ Edge binding tape 3 cm wide, sewn to $1.5 \mathrm{~cm}, 15 \mathrm{~cm}$ long.
- $\mathbf{G}=$ Reinforcing rectangle $24 \times 12.5 \mathrm{~cm}$.
- The hole for the spars is an ellipse measuring $6 \times 8.5 \mathrm{~cm}$.


Fig. 14. Wing with Pocket


Fig. 15. Half of the front upper sail (the other half is a mirror image).
Individual parts (just the pockets):

- $\mathbf{A}=$ Pocket sleeve tape: rectangle $6.0 \mathrm{~cm} \times 25 \mathrm{~cm}$
- $\mathbf{B}=$ Binding tape 5 cm wide: about 205 cm long
- $C=$ Reinforcing rectangle $14 \mathrm{~cm} \times 12 \mathrm{~cm}$, sewn on top of the wing
- $D=$ Pockets for sail spars: edge binding tape 4 cm wide and 96 cm long.
- $\mathbf{E}=$ The hole for the spars is an ellipse of $6 \mathrm{~cm} \times 8 \mathrm{~cm}$

The pockets for the sail spars are closed at the tip by the edge binding tape which runs round them, and they are sewn on the top side of the wing.

## N.B.:

The sewn edges of the pockets change in width. From the right the width of the hole is 9 cm , over the fold 10 cm , over the first spar pocket 7 cm , over the second spar pocket 6.5 cm and the loop 9 cm again. Because of this the spar lies closer to the sail spars.


Fig. 16.: pocket, main wing

## Longerons

Here I was at a bit of a loss. The principle is simple: all the spars consist of two pieces notched to about 5 cm in depth at their ends, bound together with hemp string and placed in loops. Tension is created in the panels by adjusting the different sized struts against each other. The front and rear panels are 62 cm apart.


Fig. 17. Longerons
B: Lower longerons (bamboo):
Diameter about 10 mm , i.e. smaller than the lower longerons. The main spar about 137 cm , adjacent spar about 100 cm overlapping and tying area about 23.5 cm and overall length of 190 cm . The longerons consist of a combination of longer and shorter struts in which on one side, the longer end is at the front and on the other side at the rear (to spread the weight evenly? for stability?)

It is noticeable that the whole of the underside of the kite (sail and struts) is much more rigid than the upper side.


Fig. 17. wing tip of the longerons

## Spars:



Fig. 18: Mounting of sail spars
You need eight sail spars, six for the front wing and two in the centre of the back wing. All sail spars are cut from bamboo, 2 cm wide and 0.5 cm high. On one side, all the spars are given a 5 mm semicircular notch where the line is fixed. The line ( 2 mm hemp) is sewn through the pocket ends using a thick needle. All the pockets for the spars are sewn up on the outer edge as you look from the middle of the kite. The pockets themselves are made from a 4 cm -wide cotton band and are always on the outer edge of the wing (see Fig.10).

Spars for central panel front and back: $4 \times 66 \mathrm{~cm}$
Spars for main wing: $4 \times 98 \mathrm{~cm}$

## Diagonal spars:

All that follows now is pure speculation. The diagonal spars were not included (maybe lost fifty years ago). The diagonal front spars have to be at least 260 cm long, better 10 cm more. The diagonal back spars have to be at least 2000 cm long and here again better 10 cm more. A circumference of 2 cm for the bamboo spars seemed quite enough for the tension. Each end (as for the longerons) is notched and bound. The spars are hung underneath in loops and on the top stretched with a line. Whether or not the two spars were bound together in the middle, I can only guess.

## Supporting lines:

The outer sail spar of the main wing (see Fig. 5: points $\mathbf{A}$ und $B$ ) is tied on both sides to the tip of the lower small wing (see Fig. 6: point C) with two 120 cm long anchor lines. The anchor lines consist of 2 mm strong hemp line. At points $A$ and $B$ on the wing, 6 cm long bands are sewn as loops. At point $C$ the anchor lines are passed through the spar pocket with a thick needle. See Fig. 10.
Between the front and rear panels these are stretched along the struts. Beside this are 10 cm long bands, some sewn on, some made up from overlapping edge bindings. The gap between the front and rear panels is 62 cm overall.

