

KiteLines™

\$1.50
SUMMER 1977



quarterly journal of the American Kitefliers Association

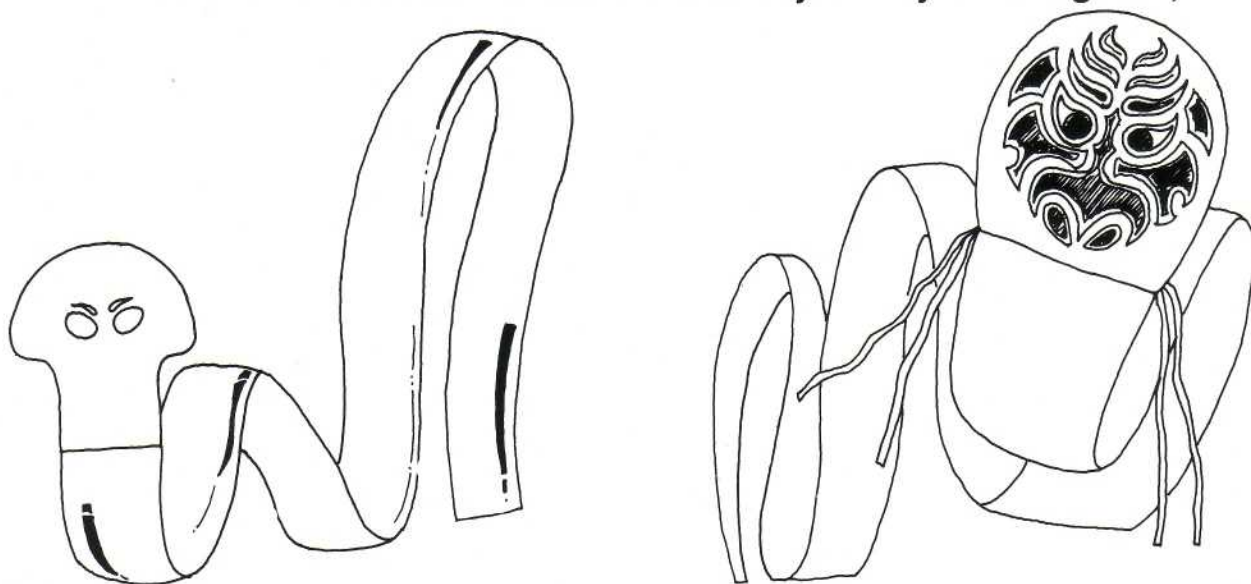


The Stunters Reviewed.

Person-Lifting Kites.

Which is the Perfect Kite?

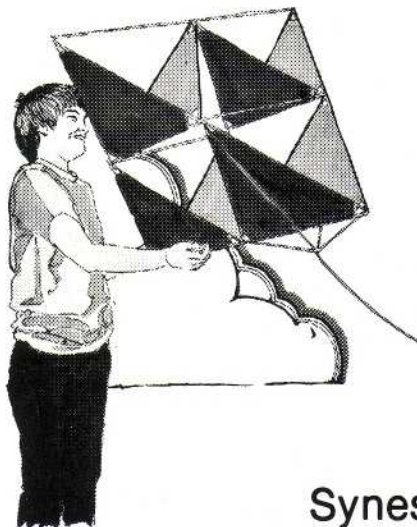
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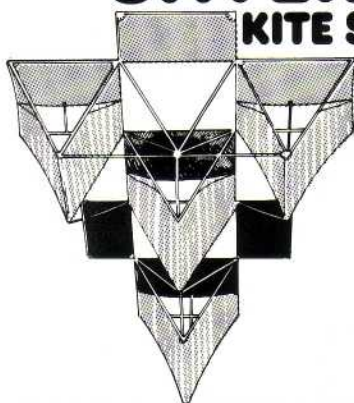
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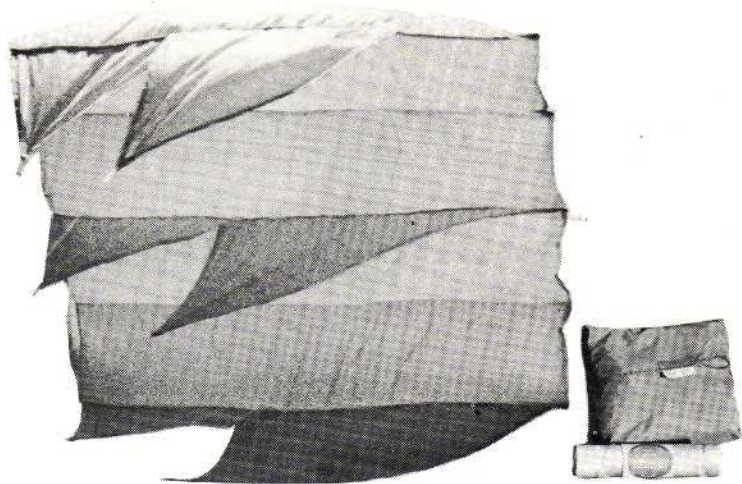
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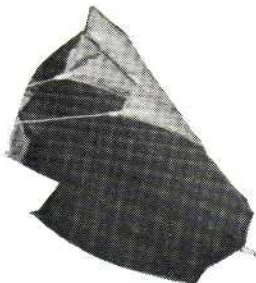


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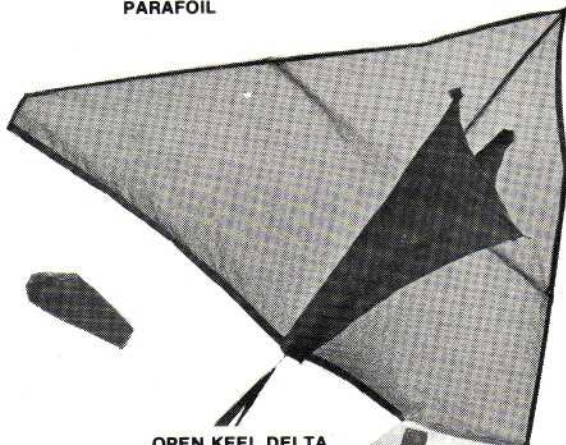
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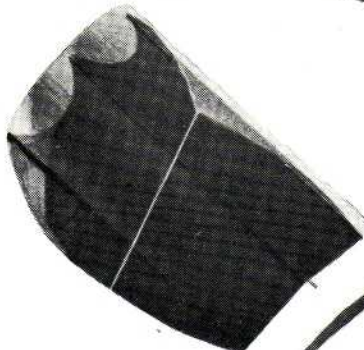
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MINIFOIL



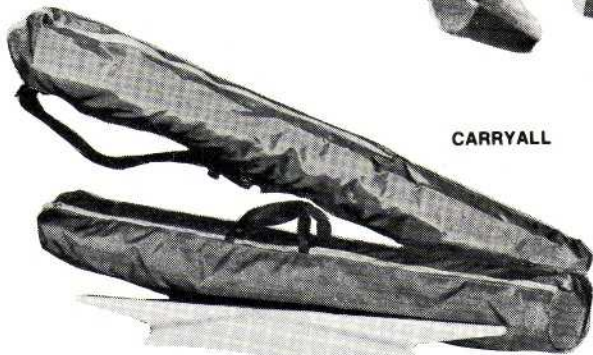
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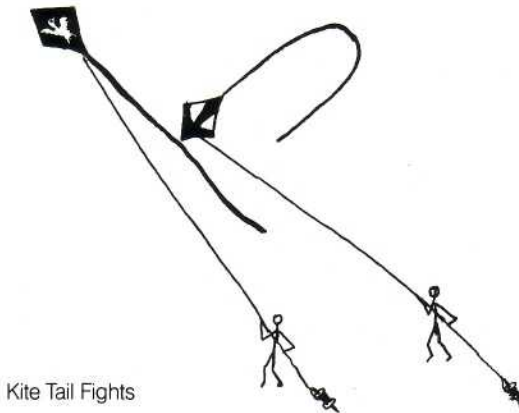
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Change of Address: Attach or copy mailing label in letter, giving new address. If mailing label is wrong, please correct it.

Advertising rate sheet and information is available on request.

Contributions are invited from kite enthusiasts. Articles, captioned photographs (preferably black-and-white, 5"x7" or larger), reports, clippings (see *Classifieds*), letters and other material relevant to kite interests should be sent to AKA at the address of the publisher. Contributions used become the property of *Kite Lines*. Return of unsolicited material cannot be guaranteed unless accompanied by ample stamps and envelope, self-addressed. Accuracy of contents of *Kite Lines* is the responsibility of individual contributors. Diverse views presented in *Kite Lines* are not necessarily those of the editor or of the American Kitefliers Association.

Closing Dates for advertising, articles and news are Jan. 1 for Spring, Apr. 1 for Summer, July 1 for Fall and Oct. 1 for Winter.

Postmaster: Application to mail at second-class postage rates is pending at Baltimore, Maryland. If undeliverable, please send address change Form 3579 to *Kite Lines*, 7106 Campfield Road, Baltimore, MD 21207.

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Your chance to participate in AKA.

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The scene is last November's flight in Japan of 1585 kites from one line, a new world record (see special section beginning on page 17). An historic moment is combined with a technical feat. Note details of the method, using doubled line threaded on either side of the kites' spines, undoubtedly for balance. We assume weight of line was not critical. Photographs on cover and page 17 courtesy Takeshi Nishibayashi.



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Letter from the Editor

It isn't the way I like to do it, but here is one of those blanket thank you letters.

Thank you to those who sent letters of encouragement and congratulations on the new *Kite Lines*. Thank you to everyone who wrote us interesting news. Thanks to those of you who simply picked up the phone and called—from California, Massachusetts, Florida—to express your enthusiasm and your special interests in kiting. Thank you, advertisers, for enduring despite the trials that come with change. And thanks to all of you who renewed your memberships, so often for three-year terms, and sometimes with warm words written in the margins.

In our first issue we asked that everyone renew as a way of assisting in our close-margin starting operation. The response to that appeal was heartening, and supplied the critical edge to enable us to embark on an expansion program. Simultaneously with preparation of this issue, we are writing to all the former members of AKA we can reach to encourage them to join again. Although we sort of like being a

limited-interest group, in which the individual can really make a difference, the cliché that there's strength in numbers has some validity. Besides, we want to give every kiteflier a chance to join others of this rare breed, and AKA should be the avenue for that.

I knew when I undertook this journal that I was not going into a venture that would tidily fit all the publishing industry norms. People don't go into publishing (any more than the kite business) for rational reasons. What they are looking for, and sometimes finding, is a living that will also be a life. The first year of any magazine is seldom profitable. There will be no salaries to begin with. In the long run, though, in order to survive, the journal must pay for itself, including its staff. Doing a magazine, issue by issue, is one kind of challenge, but the ultimate challenge is the old one: economic.

Meantime we are undergoing assorted growing pains. One of them was lack of membership cards. They are now printed, so we are playing catch-up ball getting

those and the promised AKA *Annotated Kite Bibliography* out.

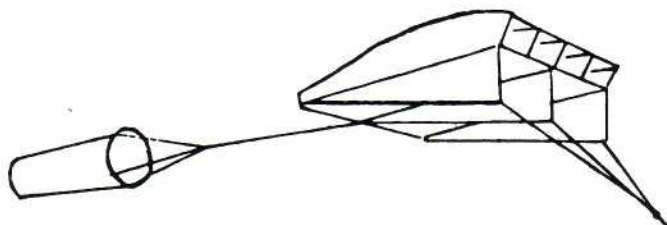
We have a pair of favors to ask of you. First, we beg your continued patience with what may seem neglect of correspondence sometimes (we expect to catch up by year's end). Second, please fill out and return the survey in the center of this issue. Right now we cannot mail a separate questionnaire, which is recommended for getting a true picture because it usually produces more response. I decided the value of a survey done in the magazine pages would still be helpful for us, and I banked that opinion on my faith in our readers as *members*, not just *subscribers*. If you want to participate in Association affairs, this is your chance. A committee composed of Advisory Panel members located locally will tabulate the results, and a summary of them will appear in *Kite Lines*. I cannot stress enough how important this survey will be to the future of the American Kitefliers Association. Please be sure you do not put aside the magazine without sending us your completed questionnaire.

Perhaps with your help I will often use this space for blanket thank you letters. (I still don't like blanket thank you letters!)

Windily yours,

Valerie Gavig

Kiddie Hawk Kite



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Letters

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ao loo
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Kite Lines No. 1 is Number One!

Encore!

Guy Aydlett
Charlottesville, VA

I have been a subscriber/member of AKA for about four years now. I am very pleased with the new magazine format. The latest issue I received, I had a hard time getting it back from interested persons. Keep up the new format.

Alejandro O. Martinez, SSgt.
APO San Francisco, CA

I am anxious to see the Association prosper as well as our superb new magazine. In this regard I will try to recruit some new members. I have also mail ordered for kites and supplies from ads in *Kite Lines*.

Bruce Bowden
Seattle, WA

Your first issue of *Kite Lines* is excellent.

Many thanks and best wishes to the incredible and hardworking Bob and Hazel Ingraham.

Ralph Harris, Jr.
Atherton, CA

I wish you the very best on taking over the new *Kite Lines*. I started with Bob Ingraham when he published the first issue of *Kite Tales*. Your first issue was excellent in every way; knew whoever Bob asked to take over would be the best.

Edward Chavez
San Antonio, TX

The Spring 1977 issue of *Kite Lines* is simply outstanding and it warms my heart for two good reasons:

1. Bob Ingraham can rest easy. That fine gentleman knows now that what he has labored so long for—and so well—is in good hands and, in my opinion, due for prosperous years ahead.

2. The cover photos and story on Paul E. Garber told an old admirer—who has yet to meet him—a lot of information about that remarkable man.

Back in the mid-20's when I was flying rubber-powered duration model airplanes at Lambert Field in St. Louis, I asked that late model genius, Christy C. Magrath, about a "flying fool" of a twin pusher he took out of his model-carrying box, and he said it was called "War-Peg" after two estimable model builders and designers who had dreamed it up: Walter A. Roth

and Paul E. Garber. ("Slim" Lindbergh used to park his World War I DH4 after a St. Louis-Chicago mail run and come over to talk aerodynamics with us, members of the St. Louis Model Aviation Club. He was handsome, brilliant and mature beyond his years.) My press-fresh copy of Garber's 1931 *Kites and Kite Flying* got me going on kites, and I've been hooked ever since then on that aspect of heavier-than-air flight. I just hope I get to meet Paul E. Garber before time runs out.

Best wishes!

Elliott N. Couden
Washington Kitefliers Association
Seattle, WA

Please renew my subscription to your magazine. How you could give up an excellent, altogether delightful name like *Kite Tales*, for a humdrum, plodding name like *Kite Lines*, is beyond my comprehension. You must have been insane, or asleep, or hoodwinked by some lawyer. I hope you can make it go, anyway.

Thomas E. Miller
Wilmington, DE

You are going great! Our congratulations! Better title.

Prof. Raymond D. Reel
Vienna, Austria

Please cancel my membership. Just received your piece of crap in the mail found no article worth reading. I am very disappointed that Bob Ingram [sic.] would do this to us. As a supporter of AKA all these years I feel as if my support has not been warranted.

Darrell Davis
Duarte, CA

Kiting, *Kite Tales* and especially AKA and the wonderful friendships that I have made through the organization have meant a great deal to me in my later years of life and I was hesitant to see a change. Now, after looking over the new *Kite Lines*, I do think it was well that the change was made.

I think that we all owe Bob a lot for bringing *Kite Tales* and the organization up to the level that it was when he retired.

You did a wonderful job on the first issue and we all wish you the best in the years to come.

H.L. (Hod) Taylor
Austin, MN

I just finished reading *Kite Lines* from cover to cover and really enjoyed it. I don't have any criticisms, but after listening to President Carter's talk about energy last night I think we can recommend kiteflying

NEW LIFE MEMBERS

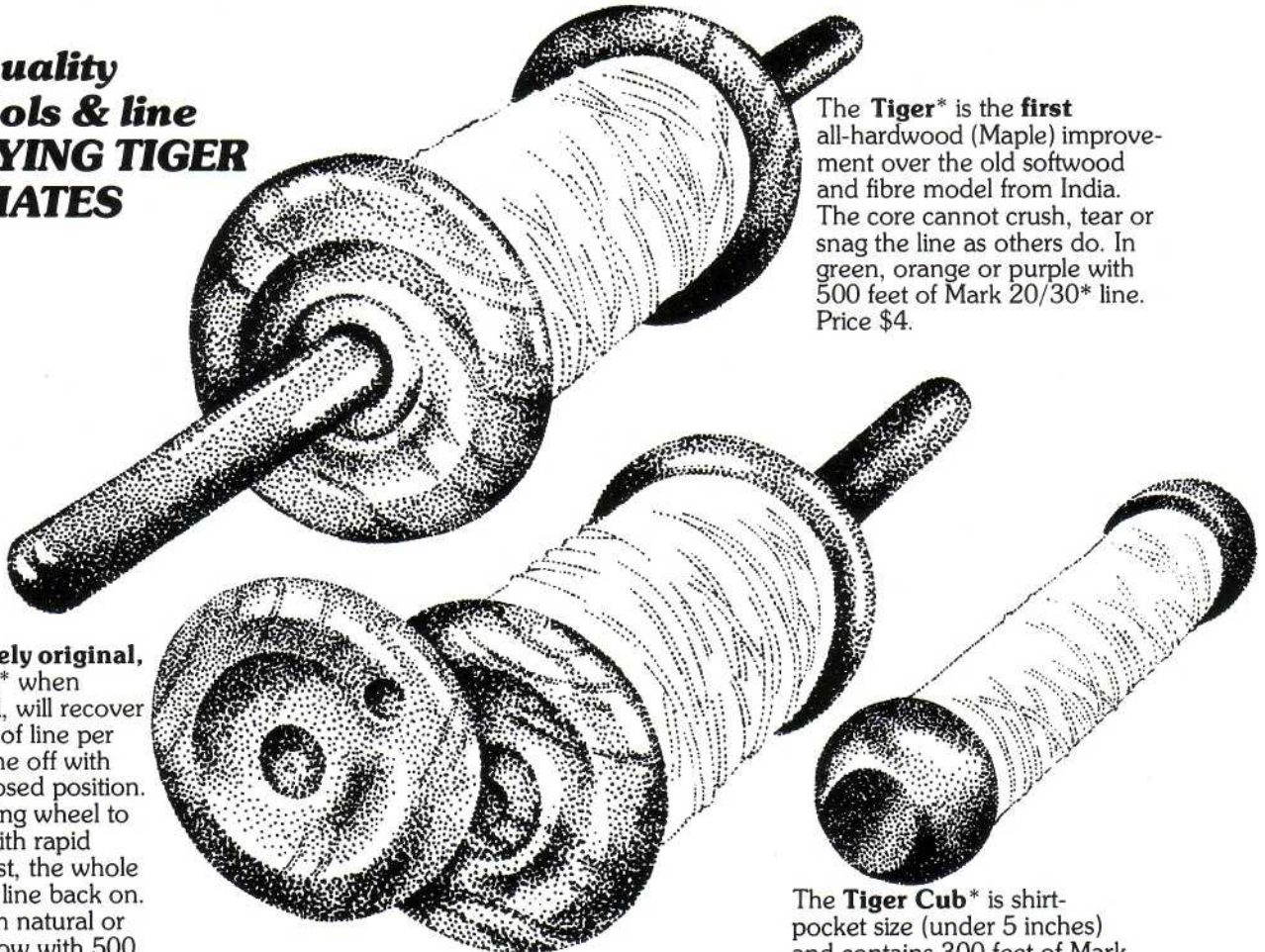
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**Finest quality
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from FLYING TIGER
ASSOCIATES**



The **Tiger*** is the **first** all-hardwood (Maple) improvement over the old softwood and fibre model from India. The core cannot crush, tear or snag the line as others do. In green, orange or purple with 500 feet of Mark 20/30* line. Price \$4.

