MKF@NEWS

ELECTRONIC NEWSLETTER OF THE
MIDLANDS KITE FLIERS OF GREAT BRITAIN

APRIL 2019

Celebrating Forty Years of Kites and Kite Flying in The Midlands

INFORMATION

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.

'MKF@NEWS' DEADLINES FOR 2019+

MKFNEWS B. SOUTEN - EDITOR	'COPY' DEADLINE	PUBLISHING DATE
28	24th June 2019	Mid July 2019
29	24th September 2019	Mid October 2019
30	25th December 2019	Mid January 2020
31	25th March 2020	Mid April 2020

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.

YOUR CLUB OFFICERS

CHAIRMAN - NEWSLETTER EDITOR

Bill Souten

52 Shepherds Court
Droitwich Spa
Worcestershire, WR9 9DF
☎ 07840800830
chairman@mkf.org.uk
editor@mkf.org.uk

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

SECRETARY

Phil Howden

90 Beech Drive,
Kidsgrove,
Stoke-on-Trent,
Staffordshire, ST7 1BD
☎ 07964083474
secretary@mkf.org.uk

PHOTOGRAPH TO FOLLOW

TREASURER

Julia Souten

52 Shepherds Court
Droitwich Spa,
Worcestershire, WR9 9DF.
☎ 07840800830
treasurer@mkf.org.uk

PHOTOGRAPH TO FOLLOW

MEMBERSHIP SECRETARY

Linda Richardson

19 Wigsley Close
Doddington Park
Lincoln
Lincolnshire, LN6 3LD
☎
membership@mkf.org.uk

PHOTOGRAPH TO FOLLOW

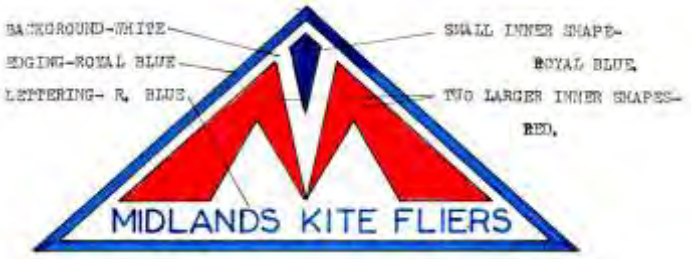
WEBSITE MANAGER

Sam Hale

12 Briery Street,
Lancaster,
Lancashire,
LA1 5RD.
☎ 07895 009128
websitemanager@mkf.org.uk

PHOTOGRAPH TO FOLLOW

DRAWING FOR THE FIRST MIDLANDS KITE FLIERS EMBROIDERED BADGE



'THE MIDLANDS KITE FLIERS' A PERSONAL VIEW

The 'Midlands Kite Fliers' came about from a few people meeting in Walsall Arboretum in May 1978 at the Walsall Metropolitan Borough Council Recreation and Amenities Department's Kite Competition. Some of us were members of other national Kiting Associations, however we felt that there was a definite need for a Midlands Kiting Group.

Having now started the 'Midlands Kite Fliers' I feel that this group should be relaxed, informal and social, although it should endeavour through its members to promote kiting as an enjoyable and absorbing pastime for young and old. Safety is an obvious area for vigilance on everyone's part, but the social side is of great importance. Bill Souten

The paragraphs above were written in 1978, when as a young teacher we started the MKF.
I strongly believe that what the club has achieved in the following years has been fantastic. We have all met like minded people who share our interests and have also in many cases made some wonderful friends..
Let's hope it continues for the next forty years...
I'll only be 106..... Bill Souten (Ed)

ORIGINAL NEWSLETTERS

The Midlands Kite Fliers started officially on the 1st April 1979. It has produced newsletters from day one. The first three years of newsletters are now available in 'pdf' format for all interested parties to peruse.....
Interested then contact Bill Souten who will email copies to you..... free of charge.
Please remember that these newsletters were produced at school, free of charge to the club. Sometimes the quality is poor, often using the old school Banda System, where everything faded in strong sunlight. However there are many items that might be of interest even after forty years.....

MKF NEWSLETTER; 1 DECEMBER 1978
MKF NEWSLETTER; 1A APRIL 1979
MKF NEWSLETTER; 2 JUNE 1979
MKF NEWSLETTER; 2A JULY 1979
MKF NEWSLETTER; 3 SEPTEMBER 1979
MKF NEWSLETTER; 4 DECEMBER 1979
MKF NEWSLETTER; 5 MARCH 198O
MKF NEWSLETTER; 6 JUNE 198O
MKF NEWSLETTER; 7 SEPTEMBER 198O
MKF NEWSLETTER; 7A SEPTEMBER 198O
MKF NEWSLETTER; 8 DECEMBER 198O
MKF NEWSLETTER; 9 MARCH 1981
MKF NEWSLETTER; 1O JUNE 1981
MKF NEWSLETTER; 11&12 DECEMBER 1981
MKF NEWSLETTER; 13 MARCH 1982
MKF NEWSLETTER; 14 JUNE 1982
MKF NEWSLETTER; 15 SEPTEMBER 1982
MKF NEWSLETTER; 16 DECEMBER 1982
MKF NEWSLETTER; 17 MARCH 1983
MKF NEWSLETTER; 17A MARCH 1983
MKF NEWSLETTER; 18 SUMMER 1983
MKF NEWSLETTER; 19/2O CHRISTMAS 1983
MKF NEWSLETTER; 21 MARCH 1984

Subsequent MKF newsletters appeared in the 'Kite Flier' newsletter of the Kite Society of Great Britain.
PROJECT KARA – THE OFFICIAL REPORT 198O


ALICE
COOPER
THE BABYS
APRIL 1
THE FORUM
Avalon


SUPERMAN


MARVEL COMICS GROUP
CAPTAIN AMERICA
THE FLAME AND THE FURY!


ATV BOB HOPE SHOW
0055 TR
LONDON PALLADIUM
Sunday, 1st April, 1979
ARTISTES & STAFF PASS
ADMIT ONE ONLY
STAGE DOOR: GT. MARLBOROUG

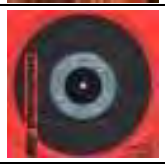
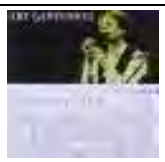
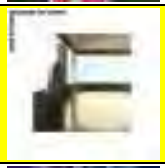
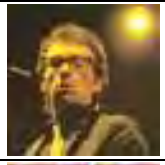
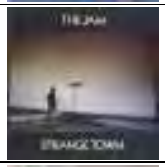
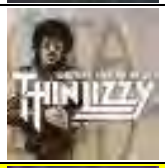
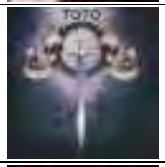
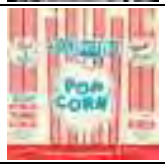

DIRECT ELECTIONS TO THE EUROPEAN ASSEMBLY

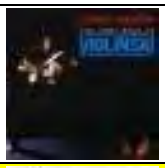
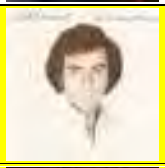

Kent County Billiards & Snooker Association
present
Kent finals of the
1979
SNOOKER CHAMPIONSHIP
(Best of 9 frames)
for the Batt Electrical Trophy
Sunday, 1st April, 1979
at 3 p.m.
Woodville Halls, Gravesend
Ticket: £1.50


WOODLAND
APRIL 1ST IS NOT
JUST APRIL FOOLS' DAY,
IT'S ALSO THE ANNIVERSARY
OF THE BUNGEE JUMP


TIME
Iran
Vs.
The World

THE BRITISH TOP THIRTY
1st April 1979

POSITION	LAST WEEK		
1	1		**I WILL SURVIVE** GLORIA GAYNOR POLYDOR
2	2		**IN THE NAVY** THE VILLAGE PEOPLE MERCURY
3	19		**BRIGHT EYES** ART GARFUNKEL CBS
4	6		**I WANT YOUR LOVE** CHIC ATLANTIC
5	3		**SOMETHING ELSE/FRIGGIN' IN THE RIGGIN'** THE SEX PISTOLS VIRGIN
6	16		**COOL FOR CATS** SQUEEZE A&M
7	5		**LUCKY NUMBER** LENE LOVICH STIFF
8	18		**SULTANS OF SWING** DIRE STRAITS VERTIGO
9	8		**TURN THE MUSIC UP** PLAYERS ASSOCIATION VANGUARD
10	4		**OLIVER'S ARMY** ELVIS COSTELLO AND THE ATTRACTIONS RADAR
11	34		**SOME GIRLS** RACEY RAK
12	7		**CAN YOU FEEL THE FORCE?** REAL THING PYE
13	9		**DON'T STOP ME NOW** QUEEN EMI
14	14		**MONEY IN MY POCKET** DENNIS BROWN LIGHTNING
15	10		**KEEP ON DANCING** GARY'S GANG CBS
16	24		**STRANGE TOWN** THE JAM POLYDOR
17	12		**WAITING FOR AN ALIBI** THIN LIZZY VERTIGO
18	25		**HE'S THE GREATEST DANCER** SISTER SLEDGE COTILLION
19	13		**INTO THE VALLEY** SKIDS VIRGIN
20	17		**JUST WHAT I NEEDED** THE CARS ELEKTRA
21	30		**THE RUNNER** THE THREE DEGREES ARIOLA
22	15		**HOLD THE LINE** TOTO CBS
23	26		**SHAKE YOUR BODY** (DOWN TO THE GROUND) THE JACKSONS EPIC
24	New		**SILLY THING/WHO KILLED BAMBI** SEX PISTOLS AND TEN POLE TUDOR VIRGIN

25	20		CLOG DANCE VIOLINSKI JET
26	28		FOREVER IN BLUE JEANS NEIL DIAMOND CBS
27	23		WOW KATE BUSH EMI
28	33		THE STAIRCASE (MYSTERY) SIOUXSIE AND THE BANSHEES POLYDOR
29	21		YOU BET YOUR LOVE HERBIE HANCOCK CBS
30	27		ENGLISH CIVIL WAR THE CLASH CBS

Sunday 1st April 1979 Walsall Arboretum Extension

THE FIRST MODERN BUNGEE JUMP

The first modern bungee jumps were made on 1 April 1979 from the 250-foot (76 m) Clifton Suspension Bridge in Bristol, by David Kirke and Simon Keeling, both members of the Oxford University Dangerous Sports Club. The jumpers were arrested shortly after, but continued with jumps in the US from the Golden Gate Bridge and the Royal Gorge Bridge (this last jump sponsored by and televised on the American programme *That's Incredible*), spreading the concept worldwide. By 1982, they were jumping from mobile cranes and hot air balloons.

Organised commercial bungee jumping began with the New Zealander, A J Hackett, who made his first jump from Auckland's Greenhithe Bridge in 1986. During the following years, Hackett performed a number of jumps from bridges and other structures (including the Eiffel Tower), building public interest in the sport, and opening the world's first permanen commercial bungee site, the Kawarau Bridge Bungy at the Kawarau Gorge Suspension Bridge near Queenstown in the South Island of New Zealand. Hackett remains one of the largest commercial operators, with concerns in several countries.

Sunday 1 April 1979

It was Sunday, under the sign of Aries. The US president was Jimmy Carter(Democratic). In that special week of April people in US were listening to Tragedy by Bee Gees. In UK Bright Eyes by Art Garfunkel was in the top 5 hits. Phantasm, directed by Don Coscarelli, was one of the most viewed movies released in 1979 while War

And Remembrance by Herman Woukwas one of the best selling books. But much more happened that day: find out below..

Holidays:

- Saint Waleric
- Saint Hugh of Grenoble
- Orissa - a state in eastern India celebrates "Utkal Divas", its statehood day.
- India - Start of financial year.

Famous Birthdays:

- Elizabeth Gutierrez: TV Actress.
- Ivano Balić: Croatian handball player.
- Ruth Beitia: Spanish high jumper.

Famous Deaths:

- Bruno Coquatrix: French entertainment producer, mainly known as the owner and manager of the Paris Olympia, Europe's biggest music hall.
- Marinus Peijnenburg: Dutch politician, dies at age 51.
- Barbara Luddy: American actress (Born 1908).

- April 1 Iran proclaimed an Islamic Republic following fall of Shah
- April1 Joanne Carner wins LPGA Women's Kemper Golf Open
- 28 March – James Callaghan's government loses a motion of confidence by one vote, forcing a General Election.[10]
- 29 March – James Callaghan announces that the General Election will be held on 3 May. All of the major opinion polls point towards a Conservative win which would make

- Margaret Thatcher the first female Prime Minister of Britain.
- 30 March – Airey Neave, World War Two veteran and Conservative Northern Ireland spokesman, is killed by an Irish National Liberation Army bomb in the House of Commons car park.
- 31 March – The Royal Navy withdraws from Malta.

April

- April – Statistics show that the economy shrank by 0.8% in the first quarter of the year, largely due to the Winter of Discontent, sparking fears that Britain could soon be faced with its second recession in four years.
- 4 April – Josephine Whitaker, a 19-year-old bank worker, is murdered in Halifax; police believe that she is the 11th woman to be murdered by the Yorkshire Ripper.
- 23 April – Anti-Nazi League protestor Blair Peach is fatally injured after being struck on the head probably by a member of the Metropolitan Police's Special Patrol Group.