## Bridle:

The bridle line is again made from 2 mm hemp line. The disposition of the bridle lines is unusual even for a Cody kite; one bridle line joins both front end points of the lower longeron and another joins the front points of the rear panel to the same spot. At least the bridle points are the same as in the well-known Cody War Kite (see also Fig. 6). Cody then knotted the two lines together with a simple loop so that all the bridle legs ran together to one point.
The front bridle legs are each 84cm long, the rear legs must have been between 137.5 cm and 142 cm . It is no longer possible to say exactly; both rear legs are torn, and through stretching are both of different lengths. As in all Cody models which closely resemble the original, the bridle legs are unusually short for the size of the kite.

## More information about S.F. Cody and his kites:

Books:

- David Pelham: DRACHEN, 1976 ISBN 3-7701-0946-5: S.50ff, S. 184 (35 cm - cell), S. 187 (Compound Cody) (german)
- Werner Backes: Drachen aus aller Welt, 1986 ISBN 3-473-42282-7: S.60ff (50 cm - cell) (german)
- Boterman/Weve: Drachenmodelle zum Selberbauen, 1986 ISBN 3-88034-269-5: S.86ff (german)
- Hugh Andrew: S.F. Cody`s War Kites ( 50 cm - cell)
- Christine Schertel: Skywork Experience II. 1993: p 45ff (35 cm - cell)
- Bill Cochrane: Box Kites, 1993 ISBN 0-7134-6920-X: p 78 ff ( 35 cm - cell)
- Ron Moulton: Kites, 1997 ISBN 1-85486-143-3: S.216 (war-Kite 90 cm - cell)

Magazines (german):

- DrachenMagazin 4/93: S.45ff (30 cm - Zelle)
- DrachenMagazin 2/95: S. 18 ff (Man Lifter I)
- DrachenMagazin 3/95: S.54ff (Man Lifter II)

Internet:

- Cody-Plan overview
- Cody-Plan
- Cody-War Kite (Picture)

English translation : Philip Le Riche \& friends


## DENNIS ENGLAND

We are sad to report that MKF member Dennis England was found dead in his home on March 19th. Dennis was part of Project KARA (Kites Altitude Record Attempt) in 1980 and Project KARA II in 2006.
When a kiteflier dies we often say 'Fly High'. Dennis loved flying high so I expect that that is exactly what he is doing now, now that he does not have CAA rules to follow! A fascinating man who kept himself to himself but was happy to talk and share knowledge.



Dennis England receiving 'The Midlands Kite Flier' of the Yea'r Award in 2011 from John Ryan, then the clubs Chairman.
Deniis also received The Midlands Kite Flier of the Year' Award in 1987.











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Dennis in the early days - the subject of one of John Barker's Competitions. Dennis was noted for his sartorial dress!
I've included a reprint of an article by Dennis England from a very early Midlands kite Fliers newsetter about his now infamous 'Skyranger Reel'.

by D. G. ENGLAND.

Not having built or flown a kite since being at Junior School, when I was certainly very enthusiastic, I soon bought my first Flexifoil in 1978, and it proved to be a fairly momentous event in my mundane existence which quickly precipitated my future onthusiasm in modern day kite flying; having been renewed initially, as were most of us, by the great kite flying craze shortly before, brought about by Peter Powell.

Having done some lone Flexifoiling and attended the first of two Stanford Hall rallies I came into contact with my late dear friend Geolf Ellicock, a very clever artist, craftsman and lover of all flying machines, who's untimely departure from this life is sorely mibsed. However, he was instrumental in introducing, me to the MKF and the delights of regular organised kite flying meetings etc.