New and entirely original, the Tiger Tail,* when properly flicked, will recover about 200 feet of line per minute! Spin line off with top wheel in closed position. Rewind by sliding wheel to one side and with rapid flicks of the wrist, the whole spool spins the line back on. All-hardwood in natural or purple and yellow with 500 feet of Mark 20/30* line. Price \$5.

The **Tiger Cub*** is shirt-pocket size (under 5 inches) and contains 300 feet of Mark 20/30* line. This all-hardwood spool has colored ends. Price \$2.

All spools feature Mark 20/30* line, woven to our specifications and specially processed to eliminate practically all kink and stretch, providing quicker and more positive response from your kite. It has the low wind resistance of a good 20 pound line, but will withstand a 30 pound pull or more. Our line provides the advantage of 2 spools in one, suitable for almost

any kite from mylar fighters to all dragons and most box kites.

Check or money order only, please. California residents add 6% Sales Tax. Please add .75 cents per spool, postage and handling. Dealer inquiries invited.



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Letters

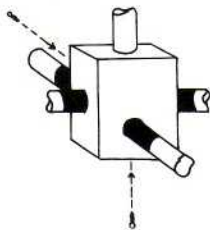
(Continued)

and all other related uses of the wind as activities fully in keeping with his goals. These activities are healthy, educational, non-polluting, low energy consumers, and if we try we might even find a way to generate power with kites. Certainly some sails and wind mills are basically kites.

Francis M. Rogallo
Kitty Hawk, NC

MARCONI KITE FOLLOW-UP

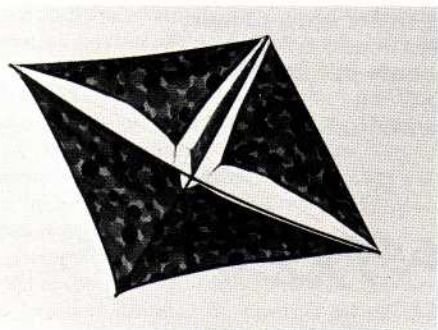
Here is an addendum to the plans in my "Making It with Marconi" story (Spring 1977 *Kite Lines*). Two 3/16-inch screw eyes are needed to facilitate construction and operation. One is screwed into the midpoint at the bottom of the balsa block, where right angle end of keel attaches. The other is centered 5/16-inch above spine, and a hook (I used a swivel hook) on the line bisecting the sail goes through the screw eye and then hooks above the notch on the fabric at this point. A grommet set in fabric tape or sewn-on Tyvek® will accept the hook without strain on the fabric above the notch.



I have an article coming out in the July issue of *Popular Mechanics* about the Marconi and a simplified Indian fighter kite that works remarkably well. The article is enhanced with "how-to" pictures and a magnificent picture of the Marconi in flight.

Maxwell Eden
Passaic, NJ

I enclose a photo of a six-foot Marconi I made a couple of years ago, from the plan in Clive Hart's *Your Book of Kites*:



It was the first kite I ever made, and I used a fairly porous curtain material for the cover. However, it flies well when properly trimmed (which can be tricky). [Pelham] states that trimming of

the kite for different wind strengths can be achieved by the twin jibs alone, whereas from my own experience the angle of attack (i.e., bridling) must be altered also.

I have not seen other variations on the Marconi principle (except the multi-wing design in *Kite Craft*), but would think the principle worth developing. What about a Princeton sail wing for the mainsail, and battens in the jibs to reduce trailing-edge flutter?

Michael Jacob
Newton Stewart, Wigtownshire
Scotland

TALKING BACK ON TAILS

Different kinds of drag? Yes. Drag of a streamer depends on size, probably weight, maybe stiffness, also roughness. Drag of a drogue increases more with increasing wind than does drag of a streamer.

Perhaps a streamer has more resistance to being disturbed than does a bow-tie tail of the same drag. The drag coefficient is normally rather low for a streamer.

The "lifting" part of the cobra kite extends well behind the head. Not so much when the kite is bounding around. Also the tail has much to do with the kite flying flatter to the wind at a higher speed, hence not pulling excessively.

William R. Bigge
Washington, DC

I'm an MFA in fabric design (it's a terminal degree); I make odd postcards; and I love kites. At this point I've only been brave enough to make some sleds. The biggest is a six-footer that is almost too frisky but is batiked and purty.

Well—the business of this note is the tail controversy. Gee whiz—I gotta make a male chauvinistic comment (my wife teaches women's studies)—all this talk about tales (sp?)! Well, I've found a very fun and functional tail: I make a "donkey" or "horse" tail from 20 each 4- to 6-foot strips of one-inch video tape. I tie a 12-inch piece of string with a fishing snap. Easy off and on. The video tape rustles nicely in the wind, too, and it rolls up very compactly. The empty reels (small plastic) make nice reels—from TV 30-second commercials. TV stations throw away old commercials. So up with Pringles potato chips—recycle and away.

George H. Brett, II
Athens, GA

Video tape comes in various widths (half-inch and up) and lengths; the larger sizes may be too heavy and unwieldy. We've seen it used for flying line, too—very strong, but flat (wind-resisting), heavy and conductive (not recommended). It can be bought, but not cheaply, at electronic surplus houses. How about computer tape? Cassette tape? Other tapes? Write and tell!

CALL FOR HELP

Can you help us? I saw an article about kites and it started a train of thought.

Your suggestions will be appreciated.

We are a group of old people, yet with talent, but handicapped. We are people who have been at Burke Day Hospital and are meeting once a month to learn how to function in the community. Perhaps the old and young could plan workable ideas. Is there a kitefliers group here, in White Plains? If we could make kites and the young fly them—now for further thoughts.

Vera-Belle Abele
45 Nethermont Ave.
White Plains, NY 10603

ANY KITEFLYING "HAMS"?

Are there any radio "hams" interested in kiteflying? I am interested in the type of kite-launched antennas that they use for communication purposes.

R.E. (Ted) Padman
8 Hartland Ave.
Black Forest 5035, South Australia

KITES ARE FOR THE BIRDS

I hope to use kites to elicit aggressive (defensive) behavior in peregrine falcons in order to determine relative territory size and the relative distance that the birds will respond to disturbance at different times in their reproductive cycle. I also intend to attach radio transmitters (which we usually put on the birds) to kites to determine the accuracy of our radiotelemetry tracking system at different altitudes and distances from our receiving towers. (We're using radiotelemetry to determine home ranges and hunting habitat of the birds.)

In addition, a friend of mine with an environmental consulting outfit is interested in using kites to study birds in a different aspect. Basically, he wants to do something to deter waterfowl from landing in oil tailing ponds while specialized bird scaring devices are being set up. He may also be interested in using Lee's Snow and Canada Goose kites (with land decoys) to draw birds away to alternate areas.

This summer I'll try a simplified fighter kite, a delta-winged older eagle (printed only) kite, Lee's National Eagle kite and Caleb Crowell's "bat falcon" kite out on the peregrines. This may or may not work. At any rate, I'll let you know the results.

Jim Windsor
Saskatoon, Saskatchewan, Canada

SUCH STUFFING AS DREAMS ARE MADE ON

I recently managed to get a copy of Will Yolen's wonderful book *The Complete Book of Kites and Kiteflying* and was convulsed by the chapter on "dropniks." Indeed, I was moved to produce a tailor-made parachute to fit my daughter's old teddy bear, who up to then had never fallen further than off the bed. The pack design was based on rather hazy memories of parachutes from my own skydiving days (20 years ago!) but nevertheless seems to work quite well.

The unfortunate creature has now made several drops from 200 to 300 feet, launched by a clockwork timer from my double

Conyne kite. So far we have had a 99% success rate; the only accident occurred when I forgot to remove the elastic bands (used in packing) from the canopy, and he bounced two feet. Still, as he said, when you're stuffed with sawdust you don't worry too much about that sort of thing!

I also discovered that the free-fall period can be increased by varying the degree to which the shroud lines are pulled through the pack loops. This led to an incident when Bear free-fell for 250 feet and then had a perfect deployment 20 feet from the ground.

He now wears a permanently bemused look and feels ill when he hears a fine weather forecast.

Peter Reardon
Tonbridge, Kent, England

LATEST KITE FASHION

We've been involved in kites and kiting for approximately three years now. Got started in Hawaii by just walking into Paul and Dierdre Acheson's kite shop. Almost immediately I started making kites and continued on their praise for my ability. Perhaps one of our greatest experiences was to meet and be friends with and correspond with Lincoln Chang. We tried to fly with him as much as we could. Upon our leaving Hawaii he not only gave us one of his kites, he made one just for us, a distinct honor in our book.

We are leaving for Florida very soon and will probably be there by summer. Hope to

meet AKA members in the Mayport area.

Enclosed is a picture of my wife in her overalls. I sewed a kite on with the AKA logo. People always comment on them.

Milton H. Heger, USN,
Leila K. and Milton M.A. Heger
Fallon, NV



CLUB STARTS IN FRANCE

I have been a kitemaker for a number of years, and I am interested in your kite magazine, which I find very good. A new club was announced in France, and I am giving you its address: Cerf-Volant Club de France, 17 rue Lacharriere, 75011 Paris, France. Please accept my best regards.

Michel Berard
Vincennes, France

President of the club is Jean-Louis Bouisset

ENDURANCE YES; DURATION NO

Here's a claim to kiteflying in the harshest weather. Jan. 16, 1977, Indianapolis was hit by a full blizzard, with winds exceeding 35 miles per hour and wind chill factor of -65° F. For nearly 30 minutes, I flew a Nantucket Kiteman delta in the teeth of the storm. The wind was so strong it nearly grounded the big delta several times but we managed to keep the kite up. I'll tell you, I've never been so glad to haul a kite in and head for a warm place!

David Cokes McCarty
Indianapolis, IN

THE CRUCIAL REQUIREMENT

I have been making kites for about two years now without ever having seen a copy of the kite magazine, and I can't understand how I ever did it. I now can see that the dearth of information on low-speed aerodynamics is suffered by many brothers. I thirst to get what I can.

I will say that I believe the most crucial part of flying a kite is speaking to it in even, soothing tones.

Phil Liloia
Philadelphia, PA

Readers are encouraged to reply to letters, and we will route them to appropriate parties whenever possible. Address your letters to Kite Lines "Letters," American Kitefliers Association, 7106 Campfield Road, Baltimore, MD 21207. All letters become the property of Kite Lines. The editor may edit letters for publication. ◇

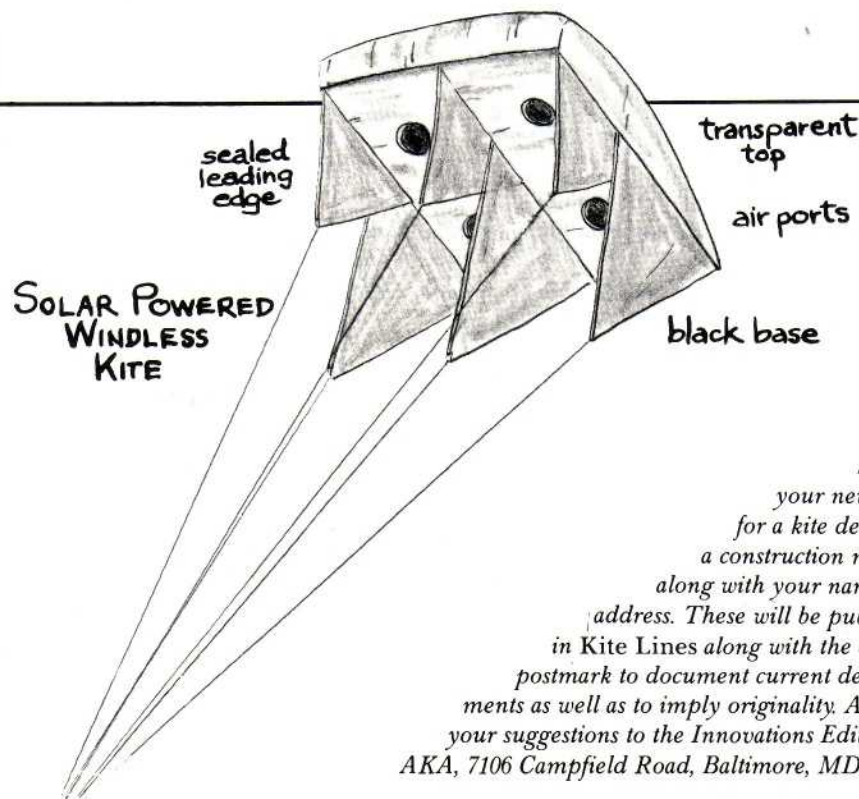
Innovations

Have you ever thought of making Parafoils out of heat-sealed polyethylene, black on the base and transparent on top, closed at the leading edge, and with air ports in the base?

They are very good for flying on windless but sunny days, as they act, through the greenhouse effect, as solar powered balloons. In good conditions, I have calculated that a 6 ft. x 6 ft. kite can lift half its weight by solar power alone, and so will fly in half the wind-speed. One about 10 foot square would act with no wind at all, and would still fly perfectly if the wind did start to blow.

Nick P. Day
105 Leckhampton Road
Cheltenham, Glos. GL53 ODQ
England

DATE OF POSTMARK:
APRIL 18, 1977



Drawing by
Kelly Matthews

Submit your new ideas for a kite design or a construction method along with your name and address. These will be published in Kite Lines along with the date of postmark to document current developments as well as to imply originality. Address your suggestions to the Innovations Editor, c/o AKA, 7106 Campfield Road, Baltimore, MD 21207.

Curtis Marshall, M.D.
Innovations Editor

MAGNA KITE



Products of the
NEW ENGLAND KITECRAFTING CO.
 P.O. Box 86
 Waverly Branch, Boston, Ma. 02179



MAGNA KITE is a new line of large, extremely sturdy hand-crafted kites. Each kite is precisely fashioned from the highest quality materials. The unique design of each of the three models is the result of extensive research and field testing in all wind and weather conditions. MAGNA KITES are made from 1.5 ounce rip-stop nylon spinnaker cloth in eight colors with contrasting keels and drogues. All edges are double-hemmed and machine sewn. The sails of each kite have sleeves sewn-in for easy removal or replacement of their hardwood birch struts. Each kite comes with a rip-stop nylon carrying case, heavy-duty brass snap-swivel, a kite-climber, a kite-fishing pin, and a complete set of flying and kite-fishing instructions. Color choices are: White, gold, red, black, green, orange, light blue and dark blue.

DELTA - 40" x 80"



A very light-wind soaring kite, the Delta also performs quite well in the fiercest winds. In-land endurance flights have been recorded at

more than forty hours. The Delta is a delight to fly with long lifts in no wind at all because it assumes the properties of a hang-glider when it is in the air. Two spreader-bars are furnished with each kite. One is wood for light wind or no-wind flying and, the other is fiberglass for moderate and heavy winds. Two grommets are set in the keel for light and heavy winds. Fiberglass wing spars are an optional accessory to this kite.

DIAMOND - 44" x 51"



The Diamond is a graceful flyer in a wide range of winds. It requires no tail and gains stability from its open keel which provides both an airfoil and dihedral lift. It is

flown bowed and is equipped with a fiberglass spreader-bar. The bow string is a braided nylon line secured to the sail tips with tough nylon bolts and wing-nuts through heavy vinyl clamps. Two grommets are set in the keel for light and heavy winds. A small multi-colored tail is provided as a decoration.

SLED - 40 1/2" x 45"



This kite is a unique variation on the basic sled. A keel is sewn into the sleeve of the center strut and the kite is flown with a three-line

bridle attached to a solid brass ring. Its salient features are extraordinary stability and a remarkably high angle of flight. The stability is created by the center keel and a 12" drogue fastened to the trailing edge with a snap-swivel. The high angle of flight results from maximal lift and wind resistance due to the absence of one or more vents which are usually cut into sleds. Its longest endurance flight to date was 71 hours and 17 minutes recorded on July 18, 1975 in Waltham, Ma.