May

- 1 May – The London Underground Jubilee line is inaugurated.
- 4 May – The Conservatives win the General Election by a 43-seat majority and Margaret Thatcher becomes the first female Prime Minister of the United Kingdom. Liberal Party leader Jeremy Thorpe is the most notable MP to lose his seat in the election. Despite being 67 years old and having lost the first General Election he has contested, James Callaghan is expected to stay on as leader of a Labour Party now in opposition after five years in government.] Among the new members of parliament is John Major, 36-year-old MP for Huntingdon.

Mi-Delt

by Fred Broadhead

Spars. Spine 48" x 6mm Carbon Fibre Tube
Cross Spar 6mm Carbon Fibre Tube
Leading Edge Spars - 53" x 6mm Carbon Fibre Tube or 6mm Dowel Rod
Keel Leading Edge - 19" x 6mm Dowel Rod

My idea behind this kite is for a delta that will fly in very light winds and also be adjustable to cope with stiffer breezes and act as a sky anchor for line banners and washing.

First adjustment comes from the keel which has a spar in its leading edge, and has two tow points positioned at 37% and 50% of its spine length back from kite nose, these being about the maximum settings a delta will fly on, 37% being nose down and 50% nose up. Obviously fitting on a bridle, as shown from these points will allow the kites attitude to be adjusted anywhere between the two tow points, or flown direct from either.

Second adjustment comes from the cross spar where length or adjustment can make a large difference as to how well a delta flies. Put simply the more the cross spar stretches the kite between its attachment points the flatter the kite will be and therefore give greater lift at the slight expense of stability. Conversely the slacker the kite between the cross spar attachment points the less is its lift but the better its stability, just like any kite. For the cross spar adjustment I have used a beaded line attachment between the cross spar and the leading edges, although other methods can be used such as having several loops of line of different sizes attached to the leading edges. There is a ratio that's useful in working out cross spar lengths and it goes 10% to 15%. If you hang a delta upside down by its keel point and measure the distance the cross spar at its centre hangs below the spine, and then divide that measurement by how far the leading edge cross spar attachment is from the nose of the kite and multiply by 100 you have the percentage. For example if the cross spar is 10cm from the spine and the leading edge attachment points are 100cms from the nose then the ratio is 10%. 10% is pretty tight, in fact on any delta if you have to flex the cross spar a bit to fit it into its fixing points that's about 10%, 15% is very slack although adjustment between the two is only a fairly small variation of the cross spar's effective length.

So why bother. Well, with the towing line on the keel point (50%) and the sail stretched tight (10%) my kite is in the same light wind bracket as my Ripstop Desperato and that 's not bad for any delta and this is a 90Deg nose delta. In a stiff breeze by slackening the sail on the cross spar and moving the tow point forward, it copes just as well and this kite for its size is very lightly sparred, at the moment I've only got 1/4" dowel in the leading edges. What this means also is that it can be trimmed to pull well in light winds and carry banners, and then trimmed to get rid of too much pull and save the kite and its spars in strong winds. It is also interesting just playing around with the settings and watch the difference to how the kite flies.

*** MKF members might like to make the kite as per the club logo shown in the Dec' 97 issue of MKF News. I have and with a white background, red tip and deep blue 'M' it looks as sharp as a razor. ***

The macho minded might prefer to increase all sizes by 50% and have a good club kite, but that's another story. In that case I would suggest all spars are 8mm Carbon Fibre or 9mm or 10mm Dowel Rod.

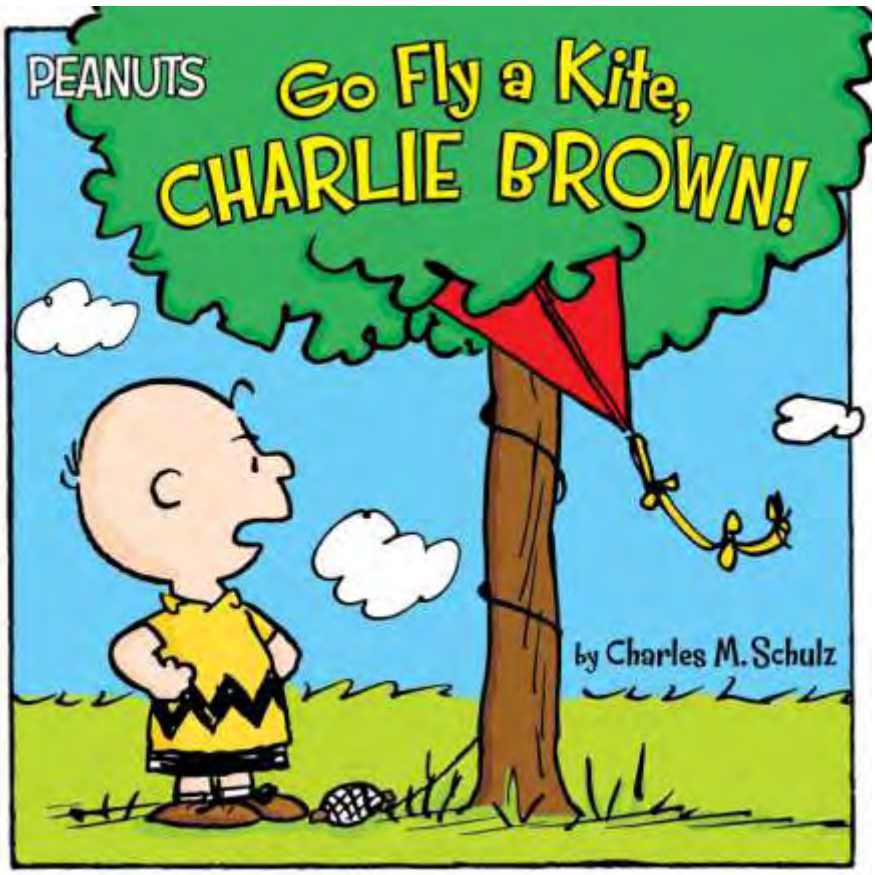
Finally before the eagle-eyed rush into stating that the cross spars on Delta's should be the next size up from the other spars, sorry chaps it's not always true. I do have a restraint loop between the spine and the cross spar to give it support. Still doubtful, have a word with my mate Dan Leigh and remind him of my little green Classic Delta, it surprised him. To me kiting is the ultimate in suck it and see.

Good luck. Fred Broadhead

To the pupil.

Here is your first assignment, delta regarded by many as the finest around, Modesty forbids I should comment but I see no reason to disagree. Some use it as a lifter kite in preference to Peter Lyns own pilot kites for those monster inflatables of his. Whether making one out of old khaki tents and discarded umbrellas will achieve the same results must cause some doubts.

The Mentor.



BY KITE FLIERS
FOR KITE FLIERS
WITH KITE FLIERS
ABOUT KITE FLIERS

KITE FLIERS RENDEZVOUS

2019

BROAD HAVEN

SATURDAY 4th MAY
SUNDAY 5th MAY
MONDAY 6th MAY

WITH THE MIDLANDS KITE FLIERS
& WHITE HORSE KITE FLYERS

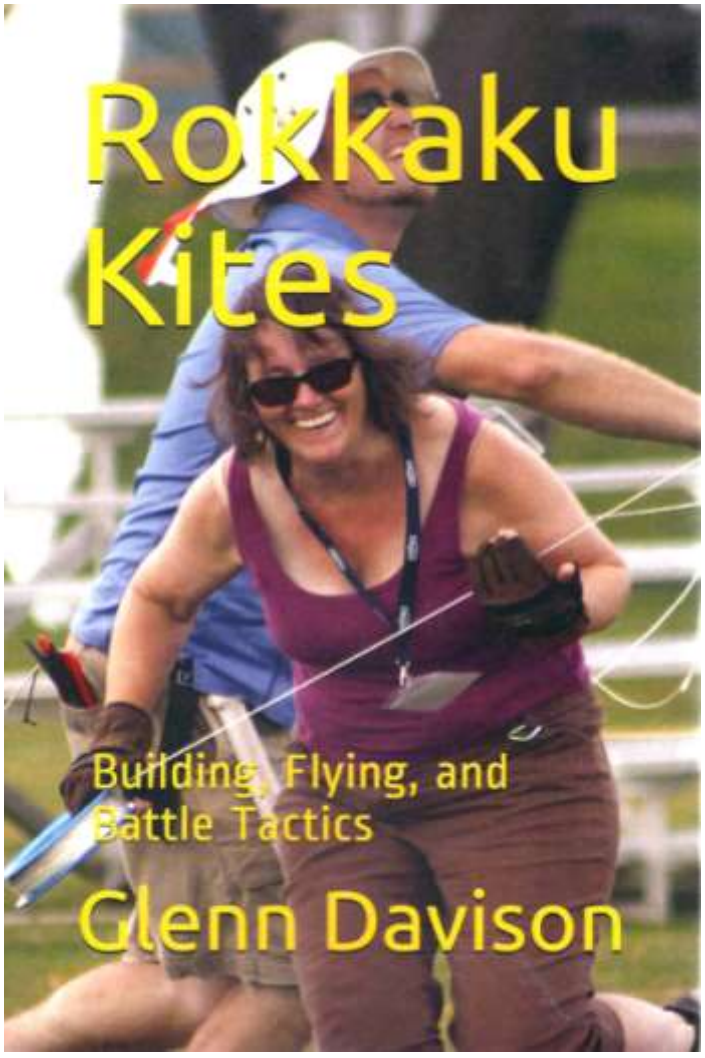
We are coming back.

Once again kites will be back on the beach at Broad Haven for the Bank holiday May 4th & 5th 2019 and Hilton Court Gardens on 6th. Tides are suitable and so Midland Kite Fliers and White Horse Kite Flyers are organising a kite meeting. Last year we had some "interesting" weather, let's hope for better conditions this year.

Word has got out about what a great site this is and the friendly response we have had from residents so we hope to have more flyers attending to put on a better and more varied display. Once again Sky Bums will be at Roch on the Monday supplying all your kiting needs.

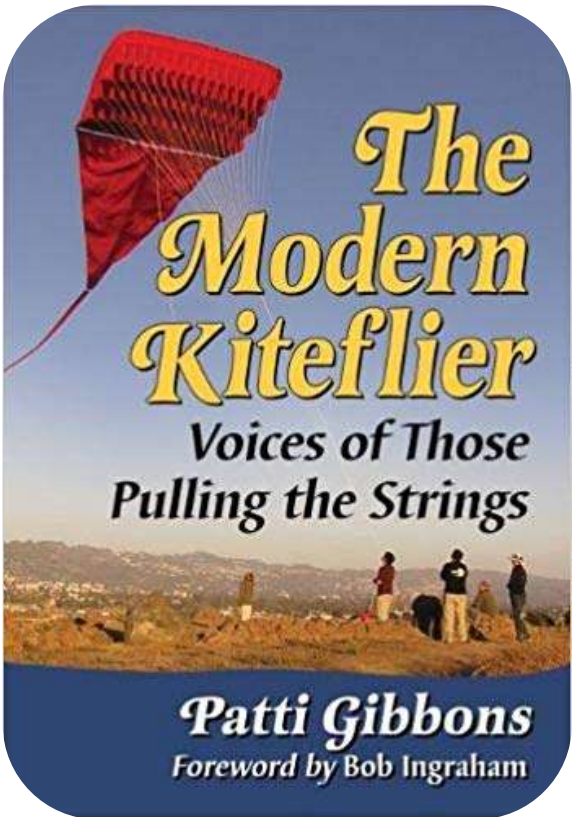
Kite flyers are a friendly bunch so please come and have a chat with us about the hobby and share advice on what to buy and how to fly it. Unfortunately the tides are wrong in 2020 so make the most of this year as we won't be back next year.

We look forward to seeing many of you again and if you require any more information please visit our web page at: http://www.whkf.org.uk/BHKR.html



ROKKAKU KITES by GLENN DAVISON

One of the best kite books I've seen in a long while. It covers everything that the kite flier, whether novice or 'expert' needs to know about Rokkaku's and how to fly and fight with them... It's coinsided with the return of the Carol Lewis Rokkaku Cup from it's previous winners.... and the reintroduction to the Berrington Rokkaku Challenge. £7.95 from Amazon.....



Over the past generation, kiteflying has evolved past a springtime childhood rite of passage into a popular mainstream adult activity. The kite's popularity skyrocketed at a time when a new breed of groundbreaking sport kites appeared and kite makers adopted modern synthetic materials developed for other industries. The result was an explosion of kite experimentation and its effects are far-reaching. Kite artists emerged and dazzled onlookers with three-dimensional aerial sculptures. Enthusiasts formed local, national, and international clubs to celebrate kiteflying and schedule festivals for hundreds of thousand pleasure seekers. Inventors perfected new kites and kite accessories, and savvy entrepreneurs tapped budding markets to create multimillion-dollar kiting industries. Yet, despite the revival, the profile of the kiteflier remains anonymous. In the mid-1990s, the World Kite Museum launched a campaign to put a name to each face and began collecting personal stories from influential kitefliers. Drawing from the museum's audio archive, The Modern Kiteflier brings together firsthand memories from the fun-loving people who pursued their curiosities and built a community. Stitching together slices of grassroots history, The Modern Kiteflier is the first book to tell the story of contemporary kiteflying and the people who pull the strings in kiting.