I felt that Messrs. Merry and Jones had brilliantly conceived a form of kite which provides a further quantam leap in performance and enjojment of kite flying in advance of the Powell principle by reason of utilising true airfoil lift generation instead of the usual type of pressure differential being applied basically to the undersurface of a normal kite, with little, if any, pressure reduction over the upper surface. After a little while, though, it seemed that one did not have time while thrashing about the sky with their standard Flexi on 200 feet of line, to really appreciate the plummeting vertical dive and the fround grazing horizontal pass, beiore it was time to apply full opposite lock for the pull-out. How pleasing it would be, I thought, to watch it arching down in a thirty second plunge from half a mile high, or making a terrain following traverse over hills and into valley floors of distant downwind landscapes. Well, the half mile out dream has had to be modified to a present maximum of 675 feet but this is enough to produce the experience of the principle I was seeking when designing my SKYRANGER twin line reel, and controlled thermal flying even several degrees into wind beyond the vertical at times was found to be a previously unexperienced bonus.

In the designsketches produced here I have tried to comply with the conventions of third angle projection but as with everything about this project I am correcting errors as I proceed. So please read the drawings as if I had laid it out with views 2 above, not below, views 1 . I'm not redrawing the whole thing just for that, it's taken nearlyas long as making the thing in the first place. Still, Bill Souten has been asking me repeatedly for the last year to let him have all the gen written up and I would like to use this opportunity to say how much I think we owe Bill and Rena for organising rallies and really being the driving force in the whole existence of the MRF. It is due to them, together now, with John Barker and others who have made it possible for the people like me to have all the super flying days, but fail to contribute to the most vital organ of the club, namely the newsletter.

With reference to the photographs I am supplying herewith which I hope can be satisfactorily reproduced in the newsletter. These show then flark 5 version; the main differencer, being on increased lever length for the winding handle, topether with the outripger flanges for the line carrying spools to increase line capacity, two features found essentially complimentary. Wolb breaking strain polyester braided line is required. The inaximum possible capacity of this on the spools drawn would be probably at least 875 feet per spool, but to date I
have not tested this, as naturally control function is reduced proportionately to increased line length, and 675 feet feels like about the practical limit of good manoeuvrability.

I produced the first version of the reel concentrating on lightness as being the number one priority, together with the essential facility of differential line length adjustment being easily available at any line length; and the control bar length of $321 / 8$ " proved to be quite satisfactory. Consequently, I think all the lightening holes noticeable in the pictures, but omitted from the drawings have been worthwhile, besides I think they look pretty.

The whole exercise of making this thing, which I designed off the top of my head as I went along, took three quarters of my spare time throughout the summer of 1979, and then resulted in quite a lot of further modifications during early 1980, mainly because I fell into the trap of kite flying designers, underestimating the crushing force generated on the centres of line spools, so necessitating several rebuilds. Then, sometime later, I discovered that wooden dowel is not satisfactory for use as a torque rod between the left hand spool and the adjusting clutch, when it suddenly shattered into a million fragments while I was flying one day. Wood fatigue. Up to then I had made every part of the machine using only hand tools but did resort to borrowing a centre lathe for an hour or so to turn the alloy end spiggote, for the repacement steel tubular torque rod shaft as shown in section D-D. Even so, it would be possible to avoid this if a small length of solid alloy rod of about 19/32 diameter were available to work with. The centre sheathings, 21, of the spools need to be $23 / 160 \mathrm{D}$ from at least $3 / 32$ wall thickness ally tube or at least $1 / 16$ wall hard grade stainless steel would be best.

This tool is ideal for flying most types of stunt kites, singly or in train; including Powells, Aces, 6ft Flexis or single 10ft Flexifoil, enabling sites such as cliff edges, narrow take off spaces adjacent to water and off hillsides covered in long bracken or trees to be used. In fact all sites which are much more interesting than a flat field, but from which it is difficuit or impossible to lay out and retrieve long length of line. Providing ground wind is sufficient just let out 6 ft of line, float the kite upwards from arms length and reel up and down like a normal single line kite, without moving your feet but remembering to adjust individual line length as required to maintain control by using the dog clutch handle which has spring loaded reengagement. The machine is supported by the crook of the elbow being hooked around the swan neck projection in the centre, with the left hand gripping the outer casing tube while winding with the right. Control functions can thus be applied while winding.