POLE REEL

This heavy wood 2" reel has a polyurethane varnish natural finish. The reel itself has a solid wood barrel, a 2 3/4" traverse and a 6" flange. Smooth turning is assured with a spinning hardwood ratchet handle and PVC washers guiding the reel. The line capacity is 1,000 yards of 63 lb. test braided nylon. A heavy-duty snap-swivel for attaching flying-line is secured to the barrel with a length of 150 lb. test braided nylon.

HAND REEL

Also of heavy wood, this reel comes in natural finish and black. It has a 2" barrel with a 5" traverse and a 5" flange. The handle is of 3/4" hardwood secured fast to the reel. This reel is also equipped with a heavy-duty snap-swivel for attaching flying-line. Line capacity is approximately 1 mile of 63 lb. test braided nylon.



FLYING LINE

63 lb. test braided nylon line is recommended for both the Delta and the Sled.
 54 lb. test braided nylon line is recommended for the Diamond.

ORDER FORM

Please send me the following:

QUANTITY	ITEM	COLOR	PRICE	TOTAL
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_____	Magna Kite (Diamond)	_____	18.95/ea.	_____
_____	Magna Kite (Sled)	_____	19.95/ea.	_____
_____	Pole Reel	_____	16.00/ea.	_____
_____	Hand Reel	_____	5.00/ea.	_____
_____	54 lb. test braided nylon/150 yd. spool	_____	2.75/ea.	_____
_____	63 lb. test braided nylon/150 yd. spool	_____	3.00/ea.	_____
_____	Fiberglass wing struts (Delta only)	_____	3.00/set	_____

Add \$2.00 shipping and handling charges for all orders under \$30.00.

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Ultimate Questions: Studies, Theories, Tests

WHICH IS THE PERFECT KITE?

By Mel Govig

In kite building, as in foreign affairs, labor relations, marriage, child raising, energy planning and auto design, compromise is at the heart of every decision. Discussions of "perfect" kites are usually nothing more than personal definitions of the set of compromises most pleasing to the kite maker.

Flying Quality

For myself, I would like a kite that will fly well in winds from 2 to 50 miles per hour. It should be able to lift a large object, such as a camera; but it should never have more than a pound or so pull on the line. It should soar directly overhead without slipping into a glide; but it should settle at a comfortable 60-degree angle so I can watch it without getting a kink in my neck. It should fly steadily and respond quickly to wind changes without my attention; but I would like to have it do spins, dives and figure-eights at my command.

Versatility and Charisma

My perfect kite would be made of cheap, easily obtainable materials; but it would last for years and survive crashes and dips in the ocean. I would like a team kite that gives boys and girls the thrill of participating in a grand adventure; but I should be able to fly it alone from a small downtown park. Of course, such a kite will take patience and skill to produce and give me the craftsman's pleasure in a difficult task well done; but it shouldn't take more than 15 minutes to make.

I like museums and history, so my kite will have the flavor and mystery of an ancient masterpiece; but it should capture the spirit of the space age. For nostalgic spectators, my kite should have the familiar look of a favorite from childhood; but it should be a brand new design, excitingly novel—every time.

I love the playful stream of long colorful tails, so my kite should have

such tails; but it should be able to shed its tails and fly with motionless grace.

Line and Reel to Match

Such a perfect kite will need a perfect line to fly from. The flying line will be strong, several hundred pounds breaking strength; but light, not more than a few ounces per thousand feet. And it will be soft and cool on the bare hands; but smooth and friction-free in the air. A string that resists tangles is nice; but it must tie easily into firm, no-slip knots.

The reel will hold a mile of string; be strong enough to pull the kite in and fast enough to keep the kite aloft in a calm; be heavy enough to ballast the kite for unattended flying and small enough to fit in your pocket.

As we all know, in the real world of kites and kitefliers, there is no perfect kite, line or reel. You make a choice, as in marriage. When your spouse has cold feet, you should remind yourself that you didn't marry him or her for foot temperature. If you are flying an Indian fighter kite, don't feel sorry that it doesn't have 200 feet of colorful tail like the big Bermuda kite next to you; the guy flying the Bermuda is probably wishing that he could "dance like a butterfly and string like a bee."

The ultimate question, every time you make or select a kite, is: what compromises are you willing to accept to get the performance you want? ◇

IN COMING ISSUES

- ★ The Many Facets of the Tetrahedrals
- ★ Kite-Fighting Comes to the U.S.
- ★ Live Ones on the Line: Successful Kite Fishing

We are now exploring certain aspects of kiteflying for development in future articles and would like readers to contribute ideas and experiences related to the following:

- Traveling with kites: where have you flown them?
- Favorite places to fly: the best of both real and fantasied locations.
- "Professionalism" in kiteflying: is there such a thing?
- The collecting of kites: which are your most prized models?
- Why kites fly: a still-undefined question. Also send us photographs to illustrate! We will return them and credit you, of course.

Go Fly a Kite is flying
high at:

Southampton, N.Y.—

79 Job's Lane.

Boston, Mass.—283

Dartmouth.

Kiteworks, Beach Road,

Vineyard Haven,

Martha's

Vineyard,

Mass.



UNION SQUARE, PROVINCETOWN
CAPE COD, MASSACHUSETTS

Christina Davidson

Person-Lifting Kites

By Valerie Govig
and Robert M. Ingraham
Photographs by Arthur Johnson
courtesy of Domina C. Jalbert

The privilege of being the daughter of Domina Jalbert might not be desired by everyone, even by ardent feminists. For Jalbert's daughter Dorothy it meant taking not one but two sky rides lifted by her father's kites, and in so doing joining a select circle of women in air history.

The group of females who have been lifted by tethered kites appears to be small, but of surprising importance. According to Clive Hart,¹ the first account of a genuine, human ascension accomplished by kite told of a "lady" in the seat of honor. This achievement was performed and documented by George Pocock, the English schoolteacher whose famous *char-volant*

makes such an interesting chapter in kite history.

At some time about 1825, Pocock raised "a lady, whose courage would not be denied," using the power of his "buoyant sails." Hart determined that the lady was Pocock's daughter, Martha, who was at least 13.

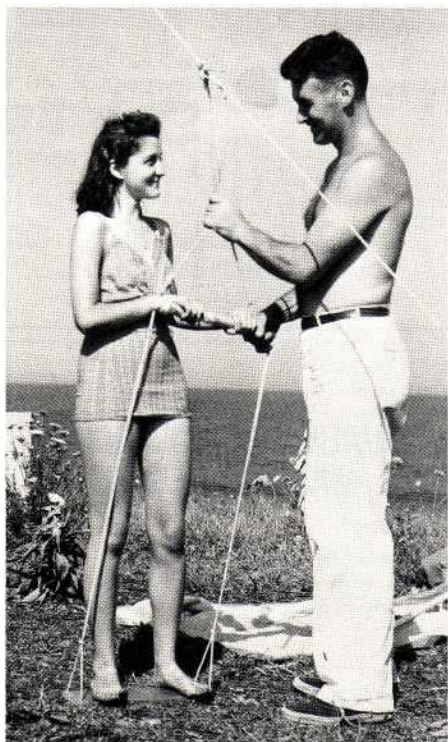
(There is a story by J. Lecornu, who was once President of the French League of the Kite, telling of an earlier flight in the late 18th century, but the reference is apparently insubstantial; it is doubted by Hart. If it were true, however, it would not deprive females of the honor of the first kite lift, for Lecornu's legend was of a flight by an English *woman*.)

(Even further back in time and myth is Ishikawa Goyamen of Nagoya, Japan, who attempted to steal the golden dolphins from a castle rooftop, reached by kite. Still further removed is the Greek legend of Icarus, which hardly deserves mention here.)

Pocock tells of his daughter's historic first ascent in this manner:

"An arm chair was brought on the ground; then, lowering the cordage of the Kite, by slackening the lower brace, the chair was firmly lashed to the main line, and the lady took her seat. The main-brace being hauled taut, the huge Buoyant Sail rose aloft with its fair burden, continuing to ascend to the height of one hundred yards. On descending, she expressed herself much pleased at the easy motion of the Kite, and the delightful prospect she had enjoyed."

In the intervening years, there have been several males lifted by kite. First in line was Jean-Marie LeBris, in 1857, whose famous attempt was not quite successful. LeBris rode on his bird-shaped glider behind a carriage, planning to be released, but the cord caught in the carriage and broke, entangling the coachman and carrying both men aloft for a time. Both Hart² and Pelham³ describe this as a kite lift, but from the descriptions it seems clear that the glider was a kite only



Dorothy Jalbert and her father Domina preparing for her kite ride in 1942.



The girl on the flying trapeze.

while it was towed, and the time for that was accidentally the full duration of the flight.

In 1860, an Irish priest, Father E. J. Corder, patented, built and tested a multiple hexagon kite system for ship-to-shore rescue. It apparently was never put to real practical use.

Then, in 1894, Capt. B.F.S. Baden-Powell devised his Levitor kite system for lifting soldiers into observation positions. This system was later utilized during the Boer War.

In the same year, Lawrence Hargrave raised himself by a train of four of his box kites.

In 1896, Lt. H. D. Wise of the U. S. Army used four Hargrave kites for his youthful experiments, including lifting himself.

Soon after, designs and tests of man-lifters were conducted by S.F. Cody, Alexander Graham Bell and, of course, the Wright Brothers.

It was to be some 75 years after Martha Pocock's flight that another woman would rise skyward by kite. The performer was Almenia Rice, who was indeed already a high trapeze artist at the circus, and had already learned to suppress acrophobia. In Harry Edward Neal's charming book *The Story of the Kite*,⁴ we read of Almenia's rising from the rooftops of Boston in 1901. She stood inside the frame at the bottom of a large winged box kite and flew over the streets for "several minutes."

At about that time designers were working with kites in the hope of applying their learnings to powered flight. One of these men was Dr. Charles Zimmerman of Frederick, MD. He made a huge kite of bamboo poles and canvas cover, "perhaps as big as two bed sheets fastened together."⁵ One windy day he was trying to tie it down to stakes in the ground, and his wife, Ida, was helping. She was holding a horizontal pole with both hands when a gust picked up the kite and her with it and flew her about 10 feet high. The flight was by chance, of course, and

not really in the same league as those by others, taken deliberately.

The deeds of Martha Pocock, Almenia Rice and Ida Zimmerman had not been matched for some 40 years when Domina Jalbert involved his daughter with his kites.

The place was Woonsocket, RI, which was the Jalbert home in 1942. Jalbert's entire life has been preoccupied with low-speed aeronautics. He has designed kites, balloons, parachutes and sails of brilliant originality, as all kite enthusiasts know well. The Jalbert Parafoil is still the stickless wonder of our age.

At the time of Dorothy's adventures, her father had been perfecting designs for large, elegant, multicell triangular winged box kites. As had others before him, Jalbert used more than one of these kites for lifting his precious human cargo. Any one of the kites could carry Dorothy alone or let her down safely if the others broke free. These winged boxes were 15-foot and up wingspan, representing enormous pull. One 17-footer had pulled a car by its bumper until the brakes were applied.

The kites were not made of the slick, tough, lightweight, rip-stop nylon that we kitemakers today have become so dependent upon. This was World War II: nylon was reserved for parachutes and other war gear. So Dom Jalbert's kite covers were Egyptian linen lent him by a rubber company.

Dorothy Jalbert was only 12 years old and weighed 90 pounds at the time, but she appeared to be completely fearless. Dom Jalbert's thorough knowledge of physics in its every application to kites justified Dorothy's confidence. In any case, she cheerfully assisted her father in setting up the kites, lines, knots, winch — and trapeze. She climbed aboard and was soon up about 100 feet. One time she took along a Speed Graphic camera to photograph those on the ground, who were in turn taking pictures of her for a double-page spread in the rotogravure section



Aerial photography with a human assist.

of the local newspaper.

The ventures were successful in terms of Jalbert's purposes. He had wanted to show that aerial photography could be accomplished by kite and to test the capabilities of various winged box designs. Such experiments became part of Jalbert's long experience that culminated in his design of the Parafoil in 1965.

The liftings included banner-raising, too. A large sign reading "BUY WAR BONDS" was flown for patriotic promotion. Fun and enthusiasm were as much a part of these activities as scientific study, and Dorothy really seemed to enjoy her rides.

Dorothy today is the wife of Maurice Oldre and the mother of two children. She probably doesn't weigh 90 pounds anymore and perhaps it's an advantage in case she's asked to go for a kite ride again — unless she has a feminist itch to make another mark in kite history. ◇

¹Clive Hart, *Kites: An Historical Survey* (New York: Praeger, 1967) pp. 101-3.

²Hart, *op. cit.*, p. 104.

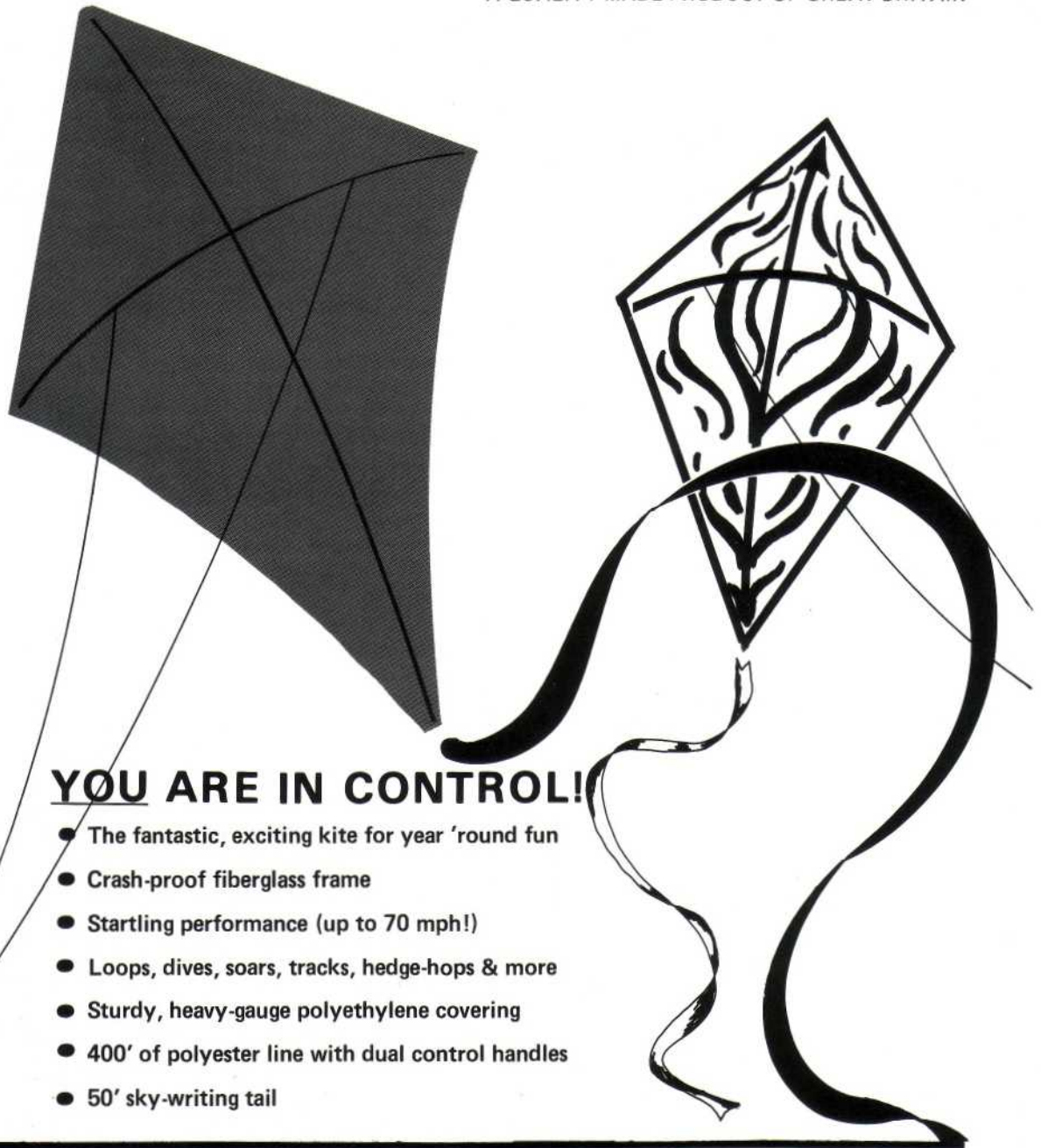
³David Pelham, *The Penguin Book of Kites* (New York: Viking, 1976), p. 30.

⁴Harry Edward Neal, *The Story of the Kite* (New York: Vanguard, 1954), pp. 22-23.

⁵Neal, *op. cit.*, p. 24.

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TRAINS

the end is not
in sight

Millions of people fly kites casually, and thousands fly them enthusiastically, but only a handful fly them obsessively. Perhaps the most manic are those who fly kites in train.

Their motives vary. Some are challenged by a desire to explore what the limits are. Others are inspired by the spectacular effect of many kites in the sky on a colorful conga line. And some are after the glory — either in the immediate reward of a crowd drawn to the scene, or in the long-range gratification of media coverage. A more permanent distinction is that of being listed in the Guinness Book of World Records.

Linked intimately with fame is that virtue/vice, competition. As soon as a significant feat is accomplished and made known, hearts stir and brains hum and the notion that “I could do better than that” becomes an irrepressible urge.

Among those most infected are the Japanese. Last November, a group led by Takeshi Nishibayashi flew 1585 kites from a single line (shown here), the latest (but probably not the last) triumph in this kite genre.

In the following special section, *Kite Lines* looks at trains from several points of view.



TRAINS

The Multikite Phenomenon

AND A HISTORY OF
THE WORLD RECORD

By Valerie Govig

The number of kites flown from one line has been little documented until the last three years or so. Before that, there were no records kept of how many disks had ever been flown in a centipede—which is, of course, a train. Centipede kites, though of a prescribed appearance and rigging, are essentially a series of round kites flown in train, and they have been made and flown in Japan and China for an unknown number of decades.

Multi-kite attempts, or at least accounts of them, have been few in the West. One such appears in Jane Yolen's book, *World on a String*, telling of Charles Lohsen of New Jersey, who in 1949 lofted 108 kites on one line.