INTERNATIONAL ROKKAKU CHALLENGE

THE 'BERRINGTON' ROKKAKU CHALLENGE

CAROL'S CUP

In memory of Carol Lewis - originator of the Coventry Kite Festival

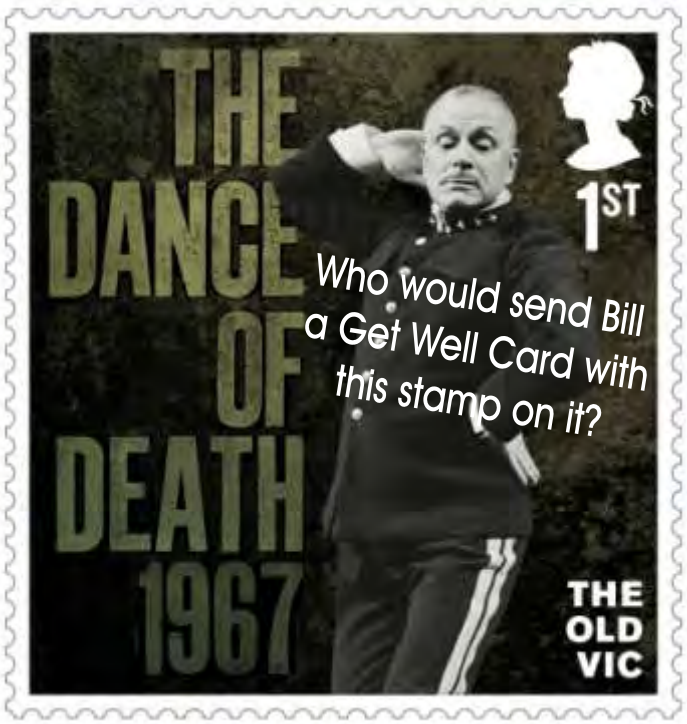
WINNERS OF THE CAROL LEWIS CUP

2002 - Jon Caton
2003 - Jon Caton
2004 - Franchesca Caton
2005 - Franchesca Caton

(Then unused until 2019. The cup was recently returned to the club by Jon & Franchesca Caton.)

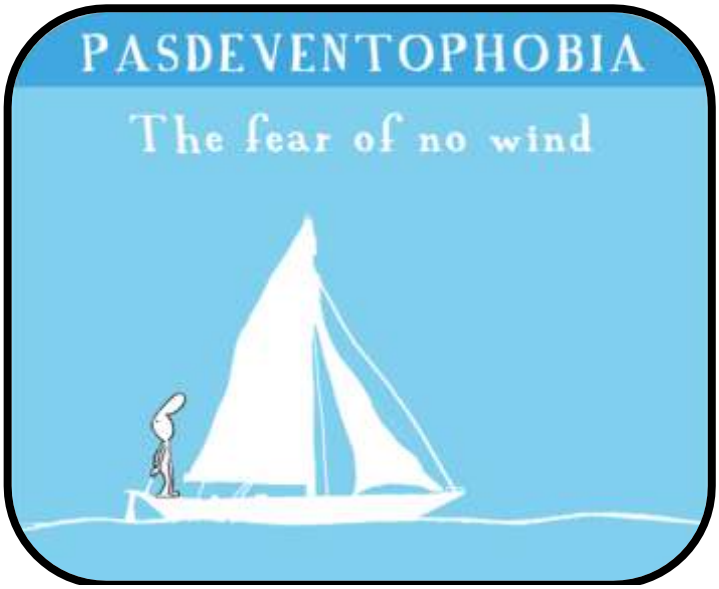
MIDLANDS KITE FLIERS ROKKAKU CHALLENGE

MKF MUG



LIMITED EDITION
JUST £10.00 EACH

GROUND ANCHOR



LIMITED EDITION
JUST £10.00 EACH

TEAM RIKOK
VINTAGE KITE FLYING

DO YOU WANT TO FLY EVERY WEDNESDAY AFTERNOON THAT THE WEATHER ALLOWS, LUNCH AT A TRADITIONAL UNSPOILT LOCKSIDE PUB AND TEAROOMS? THEN COME TO WOLVERELY NEAR KIDDERMINSTER AND ENJOY OUR TRULY RURAL IDYLL JUST OFF THE B4189 WHICH ITSELF IS OFF THE A449. THE SITE ISKNONW AS BROWN WESTHEAD PARK OR PLAYING FIELDS POST CODE DY10 3PX

WE FLY ON THE SITE OF AN UNUSED WW2 AMERICAN MILITARY HOSPITAL WHICH IS NOW A VAST MOWN PLAYING FIELD WHICH IS USED ONLY AT WEEK ENDS. THE ENTRANCE TO THE SITE IS INDICATED BY A BROWN SIGN SHOWING A TENT &

A CARAVAN. DRIVE STRAIGHT PAST THE CLUB ENTRANCE ON THE LEFT AND PARK BY THE GATES. WE USUALLY MEET BY 2pm. BUT SOME COME EARLIER.

THE LOCK INN (POST CODE DY10 3RN) IS ABOUT 200yds. CLOSER TO WOLVERELY, FOOD SERVICE STARTS FROM 12 NOON. AND CAN BE SLOW SO GET THERE EARLIER RATHER THAN LATER IF THIS PROSPECT ATTRACTS YOU CONTACT IVAN S, FRED B or DAVID M-S WHO WILL BE ONLY TOO WILLING TO WELCOME YOU.

THANK YOU!

A very big thank you to whoever sent me a large quantity of spinnaker nylon in the post. There wasn't any note to say who sent it. So I have decided to donate it to any member who, in my mind, puts together a sound project proposal to utilise the fabric.

If you are interested send me a email and we can discuss your project.....

Thanks again to whosoever it was that sent in the fabric.....

BLACK	127 x 54 cm
WHITE	200 x 150 cm
WHITE	50 x 35 cm
WHITE	100 x 50 cm
PURPLE	50 x 80 cm
FUSHIA PINK	140 x 35 cm
BRIGHT GREEN	60 x 25 cm
TEAL	40 x 40 cm
ROYALBLUE	150 x 400 cm
SUNSHINE YELLOW	100 x 150 cm
FLORESCENT YELLOW	150 x 100 cm
FLORESCENT YELLOW	100 x 40 cm
RED	140 x 100 cm
SCARLETT	100 x 60cm

All measurements are approximate.....

THANK YOU!

N.B. Have only just received an email from the kind person who donated the fabric.

Many thanks to David Field..... Thanks..

N° 19,137 A.D. 1902

Date of Application, 1st Sept., 1902
Complete Specification Left, 2nd June, 1903—Accepted, 30th July, 1903

PROVISIONAL SPECIFICATION.

Automatically Releasing Apparatus, for use with Kites, Captive Balloons and the like.

Local boy comes up with the goods. Ed.

I, ARCHIBALD STANNARD CUBITT, Electrical Engineer, of 25 Paradise Street, Rugby. do hereby declare the nature of this invention to be as follows:—

This invention has for object to provide means by which various apparatus may be sent up an aerial wire or cord, such as that used with kites, captive balloons or the like; by means of a parachute or parachutes, auxiliary balloon or balloons or the like, and which parachutes or balloons or the like are automatically detached at any predetermined point on the wire or cord, allowing the portion of the apparatus which slides on the wire or cord to return to the lower end of the wire or cord ready for further use. This part of the apparatus, which I prefer to call the carrier, may be used simply to automatically detach parachutes or the like from any part of a wire or cord carrying a kite or kites or the like being in this connection used solely as a toy or means of amusement, for which purpose this apparatus is specially suitable.

Suitable form of the apparatus for this purpose may be as shown in Fig. 1, where (*a*) Fig. 1 shows the carrier sliding on the kite cord (*b*) Fig. 1 and carrying the parachute (*c*) Fig. 1 by means of the hook (*d*) Fig. 1.

The carrier consists of two pieces (*e e*) Fig. 1 and (*f*) Fig. 1 of which (*f*) Fig. 1 is capable of sliding back into the position as shown in dotted lines, thus releasing the hook (*d*) Fig. 1 and the parachute (*c*) Fig. 1.

On the cord (*b*) Fig. 1 is a cross piece (*g*) Fig. 1 on which the carries strikes when sliding along the cord (*b*) Fig. 1 thus releasing the hook (*d*) Fig. 1 and the parachute (*c*) Fig. 1.

The parachute serves to draw the carrier up the aerial cord or wire, and when the parachute is released as shown above the carrier by virtue of its weight returns to the lower end of the wire or cord, ready for further use. The above form is one of many that can be made in conformity with this invention, and I do not bind myself to this or any other special form of releasing apparatus.

This apparatus may be used for the purpose of carrying photographic apparatus up to any height, operating the shutter and allowing the apparatus to descend, thus obviating the necessity of hauling down the kite, balloon or the like after each exposure.

This apparatus may also be used for the purpose of carrying and releasing parachutes, balloons or the like, having attached thereto coloured fires or other pyrotechnical devices, at any height and of automatically igniting the same, if so required, by means of any friction igniting device as used in the arts.

Dated this 29th day of August 1902.

A. STANNARD CUBITT.

Price 8d.

COMPLETE SPECIFICATION.

Automatically Releasing Apparatus for use with Kites, Captive Balloons and the like.

I, ARCHIBALD STANNARD CUBITT, Electrical Engineer late of 25 Paradise Street Rugby, now residing at 1 Bilton Road, Rugby. do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention has for object to provide means by which various apparatus may be sent up an aerial wire or cord, such as that used with kites, captive balloons or the like; by means of a parachute or parachutes, auxiliary balloon or balloons or the like, and which parachutes or balloons or the like are automatically detached at any predetermined point on the wire or cord, allowing the portion of the apparatus which slides on the wire or cord to return to the lower end of the wire or cord ready for further use. This part of the apparatus, which I prefer to call the carrier, may be used simply to automatically detach parachutes or the like from any part of a wire or cord carrying a kite or kites or the like being, in this connection used solely as a toy or means of amusement, for which purpose this apparatus is specially suitable.

The drawings left with my Provisional Specification illustrate one method of carrying out my invention. Referring to the figure, (*a*) shews the carrier sliding on the kite cord (*b*) and carrying the parachute (*c*) be means of the hook (*d*).

The carrier consists of two pieces (*e e*) and (*f*) of which (*f*) is capable of sliding back into the position as shown in dotted lines, thus releasing the hook (*d*) and the parachute (*c*).

On the cord (*b*) is a cross piece (*g*) on which the carrier strikes when sliding along the cord (*b*) thus releasing the hook *d* and the parachute (*c*).

The parachute serves to draw the carrier up the aerial cord or wire, and when the parachute is released as shown above the carrier by virtue of its weight returns to the lower end of the wire or cord, ready for further use. The above form is one of many that can be made in conformity with this invention, and I do not bind myself to this or any other special form of releasing apparatus.

This apparatus may also be used in the following or similar manner, operating photographic apparatus at any height for the purpose of taking birds-eye views of a stretch of country or the like.

For this purpose the photographic camera is firmly attached to the carrier described above, the parachute being attached to the hook (*d*) in the manner as before described. To the hook (*a*) is also attached a short cord connected to a pin which, when in place, prevents the photographic shutter from operating. The manner of operation is as follows. The parachute draws the carrier and camera attached to it up the cord to the cross piece (*g*) where the parachute is released and by means of the short cord above referred to draws the shutter retaining pin out of its socket and allows the shutter to operate and the photograph is obtained. The carrier and camera then slide down the cord again to the operator, when the film or plate can be changed, the shutter re-set, another parachute attached and the operation as described above repeated.

This apparatus may also be used in the following or similar manner for the purpose of carrying coloured fires or other pyrotechnical devices up to any desired height of igniting the same.

In order to carry out this purpose, the coloured fires or other devices are firmly attached to the carrier and provided with a friction igniting device which may consist of a coating of a similar substance to that used on ordinary friction

igniting matches as used in the arts and provided with a detachable cap of glass proper or a roughened metal cap. This cap is attached by a short cord to the hook carrying the parachute so that when the parachute is released as described above, the cap is drawn off the friction igniting coating with sufficient force to ignite the same and so the coloured fires or the like.

This apparatus may also be used for the purpose of distributing advertising bills or the like, the parachute device being arranged to release the cord holding together the packet of bills, so as to scatter the same on releasing.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

(1) A device, arranged to slide on a wire or cord supported by a kite or kites, balloon or the like, arranged to be carried upward or along the wire or cord by means of a parachute or the like, and means to automatically detach the parachute or the like at any predetermined point on the wire or cord, and to return to the lower end of the wire or cord after so detaching.

(2) A device, arranged to automatically detach a parachute or the like, at any predetermined point on a wire or cord; by means of a catch operated by a stop on the wire or cord.

(3) A device, arranged to automatically detach a parachute or the like, substantially as described with reference to Figure 1

(4) A device, arranged to automatically detach a parachute or the like, and to automatically operate the shutter of a photographic camera attached to the device at the time of detaching, substantially as described.

(5) A device, arranged to automatically detach a parachute or the like, and to automatically ignite coloured fires or the like at the time of so detaching, substantially as described.

(6) A device, arranged to automatically detach a parachute or the like, and to automatically distribute bills or the like, at the time of detaching.

Dated this 28th day of May, Nineteen hundred and three.