Once aloft it is surprising what little wind speed is needed in the case of a 10 ft Flexi on 1001 b line. I have often continued flying as the wind has reduced long after everyone elses Flexis have flapped down from low altitude and even flares and such like lightweights are o..ly just happy. However, unless constructed in a much more sturdy form than illustrated do not exceed the following limitations of use of the Skyranger.

## To Beaufort wind force scale.

One 10 ft Flexifoil only and up to moderate, and at that maximum avold flying through point of maximum strain at 45 degrees upward angle directly downwind. One 6ft Flexifoil in up to gale force 8 and any manoeuvre. Two 6 ft Flexifoils or 3 Aces in up to fresh wind, any manoeuvre. Three Eft Flexifoils or 5 Aces in up to moderate wind, any manoeuvre.

In case anyone intends to make a replica the following finer details may help (refer to the numbered points on the drawing). Nothing should be taken as being drawn to scale and obviously various points of the drawings are magnification details taken from the main components. Leading dimensions are provided in inches. I have drawn the original on A 4 sized paper so I hope fine detail is visible when it is reduced for the newsletter.

All main parts are of hard grade aluminium alloy such as CH4 or duralumin unless otherwise stated. Standardised fittings are mainly brass.

Main constituents are, outer casing, view 2. Kotating intermediate tubular shaft, view 4 to which R.H. spool is rigidly fixed. Rotating inner tubular shaft, view 3 to which L.H. spool is rigidly fixed. Intermediate and inner shafts are rigidly keyed togother unless dog clutch is withdrawn. Spring 16 assists and holds re-engagement. Ensure spring is strong enough to out weigh end thrust derived from lino pull at acute angle applied to L.H. spool when manoeuvring. Entire rotating mass is rigidly locked to outer casing until handle dop, end is disengaged from R.H. line guide, view $2 B$, note movement limit stop screws. Inner torque shaft tube 3 OD X $3 / 64$ wall, steel only and preferably stainless. Nylon aete Geang bush 18 is press fitted in outer casing and has generous running clearance.

In use considerable end load may occur as strain on the spiggot ends of the locating screws for bearing bushes 26 and 27 (views 3 and 4). The bushes are nylon. The intermediate tubular shaft (view 4) is $7 / 8$ OD X $1 / 32$ wall of aluminium on the original, but stainless steeel would be better. In section $0-0$ of views 4, the other two locating screws for bush 27 are not completed in detail drawing, but in section E-E of views 5 an exploded and magnified view of the type of screw used is shown.

In section D-D of view 3 note pop rivets 17. At least 6 off $\times 3 / 32$ oD rivets should be used and positioned on a helical track to distribute the load. Only one of two wood screws 20 are shown. Part 19 is a Press fitted dowel pin of thin wall ally tube. The handle is of oak. Outer flange of L. H . spool is keyed to spindle" by dowel 12 of $1 / 8$ diameter brass rod. Three binding bolts 14 thread into disc 13 only, unlike R.ll spool where they pass right through, * Aw tie witore spoon is Bethines

View 2 . Line guide 7 slot angled to suit leading line onto winding disc. This would be better if the puide were redesigned to accomnolate a slot of fatter than the $9 / 64$ original , as knots in the line will not pass through.

View 1. During assembly of outer casing on its own, before screws 8 are fitted, access via holes 8 and 9 is used to tighten allen key driven screws 15 , binding each line guide with 2 screws. See detail view 5 and section B-B. Main handle crank is cut as an $L$ shape pattern from sheet of $7 / 32$ thick ally and bent into three dimensional form. The monnting pivot pin for the grip is of stcel, ,THCOADED NTO CRANK Ond Ans nockunto.