Trains certainly had been done before Will Yolen came along in 1972 and made multikiteflying freshly popular. Yolen at the time was hungry for new laurels to replace the very brown ones he had worn so long from his kite fighting exploits in Uttar Pradesh, India. Those capers had given him the cachet required for launching his then-new book, *The Young Sportsman's Guide to Kite Flying*. The book was out of print by 1972, and Yolen was ready to write a new one. He needed credentials, so in his usual flamboyant style he set out to create them. He flew 50 kites and an empty champagne bottle from one line at the Sarasota, FL, kite contest on January 15. He claimed this broke his own previous record of 30 kites flown from one line at Adamant, VT, in 1962. This claim not only went undisputed, it was dressed up in some of the niftiest prose the papers had seen in some time.

Whether Yolen had intended it or not, his feat inevitably attracted rivalry. William R. Bigge, of Washington, DC, decided to try a train of sleds. On June 3, 1972, in Harpers Ferry, WV, he flew 70 kites from a single, hand-held line.

In contrast to Yolen's train of large,

Hustler brand two-stickers, Bigge's sleds were 9 in. x 12 in. and made of clear polyethylene drop cloth, with struts of plastic window blind slatting. Total pull was 8 to 10 lbs. The sleds had no vents. ("I claim a vent means your kite is too heavy," Bigge was wont to say.) All had been neatly stacked in a box in advance and were re-packed on retrieval. The operation was engineered to be an economical, one-man job from start to finish.

The following January, Yolen tried again. This time, 57 kites; again, much publicity.

Then on June 2, 1973, in Harpers Ferry, Bigge doubled his ammunition and flew 151 kites. For this occasion he improved his method, mass-producing his sleds in a smaller size, only 3.3 in. x 4.4 in. each. Logically, to increase the number of kites you fly, you must reduce the size of the kites. Yolen's stock models ("real kites," as he lamely protested) were a limiting

factor for him. Since Bigge made his own craft, his only limits were practicality of manufacture and balance in flight of his cobwebby little sleds.

This time Bigge's story appeared in the *Baltimore Sun*, and as reporter for the Maryland Kite Society at the time, I followed up with a petition to *Guinness* to include Bigge's record in the book. Initial response was negative because no such category existed; only altitude and duration were recognized.

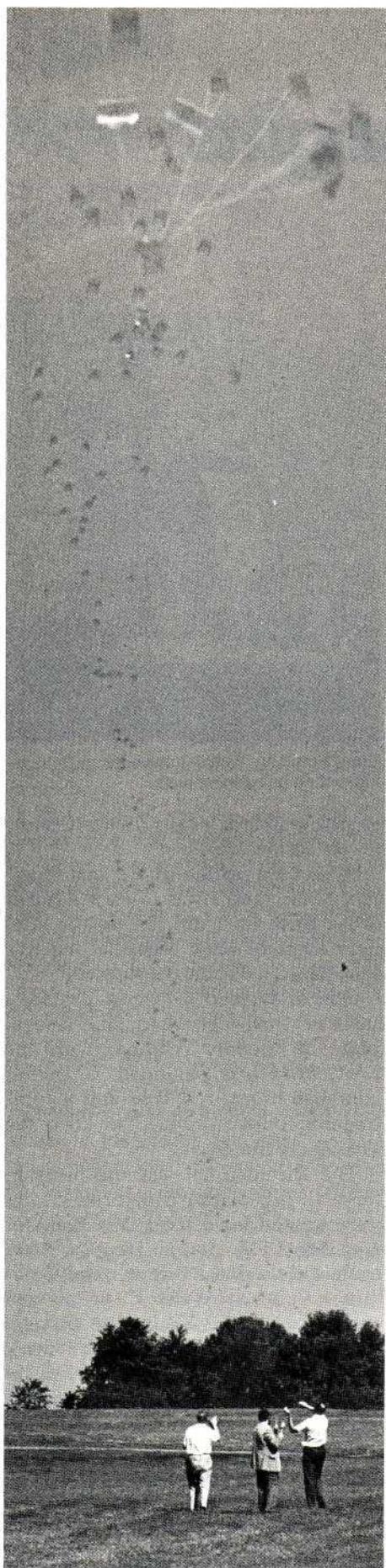
Before long it was time for another January fly in Sarasota, and Yolen was at it again, this time to fly 178 kites on one line, a distinct achievement. As usual, Yolen had oiled his publicity machinery well beforehand, and the story was everywhere—without reference to Bigge.

Now in a fighting mood, Bigge came back to Harpers Ferry in June, 1974, this time to fly 188 kites. It was a new record, achieved in unfavorably strong wind, but Bigge wanted to make a more



Anneke Davis

Bill Bigge's hands pull out pre-numbered kites like Jacks from a box.



Anneke Davis

Countdown of the Bigge train of sleds, Burtonsville, MD, 1974.

definitive advance in quantity and demonstrate the real potentialities of his system. He believed he could easily handle 500 kites, maybe 1000. At about that time, word was received that Goro Kudo, in Japan, had flown 204 kites on one line. So Bigge made more kites and waited for the first good opportunity to try again. The day came on October 5, 1974, in Burtonsville, MD.

Despite limited time and some damage to line from a standard kite that strayed into the area, the count-down of the sparkling little kites, verified by seven witnesses, was 261.

It was a new world record, and this time my correspondence with *Guinness* paid off for Bigge. I argued for a new category in kiteflying records, on the basis that altitude and duration were no more and probably less a technical challenge than flying many kites on one line. Further, Yolen's claim to the title of "International Kite Flying Champion" was based in part on his efforts in this area.

The 1976 *Guinness* and Yolen's new volume, *The Complete Book of Kites and Kiteflying*, came out soon after, in the same year, with their contradictory information.

In January, 1976, Yolen made yet another effort to attain legitimate renown through multikiteflying, but failed to better even his old count of 178. His coverage again was superlative, including the national radio show Monitor, but in his desire to be equal to the occasion he did not name his real competition, Bill Bigge.

Meantime, in Japan a reprint of the story in the *Windy Notice* (newsletter of the Maryland Kite Society) appeared in the Japan Kite Association magazine. The noted competitiveness of that country was thus baited. The following July, Mitsuo Tanaka flew 283 kites from one line. Then in November, 1975, a wire service reported that Tanaka had gone to 343 kites in a new effort when the string snapped. Though this invalidated the attempt as a record, reporters wrote it up anyway, and it thus became a new standard. It was an apparent incentive for Jean Goineau, in Angers, France, to fly 358 kites on one line, according to a wire service account which appeared in the United States in late February, 1976. None of these efforts were nearly so impressive, however, as the 1050 kites flown by Kazuhiko Asaba, in Kamakura, Japan, on April 4, 1976. He was the next to be officially recognized by *Guinness* for that category.

There's no question that Japan dominates the skies where kite trains are concerned. Larry Hoffman, our correspondent in Toyko, reports that kite train flying is not unusual in Japan. He says that Matsuo Isobe "always has one with him and usually has about 300 to 500 kites up at a minimum. The wife of another Creative Kites Club member almost always has her train diamonds up, several hundred of them."

Lest we forget, in September of 1976, Henry H. Boutwell and crew in New Orleans laid out 1251 sleds on the ground, following a completely new method, in an abortive attempt to recapture the record for the United States. Boutwell employed three branch lines from one main line, a system that proved to be unworkable. His effort was well-publicized in his area and has to rank as one of the most spectacular failures in the limited history of this kiteflying specialty.

Since then, in Japan there has been more than one new multikite attempt. The latest of these was an incredible sweep of 1585 kites on November 19, 1976. Plastic and bamboo Eddy-type kites about a foot long were run up and then retrieved in about 4½ hours, as reported in somewhat more detail in the Spring issue of *Kite Lines*. As I write this article, I am willing to say that the end is not in sight. ♦

PROPOSED STANDARDS FOR MULTIKITEFLYING, WORLD RECORD CLASS

- All the kites must fly. To meet this standard, it must be clear that no kite pulls another. So-called "sky anchors," or large kites launched first, are not recommended nor proper procedure. The first kites out should be attached to the lightest line, which can then increase in strength as the pull increases.
- All kites should be approximately the same size, again on the principle that no kite pulls another.
- All kites must be retrieved. Kites lost or impaired in flight do not count.
- Any number of kitefliers may participate and share the glory as they choose, though as a matter of convenience in reference it is good to use a leader's name or chapter or club name.
- An increase of fewer than 10 kites over a previous record may not be recognized.
- Persons making such efforts in the U.S.A. must notify and receive clearance from the FAA in advance.
- At least two disinterested parties must witness the count and sign a paper giving number of kites flown, date of effort, and name or names of kiteflier or kitefliers involved. Optional information may be added about size and type of kites used, methods and time employed, etc. A copy of the signed paper should be sent to both AKA and *Guinness* for verification.

Note: The above standards are not carved in granite. They are presented here as a starting point, and correspondence on this topic is encouraged.

TRAINS

The Kiteronaut of Maple Heights

THE ANGELS ARE SINGING AGAIN FOR MIKE WELETYK

If you were to visit the neighborhood of Mike Weletyk in Maple Heights, OH, at the right time, you would see how he got the name by which he is known throughout the state: Kiteronaut. Mike flies 20, 30 or up to 50 kites at once, on one line, sometimes as high as three miles in the sky (with clearance from the FAA).

The number of kites he flies wouldn't be exceptional if the models were tiny and lightweight, but Mike has no inclinations to make his own kites. So he flies full-size store-bought models—and the pull is tremendous.

It all started about 1961 when he flew a kite for the youngest of the three Weletyk children. Something about kiteflying intrigued him, and he kept adding more kites. He heard their high-pitched hum, "like angels singing," he says. But they were more like sirens, luring him on. He found he needed stronger and stronger line for the kites, and then tougher and tougher winders. Your average Sunday kiteflier would have called it quits on reaching these limits, but Mike made the effort to master the increasing mechanical demands. He learned it all on his own, without cracking a book.

His first heavy spindle was soon replaced with a large wheel, and then a larger one, his pride and joy. All were constructed from scraps at his place of work and with the help of fellow employees on their lunch hours. The exterior drum of his largest reel is five-in. gauge aluminum. The reel has a 36-in. drive shaft running through it, and eight steel braces support it. It is wound with 25,000 feet of 550-lb.-test braided nylon line. The first kites are released on monofilament fishing line and following kites on stronger line, in four different stages, with the extra-tough nylon taking over last. Around the wheel is printed: "THE WORLD'S MOST

Our Profiles department for this issue introduces a man of many trains.

GREATEST AND ADVANCED SYSTEM OF KITEFLYING . . . INVENTED BY Mike Weletyk . . . PATENTED PROCESSED . . ." Not perfect English, but Mike is from the Ukraine. He came to this country in 1950 with his wife Magdalena after a period of forced labor in German coal mines during World War II.

Mike achieved local fame in 1965 when the *Cleveland Plain Dealer* Sunday magazine made him the cover story. He has received invitations to fly his kites from places as distant as Vienna, Hong Kong and Montreal, but he has never been offered any money to do what he loves best. His local following grows every time his kites appear, sometimes visible for miles. After flying most of his kites far out, at 100-foot intervals, he sometimes attaches an auxiliary line with 10 or 15 more kites already on it, to really fill the sky. Mike says the only thing that keeps him from lofting 150 at once is manpower and time. He has flown up to eight hours straight. For special occasions he flies banners, too. His kites have lifted announcements for Christmas, election time and the marriage of one of his daughters.

The Kiteronaut has had some failures. Once he planned to fly a Christmas display of Santa and his reindeer. He added kite after kite and when it was ready, turned around to get the display—and the line snapped. Twenty-eight kites were off and sailing over Lake Erie. Mike said he cried then from disappointment over a year's work and his family's anticipation gone with the wind. (A later attempt succeeded.)

"I've had lots of troubles," he says with a laugh. He tells another story of a man who traveled miles just to see Mike and his kites.

"There was no breeze at all," moaned Mike. "I mean even the smoke stayed with you," he motioned with his cigar. The man finally left, and then the wind started to blow. So Mike went to work—10—20—30—nearly 50 kites in the

Henry Unger



From a rooftop, Weletyk operates his reel on its rotating base.

air, while Magdalena tried desperately to contact the man.

"I covered up the whole East Side," said Mike, "and I was in such a hurry to get them up I did not tie the kites tight enough. They began falling like snowflakes. He never showed."

One of Weletyk's biggest problems came two years ago when, after several years of friendly relations with the FAA, Mike was grounded. Changing administrations, red tape and a complaining pilot combined to keep the kites out of the sky.

The Bicentennial was the occasion for a lifting of the ban. Mike's kites were wanted for a local Ben Franklin Kite Day. The *Maple Heights Press* contacted the local Bicentennial Committee to act on Weletyk's behalf and cut the red tape. They were successful in obtaining a waiver for Mike for a one-mile clearance. He usually operates within a four-mile radius, but a little sky is better than none.

The Kiteronaut's reasons for kiteflying are not just the challenges.

"Isn't it beautiful?" Mike asks when looking up at a string of his kites. "It's a fairy tale. And I created it." As he talks to them, they hum in reply, and Mike says, "Ah—the angels are singing again." V.G.

TRAINS

How to Conduct Them

THE FLYING DUTCHMAN
TALKS SYSTEMS

Story and Photographs
By John F. Van Gilder

JACK VAN GILDER, Seattle, WA, has gathered a stack of press clippings in recent months with his multicolor trains of delta wing kites. One reporter dubbed him the Flying Dutchman. Jack and his colleague John Dusenberry find that as more kites go up from their neatly arranged boxes, more cars screech to a halt, and more people gather and start to help. "Many hands make light work," Jack quips.

My motives for wanting to own a kite train were not pure. I'm afraid that envy was up near the head of the list somewhere.

While I was visiting Long Beach, CA, in 1974, Bill Everett, of Lancaster, CA, gave me a picture of a 64-kite train of Eddys. How in the world he and Ted Norton had kept the 10-foot tails of that perfectly aligned train from tangling on the main line, I'll never know.* I now know how difficult it is after experimenting with six small Eddys with six-foot streamer tails. It ended in the most gawd-awful tangle you ever saw.

Thinking that Bill Bigge had the answer in his use of sled kites for his trains, I promoted a kite making bee in our basement, conning several fellow

**Since Jack was in Long Beach, Bill and his assistant, Eva Creek, have increased the number to 102 kites which fly to an overall length of 310 feet. Each kite is a 19-in. x 17-in. Eddy type using 1/8-in. diam. dowels and Madras tissue paper, for a stunning variegated color effect. The pair use one-point bridles, nine-foot hemmed cloth tails, and graduated weights of line, ending with 250-lb. test at the base. The Everett-Creek train is often flown at the Let's Fly a Kite Festivals in Marina del Rey, CA. Their relatively easy system could be copied and is quite similar to the method used by Nishibayashi's team for breaking the world record in Japan.*



Jack Van Gilder and his delta train, with fringe to add to the sparkle—and also to the stability. The first kite in the train is about 25 feet from the second. This increases stability. The rest of the kites are 10 feet apart, though they look like a solid column from below.

TRAINS

How to Conduct Them

(Continued)



Carl Bolstad (Van Gilder's stepson) with a roll of kites ready for train flight.



Each child in a class can make a kite (a sled, for example) and attach it to a main line. The entire assembly can then be rolled up for future train flights.

Washington Kitefliers Association kites into taking part. We put together a train with a main line about 1200 feet long, from which we flew 72 14-in. sleds on 10-foot tethers. This created quite a stir at the Bellevue, WA, Arts and Crafts Fair in 1975.

We had rolled our individual 10- and 20-kite contributions onto cardboard tubes and tied the sections end to end as they rolled off the tubes into the sky. One virtue of this system is the interesting action of the small sleds as they dart about the main line. But

the 10-foot tethers off the main line were a constant irritation because of their tangles. Every flight brought on a session of straightening and repairing. This method does have the advantages of being very compact and easy to launch. It also gives a teacher a chance to make an object lesson to kids on the virtues of cooperation.

Another system I call snap-on trains, which uses the tether-to-a-main-line method. The handiest attachment technique I've found uses rubber band and snap swivel. It's slow to let out because you must stop at every kite to wrap a rubber band around the main line and hook a snap swivel into both ends of the band. The rubber band keeps the tethers from slipping on up the main line. The system is easy to assemble and flexibly arranged.

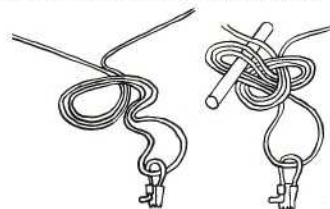
The advantage of this method is that many different types of kites may be used to make up the train as long as they don't have tails to tangle in the main line. It turned out that I needlessly worried about the placement of the various types of kites on one string; mix 'em or match 'em—sleds, boxes, Conynes, deltas and cobras—as long as you have one cobra kite with its long tail at the top of the line only. I have gradually replaced all lines in this type of train with non-twist line, either



The snap-on system with rubber band and snap swivel, works well for spur-of-the-moment assembly of assorted kites into a train, though it takes time to launch.

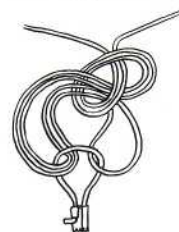
VAN GILDER'S FANCIER KNOTS

1. Slip Knot with toothpick insert



Advantage: Knot can be adjusted without undoing snap swivel.
Disadvantage: Knot is hard to learn.

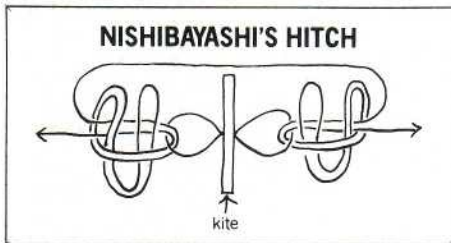
2. Thai Slip Knot —the slip knot tied without toothpick insert, with double loop pulled down.