A. STANNARD CUBITT.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1903.

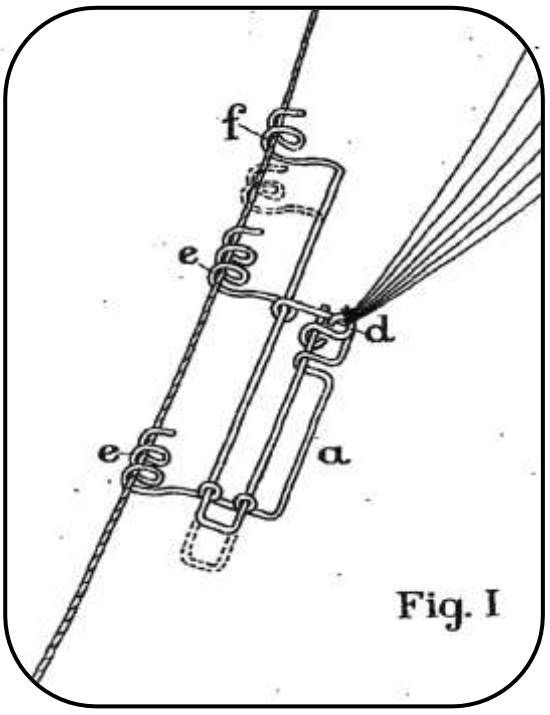


Fig. I

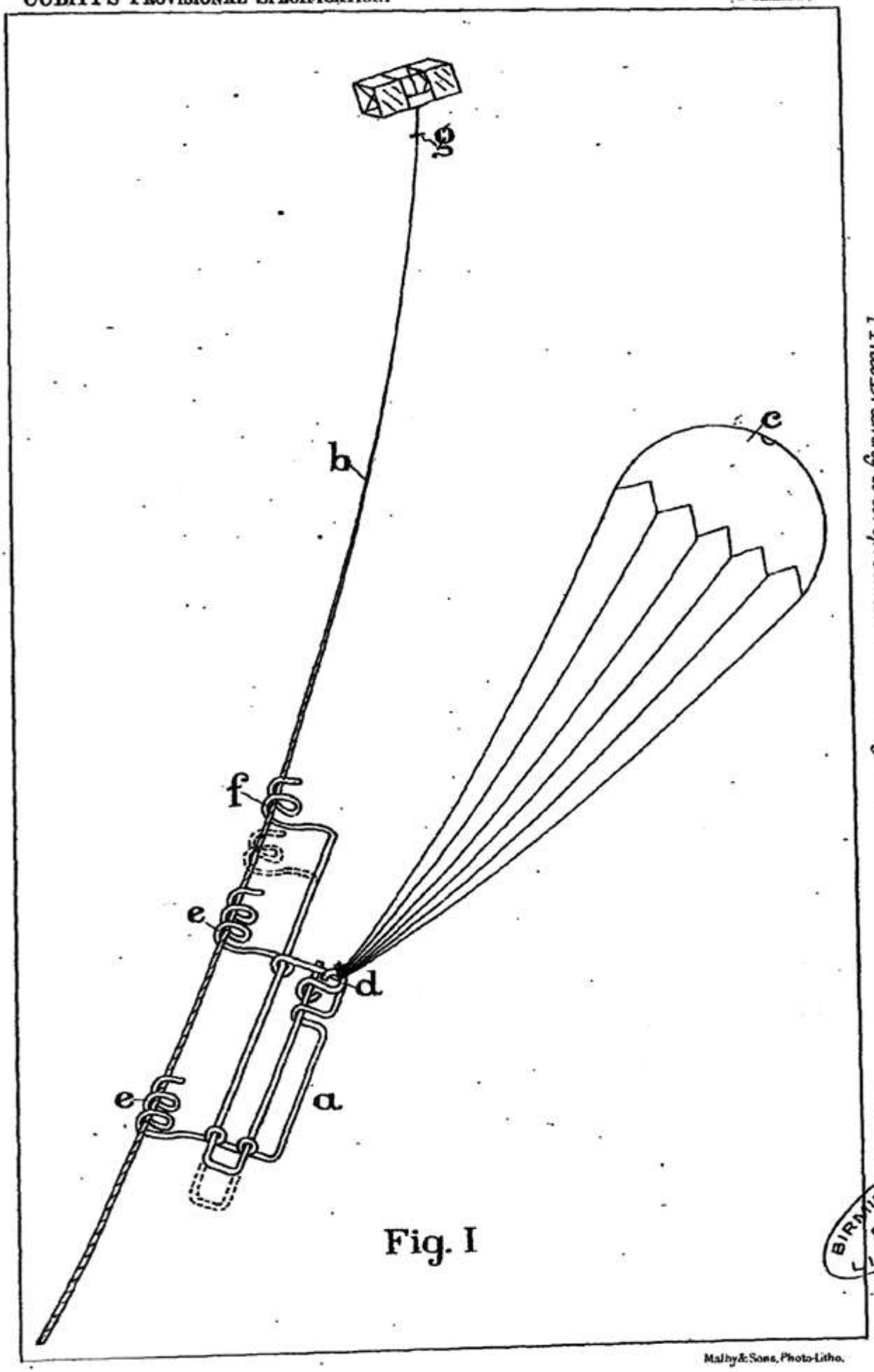


Fig. I

[This Drawing is a reproduction of the Original on a reduced scale.]

Malby & Sons, Photo-Litho.

RESEARCH MATERIAL FOR THE 2019 BUTTERFLY CHALLENGE

THE BIGGER PICTURE

SPOT THE ADMIRAL

Springwatch Butterfly Special
Friday 9.00pm **BBC2**

Whose heart doesn't rejoice at the sight of a butterfly basking in the sun? The Red Admiral (left) is one of our most beautiful species but, like most butterflies, it's under threat. Habitat loss has seen populations plummet – in 2012 numbers were the lowest since counting began in 1976.

This week the *Springwatch* team looks at both butterflies and moths, from the amazing transformation they undergo to how we can help their survival. One way is to support Butterfly Conservation's annual count. These 21 species are the ones they'd like us to spot over the next few weeks. So use our guide and log on to **bigbutterflycount.org** to submit your results.

◀ **RED ADMIRAL**
Use our guide to tick off butterflies in your garden

COMMON BLUE
The UK's most widespread blue butterfly, though recently numbers have crashed

HOLLY BLUE
Loves urban life and is the only blue butterfly to be found regularly in gardens

GATEKEEPER
Aka the hedge brown and guess what? It's named because of its fondness for gates!

SMALL TORTOISESHELL
Numbers have declined by 75 per cent since the 1970s, but can turn up almost anywhere

SILVER Y MOTH
A migrant from southern Europe that can be seen flying during the daytime

SMALL COPPER
A heat-seeking butterfly that loves to bask on open, sunny ground

WALL
Yep, you've got it. This species is so named because you'll spot it sitting on walls

PAINTED LADY
Our furthest-travelled migrant arrives, after several breeding cycles, from the Sahara

SIX-SPOT BURNET MOTH
Seen in big colonies in grassy areas. Produces small doses of cyanide to deter predators

RINGLET
Enjoys damp grassla
is one of a few specie
thrives in wetter con

D WOOD
can sometimes
gaging in territorial
ogfights

COMMA
Now found all over the UK and, yes, it has punctuation-type markings on its wings

LARGE SKIPPER
Found throughout England and Wales, particularly in sheltered areas of grassland

MEADOW BROWN
The UK's most abundant butterfly. Typically found in grassy habitats

MARBLED WHITE
Its strikingly marked wings have evolved as a warning to would-be predators

BRIMSTONE
One of our longest-lived butterflies. Those that emerge now will survive to next spring

GREEN-VEINED WHITE
Distinguished by grey/green markings; unlike other "whites" it isn't a plague on cabbages

LARGE WHITE
Lays it eggs almost exclusively on cabbages, which then become a food source

PEACOCK
Arguably our most glamorous butterfly; its distinctive eye spots scare off predators

SMALL WHITE
Widespread and numerous. Like its bigger sibling, it's also known as a cabbage white

NEIL HULME, BUTTERFLY CONSERVATION

NOTE FROM THE EDITOR!

The poster for this event popped up on 'Facebook' and we received several enquires about it.
As you will see from the letter attached I contacted the organiser and eventually found out that it's not really for kite fliers, but more the general public. We did offer assistance, but were rejected.....
Bill Souten sorry...

WORKING CREATIVELY FOR CHANGE SINCE 1985
B arts (Beavers Arts) Ltd
72 Hartshill Road, Stoke-on-Trent, ST4 7RB
(44) 1782 848835, info@b-arts.org.uk

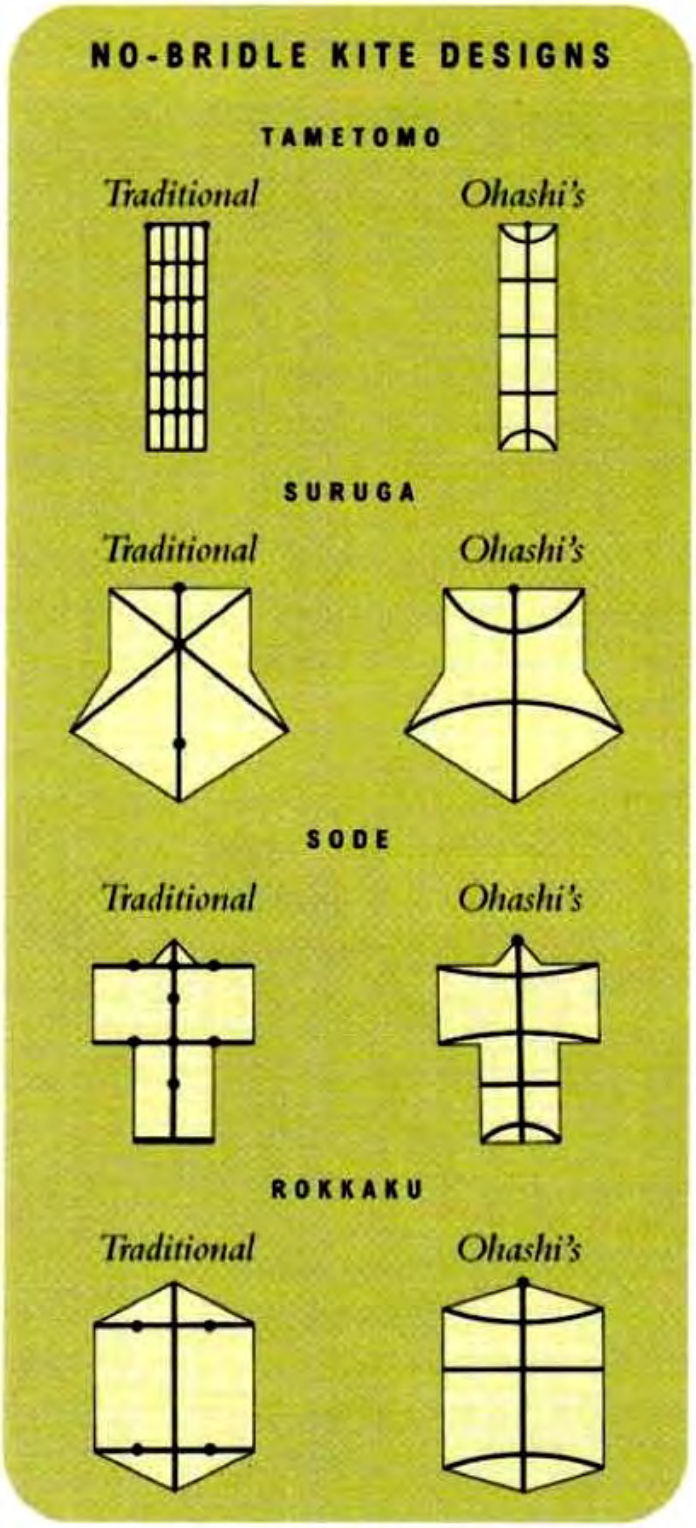
Hi Bill,
I'm really sorry for taking so long to get back to you. It took me a while to manage to speak to the parks officer in charge of our use of the park. They would rather we didn't apply for the CAA licence as this wasn't on my initial application and they are worried that the site chosen (the flat bit at the top of a busy victorian style park) isn't ideal for high kite flying.

I'd discussed the event with them as a community celebration based on spring festivities around Basant that happen in Pakistan/Afghanistan/Parts of the Middle East etc a key part of which is making and flying home-made kites (so as mentioned we've been making kites with various community groups predominantly children), so although we're hoping all kites made will fly (everything tested as so far), not as high as typical fabric and fibre glass kites (they also come down with a bit of a bump as they are mostly light weight wood-willow/bamboo and paper) I've attached some images of what we've been making to give you an idea.

If you think the event would still be of interest to your members than please do feel free to share information on the event. I've attached the official flyer and also here is the link to B arts Facebook event for your members who use the platform (I know not everyone does) Do feel free to include my contact information mobile or email is best (07557 797695) or rebecca.frankenberg@b-arts.org.uk
I'd be happy to speak to anyone about the event, I'm also happy to come over to Apedale to pick up the exhibition you mentioned (if you get the chance to send it up-no problem if not)/ talk to people,

Many thanks,
Rebecca Frankenberg

Ohashi's No-Bridle Kites



When is a bridle not a bridle??When it is a single line attached to a single point on a kite. Eiji Ohashi of Japan, known around the world for his kite trains, originally called this design system the "one-bridle kite." But he reports that kitemaker Reza Ragheb challenged the terminology.

"Seeing my kites he said a one-bridle kite was a no-bridle kite. So I will call a one-bridle-on-the-nose kite: No-Bridle Kite," Ohashi says.

The no-bridle style makes it easy to add kites in his "Washing Line System" of trains. He has adapted kites of many traditional shapes and forms to fly from a single line; at the 1996 Berlin Kite Festival, he put them all up in a single train: a tametomo, suruga, sode rokkaku, and the Edo pictured here.