View 2. An enlargement of the nylon bearing, buslyremoved from the end of the outer casing, providing a bearing butween that and the intermediate tubular shaft is shown 2 A . Segment 4 loosely encased within the vearing noeds to be of tough stainless steel, other segment not shown for line guide binding can he of larger design and ally. Cuter casing is of plastic plumbing drain away pipe, $C D 17 / 16 \times 5 / 64$ wall. Lenrth of this material varies considerably with temperature so at 70 degrees $F$ allow end iloat of $1 / 16^{11}$ at thrust shim 5 which is of $1 / 32$ linen reinforced tufnol, the same as shim 6 where $3 / 16^{\prime \prime}$ of end movement must be designed for to allow clutch star $?$ to clearly disengafe flange 2.
IUTElOLS OF BOTH SODNS ARE FTWKED WITH CORES OF SORD AMK 28 To RESIST COMPOSTOU. THESE CORES SHOUD BE MADE AMONING EOKCLOUS CLEARANCE OF CEMILES ANO THROVGHBOLTS.

Well that's about it. If you have moderate skill and a fair range of fitting tools including drills and taps to suit your available standardised fixings, plus if you have to make the main nylon bearing bushes from a solid block of material as I did, you will need $7 / 8$ and $19 / 32$ reamers to finish the holes. However, rather than building this I would be more interested to see someone appear with a rather different version, designed to fly a train of two or possibly three 15 ft Flexifoils, as I think with that configuration you could actually fly with a genuine half mile range. Obviously that reel would need to feature a much longer control rod length, or, it could be done with a developement of differential line adjustment as the main control factor. But, in any case, it would have to be power $\frac{8}{3}$ servo assisted. I think I'fil leave the developement of that machine until I retirem at least.

## Den's sitt am ealy prototyne







## THE CRAFTSMANSHIP OF LINCOLN CHANG By John H. Hartsook

During a visit to Hawaii last year I had the pleasure of meeting the late Lincoln Chang. He was kind enough to share many kiteflying sessions with me and divulge some of his "trade secrets," acquired over many years of building, flying and experimenting with kites. His favorite kite was the Japanese Rokkaku, but he also built other oriental kites, following traditional Chinese, Korean and Philippine designs.

You could be sure to find him every Saturday and Sunday morning in Kapiolani Park, a wide expanse of palm-fringed, grassy fields just across

## Lincoln Chang shows his craft to an admirer.


the road from Waikiki Beach. You might also find some of the members of the Hawaiian chapter of AKA, such as Warren Zane, Wayne Baldwin or John Osaki, who looked upon Lincoln as their mentor.

You won't see any deltas in Kapiolani Park. With trade winds usually from 18 to 20 knots, this is fresh to strong wind country. Although on the leeward side of Oahu, the winds in the park have not lost much of their strength rushing over the spine of mountains, spilling most of their moisture on the way. While the northern, or windward, side of the island is often cloudy, the leeward side enjoys sunshine most of the time. It is a kiteflier's paradise-if you like wind, that is. Strong construction, strong materials, strong lines are a must.
Lincoln developed certain modifications to improve the Japanese Rokkaku, the design of which, he claimed, has not been altered for 300 years. It has always traditionally been made by professional kite makers, who have handed down their secrets within the family from generation to generation, much like Italian violin makers.

The most important modification, he felt, was to lead the outline above the top spar from the top of the mast to points halfway between the center and the ends of the spar. In the traditional design the outline is carried to the ends of the spar. This modification allows the spar to assume a compound curve, bending downward as well as backward, and facilitating the forming of pockets which provide stability. Another modification is the shortening of the lower spar, while yet another is the alteration of the outline of the bottom by the addition of spreaders forming an inverted V lashed to the mast and lower spar. The accompanying diagrams show the traditional Rokkaku and two Lincoln

Chang kites, from which I took the dimensions.
The masts of those two kites are of whole stalk bamboo and the spars of split sections. The two spars are bowed. The mast and spars must be as stiff as possible, consistent with light weight, so that there is limited flexing with changing wind pressure. The outer portions of the upper spar, however, are free to bend downward.