Advantages: Knot is quick to tie, untie and move, needs no stick, and snap swivel will not chafe three thicknesses of bridle line.
Disadvantages: Snap swivel must be hooked through three loops of bridle line and must be undone in order for knot position to be adjusted.

braided or monofilament nylon.

Here in Seattle last summer, Takeshi Nishibayashi showed us a movie of his 400-kite train. He used Eddys with India fighter-type stabilizers. His book illustrates his bridling method, a modified tiller hitch.

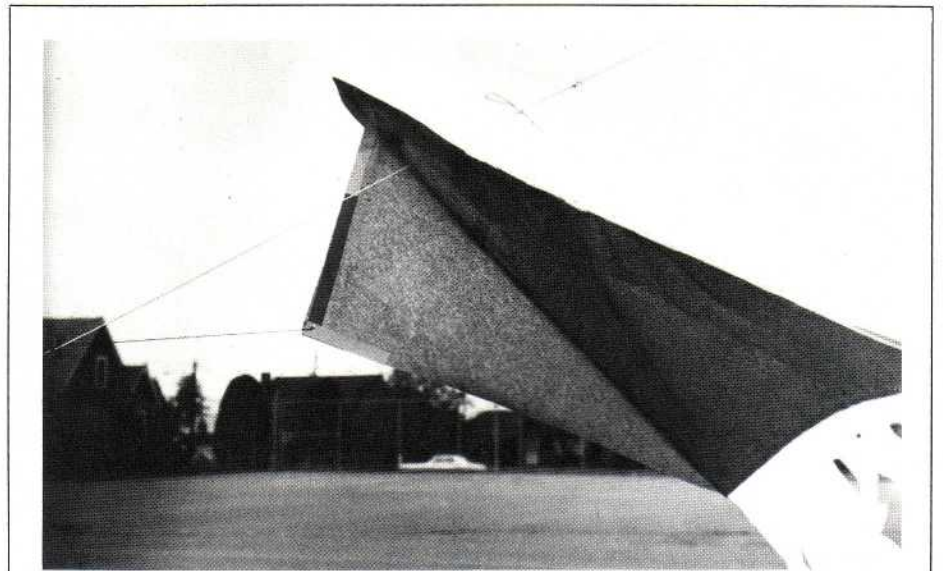


The advantage of Nishibayashi's method is that the main line is unbroken. But I noticed in the movie that several of the kites were flying sideways. They didn't seem to swivel on the main line. I worried about having to find the exact center of lift for each kite.

Another envy admitted: my colleague Dave Checkley has a beautiful 60-disk Chinese centipede, which has lots of gold mylar to sparkle, a good dragon face, and a flight angle that is outrageous—some 70 degrees. After two attempts at constructing my own centipede, I gave up and use the creatures now for wall decorations. But even Dave complains about repairs and tangled lines—and I've noticed that he always has to have a ground crew to help launch it.

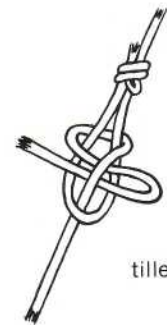
What I was really looking for, when I thought about it, was a kite train that would be satisfying, that would give a sense of accomplishment, that would, if you will, draw a crowd. To do this, it would have to be huge, look sensational, sparkle with color, and undulate provocatively. All this, and be cheap to build, extremely easy to transport, launch and retrieve—pop out of the car, spring into the air, fly stably at a high angle and then retract quickly and easily—with a crew of *one!*

Nothing in this world is perfect. But from my experienced experimentation, I'd say the kite train that comes nearest



THE VAN GILDER CONNECTION

Short, 12-in. 12-lb.-test braided nylon tether is used to attach the kite to the main line. This allows for swiveling and twisting of line. The tether is tied to a 1/2-inch toothpick stick and run through the hole in the keel like a button hole. Note that the main line pierces the kite cover through a slot for flexibility of flying angle. Just above the kite cover is the tiller hitch, attaching to the main line of the kite above. This allows one kite to be removed from the train. Note that the keel is oversize for stability. The lower kites could be bridled farther forward to lessen pull on the main line.



to perfection in meeting the criteria above is the pre-tied, through-the-kite, container-transported delta train.

John Dusenberry and I each have one. We both use dime-store tissue paper covering, curtain shade bamboo spars and 1/8-in. diam. dowel spreader bars. So the kites are cheap, about 14¢ each. Even adding the cost of 110-lb.-test braided nylon seine twine, it's only about a \$20 investment. And the kites look like a million. ◇

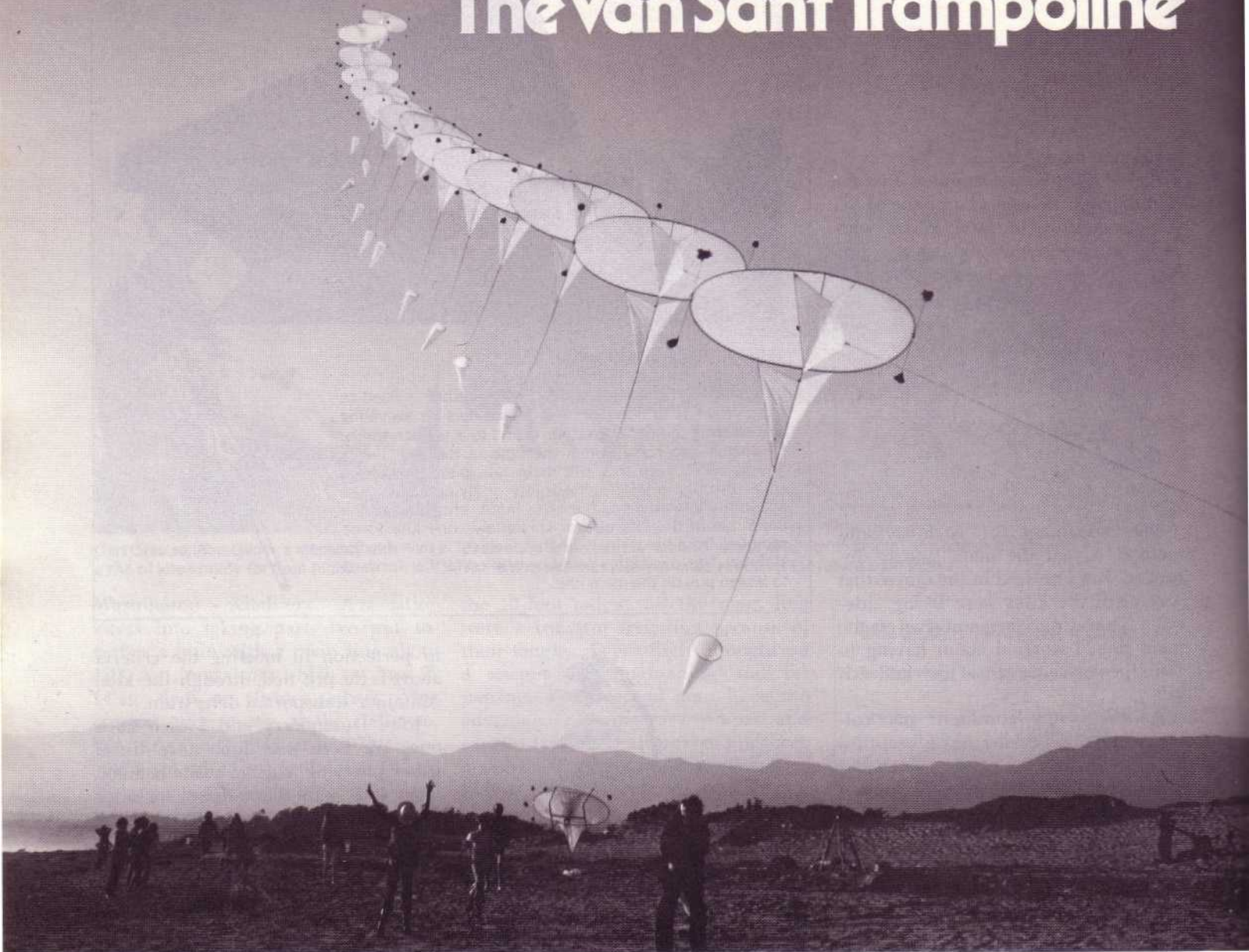


Above, Jack flies 72 of his 101 kites in train for all of Seattle to see on KOMO-TV.

Left, Bob McCort defends himself against kite attack while assisting Van Gilder. When the top kite loops, starting a chain reaction, it means the wind is too heavy and it's time to haul in.

TRAINS

The Van Sant Trampoline



Judy Lowne

By Tom Van Sant

TOM VAN SANT is a sculptor, painter and muralist with a list of commissions, exhibits, consultant appointments and awards that could fill two pages of this journal if we thought such airing were needed. We prefer to air his kites. Van Sant has spent all of his time over the past four years creating "flying sculptures." These have been exhibited in London, Paris, Los Angeles, Australia and Honolulu, and are now in

Holland, accompanied by a film of the kites in flight. Van Sant's craft are made of fiberglass tube and nylon spinnaker cloth decorated with specially formulated, colorful dyes which penetrate the nylon and sizing. His largest kite is a centipede type of 50 segments, totalling 300 feet in airborne length. Typically, each kite folds down to a size that may be carried by one person. Also, a design requirement of the artist is that each kite must spring easily into the air with only a soft breeze.

I offer the Van Sant Trampoline as a unique prototype among kite categories.

I stumbled upon this kite design in search of the maximum lift, minimum weight form. On a six-foot-span model, there are 18½ square feet of surface at a total kite weight of 9½ ounces. In 1975, I recorded by line scale a 37-pound lift in a high wind. Stability is excellent. The kite climbs and operates easily in light or heavy wind, singly or in tandem. Aerodynamically, the flexibility of structure and lashing is the key. The kite functions in a manner

unlike any other style or variant I know (with superficial resemblance in pattern only to French pear-top variant in Pelham.*). Description follows:

Flexible peripheral structure: The basic structure is composed of four tapered flexible fiberglass tubes (fly rod) connected in the shape of an oval. Nylon fabric is stretched within the oval, unencumbered by any compression member. This allows the oval to change shape under variable flight stress. Collapse of this shape is restrained from outside the oval.

Flexible lashing: The fabric is attached by continuous loose-lashing, as with a stretched tarp or trampoline. This allows the necessary self-adjustment and equalization of pressure as the flight stresses change and the kite configuration alters.

Independent dihedrals: The lifting power is not restricted or diminished as it would be if the wing had a built-in positive or negative dihedral for stabilization. The two dihedrals operate from the independent vertical member. Also, each dihedral serves a dual function, the upper as bridle, the lower as the force restraining the collapse of the oval. These forces in turn keep each dihedral taut.

Paraboloidal flight configuration: In full breeze, the kite flies horizontally on the wind, the line nearly vertical. The drogue becomes operative in restraining overflight. The foil is full and bulged upward. The dihedrals plane and become lift surfaces. A vacuum forms on the top side. The wing tips are forced up and back (the structural members being more flexible toward the tips). The kite assumes a partial paraboloidal configuration (saddle-like). Though it seems contradictory, the lifting shape becomes a concave, positive dihedral.

About my approach to kites, I simply make and fly them for my pleasure and the pleasure of my friends. We go camping on the more isolated beaches of California and fly the large ones as a kind of art-happening nature-connection celebration. Then we build a big fire, cook dinner over it, drink a little wine, sleep under the stars, and start over the next day. ◇

*David Pelham, *The Penguin Book of Kites* (New York: Viking, 1976), p. 169.



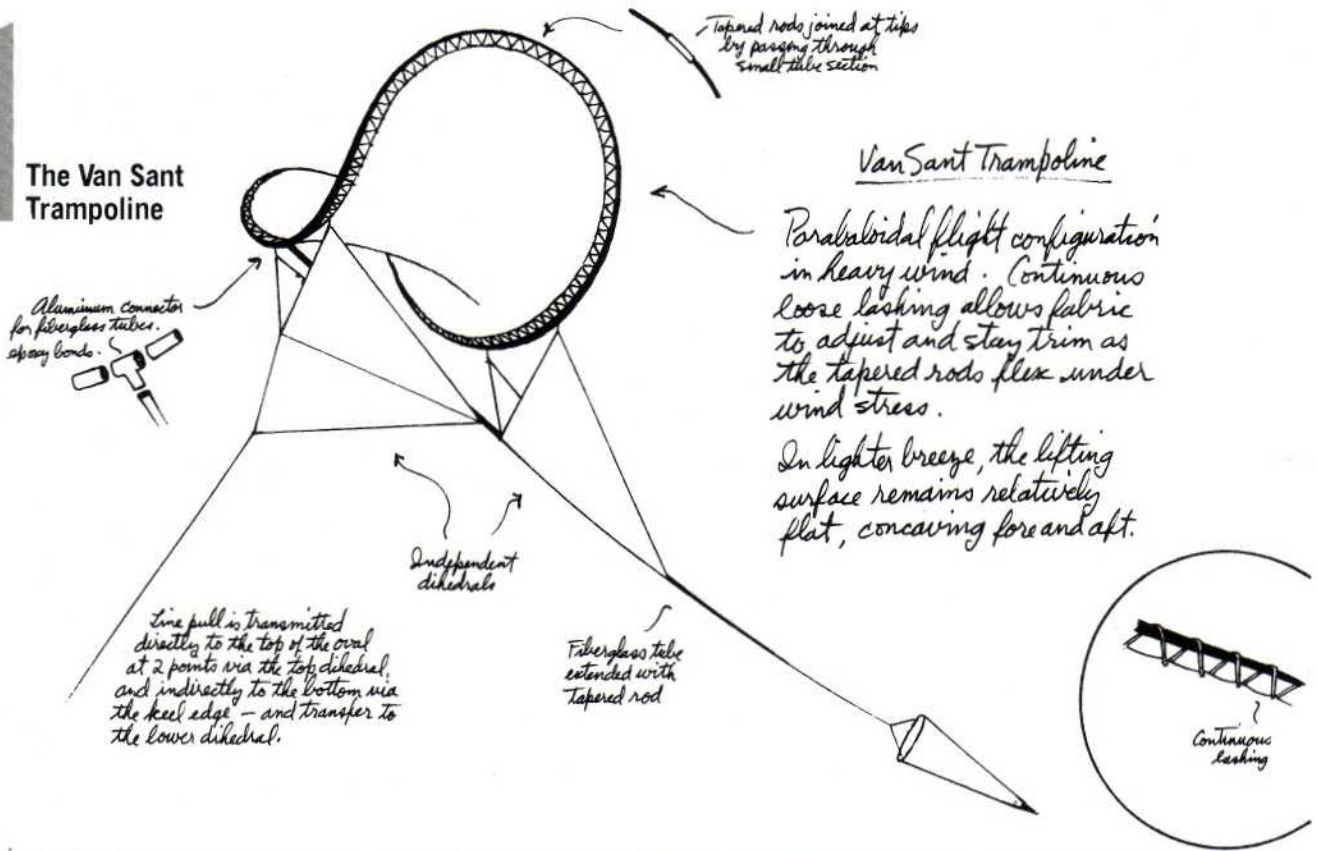
Jasmine

Two Kite Designs

Our Design Workshop department for this issue brings you, appropriately, plans for kites that can be flown in train.

1

The Van Sant Trampoline

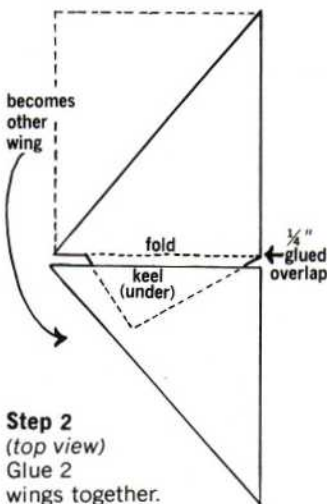
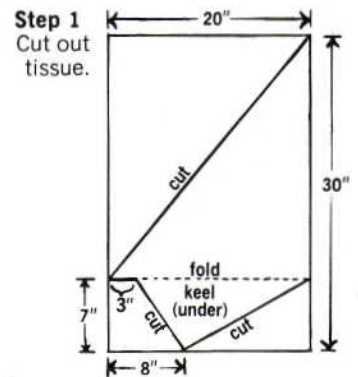


2

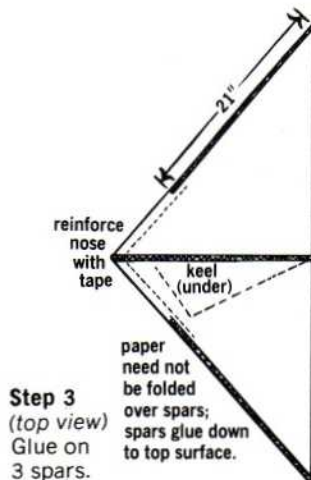
The Bill Lee Special One-Sheet Tissue Paper Delta plan followed by Jack Van Gilder

MATERIALS

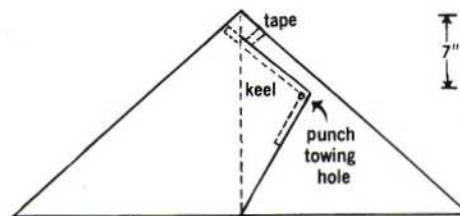
- 1 20x30" sheet tissue paper
 - 3 pieces match-stick bamboo (from window shade) or 1/8" -diam. dowels, 1 20" long for keel spar and 2 21" long for wing spars
 - 1 20" long 1/8" -diam. dowel for spreader bar
- Fringe may be glued along trailing edge.



Step 2
(top view)
Glue 2
wings together.

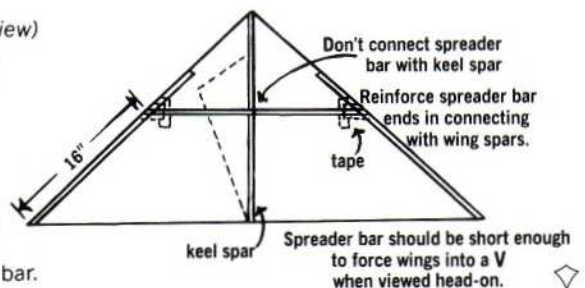


Step 3
(top view)
Glue on 3
spars.