Design applied in building

The key design feature is applied in the building process. Traditional spars are replaced by a pair of spars (carbon fiber) at top and bottom, curved in toward the center to provide shape and lift. The sode kite requires three such bowed spars.

All cross spars, whether curved or straight, are also bowed across the back. The result: an aerodynamic kite not dependent upon a lower bridle leg to provide opposition to the wind.

Ohashi says, "The pulling power of my new kite is less than the one with the Magic Balancer" *(Kite Lines,* Summer-Fall 1993). He provides these comparative measurements of pulling power: Traditional Edo = 1

Traditional Edo = 1

No-Bridle with balancer = *1/8*

No-Bridle without balancer =1/10-1/15

Such dramatic reductions in force obviously make it easier to fly long trains of big kites.

Ohashi adapts traditional symbolism to create his Yin Yang birds, which are cut from cloth and appliqued to the kite cover, sometimes with stylistic waves beneath.

"You know, Yin Yang is a thought in ancient China. It says, 'Everything in the universe is made up of Yin (negative) and Yang (positive).' Water-fire, cold-warm, shadow-light, female-male, etc.," Ohashi explains.

At first glance, some kitefliers might imagine the single bridle point to be ineffective in high winds. But Ohashi says the rear of the kite merely blows almost to the horizontal and the kite remains stable.

In the lightest of winds, he moves the towing point aft along the spine, about one-third its length.

Another variation for high winds makes the kite a bridled kite, but still in an unconventional way: Three bridle legs are all attached to the top spar, at the ends and center.

Left, Ohashi prepares to launch a pair of his large Yin Yang bird kites, each with a single line attached at top of spine. Curved spars at top and bottom create the shape usually provided through bridle tension.
Right, Ohashi rokkaku (left) and sode kites fly gently from single lines. In light winds, he moves the towing point about one-third of the way aft.

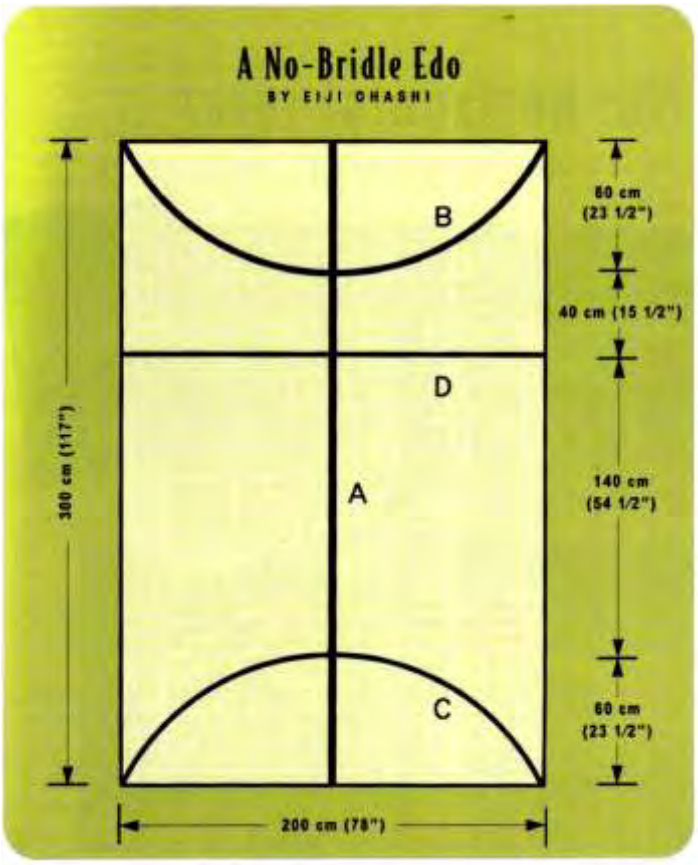
The no-bridle Edo

Ohashi says the No-Bridle Kite is the best kite for the flier who says:

- "I want to make a bigger kite using fewer spars."
- "I want to fly a bigger kite using less power"

MATERIALS

- The fabric is 0.7-oz ripstop polyester (Teijin Power Rip Code T-6016). Totalquantity, approximately 6 sq m (±7 sq yd).
- The spars are of carbon tubing:
- Spar A = 10 mm outside diameter, 299 cm (117 inches) long.
- Spars Band C = 8 nun outside diameter, 270 cm (105 inches) long. (In strong winds, for reinforcement, Ohashi inserts a 6 mrn spar inside the thicker spar.)
- Spar D = same material as Band C, 199 cm (78 inches) long. (In normal to strong winds, this spar is not needed. It should be inserted only when flying in light winds.)



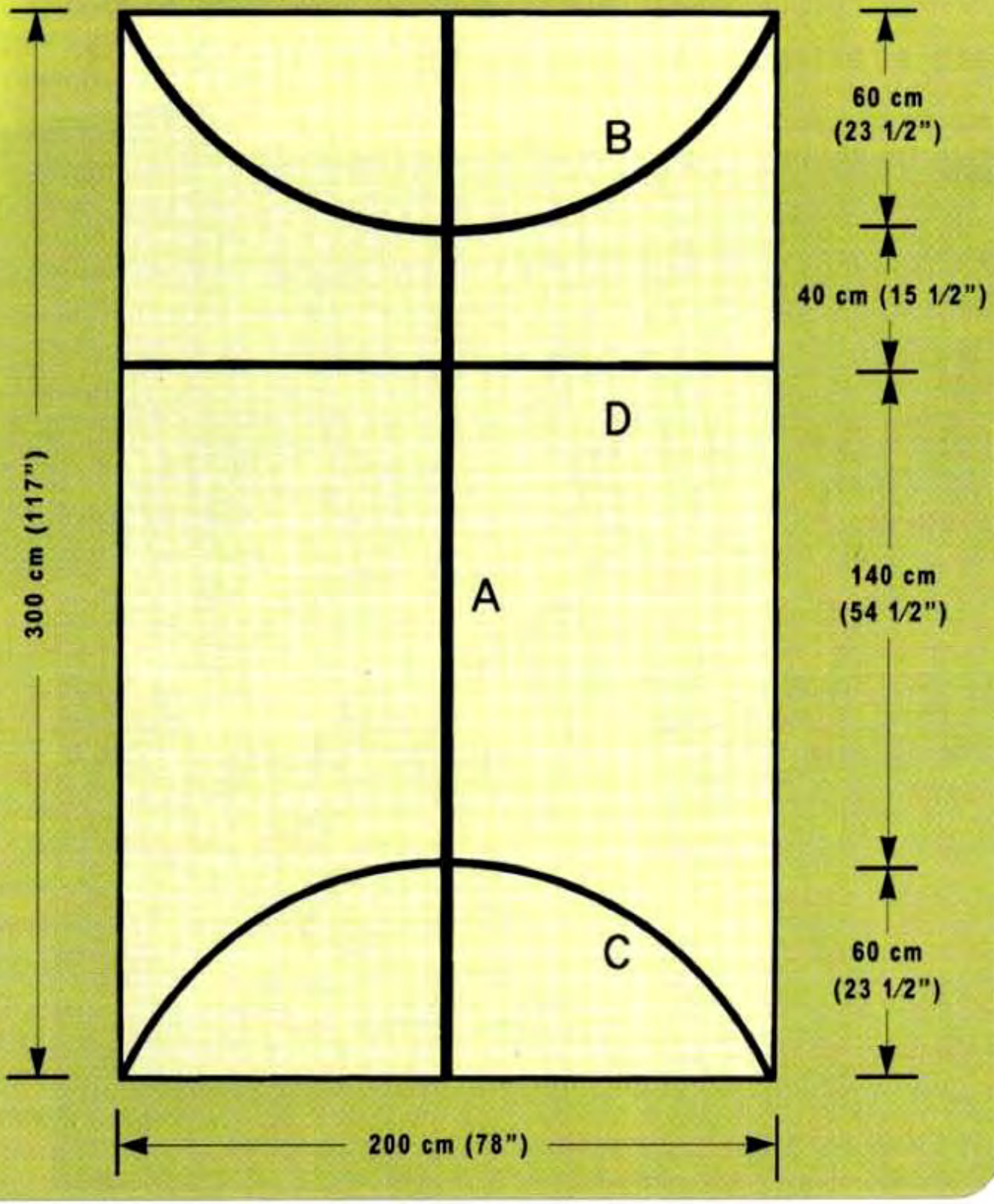
CONSTRUCTION DETAILS

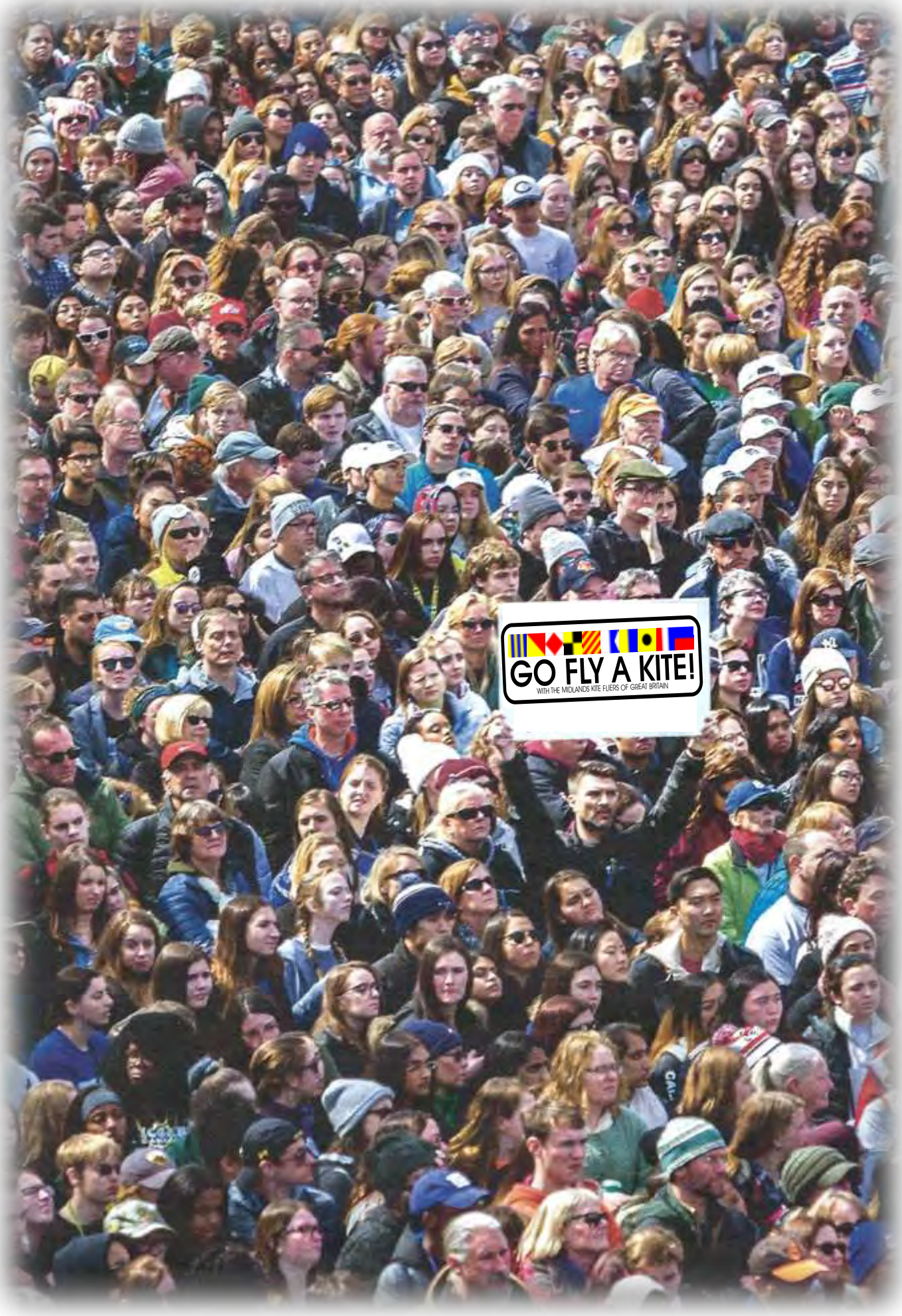
A hem of 18 mm (0.7 inches) is folded and double-stitched at the kite edges.
Spar pockets are of nylon webbing, 3 cm (1.2 inches) wide. A triangular reinforcing patch of ripstop is sewn at the corner, and the webbing folded over and stitched together to form the pocket.
The kite line is attached to a spring metal clip, tied on with string led through a hole punched in the end of the spar pocket.
For flying in train, a double loop of line is tied onto the flyline at intervals, to permit easy attachment by the metal clip.
Lines for bowing the spars across the back are tied through holes in the end of each spar pocket.

February 1, 2010 | 0 Comments
Issue 70: Kite Plan – Ohashi's No-Bridle Kites
Posted by: Kitelife Archive

A No-Bridle Edo

BY EIJI OHASHI




GO FLY A KITE!
WITH THE MIDLANDS KITE FLIERS OF GREAT BRITAIN

LEOMINSTER AND HEREFORD KITE FESTIVAL

Saturday 13th and Sunday 14th July 2019

BERRINGTON HALL

LEOMINSTER, HEREFORDSHIRE, HR6 7LD

Featuring Kite Fliers from all over Britain

MIDLANDS KITE FLIERS OF GREAT BRITAIN
52 Shepherds Court, Droitwich Spa, Worcestershire, WR9 9DF.
email: chairman@mkf.org.uk - 07840800830
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.
It is always advisable to check that the event is happening before travelling any distance
All our 'fly-ins' are Civil Aviation Authority and Site Owner approved

PRE REGISTERED ON SITE CAMPING AVAILABLE

BERRINGTON HALL KITE FLIERS CAMPING

If camping;

Please note we are the only group ever allowed to camp on this site.
NO OPEN FIRES OR GROUND LEVEL BARBEQUES ALLOWED.
No dogs on the kite flying field please (There are sheep around) They are allowed elsewhere in the grounds.
Please don't leave any litter, the fields are grazed by livestock.
Please don't go onto the field before 5.00pm on Friday 12th July.
Camping fee per unit, £5 for one night
£10 for two or three nights.