Lincoln covered his kites with transparent synthetics, such as Mylar ${ }^{\text {® }}$ or "Brown-in-Bag," and decorated them with traditional faces of Japanese warrior heroes, using acrylic paint applied with a brush after carefully cleaning the plastic surface with soap and water. The transparency of the plastic gives the colors a stainedglass window effect against the sky, enhanced by broad black outlines separating the colors. The covering is cut into three horizontal panels attached to the mast, spars and string perimeter with contact cement, and overlapping along the spars.

The diagrams also indicate the bridling points, at the circles. The bridle leg attached to the center of the mast of the larger kite is to keep it from assuming a concave curve in strong wind. The smaller of the two kites, Lincoln explained, does not need the additional bridle leg because the mast is relatively stiffer. A loop of line is tied to the stick at each bridle point and the bridle legs are then attached to these loops with a tiller hitch, making quick adjustments easy.

For flying line, Lincoln used $100-\mathrm{lb}$. test braided Dacron ${ }^{8}$ polyester. His reels were flat wooden frames, for convenience in storing the line, not for retrieving; he preferred to walk down his kite.
All of those who were privileged to know Lincoln Chang will join with me in saying in memoriam: "Aloha oe!" $\diamond$

## Tom-EEE and Kel-EEE Aerial Team Tom White

## http:members.shaw.ca/kiteman

If you are looking for an eye-catching drogue to fly behind your favourite two or four line kite, or just some line laundry that will draw the eye of the public to your single line lifter, this is the programme for you.
If you have never sewn before, this is a simple project for your first attempt. It will take an evening or two to make the first one, with the subsequent ones coming along much faster. The best thing to do is to just jump into this and follow the steps.

The programme is downloadable from the internet, and is fully adjustable, so that you can make the drogues almost any size.....

## Enjoy.

If you have any problem in finding the programme, email me and l'll send you a copy. Ed.

## CONSTRUCTION

This item will be assembled while being inside out.

- Add a 5 mm seam allowance to all dimensions.
- Feel free to make your own modifications to any dimensions or colour arrangements
- All searns use straight stitching.
- Sew the pants, feet, chest amms and head separately. Remember to put the outside against the outside, add the allowance and stitch the seams.
- Turn the feet right side out insert into inside out legs and stitch along allowance. Remember to turn the feet $90^{\circ}$ so that the toes point forward.
- Tum waist piece right side out, insert into top of legs and stitch along allowance.

Pull waist plece back inside out. Turn chest right side out, insert into top of waist and stich along allowance.
Pull chest inside out. Turn assembied head inside out and place into neck and stitch along allowance. Remember that the head and toes should face the same direction!

- Turn arm pieces right side out. insert into top of sleeves and stich along allowance
- Pull arms inside out. The entire body should be sewn together at this point and be inside out.
Pull entire body through one arm hoie and turn right side out.
- Melt 1 mm hole in top of head. Insert single bridie line through center of plastic disc that forms the inside top of head and route through arm and into the head
- Place plastic ring around top of arm and fold material over ring. Sew seam as close to ring as possible. The plastic ring has to be firm enough to keep arm hole open during fight to aliow inflation of body. I have used 1 cm wide strips of plastic that were cut from a margarine container and have also used plastic zip ties
Attach four bridle lines to top of arms
Aftach all bridles to shaft. Be sure to take into account how much the shatt will fiex during tlight when determining lengths of bridles.
Attach two lines to outside edges of shaft. These will be attached to two points on the trailing edge of your kite.

Fly and have furl


All measurements in centimeters


## MAKE YOUR OWN

# FLIGHIT of the EALCON 

By Jose Sainz

## Background:

This kite is a scaled-down version of a kite that I entered in the flat and bowed category at the AKA Convention in 1993. The original had three wings and measured 23 feet by 16 feet. I wanted to make a smaller version of the kite, but I wanted to keep the wing concept because l liked the way it flew.