Step 4
(bottom view)
Reinforce
keel with
tape.

Step 5
(top view)
Attach
spreader bar.



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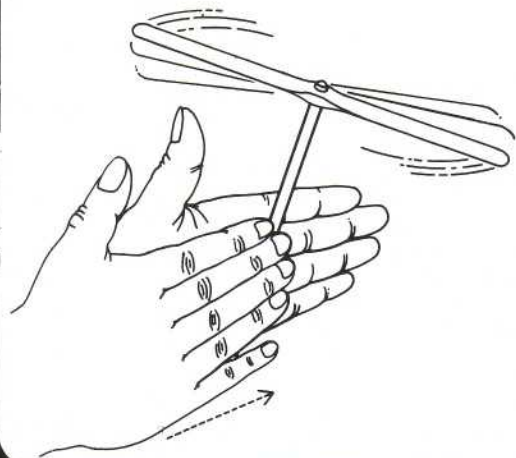
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What's New: Kites, Books, Sundries

Kites

By Mel Govig

TWO NEW KITES

After 10 years of kiteflying, I enjoyed the surprise of trying out two truly new kites. The Flair from Kites Kites Kites and the Firebird from Ultra Kite are similar to one another in plan and assembled appearance. Both are finned, winged kites. The Flair is a double-keeled, flat kite of very light rip-stop nylon. The Firebird is a winged sled of Tyvek[®], printed in a fiery design. But the kites' similarities end with appearance; they don't fly alike at all.

The Flair is a soaring kite. Without its drogue it would probably overfly. With the drogue, it climbs to straight overhead in a five mile-per-hour wind. It flies very light on the line, spilling gusts and never developing excessive pull. It can be pumped up to several hundred feet with no more breeze than it takes to keep it downwind.

The Firebird looks and flies like a Conyne. In a sense, that's what it is: a Conyne with inverted dihedral. This kite develops tremendous lift. The printed warning to wear gloves should be observed. The Firebird flew very stably and at a decent angle in a light wind, about five miles per hour.

Both the Flare and the Firebird are easy to assemble, and both roll up for carrying convenience. I'd say the two were comparable in durability and general satisfaction—as well as in price: about \$10 for the Flare and about \$9 for the Firebird.

SOME STUNTERS REVIEWED

Assistants: Paul Ritchey, Pete Ianuzzi and Rick Kinnaird

The two-line control kite has been pointing directions for the kite industry for two summers since the Peter Powell Stunter started it all. The stunters can't be ignored, whatever way you look at them. So we spent nearly four hours testing models—testing some of them to destruction—

at the Great Delaware Kite Festival, after the contest was over and the field was cleared.

As I see it, we have about one year to enjoy the stunter kites. It's only a matter of time before some careless kiter hurts a bystander with his kite and spoils it for all of us. If we are all especially careful, we might be able to stretch our term to two years. I can't make the point strongly enough: The only way to avoid danger is to avoid people.

That caveat aside, what do these kites have to offer? Lots of fun! It is true that almost any kite can be outfitted to fly maneuverably on two lines, but not many fliers will trouble with that. They will see a stunter in action and suddenly be infected with a yen to try the sport. The ready-to-dance kite is what they will want.

We tested eight stunter models out of about a dozen on the market. Most were adaptations of the Peter Powell: the Sky-ro-gyro[™] (\$19 to \$22); the Sky Cat (\$14 to \$16); the Aerobat (about \$12.50); and the Windjammer (\$10 to \$11). We also tested two modified Eddys: the Sky Tiger (about \$8.50); and Hi-Flier's Super Stunter (about \$4); as well as one very sexy-looking Conyne-influenced design, the Dunford Flying Machine (about \$23 to \$25).

In general, all the kites tested work on the same principle: two lines of equal length are attached to the kite

on the left and right sides. A kite pulled on the right side moves to the right and pulled on the left side moves to the left. All the stunts and maneuvers (and there are many) are derived from combinations of right or left line pulls.

When you see the beach boys flying their stunters, you may be put off, thinking the sport is too athletic or requires too much drill. It isn't and it doesn't. In a few minutes, anyone can learn to fly and enjoy these kites. True, it takes practice to really master all the stunts and especially to skim the kite in for a graceful, gentle landing. But to do controlled loops, dives, sweeps and figure eights really is as easy as it looks.

If you haven't flown one of these kites, a few general comments apply.

First, stunters move very fast through the air, and, as I said, are very anti social kites. They are not welcome at kite festivals or crowded beaches and should not be flown in any place where they could endanger others. Most controllables require about 200 feet of clear space in front of the flier, on each side, and overhead.

Second, all these kites are stout pullers, so be equipped with gloves or calluses. (If you don't have the former, you'll get the latter.)

Third, take the kite on a few tentative loops and short dives at high altitude before you venture maneuvers

DATA CHART

	Size	Material	P	AT	ED	EWS	AF	SL
Peter Powell*	48x45"	5-mil poly., aluminum	E	1.5 min.	E	10-30	45-70°	I
Aerobat	50x42"	5-mil poly., fiberglass	E	1.5 min.	E	10-30	45-70°	I
Sky Tiger	38x34"	2-mil poly., fiberglass	E	1.5 min.	G	5-20	45-70°	I
Windjammer	39x36"	5-mil poly., aluminum	E	5.0 min.	E	10-30	45-70°	I
Sky Cat	42x45"	5-mil poly., PVC	E	1.5 min.	E	10-30	45-70°	I
Sky-ro-gyro	47x46"	Tyvek†, aluminum	E	1.5 min.	E	10-30	45-70°	I
Super Stunter	40x34"	2-mil poly., wood	VG	1.5 min.	G	5-20	45-70°	I
Dunford	36x40"	rip-stop nylon, wood	G	20.0 min.	E	7-30	45-70°	I
Flair	24x35"	rip-stop nylon, birch	E	1.5 min.	E	3-25	45-75°	N
Firebird	36x32"	Tyvek, spruce	G	1.5 min.	VG	10-15	50-70°	N

*Availability uncertain

†Plastic cover now also available; not tested.

Code: P=Portability; AT=Assembly Time; ED=Estimated Durability; EWS=Estimated Wind Speed (min.-max. mph); AF=Angle of Flight; SL=Skill Level: N=Novice, I=Intermediate, S=Skilled
Ratings: P=Poor, F=Fair, G=Good, VG=Very Good, E=Excellent

near the ground, so that you learn to predict the kite's responses.

Finally, come equipped with extra tape, covers, sticks (or kites) if you plan to fly for a long period.

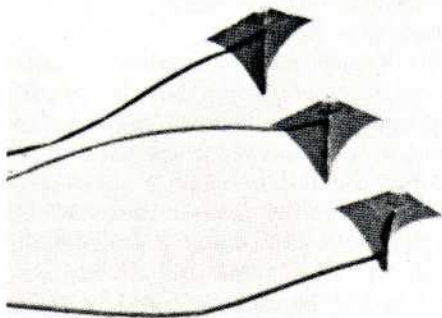
We were flying in very strong winds, about 25 miles per hour—good conditions for stunting. We found that performance differences, for the average flier, were slight from kite to kite. In general, the smaller the kite, the faster it responded and the quicker and shorter were the maneuvers. The more flexible the struts (fiberglass was the most flexible), the more sluggish the kite and the slower the turns.

Kites with the three-prong nose design (such as the Peter Powell) seemed to bounce and glide off the ground and land gently except in a head-on dive at the earth. This resilience is important, since bouncing seems to be inevitable. The Sky Tiger and the Super Stunter tipped on their noses, resulting in a torn cover on one and a broken stick on the other. The Dunford suffered a broken stick in a ground collision. Durability becomes the standard for selection since performance of all these kites is adequate.

Most of the kites were covered in 5-mil polyethylene. This seemed to be a worry-free choice. Two had lighter poly covers which were not strong enough for our winds, although they might have been better in lighter winds because of their lesser weight.

Spectacle is a big part of stunter flying. Tails add a lot to this without affecting the flight performance much. The tubular tail of the Peter Powell is especially dramatic. It follows the path of the kite in long casual loops. Even the long flat polyethylene tails are

Courtesy Ron Moulton



Triple Powells at Old Warden field, England.

attractive. Tails tend to make the loops and rolls look planned, whereas a flight without them might look to a bystander like an operation out of control, no matter how masterfully you fly.

All the controllables are quite easy to assemble and transport, except the Dunford, which takes about 15 minutes to assemble. Also the Windjammer has a drawback. Its cross bar was larger in diameter than the tubes receiving it. Some fancy whittling was required to make it fit.

As a lover of fighter kites, I am pleased to add the two-line stunters to my kite bag. In general, when a fighter kite flies well (four to eight mile-per-hour breeze), a stunter won't. And when a stunter flies well (over 10 mile-per-hour wind), the fighters either have become unmaneuverably stable or have been destroyed. So, if you like kinetic kites, the fighters and the stunters complement one another nicely.

Some of this issue's test models were supplied by The Kite Site, Georgetown, DC. The Dunford model was lent by Marvin Tyrrell of Delmar, DE.

POSTSCRIPT: GETTING A GRIP ON THE CONTROLLABLES

By Bruce Pfund

Seven years ago I purchased an inexpensive two-line maneuverable kite, which was demolished by the time I had gained an inkling of how to fly the darn thing.

Since then I've logged over 2500 hours flying two-stringers, testing almost 30 kites of my own design, and trying for increased maneuverability, speed and durability.

The dynamics of two-line control are essentially the same for all maneuverable kites, but performance of models varies. Here are some definitions, principles and rules of thumb I've learned for the maneuverables.

Dynamics

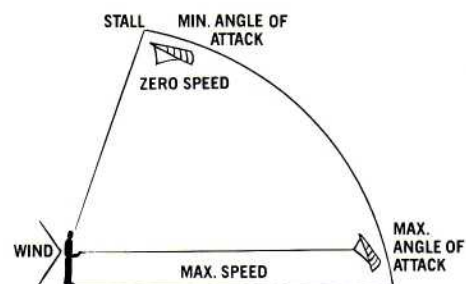
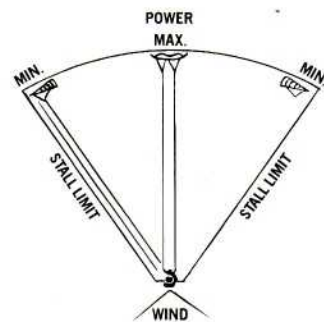
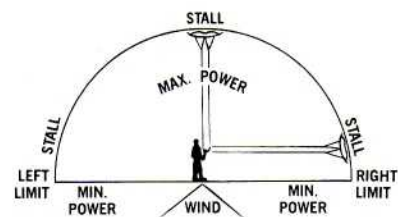
When launched with both lines exactly the same length, the stunter kite will behave just like any other kite. It will zoom up to maximum elevation and stay there, an equilibrium-seeking kite.

When the line lengths are changed, the kite will be turned, because the kite has been tilted to the wind along the backbone axis, and the two halves of the kite skin generate unequal lift.

The pull on each line is a function of its length relative to the kite. The shorter line will have the greater pull, and the kite will turn to this side.

Pull on both lines is equal and minimum with the wind at your back and the kite at maximum elevation. Pull is maximum when the kite is closest to the ground and will decrease as the kite gains altitude or approaches the right or left hand limits of the wind.

One-line kites fly at a fixed angle of attack, whereas two-line kites undergo changes in the angle of attack as they traverse the wind.



Both the speed and the rate of turn increase as the angle of attack increases. The kite never travels at a fixed speed but actually is always accelerating or decelerating. What starts out as a large-diameter turn from a high altitude will rapidly become a faster, tighter turn

What's New

(Continued)

as the kite approaches the ground and gains speed. Remember, given the same amount of control input, downturn gives decreasing diameter turn, and upturn gives increasing diameter turn.

Control movements should be large when the kite has low power, or is overhead or at the right or left wind limit. They should be small when the kite is being launched or is close to the ground, when the angle of attack is high. As long as the pull on the strings is unequal, the kite will continue to turn.

Understanding *neutral* is the key to flying a two-line kite. When the pull on both strings is eased, the kite will travel in a straight line whichever way the nose points (up, down, or sideways, the kite doesn't care), until the next maneuver is initiated or a crash occurs. To gain altitude, put the controls in neutral when the nose of the kite is aimed up. The knack to a smooth, quick climb is to pull on the opposite line (the one with less pull) at the exact instant the nose of the kite points up, pulling in only enough to put the controls in neutral, not enough to start the kite spinning in the opposite direction. Control of spins and veering can be accomplished by pulling in on the line on the side opposite the one toward which the kite is turning. For example, a clockwise spin (with right line shorter) can be stopped by pulling in on the left line. This will initiate counter-clockwise spins.

Equipment

For two-line controllable kites, always use braided line, such as the variety sold for squidding or bait-casting. Ordinary twisted kite string will rapidly fail from line abrasion. Most maneuverable kites can still be flown and controlled with 10 or more twists in the lines, but as the kite traverses from right to left, the lines will saw against one another. Swivels at the end of the flying lines may reduce line twist. The lightest and smallest-diameter flying line of appropriate strength will deliver the best performance.

The penalty for two-line control kiting is doubled cord weight and drag. The weight factor is relatively unimportant, affecting the kite mostly in overhead stall. But line drag is a limiting factor on the speed of your maneuverable. Line drag is pro-

portional to the cube of the line's cross-sectional area, so a small reduction in line diameter can have a big effect on the kite's behavior.

Control systems and bridling for two-line kites can vary greatly but fall into two types: bare-handed, direct manipulation of the two lines in each hand; and use of a device or handle to feed or limit the flow of line between flier and kite.

Although almost any kite can be rigged for two-line maneuvers, in general the stiffer, smaller and higher-aspect-ratio kites will move faster and respond to finer controls; while the more flexible, larger and lower-aspect-ratio kites will move more slowly and require grosser controls.

An accomplished pilot of maneuverable kites will practice regularly, keep his equipment in top shape, and fly only in safe situations.

Books

By Valerie Govig

In buying a kite book, I am always looking for something new added to the literature—new in approach if not in content. It seems to me that this should be the impetus and the justification for publishing. Why are books that fail to meet this simple standard marketed? Perhaps a publisher is determined to fill a "hobby quota," regardless. Maybe such products do pay, even if they muscle other kite books off the bookstore shelves. The three books reviewed here vary on this scale of worth, but they all have the same price tag, \$5.95. Have publishers got it figured that \$5.95 is what the kite book market will bear?

A LOW FLIER

The Complete Beginner's Guide to Making and Flying Kites, by Edward F. Dolan, Jr., illustrated by John Lane (New York: Doubleday, 1977), 152 pages.

Every typical shortcoming of a kite book seems to have found its way into this one.

The book perpetuates March as the "season" for kiteflying. It repeats smatterings of kite history, including the obligatory visits to Ben Franklin and Bernoulli. It "classifies" kite types—all three of them. It suggests materials, mentioning silk and not mentioning nylon or any other synthetics. It explains notching, lashing and binding, but slights knots, taping and sewing.

The two-sticker is dubbed "the easiest of all kites to build." Safety points are poorly presented, and flying in the rain is not prohibited. Finally, the Flying Wedge design, formerly confined to one kite book, is now perpetuated here. A classic non-flier to start with, this "kite" appears with incorrect instructions and a compounding of the error in the drawing, where it is covered on all sides—a sure contender for the concrete kite award.

The style is wordy, but not meaty. The author is fond of introductions and summaries for each chapter, while in between are descriptions of 45 unfortunate kites that are often cryptic and dependent on the reader's imagination and experience to fill in the gaps.

The impression is conveyed that the writer hasn't been there himself. He has plagiarized brazenly from David Jue, Wyatt Brummitt, Leslie L. Hunt, and others, without giving credit, updating materials, adding new points, or even doing an accurate, thorough job of plagiarizing. Diagrams have key letters without reference to the letters in the text. An altitude range chart is lifted bodily from Brummitt without so much as resetting the type. One could go on, detail by detail, building a negative, hateful tone.

So what can we say that's positive? The book is well-organized. It is neatly though unimaginatively printed and bound. It has a nice color cover photo of an imported Chinese kite (but no color inside, no directions for the kite inside).

Does book titling come under truth-in-advertising regulations? *The Complete Beginner's Guide to Making and Flying Kites* is not complete, not for beginners, and not a guide. Then what is it? Beats me.

GRAY HORIZONS

Kites: How to Fly Them, How to Build Them, by Ambrose Lloyd, Charles Mitchell and Nicolette Thomas (New York: Holt, 1975), 95 pages.

This is a rather pleasant, unassuming book that doesn't try to do and be everything for everybody. Unfortunately, the virtues associated with limited scope, such as intensity or novelty of concept or specialized information, fail to emerge. The book is simply a workmanlike compendium of 14 kites plus some general background. The layout and illustrations are better than average and help the instructions a good deal. Though Eddy's name is spelled Eddie through-

out, there are no other specific flaws. I found a few little bonuses: a good section on noisemakers; a somewhat interesting Umbrella kite (a bowed hexagon—only the name is new); good directions for making a cloth box kite; and an innovative four-cell tetrahedral kite with hinges.

Some petty shortcomings: no bibliography, no index, no credits or leads to the real-world kite community. Still, it may be a volume that kite book collectors will "have to have." But most kites will have other ways to spend \$5.95—as for braided nylon line, any one of several fine kites, a gift subscription to *Kite Lines*, or perhaps three Brummitt books, one for home, one for office and one for car. These alternatives are more a comment on prices of books these days than a criticism of the Lloyd book.

At one point the authors suggest that, for kites to show up in the sky, they should not be gray. The same is true of books.