Please leave by 10,00am on Monday 15th July.

IF YOU HAVE ANY PROBLEMS, I WILL BE ON SITE FOR THE FESTIVAL.
BILL SOUTEN 07840800830 (Emergencies only please!)
MIDLANDS KITE FLIERS OF GREAT BRITAIN

THE 'BERRINGTON' ROKKAKU CHALLENGE

MKFGB AUCTION

MIDLANDS KITE FLIERS OF GREAT BRITAIN

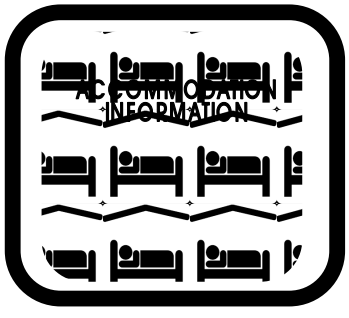
BERRINGTON KITE FLIERS CURRY NIGHT

Shabagh
Indian Cuisine

Chicken Curry, Vegetable Curry, Rice and the trimmings
Bhaji, Samosa etc.... All being served at 7.00pmish
Bring along your own crockery and cutlery..

Just £12.00 per person

YOU MUST GET YOUR TICKET FROM BILL BEFORE 12.00 NOON
(This is so that we can place our order for delivery.)



Civil Aviation Authority

CAP 393
Air Navigation: The Order and the Regulations
-
TODAY'S HEIGHT LIMIT WILL BE
1,000 feet
MIDLANDS KITE FLIERS

Pembrokeshire Coast

The only dedicated coastal park, surrounded on three sides by sea, Pembrokeshire was named 2018 holiday destination of the year by Countryfile. The rugged cliffs and sandy beaches are generally emptier and the country lanes less choked with holiday traffic than honeypot destinations like Cornwall.

The coast path offers spectacular hikes on headlands fringed with pink thrift. A mile-long taster around Lydstep has views of arches, coves and blowholes along the rocky coast to Skrinkle Haven. The grassy cliffs are full of spring flowers and butterflies; below, 100 steps lead at low tide to the beach, rock pools and Lydstep Caverns.

Next day, drive an hour north-west to Britain's smallest city – St Davids – and take a boat trip to Ramsey Island (adult £26, 4-16s £14, under 4s £5, from February half-term, weather dependent). Look out for seals, porpoises and guillemots and, later in the year, cute, ungainly puffins.

Over-eights can go coasteering with Celtic Quest (£45): rock hopping, cave crawling and cliff jumping in an action-packed but unpressured half-day. Winter wet suits, buoyancy aids and more are supplied.

Diary dates: 25 February, 13 March, 15 April The National Trust is running a Big Beach Clean Challenge at Freshwater West on the above dates (litter-pickers provided). There are often great surfers to watch too, (national championships are held here) and Harry Potter fans might recognise the beach from the Deathly Hallows films.

Stay Most Pembrokeshire hostels open in March; for spectacular views and seal-spotting, book well ahead to stay in YHA Poppit Sands (family room from £45) at the northern tip of the national park. With gardens stretching to sandy beaches, you hardly need to go anywhere else (which is handy as the car park is 10 minutes away).

Article found in the Guardian – Saturday 9th February 2019 - BS

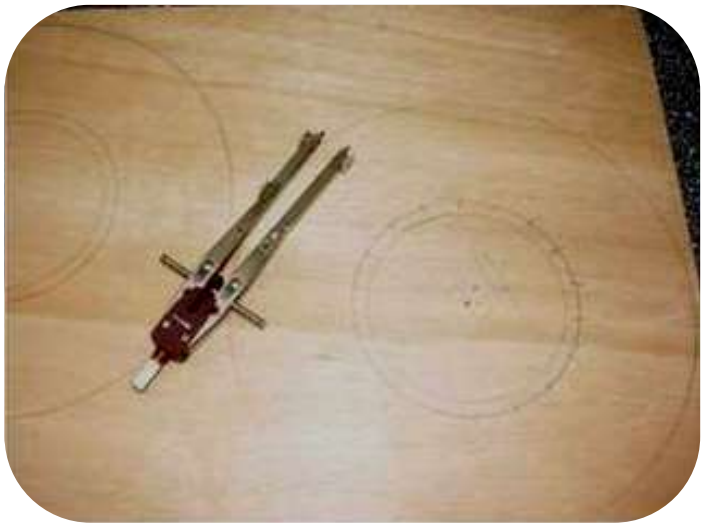
A wooden spool for kite line, self-made and nearly unbreakable

Built in: May.28.2001
Last update: December.06.2004

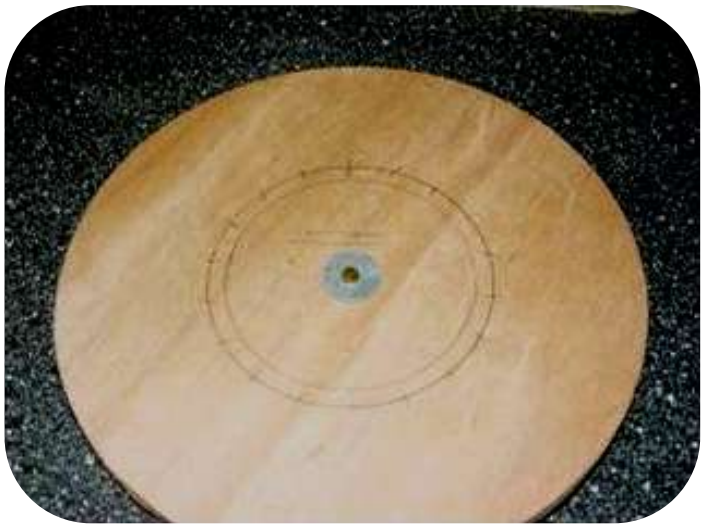
If you have a small kite and only use thin kiteline, then you can find a lot of factory made spools out of plastic. Some of these spools are unbreakable in fact.
But if you need a kiteline with 3mm in diameter, you have problems to find a good spool. I have made the experience, that I can´t find an unbreakable version.

Therefore I have made my own wooden spools for kiteline out of plywood and wooden plugs. With a little workmanship everybody can do the same. This spools are very vigorous and you can make them in different sizes.
Top roll:
210 mm in diameter, filled with 100 m, 3 mm Polyesterline
Middle roll:
240 mm in diameter, filled with 300 m, 2mm Polyesterline

Drawing the measurements
use plywood with 5 mm thickness and wooden plugs with 8 mm in diameter for the mounting of my spools.
At first I have drawn the outside diameter with 240 mm, the inside diameter with 100 mm and the perforating circle with 115 mm with the pair of compasses first. Then I have taken down the 18 drillings for the wood plugs on the perforating circle with the pair of compasses.

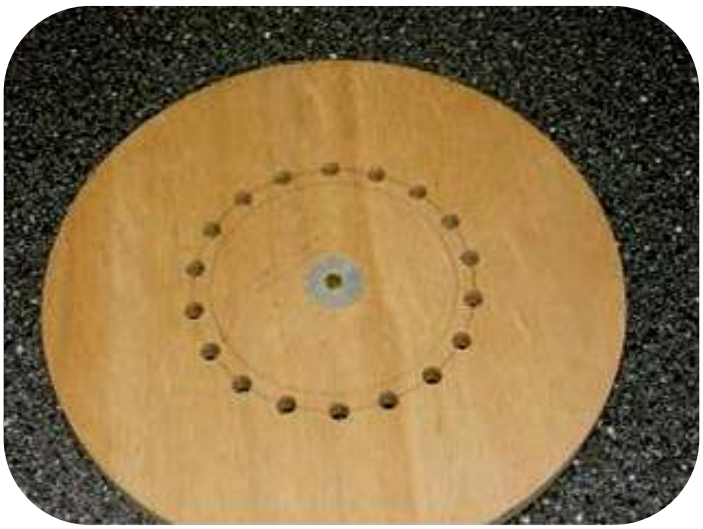


Then the two side plates were sawed with the jigsaw. You must take care that you saw beautifully around and exactly at the line, so you then doesn't need to sand much later. I then have drilled a hole with 4 mm of diameter and bolted the two side plates together into the middle to work them together.

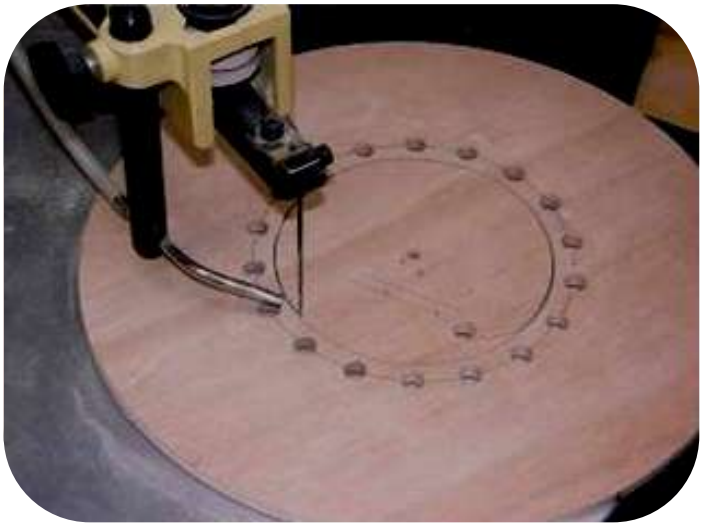


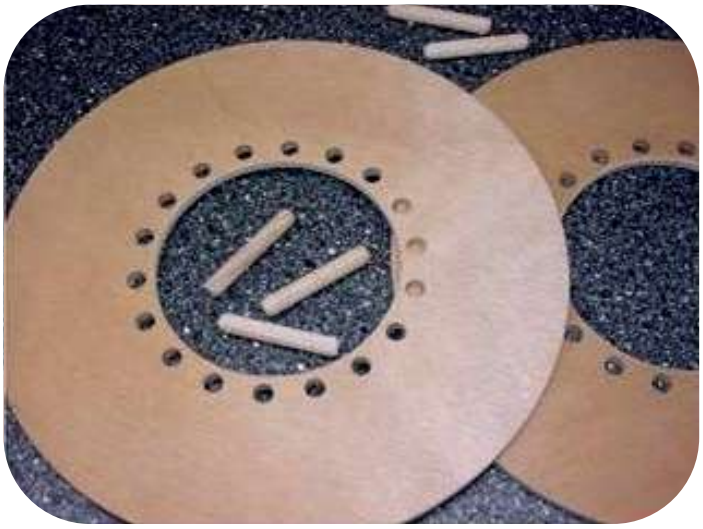
Drilling the holes for the wooden plugs
I have drilled the holes for the wood plugs now. It is important that you drill the two wood plates simultaneously so that the drillings are exactly in the same order. In addition, you must drill exactly right-angled. This only works well with a stand drill or with a hand drill in a drilling stand. I used a drill with 3 mm in diameter at first and 8 mm later.

After the holes were drilled I have sanded the edges of the spool properly. I have marked the two parts on the edge with two lines so that I can put them together in the same position like they were when I glue them together.



Sawing the aperture





Then I have cut the interior circles out with the jigsaw. After this I sanded the edges beautifully clean so that the spool lies well in the hand then later.

Final assembly
You can make your spool in different widths by using different wooden plugs. A small spool gives a good handling. But if you need a 3 mm line, the spool must have a bigger width. I used wooden plugs with 50 mm in length for this spool.

At first the wood plugs are spread with a little wood glue on one end and then you have to beat them with slight hammer blows right-angled in a side plate.
You must work a little more quickly now and don´t have a break. So ask for the lunchtime before :-).

The wood plugs be spread with glue and the second side plate put on on the other side now. It is important that you look at the before appropriate markings and put the parts together just like they were drilled.

You put a waste piece of plywood on the side plate and beats with slight hammer blows on the wood plugs until the second side plate is in the right position.
If the glue is dry I have sanded the spool oncemore and after that I have painted it so that the humidity can take no affect.