This kite is approximately 6 feet by 6 feet. That makes it easy to put together and small enough for anyone to fly. But at the same time, you should not be afraid to experiment and scale the kite up or down or add more wings. The shape is a proven flyer.

As many people know, I learned the art of kitemaking from Randy Tom and I used his techniques in the sewing and construction of my design. However, there are countless possibilities for graphics with this shape and I will leave those to the imagination of the builder.

## Construction:

1. After choosing your design and color selections, cut one center section and two wing sections. Remember that the left wing section shown in the diagram will need to be inverted to make the right wing. The dimensions as shown include hem allowance.
2. Cut out reinforcements from 2 -inch Dacron tape as shown in clouds. If you intend to make more than one of these kites, it might be helpful to make a template of these reinforcements from poster board.
3. The hem allowance is for $1 / 2$ inch. Fold hem around center section using $1 / 6$-inch double fold. Place reinforcement tabs under the hem at each of the four comers and sew into place as you sew the perimeter hem.
4. Repeat the hem process on three sides of the wings, sewing the reinforcement tabs in place. Do not sew the top edge of the wings at this time.
5. Place the inside wing hem over hem of center section and sew from bottom to top. Stop when you reach the reinforcement tabs.
6. Cut a piece of 2 -inch Dacron tape in half lengthwise, and place in position over the leading edge so as to make a pocket for the cross spar. Before sewing pocket closed, sew interior corner to wing and center through reinforcement tabs, not sewn in step 5 . Now sew the pocket closed, moving outward on the wing as well as the tip. Trim excess tape. Repeat for right wing. Sew 3 l -moon shaped reinforcements on the bottom of the wings.

7. Cut T-inch Dacron tape in appropriate lengths for battens. Fold tape lengthwise and sew into position. Cut batten rods, put on the end caps, slide into pockets and sew closed. Once assembled, these battens will not be removed.
8. Using two fiberglass spars, measure them to match wing-tip-to-wingtip. Cut the spars the same length so that they will assemble in the center line of the kite. Glue a ferrule into one spar and place end caps on the outward ends.
9. Repeat procedure for making vertical spar from remaining fiberglass tubes. Vertical spar should be $1 /$-inch to 1 -inch longer than the kite. Glue ferrule in one tube and place end cap on the upper end of the spar. Glue the arrow nock on the lower end of the second spar. Note diagram for use of the tension beads over lower arrow nock
10. Make vinyl stopper as detailed using an Exacto blade to cut away center section from vinyl tubing. Slide finished stopper onto vertical spar and position directly over cross spar. (It is helpful to have

ans folly assembled, in position in the kite pockets ) Squeeze points A and B together and point. $C$ will bulge out to accept the cross spar. Test for fit, then epoxy vinyl stopper into position on vertical spar Do not epoxy to cross spar.
11. Place one small grommet on each end of wing and two on the top of the center section (one on either side). Grommets should be positioned on the reinforcing tabs and Dacron tape. Also place one grommet through center of kite where the spars cross tor the bridle attachment.
12. Tie tension lines from the wing grommets to top of kite. These lines stabilize the wings and top of kite and are not typically readjusted.
13. Using same grommets on wings, tie another line across the back of the kite, wingtip-to-wingtip. Use the line tensioner on this line to allow you to easily bow and flatten the kite.
14. Cut approximately 6 feet of line for the bridle and tie at the bottom reinforcement tab, leaving room for vertical spar to slide through. (it helps to first burn two holes through the tab and fabric with a soldering iron.) Slide the upper bridle line through the center grommet and use beads as shown to allow for easy assembly around spars. Attach split ring to bride and experiment to find the correct tow point.
15. For streamers, hot cut ripstop in 1 -inch width or use satin ribbon. I use two 5 -foot streamers on the wings and two 10 -foot ones for the tail. Attach them to wing grommets and the tail as shown.