PRESS-AGENCY FOR KITES

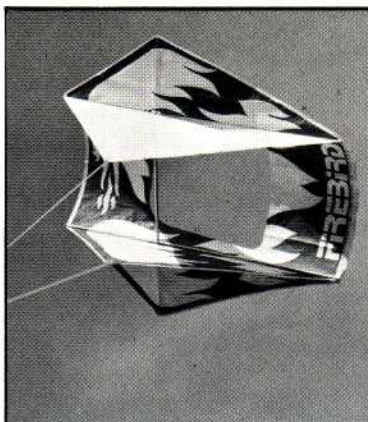
The Mature Person's Guide to Kites, Yo-Yos, Frisbees and Other Childlike Diversions, by Paul Dickson (New York: New American Library, 1977), 196 pages,

If you can get over the off-putting title of this book and its generally self-conscious air, you'll find here a welcome recognition of the people who make kiteflying a lifestyle.

Our sport's image as an amusement for lone eccentrics is giving way to a concept of kiting as an engagement of a community of enthusiasts. Will Yolen's recent work, *The Complete Book of Kites and Kiteflying*, despite its fumbles and inaccuracies, broke new ground in this respect. Yolen brought from obscurity some of the people who have contributed to kiting as an art/sport/science.

Paul Dickson does this, too, in the three chapters out of nine, plus appendices, devoted to kites. He is more selective, though, and approaches the subject like a press agent, looking for "good copy." If this leads to popular sales, perhaps we should not complain. Anytime material is selected, there will be quibblers who would choose differently.

A more serious fault is that the information is curiously out-of-date. Any contemporary book runs the risk of being old the day it is born. But this volume appears to have been researched almost entirely from previous books and old *Kite Tales* maga-



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What's New (Continued)

zines. These are good and necessary sources, but they fail to inspire the fresh insights available from mixing with real kites.

Is a chapter of kite history really necessary? Dickson's job on it was better than some, but I found myself dozing over it as usual.

The chapter "The Joy of Flying," containing kite "types" (a strange array of them), is very brief on actual flying techniques, though mostly correct. But some of the drawings that appear in this section are egregiously flawed; the "Delta Winged Kite" was an unparalleled oddity.

But let's look at the assets of this book, which are several. One is the thorough coverage of the 1970 confrontation in Washington, DC, between kitefliers, representing freedom and personal rights, and the police, representing archaic laws, bureaucracy and repression. The kites eventually won out. Dickson gives us a needed and complete documentation of it. Also the book has a nice collection of kite quotations.

WEEKLY NEWS FOR YOU: MANNED GIANT KITING
...is fun to study, see, model, and do. Just to know what is happening in the sciences and arts of manned giant kiting and hang gliding can enhance your enjoyment of sport unmanned kiting. I've been an AKA member for some 8 years and now have a position at HANG GLIDER WEEKLY as an editor. I know you will enjoy getting weekly illustrated news that technically, visually, and dream-wise can relate to your kite hobby, even if you do not intend to soar up there yourself; hang glider fliers, though, range in age from 12 to 74 years.

We have two books most of you will want. KITING is a 100 page illustrated book on manned giant kiting and kite-launched manned delta kites; it is the only work of its kind. HANG GLIDING, a 200 page illustrated book is packed; the entire sport is surveyed; its appendix holds a comprehensive directory of commercial concerns; don't miss it. **Save; Fellow AKA member can deduct \$1 off the price of each book. Just mention AKA; thank you.

Here are some options: Order as you wish. California resident must add 6% sales tax on the books, not an HGW. The foreign orders must pay in US funds from USA banks. Thanks.

- () HGWeekly, \$7/25 issues. (\$8, foreign) : Trial subscription.
- () HGWeekly, \$12/50 issues. (\$15, foreign) : Regular subscriber.
- () Kiting, 100 page book, \$3.95 (\$2.95 for AKA members).
- () Hang Gliding, 200 pg. bk, \$5.95 (\$4.95, AKA members).

Send order to: Kiting Publications, c/o Joe Faust,
Box 1860--E, Santa Monica CA 90406

But by far the best feature is Dickson's profile of our own Bob Ingraham. The founder of AKA is well and sympathetically portrayed, and his production of *Kite Tales* (predecessor of *Kite Lines*) is at last appreciated in a permanent way.

The appendices include three plans for kites to make (taken from *Kite Tales*), and lists of kite books and shops.

I've probably developed standards for kite books that make it hard for me to enjoy them. I had a lot more fun reading the chapter on yo-yos. ◇

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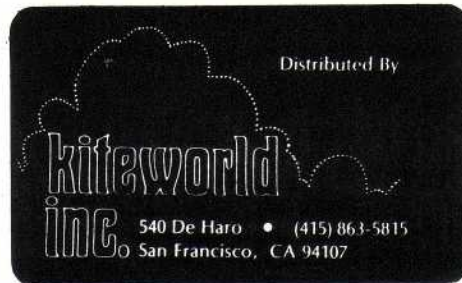
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News From Here & There

ALABAMA

Good weather but a smaller-than-usual turnout marked the ninth annual MARS (Marshall Space Flight Center) Kite Derby on March 26. Richard Love is a longtime organizer of this affair, which does very well with a limited population base. A free kite and a ball of string are given to each child through fourth grade. Highest fliers were children, Sherry and David Nowakowski, both of whom flew to 3810 feet—definitely upstairs.

CALIFORNIA

A three-day Kite Retailers' Seminar was conducted in San Francisco in January by Kiteworld, Inc. About 10 shops from all points of the compass were represented, a small sampling but an indication of the growth of the kite industry.

Seminar sessions covered business practices, public relations and kite-flying information both learned and shared by the participants. Pat Gilgallon of The Unique Place, a shop in Birmingham, MI, presented her personnel training methods and chic flight suits. The concept of pro shops for kiting was promoted, stressing repairability of kites. Manufacturers and festival organizers spoke about their specialties. Further unification of kite retailers may be explored in the future.



Left to right: seminar participants Dave Checkley, manufacturer; Stan Menker, distributor; and Pat Gilgallon, retailer, studying display in the Come Fly a Kite store, San Francisco.

Hugh Harrison of Montreal writes about his kite travels in California:

The first festival I attended was at Palm Springs, although it would have been enjoyable to see those at Ocean Beach and Mission Bay on previous weekends.

Palm Springs was small and strictly non-competitive. Ed Grauel and his next-door neighbor came up from their winter homes in Borrego Springs, CA, and Tom Joe and Vic Heredia (to mention a few familiar faces), with kite-fighting cohorts, all helped to make it a happy group—and it was gloriously hot. The day ended pleasantly with a drive up the mountain road with a stop for a cooling libation while watching the lights of the town come twinkling through the creeping dusk—excuse me—dusk.

On to Venice, CA, for Gloria Lugo's Let's Fly a Kite Festival on March 26. This fly is an absolute must for anyone visiting the area. Gloria works her fingers to the bone preparing for it (and for her three other later festivals), and the unflinching result is hundreds of kites in the air over the beach and thousands of devotees and viewers, all enjoying the sight of some of the best kites you could ever expect to see. This festival is non-competitive and provides the opportunity to fly unrestricted or just look and meet and talk.

Talk there was plenty of, with (to name a few) Bill Everett and Eva Creek with their train of 102 kites and their beautiful centipede; Bob Bulkley, who is never happy unless he has something up almost out of sight; Bennett Arnstein with one of his excellent deltas way up there; Craig Stratton with a Squadron or two and a couple of Clippers; Ken Bourgeois with something ethereal, beautiful and innovative; Ted Norton, Don and Skuli Merchant and others whom I'll remember during the winter months and look forward to seeing again.

On the way down to Long Beach the following day, I had the opportunity to drop in on one of Tom Joe's workshops for youngsters. This was a relatively small group, and those who had arrived early were flying their creations while others were still at work. Tom has his workshop process down pat by

now, and under his direction parents and teachers are supervising the manufacture of snakes and owls by the kids. Half an hour after completion, when the glue has dried, white paper kites decorated as desired by the makers and tailed with colorful crepe paper are darting through the surrounding air. (Note: If you aren't prepared to work, stay away. Tom will find something for you to help with, for sure.)

The following Saturday, April 2, the city of Torrance held its Super Kite Saturday. This started in the morning with an instructional session for the supervisors who started the youngsters on construction. As the children arrived in droves, it was necessary to keep them occupied while they waited to join the line-up. Tom Joe's movie, 12 minutes long, took up part of the slack, but there were plenty of impatient children waiting to move from tracing to cutting to sticks, etc. About 300 youngsters went through the mill, and that meant a lot of judging at the end of it all. It also meant a lot of kites in the air and a lot of tangles.

At this meet, the thrill you get on lofting your first kite was seen in a father obviously just getting started in kiting. His brown paper box kite and his Happy Man were straight out of Harold Ridgway's book and easily recognizable. After a couple of false starts and a bit of re-taping, he found the right point for the line attachment and the box took off for the skies. His workmanship was perfect, and so was the look on his face at the astonishment of his wife and the admiration of his young son. Wonderful feeling—remember your first?

Sunday, April 3, was the date of the Redondo Beach Pier Kite Festival. It was sponsored by the Sunshine Kite Co. and run by Randi Joe, whose shop is on the pier itself. Kite fighting was prominent at this meet, an informal one with no competition. Again it was a gathering of the faithful with a good attendance and many interested spectators.

I arrived back at Long Beach on Monday, April 18, and headed for the motel beside Bixby Park that seems to have become the headquarters for out-of-town kites at this time of year. It would be hard to find a more suit-



If you are interested in deltas and how they work, take a look at ours: the Super Plastic Delta (U.S. Patent No. 3963200).

The basic structure of the kite is the same as any conventional delta, but if you look closely at the photograph you will notice certain unusual features. The sun shining through from the back shows the spreader stick and the cloth adhesive tape that is used to fasten the center stick to the top of the kite. The keel is attached to a flat pleat formed in the center of the kite, pointing down. A piece of string is tied around the spreader stick and the center stick, at the point where they cross. After the spreader has been centered it can be taped to the string which will allow it to swivel so the kite can be rolled up but will prevent it from shifting loosely and keep it centered.

There are three simple adjustments available that can solve just about any problem that crops up on delta kites that you build yourself. These are:

1. Shorten the spreader stick.
2. Switch the flying line to a different eyelet in the keel.
3. Shift the spreader sideways, left or right.

Adjustment #3 is used to compensate for side sticks of unequal stiffness, and can be used alone or with either or both of the other adjustments. Shifting the flying line closer to the trailing edge of the kite will steady the kite if it has to pass through turbulent air.

It will then climb slightly slower but will eventually climb to the same high angle of flight no matter which eyelet the flying line is attached to. This is one benefit of having the cross sticks tied together. The main benefit of tying the sticks together is that the kite always responds to a stronger

wind by climbing higher, while a conventional delta sometimes responds to a stronger wind by bowing the spreader and pulling back without climbing any higher.

It is very simple to shorten the spreader on the Super Plastic Delta since it has no metal hooks. You simply snip a little off the end with a pair of wire-cutting pliers. If the kite should fly wobbly, shortening the spreader by about one-quarter inch will solve the problem completely, since the extra slack will allow deeper pockets to form in the wings, which steadies the kite.

The kite is easily made from plastic sheet, one-quarter inch diameter dowel sticks, and adhesive tape. Plans are \$2 which includes one set of brackets to make one kite. Extra brackets are 50¢ for the first set, 30¢ for each additional set.

Incomplete kite, with no sticks, is \$5, has keel and body assembled with cellophane tape, eyelets in keel, brackets fastened to body with double-sided adhesive tape, and partially formed sleeves for wing sticks. To finish the incomplete kite you will need two 36" long wing sticks which you slip into the sleeves and then seal the sleeves against the body with cellophane adhesive tape. The center stick and spreader are shorter than 36" and are cut to fit the kite.

Complete kite, ready to fly, made from 3-mil thick orange polyethylene is \$7.50.

Both complete and incomplete kites have a wing span of 68", length 34". Easily repaired if damaged.

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able location, with the park on top of the bluff above the beach, and the beach itself wide and long and with ample parking. These help make the Long Beach Kite Festival one of the best you could find anywhere.

This year was the 51st for the festival, so they have had plenty of practice, but Maria Sharpe is still not satisfied and is always looking for ways to make each successive event more memorable. She has her work cut out for her, because this year something extra was added in the attendance of 19 kite-fliers from the Tokyo area, who brought some remarkable kites with them.

Once again, more familiar faces appeared on the scene: Bob and Hazel Ingraham, Founder and past Executive Secretary, respectively, of AKA; Bob Farquhar, now of Phoenix; Ace Hall of Napa, surely one of the oldest active kites; and among the Japanese, Ichiro Hike and Takeshi Nishibayashi, whom I'd met in Japan last year. The festival opened on Friday, April 22, with a dinner for Bob and Hazel, at which the Japanese visitors were introduced and two films were shown.

The flying started on the beach next morning and continued until the late afternoon. This event is sponsored by the Long Beach Recreation Department and the Long Beach Rotary Club. It is primarily designed for the pleasure of the youngsters but now attracts adults up and down the coast, from San Francisco to San Diego.

There is an immense amount of preparatory work carried out in the schools. Winning entries from each area are judged during the day, and it takes much planning to keep the flying areas separate. The prize-giving itself takes up quite a bit of time, and there is somewhat of an air of regimentation, which is probably unavoidable for an affair of this magnitude and type.

Nevertheless, there is plenty of space for the adult fliers, who had kites up all day and who had two contests of their own. The Highest Flier and Best-All-Around classes were won by two Japanese visitors, Messrs. Yoshida and Nishibayashi.

At the end of the afternoon, there were kite-fighting contests, which are a growing interest in this area largely because of the efforts of Tom Joe and Vic Heredia. This, to my way

of thinking, is not a spectator sport but one strictly for the participants. The preliminary bouts took place on Saturday, with the finals the following day.

A bonus was provided on Sunday when a local TV station decided to televise live for an afternoon program. This took place at Venice Beach and was attended by most of the fliers from the previous day. As the beach was packed with the usual crowd of sunbathers, and all the kites wanted to get on the screen, the area near the cameras somewhat resembled Times Square on New Years Eve, and there were many aerial entanglements. It was a good day and a fine ending to my California visit, made so pleasant by the friendly kiteflying fraternity.

COLORADO

A report from Jane Parker Ambrose of Sky Scrapers kites, in Denver:

U.S. Congresswoman Patricia Schroeder recently sponsored her own kite festival in conjunction with Sky Scrapers kite store in Denver.

The event was held on the Regis College campus and included demon-

strations of India kite fighting, the new two-stringer kites, Colorado deltas, and other kites. Picnicking and live music added to the fine spring afternoon.



Colorado Representative Pat Schroeder with her children and kites.

Ms. Schroeder, a graduate of Harvard Law School, earned her pilot's license and worked her way through college as an airplane crash inspector for the FAA. She and her attorney

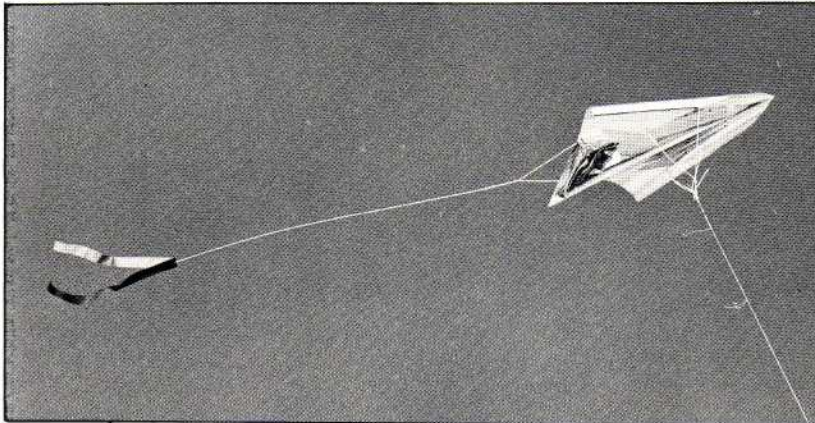
husband Jim, and her son, Scott, 11, and daughter, Jame, 7, find kiteflying the perfect family activity.

"We have a Japanese housekeeper who got the children interested in kite making and flying. It's become a great family sport . . . The one resource we have a lot of is wind in Colorado . . . Kiteflying is cheap, quiet, graceful, challenging and calming. It's a way to vicariously fly—soar! We all need to soar occasionally, for the world's humdrum can get us down otherwise."

Frances A. Weaver sent us the news that the Beulah Valley Association for Tethered Flight is scheduled for exposure in the *National Observer* at some indefinite future date.

This is a group of seven women whose "high-sounding name was chosen after great deliberation to give an air of sophistication to our tongue-in-cheek approach to kiting." Four members chartered the group because they all had kites. Then, "we added three more members because they had pastures!"