Capacity of my rolls for your orientation

Outside diameter	Inner diameter	Inner width	2 mm Polyester	3 mm Polyester
190mm	114mm	39mm	200 m	
210mm	122mm	33mm	225 m	just under 100 m
240mm	122mm	31mm	a little more than 300 m	
240mm	122mm	39mm	400 m	160 m

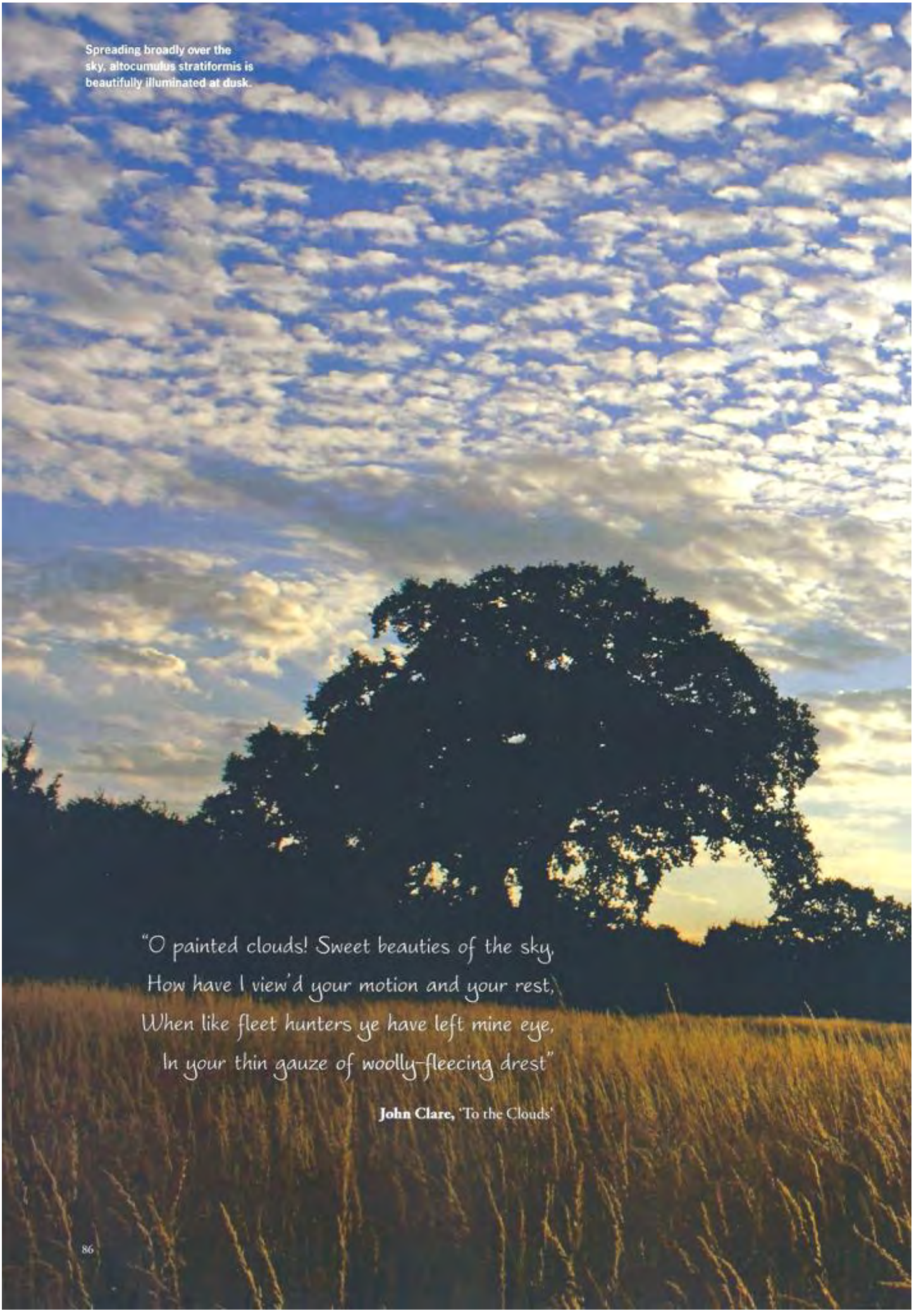
Manfred
http://KAP-Man.de


17 mars 2019
Manche de championnat de France
Compétition - Initiation - Démonstrations
Entrée gratuite
9e festival de cerfs-volants en salle
salle Pierre Legros Marle


VLIEGERFEEST TWENTE
29 en 30 Juni
GRATIS ENTREE
SPALINK
KOELENBEEKWEG
GEESTEREN
WWW.VLIEGERFEESTTWENTE.NL


13 ♦ 14 ♦ 15 juillet 2018
Les Journées du Vent
PENVINS
WWW.PENVINS-CERF-VOLANT.ORG
cerfs-volants ♦ démonstrations
ateliers enfants ♦ vols de nuit
lâchers de bonbons

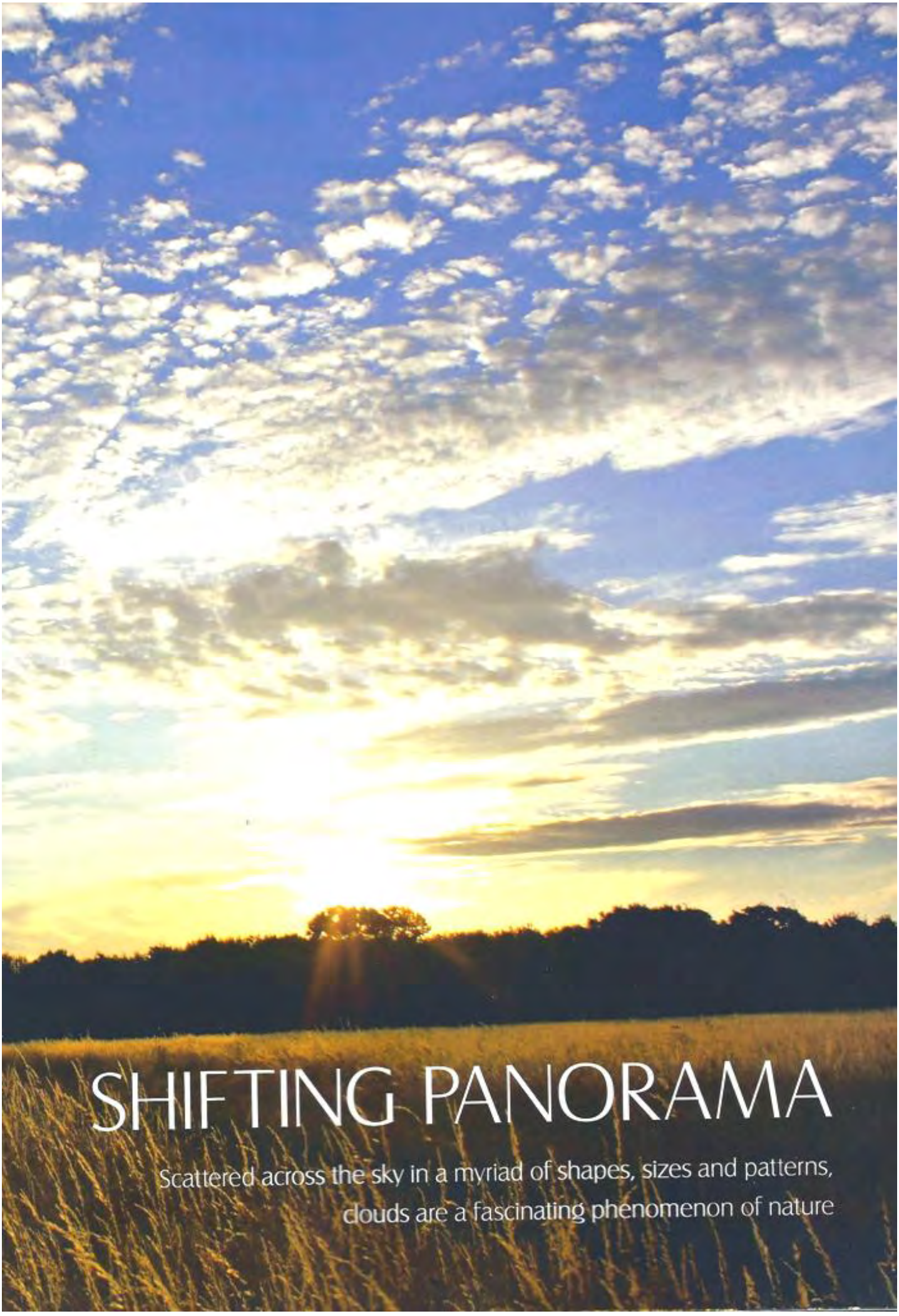

POWERKITING ZUID & OOST ORGANISEERT:
11e internationaal Vliegerfestival Vroomshoop
Wanneer: Het gehele Paasweekend
20, 21 en 22 april 2019
Locatie: Tonnendijk
Het 11e int. Vliegerfestival Vroomshoop wordt mede mogelijk gemaakt door:
hein heun
DENNIS DE LANGE
Jansen
WILDVANK
WWW.POWERKITING-ZO.NL



Spreading broadly over the sky, altocumulus stratiformis is beautifully illuminated at dusk.

"O painted clouds! Sweet beauties of the sky,
How have I view'd your motion and your rest,
When like fleet hunters ye have left mine eye,
In your thin gauze of woolly-fleecing drest"

John Clare, 'To the Clouds'



SHIFTING PANORAMA

Scattered across the sky in a myriad of shapes, sizes and patterns, clouds are a fascinating phenomenon of nature

"I wield the flail of the lashing hail,
And whiten the green plains under,
And then again I dissolve it in rain,
And laugh as I pass in thunder"

Percy Bysshe Shelley, 'The Cloud'

HIGH IN THE sky on a July day, wisps of white cloud float across an azure background. In the distance, more clouds, resembling fluffy balls of cotton wool, sit like flocks of sheep in a blue field. Across empty areas of sky, condensation trails indicate aircraft flying to distant destinations.

Positioned at a crossroads in the world's weather systems, the British Isles bear witness to a plethora of activity high above. On one side is a vast capricious ocean, on the other, the edge of a huge land mass. Warm air heading north meets cold polar air flowing south. The result is a never-ending vista high above, which is filled with a panoply of cloud types, textures and colours.

Whether thin wisps or towering black masses, all clouds have one thing in common: they start from tiny microscopic nuclei. The atmosphere contains billions and billions of these. The majority are salt particles born from the oceans, but they can also be grains of dust, aerosols from volcanic eruptions or pollutants from human activities. All can be a catalyst in cloud formation. If air cools sufficiently, the vapour it holds will collect on these tiny specks as a film of ice if it is high in the atmosphere or, if it is much lower, as a coating of water. Millions of nuclei are required to make an ice crystal or droplet of water, and many millions of these to create a cloud.

Today, clouds are classified into many different types, all based on a system first put forward in 1802 by Luke Howard, a keen amateur meteorologist. He proposed three main categories: cumulus, stratus and cirrus. These romantic sounding names are in fact Latin for heaps, layers, and wisps or curls.

From this modest start, the classification of clouds has grown. As well as height levels of high, medium and low, there are also 10 characteristic types, or genera. Still using the original Latin, these include cirrocumulus, altocumulus, stratocumulus and cumulonimbus. Within these types there are 15 further varieties, or species, such as fibratus, meaning fibrous, or uncinus, hook shaped. This is an ongoing process, with the most recent, asperitus, which means roughness or wavy, only added this year.

Formation of clouds

Once it starts to form, a cloud's shape, texture and even colour are determined by the physical processes that the atmosphere can be subjected to. Most clouds form in the troposphere, the area of the atmosphere that extends upwards for up to eight miles. Strong winds in the upper part of the troposphere will blow cirroform clouds, made up of ice crystals, into long strands, wisps and curls.

Clouds at this level are cirrus, cirrostratus and cirrocumulus. They are often located at the boundary between air masses of differing temperature and humidity. This conflict between humidity levels and hot and cold air causes areas of low pressure to form, so these clouds can be a sign of approaching bad weather. Along this frontal margin, air is generally lifted, leading to cooling and condensation and the formation of cloud.

Air masses can also produce changes in wind directions and sharp zones of contrasting wind velocities with height. The result appears as delicate billows and dapples in the upper clouds, like fish scales, known as a mackerel sky and consisting of cirrocumulus clouds. Other formations are swirls of suspended hooks and honeycomb like formations, called lacunosis.

As the unsettled weather approaches the observer, further cloud thickens above as warmer, less dense air rises over the cooler air mass. The zone of warmer air increases, as does the humidity, and the cloud base lowers. Clouds at an altitude of approximately 3 to 4 miles can now be part ice and water. Altocumulus and altostratus are clouds of this type. Sometimes the sun just manages to shine through the sheet of altocumulus, known as translucidus. At night, the moon may have a watery look.

As the cloud-making process continues, enough droplets and crystals coalesce, to fall earthwards as precipitation. At the Earth's surface, the wind usually blows from west to south. This backing or anticlockwise movement indicates that the area of low pressure and its associated frontal system is heading towards the viewer with increasing amounts of warm, moist air that lowers the cloud base. At the same time, the surface air pressure decreases, as measured by a barometer. Now the cloud is known as nimbostratus, from the Latin for rain and stratus, layer. Anyone below it will experience several hours of rain or snow.

Cumulus clouds

There are days when the atmosphere is relatively dry and is close to an area of high pressure. Sunshine heats up the ground, and bubbles of warm, light air rise. They may ascend high enough to reach the dew point, the level where they cool sufficiently to condensate, forming cloud droplets. However, high pressure often has a warmer zone at high altitude, called an inversion. This inhibits cloud from developing any great height.