## Materials:

- 5 feet of 2 -inch Dacron tape for leading edge
- 10 feet of 1 -inch Dacron tape for batten pockets
- 1 line tensioner
- 1 split ring
- 50 feet of 130 -pound bridle line
- 5 beads for bridling and tensioning
- assorted grommets
- 6-20 yards of ripstop (depending on your design)


## Spars:

- $4 \mathrm{~A}-20$ fiberglass spars, $321 / 2$ inches each
- 2 inside ferrules, 3 inches each
- 3 end caps
- 1 arrow nock
- approximately 2 inches vinyl tubing


## Battens:

- 10 feet of $1 / 8$-inch solid fiberglass rod
- 12 end caps



## Toyota Kite Project



The giant kite called the Mothership will provide airborne platform for energy harvesting, weather data sensing, repeater for optical communication satellite, and other various applications. This system aims to be fully autonomous and energy independent for applicability and whole year operation. Oklahoma State University is working to prove concepts with Toyota. Inflatable kite structure provides easy deployment and structural feasibility. Operational systems are being develop including a winch and a flight controller. High altitude flight test will be performed in 2019.

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Written by a head teacher and too good not to share

## What if ??? <br> 

If they cancel the rest of the school year, students would miss 2.5 months of education... Many people are concerned about students falling behind because of this. Yes, they may fall behind when it comes to classroom education...
But what if... OOD
What if instead of falling "behind", this group of kids are ADVANCED because of this? Hear me out... OCO
What if they have more empathy, they enjoy family connection, they can be more creative and entertain themselves, they love to read, they love to express themselves in writing.
OOO
What if they enjoy the simple things, like their own backyard and sitting near a window in the quiet.
What if they notice the birds and the dates the different flowers emerge, and the calming renewal of a gentle rain shower? ©OO What if this generation are the ones to learn to cook, organize their space, do their laundry, and keep a well run home? ©OO What if they learn to stretch a dollar and to live with less? $O O C$
What if they learn to plan shopping trips and meals at home. OOD
What if they learn the value of eating together as a family and finding the good to share in the small delights of the everyday? $O$ OD What if they are the ones to place great value on our teachers and educational professionals, librarians, public servants and the previously invisible essential support workers like truck drivers, grocers, cashiers, custodians, logistics, and health care workers and their supporting staff, just to name a few of the millions taking care of us right now while we are sheltered in place? OOO
What if among these children, a great leader emerges who had the benefit of a slower pace and a simpler life to truly learn what really matters in this life? ©
What if they are


## EDITORIAL - BILL SOUTEN

It's rare that I actually write in the Midlands Kite Fliers Newsletter but we are in very strange times with very little, if any kite fly-ins or festivals taking place.
Social Distancing is now the order of the day, yes, we do tend to fly in isolation from one another, but the core of Kite Flying is the chat and cross fertilisation of ideas and experiences with the general public and more importantly other likeminded Kite Fliers.

Can this be achieved with Social Distancing?
Many of our members, friends and colleagues are over 65 (including me!) and are at the greatest risk from this blooming coronavirus.

Hence we have CANCELLED ALL EVENTS until future notice... I personally, at this time, do not think we shall be able to meet and fly together at all in the coming months of 2020. I'm looking forward and am now planning the Calendar for 2020.


1. Broad Haven, Pembrokeshire. $1^{\text {st }}, 2^{\text {nd }}$ and $3^{\text {rd }}$ May 2021-Confirmed as the tides are perfect...
2. Berrington Hall
$10^{\text {th }} \& 11^{\text {th }}$ July 2021 - To be confirmed.
3. Regular Monthly fly-ins at;-

Cofton Park, Longbridge, Birmingham. To be confirmed.
Apedale, Newcastle under Lyme. To be confirmed.
4. Sconce and Devon Park, Newark To be confirmed.
5. Jinney Ring Craft Centre, Bromsgrove. To be confirmed
6. Market Bosworth Country Park, To be confirmed.
7. Rushcliffe, To be confirmed.
8. Any suggestions $\qquad$
The club usually holds its Annual General Meeting in November, most recently at the Apedale Centre. This will only happen this year if totally safe to do so. If not, it will be postponed for a further 12 months and combined with the AGM for 2021.