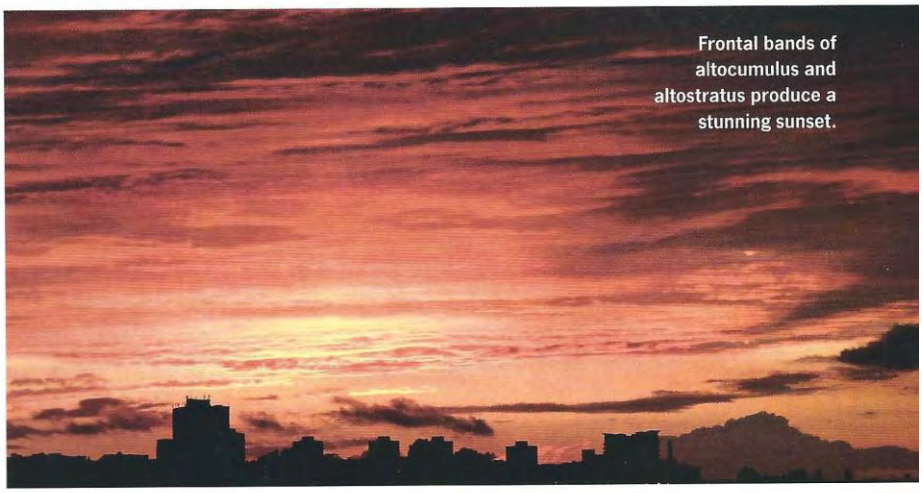
The result is cumulus, the small, benign, cotton wool-like clouds. ›

CLOUDS AT DIFFERENT HEIGHTS

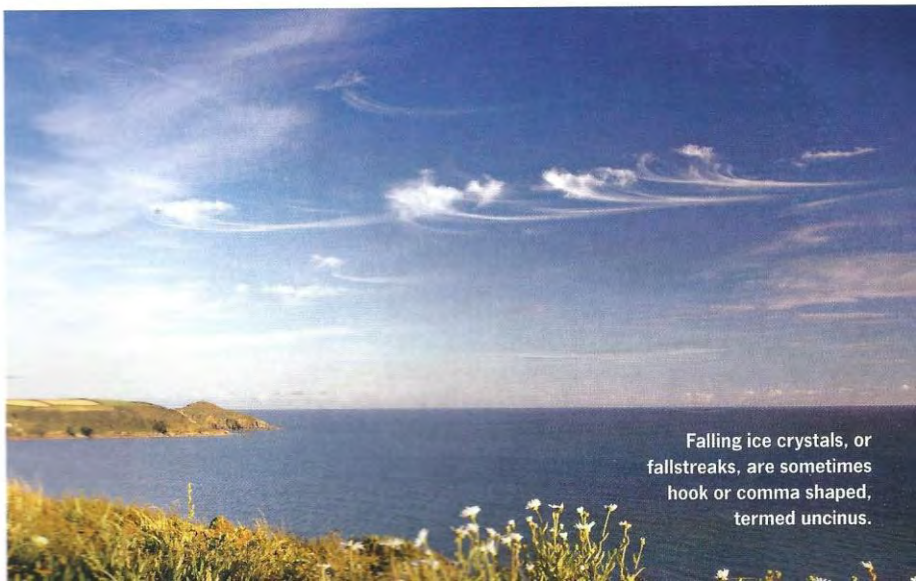
Low-level cloud: Nimbostratus, stratus, cumulus, stratocumulus, up to 6,500ft (2,000m).
Medium-level cloud: Altocumulus and altostratus, between 6,500-23,000ft (2,000-7,000m).
High-level cloud: Cirrus, cirrocumulus, cirrostratus and cumulonimbus, which can extend through all three levels. Above 23,000ft (7,000m).

Glowering cumulus congestus clouds, with their cauliflower-like tops, can cause brief downpours. But they may develop into powerful cumulonimbus, bringing thunderstorms, hailstones or even tornadoes.

Mid-level altocumulus translucidus, with its patchy clumps, is thin enough to allow the sun to shine through.



Frontal bands of altocumulus and altostratus produce a stunning sunset.



Falling ice crystals, or fallstreaks, are sometimes hook or comma shaped, termed uncinus.

Small woolly cumulus towers rising in the dry air on a bright afternoon.

Cumulus clouds with a stratocumulus layer above. This latter type results in a typical cloudy day with sunny intervals in summer.

The most gentle of these are quite flattened and known as cumulus humilus, the Latin for low. When there is rather more of a breeze, they can be blown into lines of cumuli, which are called streets.

In contrast, cumulus cloud can have far less gentle cousins. When the higher atmosphere is cooler than normal, yet surface temperatures are warm and moist, the atmosphere is said to be unstable. Now, thermals, or warmed air from the surface, are able to rise to great heights. Once the dew point is reached, the condensation process provides latent heat energy, allowing further growth. This heat keeps the thermal much warmer than its surroundings, and the warm air, being less dense, continues to rise. This leads to the formation of very large cumulus clouds, cumulus congestus, which usually end in showers or thunderstorms.

In turn, cumulus congestus can develop into the superpowers of the cloud world, cumulonimbus. These huge malevolent clouds can unleash sudden deluges of rain and shards of lightning, giving cracks of thunder, and sometimes producing hailstones or even tornadoes.

Cumulonimbus can rise to 9 or 10 miles in height. The temperature in the upper regions of these colossal clouds can be as low as -50°C or -60°C. Here, the cloud is composed entirely of ice crystals.

Thunder and lightning

One of the most dramatic occurrences in these towering cumulonimbus is lightning. Up currents can reach 80-100mph, and water droplets from lower levels are lifted to sub-freezing levels. Here, they collide with ice crystals. Some grow to form hail, others smash together and shatter. All this can create a positive charge at the top of what is now as an anvil-shaped cloud, or incus. Lower down, there is a negatively charged zone where water droplets predominate. This, in turn, creates an opposite, positive charge on the Earth's surface. From the cloud, an initial stream of electrons flow to the surface, almost immediately connecting with positive streamers. A blinding flash of fork lightning is formed. This may happen several times along the same channel. These forks are approximately 1in (2.5cm) wide, but appear much wider because the electricity heats air along its path up to 30,000°C, five times the sun's surface temperature, creating intense light.

Three-quarters of all lightning flashes actually occur within differing parts of the cloud or even into the free atmosphere; a true bolt from the blue. When the spark is hidden within the cloud, it is called sheet lightning. Positive-charged lightning occasionally hits the Earth and is five to 10 times more powerful than normal strokes.

The sound of thunder is caused by air along the lightning path being rapidly heated, causing a shock wave or sonic boom. The crack-like pitch indicates nearness to the stroke. A low rumbling sound occurs when the flash is further away. In general, a count of five from seeing the flash indicates a mile from the stroke; 10 equals two miles, and so on. It is rare to hear thunder from a stroke more than 10 miles distant.

There are 1.4 thousand million lightning strikes a year from approximately 2,000 thunderstorms occurring at any one time on the Earth's surface. Across England and Wales, thunder can be heard on 10 to 15 days a year, but only on five days in the west of Scotland, where it is cooler and the cumulonimbus clouds are less potent. Places such as Stonyhurst in Lancashire and Huddersfield, West

The ice particle canopy that spreads sideways at the top of a cumulonimbus cloud is known as an incus, the Latin for anvil.

HOW TORNADOES FORM

Tornadoes begin as a menacing tube-like protuberance, or tuba, hanging from the base of a thundercloud surrounded by what is known as a wall cloud. When warm humid air is lifted up by a cooler advancing air mass, a sharp change of wind direction occurs higher in the atmosphere. This can initiate spin. The resultant anticlockwise rotating tube of air gravitates to the surface because of a build-up of air at the top of the column. This causes higher pressure here and exerts a downward force at the very centre of the column. It becomes a tornado when the tube reaches the Earth's surface.

Condensation and debris in the funnel give tornadoes their dark, ominous appearance on land. They are often part of a thunderstorm, the word tornado coming from the Spanish to thunder. They are much more common across the UK than people realise, particularly in the autumn and early winter. In fact, there are the highest number per square mile than anywhere worldwide, although most are less powerful than their US cousins. However, a few can pack a punch, causing death and much destruction.

One of the most damaging occurred in 1913, when a particularly vicious tornado tracked from South Wales to Shropshire, along with violent thunderstorms and incessant lightning. The path was no more than 330ft (100m) wide, but hundreds of houses were ruined. Six people were killed, and 200 families lost most of their possessions. A haynick weighing several tons was carried through the air for a mile and part of a roof was blown several miles. An ash tree weighing several tons was hurled over a hill at Abercynon and an oak tree flung a quarter of a mile.

A tuba, the vortex of swirling air, like water drawn down a plug, extending from the base of a thundercloud.

Yorkshire, have recorded 38 thunder days. Here, they can be at the boundary of cooler Atlantic air and the warmer conditions across the south and east, triggering plenty of large shower clouds.

Across much of the UK, storms tend to be more frequent during the afternoon of the summer months, when temperatures reach their peak. Often a sign of impending thunderstorms is indicated by the cloud type altocumulus castellanus. The name indicates turret-shaped or crenulated, and on some occasions they can look like castle battlements. Indicating increasing humidity and instability, it is usually not long before cumulonimbus clouds start to form.

Layer clouds

Towering storm clouds, though the most spectacular, are not the most frequent clouds seen in the UK. Instead, this honour goes to stratocumulus, a cloud made of water droplets that may, at worst, give a little drizzle or a few snow grains. Quite often, the atmosphere may be fairly moist close to the ground, but drier above, leading to the formation of this shallow layer of cloud. It often has small gaps within it. In the winter, it may cover the sky, giving rise to gloomy conditions.

Stratus, or layer cloud, forms when air is particularly moist near to the surface. When this happens, a low cloud sheet hugs even modest hills, resulting in a murky

The flying saucer shape of lenticular clouds occasionally leads to them being mistaken for alien spacecraft. When formed in layers, they resemble stacked plates.

day, sometimes producing some drizzle. This is the most nebulous of clouds, with no real definition.

One of the most eye-catching clouds is a type of altocumulus called lenticularis. This is seen most frequently over and to the lee of hills that run at right angles to the wind direction. A common location is in the lee of the Welsh Hills, the Pennines and the Highlands of Scotland. Lenticularis form when a shallow layer of moist air is forced to rise, due to the general air pressure gradient that creates the wind flow over the region, over the intervening hill range. If a stationary wave pattern in the airflow develops above or to ›

A parhelion is caused by the sunlight reflecting though ice crystals in the atmosphere. It is a phenomenon more commonly known as 'mock sun' or 'sun dog'.

the lee of the hill or mountain, the cloud remains 'in situ'. Sometimes, several of them may lie above each other, when it is aptly known as a pile of plates cloud.

High fliers

All the clouds mentioned thus far occur in the troposphere, where most weather takes place. Above the troposphere lies the stratosphere. Here, it is very dry, but in winter, very small ice crystals can form at a height of 12 miles and temperature of approximately -80°C.

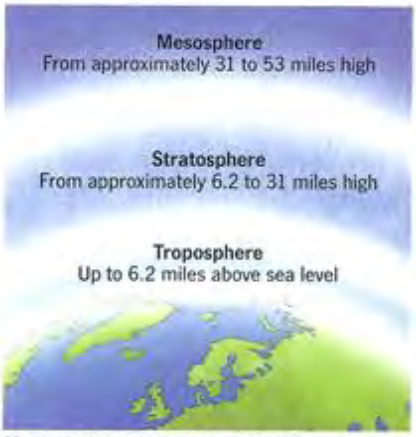
Invisible by day, milky-blue noctilucent cloud magically reveals itself after sunset.

The crystals can diffract sunlight into beautiful pastel colours, creating stunning, rarely seen clouds called nacreous, or mother of pearl clouds.

Another unusual cloud, this time forming at a very high altitude in part of the atmosphere called the mesosphere, is known as noctilucent cloud. Shining at night, it is bluish-white to yellow, set across the northern sky. Still sunlit when the ground below is in darkness, it lies at a great height of approximately 50 miles.

Noctilucent clouds resemble the familiar cirrus that are often seen much closer to the Earth's surface. They even have billows that look like ripple marks on a sandy beach. They appear to travel more than 200mph from the north-east and can only be seen a month or so either side of the summer solstice. This is because they occur at such a lofty altitude. It is only at this time that, observed from Earth, the sun is high enough to illuminate the cloud. At other times, noctilucent clouds will be too feeble to show up.

The south of Britain is approximately the southernmost limit of 50 degrees north to view such clouds. It is not known for certain what causes this cloud, but it may be ice-covered meteoric or volcanic dust, or even frozen methane.



Most weather takes place within the troposphere, although rarer clouds may form at higher levels in the atmosphere.

Clouds are part of the landscape. There are few people who will not marvel at the sheer multitude of shapes, textures and colours, from a beautiful altocumulus stratiformis at sunset to a towering storm cloud. It is a rare day that there is no cloud in the sky, when this never-ending backdrop fails to entertain, delight and inspire awe in an Earth-bound observer. ■

Words and photography: Ian Currie

OTHER CLOUD FORMATIONS

The udder-like pouches of mammatus, forming on the underside of a variety of clouds, are most dramatic when wed to a mighty cumulonimbus.

Floccus clouds form tufts or patches with ragged bases, often with fibrous trails of ice crystals falling below, known as virga.

Fibratus clouds produce wispy veils across the sky and have a striated appearance. They are associated with cirrus or cirrostratus clouds.

Low and flattened cumulus humilus are the typical 'cotton wool' clouds. Common in summer, they are known as 'fair weather' cumulus.

The rippling effect of the undulating or wavy undulatus type of cloudlets, which form in parallel lines.

Cirrocumulus and the long, rib-like lines of cirrus vertebratus above, which are formed by air moving parallel to the primary cloud line.

THE MIDLANDS KITE FLIERS AS SEEN THROUGH THE EYES
OF THE LATE JOHN BARKER