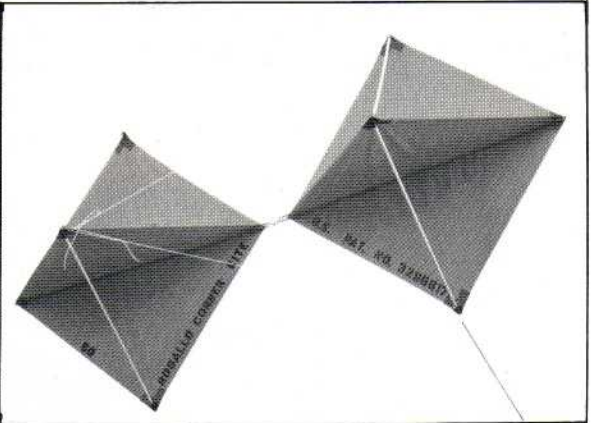
They find that flying in high mountain meadows is a challenge because of "shifting wind currents," and



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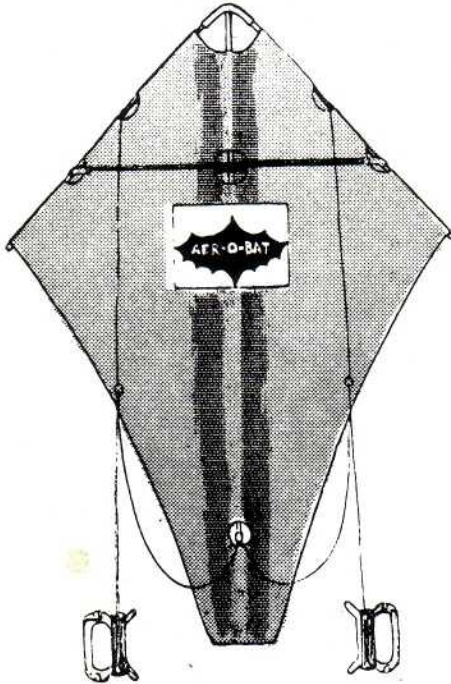
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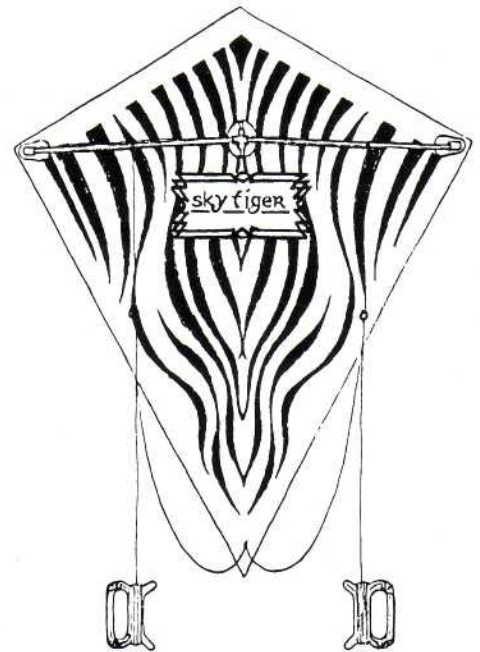
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News From Here & There

(Continued)

they prefer them for the "solitude and peace to be found there."

The group's *alfresco* luncheons would satisfy Julia Child. Ms. Weaver says, "There is always a suitable wine, naturally. Fruits and cheese usually end the bucolic feast, served mid-field with lady-like aplomb and disdain for the ever-watchful livestock."

Their most notable effort was bringing Dinesh Bahadur from San Francisco to Pueblo, CO, for a fly and demonstration. Hundreds of people came. "We wore our BVATF T-shirts and our members really outdid themselves in preparing an elegant picnic for 50 or more special guests. We emerged with our unorganized status barely intact."

DELAWARE

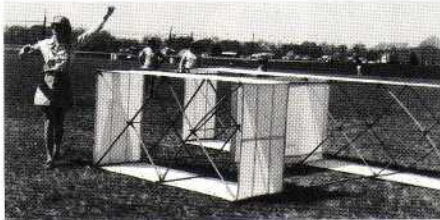
Sunny skies and stiff breezes on Good Friday contributed to a successful sixth annual Great Delaware Kite Festival at Cape Henlopen State Park, Lewes, DE. The event, inspired by

Bermuda's tradition, brought out Harold Madeiros of Dover to fly his big Bermudas. Lee Braswell, of Manassas, VA, took top prize with her huge, much-honored beautifully sewn Bicentennial Conyne.

A kite-fighting rematch of Mel Govig and former Lt. Gov. Eugene Bookhammer resulted in Govig's recapture of the "mid-Atlantic championship," which is annually contested at Cape Henlopen.

Delaware's kite interest was extended the following week with a fly at Broadmeadow, near Centerville.

Bill Kocher



Barrage kite before lift at Broadmeadow Kite Fly April 16 in Delaware.

DISTRICT OF COLUMBIA

In our nation's capital, the decorous yet exciting Smithsonian Kite Carnival

was held on March 26 in perfect weather, directed by Paul and Irene Garber. One of the largest turnouts yet took part in the eleventh annual affair.

Bill Kocher



The Wrong Bros. doing cut-ups at the Smithsonian. Paul Garber is part of the audience, at microphone.

Highest-scoring kite in the event was Graham (Gray) Marshall's 17½-foot delta-Conyne, handled with cool in limited space. However, Gray could not collect the Secretary's trophy because it is for the adult class and Gray is still 16. He won in his own class, of course. Fayed Ali Husfaini and Carol Rogallo (with a Corner Kite)

The Kite Site

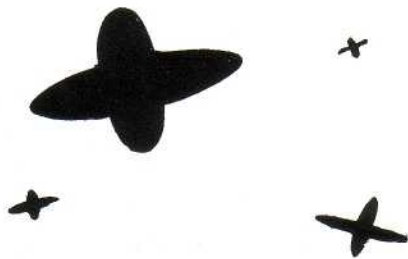
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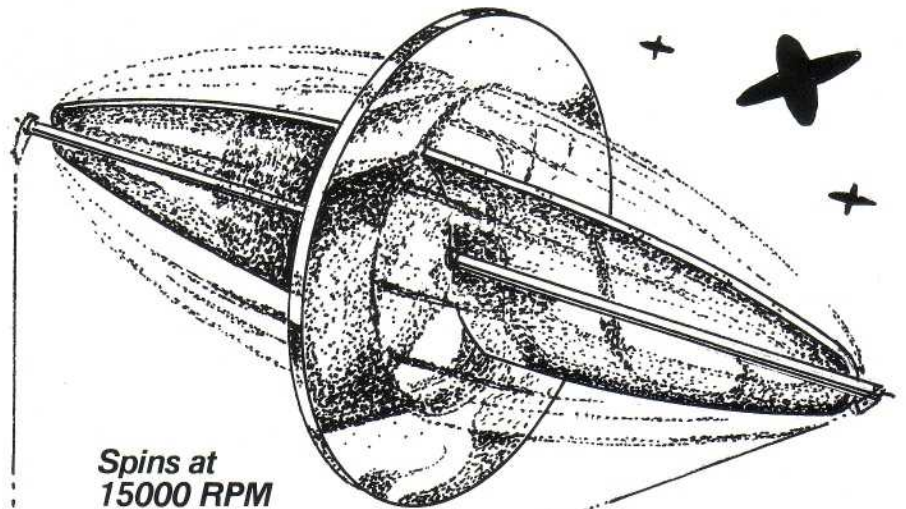
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News From Here & There

(Continued)

were first and second, respectively, in the adult class.

FLORIDA

Hugh Harrison, again on vacation from Montreal, reports:

Will Yolen's ninth annual International Kite Flyoff at Sarasota was rained out on Saturday, January 15, but took place successfully and enjoyably the next day.

Will conducts an informal contest that includes a minimum of regimentation. You register and that's it. Then you fly to your heart's content until prize-giving, because Will does the judging on the quiet without interfering with the fliers.

An excerpt from the diary of W. Bruwer Van Graan of South Africa, visiting Florida by way of England:

February 22: Went to West Palm Beach and to Briny Breezes to visit Hod Taylor and his wife. We have been corresponding for the last four years, and it was indeed a big moment to meet

him. He is known for his large kites, the bird kite being his specialty. Later on Mrs. Jane Scott, wife of the late Walter "Scotty" Scott, joined us. We just couldn't stop talking!

February 23: Got down to some serious flying with Hod Taylor, next to the beach, and the wind was just right. Hod's kites are all collapsible, each one is different, and they fly very well indeed. Had a fight with the sand burrs and lost! Afternoon: we went to Boca Raton to see Dom Jalbert. His Laboratory is a kiteflier's dream: stacks of multicolored rip-stop, miles of flying line, woodworking machinery, large work tables—could anyone want more? I fully expected to find wind tunnels and complex electronic gear to test and evaluate. However, Mr. Jalbert has none of these. Instead he uses his keen sense of observation and intuition which can only come through long experience.

February 25: Flew the large kites of Hod Taylor. As far as I know he is the only person who makes these big bird kites. Assembly is quite a task but the launching is easy. Three birds flown in a train were most impressive and a real crowd collector. The birds

were flown on 500-lb.-test line from a heavy-duty hand-cranked winch. The winch has a brake which is adjustable. Bringing the birds back to earth was also easy, as they do not fight, testifying to the engineering and know-how invested in these kites.

February 26: A good Saturday morning's flying at Dom Jalbert's Lab. The large open terrain behind the Lab is a good flying spot. Tried my Flexifoil from England again and really got it going. Maneuvered it all over the place and succeeded in skimming just above the ground, sharp right angle bends and vertical climbs. Super!

Mr. Jalbert flew some of his Parafoils and Parasleds. The Parasleds resembled a reverse delta. One Parafoil was a combination Parafoil/triangular box. He even had a black sky-diving parachute flying. Pulls like a horse!

In the evening attended a grand get-together at Jane Scott's place together with the Taylors and the Jalberts.

February 28: More flying with Hod Taylor. This time a 12-foot Scott sled in a gusty 20 mile-per-hour wind. I was pulled around dragging heels through the sand. Both of us had to



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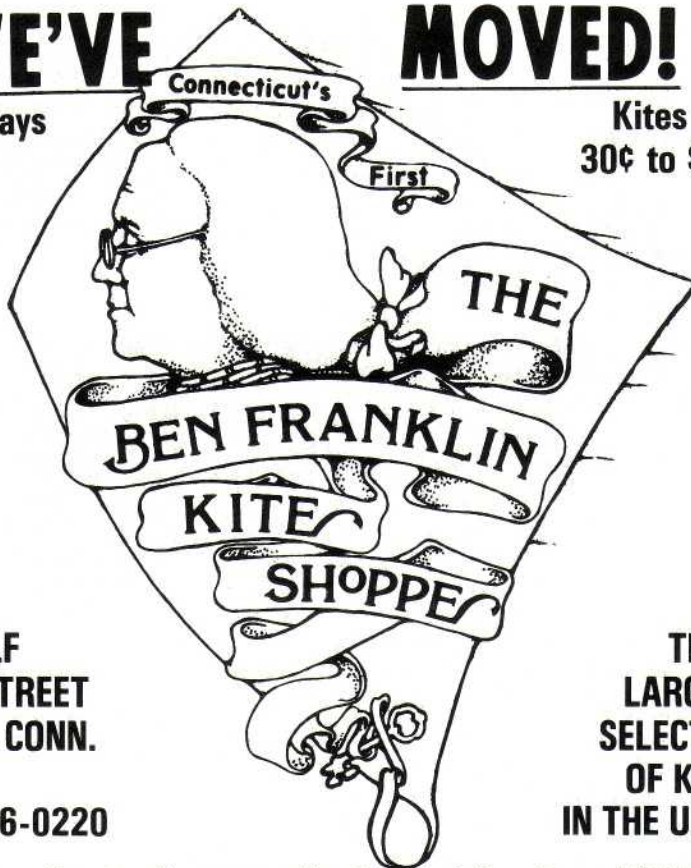
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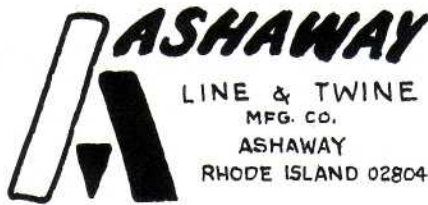


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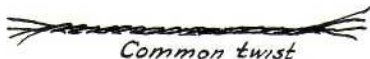
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News From Here & There

(Continued)

hang on for dear life. Despite its size, the sled flew at more than 60 degrees.

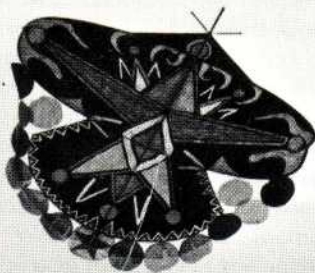
HAWAII

Two big events were reported to *Kite Lines* by Beverly Chang.

March 12 was the date of the second annual Ben Franklin Kite Contest, which was started as a Bicentennial event, in Waipahu, HI. It included four heats and was sponsored by the Department of Parks and Recreation and McDonald's of Waipahu.

Then on March 19 was the tenth annual Oahu Kite Flying Contest. "Over 1000 people came to view and participate," Beverly said. "The day was warm and sunny, with 20 to 30 mile-per-hour winds in the morning and 25 to 40-mile-per-hour afternoon winds." Besides the usual help of the Department of Parks and Recreation of Honolulu and the Lions Club of Moanalua, three new sponsors were persuaded to participate by Chairman Don Fujii. There were four categories for the two age divisions plus kite fighting for the seniors, won by Wayne Baldwin and Alfred Chang. "This year

Richard Chang



Top: Patricio Gongot's beauty.
Above: Winners all — Wayne Baldwin, Patricio Gongot, Alfred and Vincent Chang.

the Most Beautiful Kite event brought 87 competitors, mostly University of Hawaii students and Hawaii AKA'ers." Winners were Patricio Gongot, first, and Wayne Baldwin, second.

ILLINOIS

Bill Temple, reporting from Chicago, said the seventh annual Amelia Ear-

hart Memorial Kite Fly was called off because of postponement and lack of participants.

When he wrote, Bill was looking forward to the "big one," WIND Radio's Kite Fly, on April 24. Meantime he is looking for a fight—a kite fight, that is—and seeking interested fliers in his area. If you live in or near Chicago, call Bill at 334-6968 office or 631-6926 home.

INDIANA

The First Indianapolis Open Kite Festival was held on April 16, sponsored by WIFE Radio and merchants of the Keytone at the Crossing shopping center. Ideal weather and dozens of enthusiasts contributed to the day. A giant kite with the seal of the City of Indianapolis was presented to Deputy Mayor Bruce Melchert by the sponsors, which included Windiana Kite Works. A 25-foot delta made by Ansel Toney was demonstrated before the competition. Toney, 89, has been celebrated recently in an AP wire service story and on the "Who's Who" television show. (A profile of him will appear in the next issue of *Kite Lines*.)

LOUISIANA

The fifth annual New Orleans Kite Festival took place on March 20 at Audubon Park, with thousands of people there. Henry H. Boutwell reports that "The wind was blowing out over the river until it was time for the contest to start. Then the wind died out to one of those light breezes that move the leaves on a tree sometimes." Boutwell's own "Little Hazel," a 15 x 30 foot plastic delta, won hands down in the Largest Kite event because it flew—pulled up on 450 feet of 425-lb.-test nylon line. Smallest Kite was won by Connie Thompson flying another Boutwell kite, which was one of the few kites to fly in the light breeze.

MARYLAND

February 13 was the date of the Maryland Kite Society's well-attended annual meeting, held at the Maryland Science Center in Baltimore's Inner Harbor. Members were pleased to be visited there by W. Bruwer Van Graan of South Africa, touring America by way of England, where he had purchased a Flexifoil. The unusual kite attracted much interest during the fly before the meeting. Blustery weather

created mishaps, though, as Bruwer's diary described later in his entry for February 13:

"Bill Bigge's Wright Flyer wrapped itself around a tree within seconds, kites broke lines, kites fell in the harbor and a large Parafoil [Curtis Marshall's] tangled on a yacht mast. Chaos! Everybody then went off to the Center for the meeting and buffet. A kite auction followed where Pete Ianuzzi bought everything that remotely resembled a kite."

The main business of the meeting was accomplished: election of officers. Ted Manekin is the new Executive Secretary, while Pete Ianuzzi and Cynthia Kobitz continue as Treasurer and Secretary respectively, and Maryland Kite Festival Co-Chairmen are Rick Kinnaird and Mel Govig. An editor for the newsletter is being sought to succeed Valerie Govig, who now edits *Kite Lines* for AKA. Plans were discussed for the Maryland Kite Festival on April 30. Cooperation of the City's Bureau of Recreation and the Maryland Science Center was assured, and funding was earned through the Society's promotion work for a large local department store. Ann Kurtz, of the center's exhibits department, enlisted Society help for an important kite show running from mid-April through July.

On April 2 in Cambridge, MD, about 125 youngsters bundled up in threatening weather to fly at a kite contest. Chun King kites (modified cobras) were provided by RJR Foods, Inc. Each youngster was given 400 feet of line, and winners were those who let out their line fastest. Cambridge Mayor Al Atkinson presented trophies in three age groups.

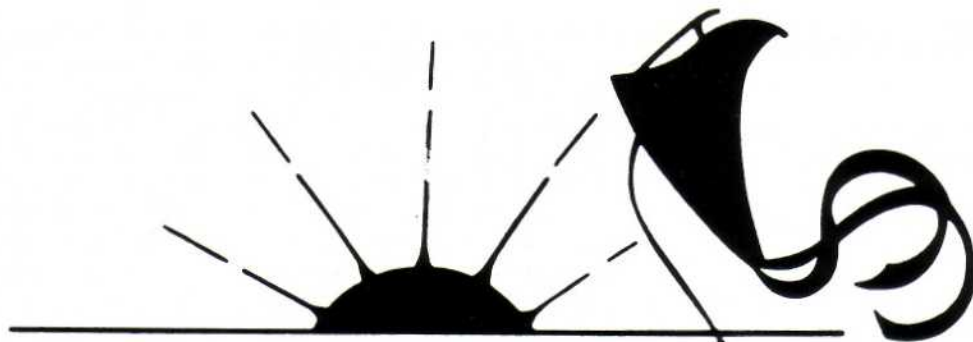


High spirits in Cambridge, MD.

MONTANA

Steve Smith reports:

"Kites, eh? I haven't flown one since I was a kid." That pretty well sums up



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News From Here & There

(Continued)

where most Montanans' heads are when it comes to kites. But we're working on that situation.

Here in Missoula, interest in serious kite building and flying seems to be increasing. Helping along those lines are two teachers in the city's grade school system, Marvin Enderlin and Jim Greene, who are teaching their pupils some of the fundamentals. Cub Scouts are getting into the act with kites as a spring project.

Missoula is scheduled to get, in mid-April, its second whack at a kite festival. One was held a few years ago, but its organizers didn't follow through.

Missoula kiteflier Wally Norby may have come up with a new wrinkle on reels. Wally, an ingenious custodian and mechanic at the local technical center, rigged up an old electric sewing machine with a large spool. He's a "deep sky" kiteflier who likes to get his rigs up several thousand feet on high-test line. He may be the only man in the country who brings them back while sitting at a Singer in the middle of his pasture, with an extension cord connecting the whole shebang to a power source.

A series of kiteflying rallies, open to all ages, was scheduled for late March in Kalispell by the Flathead County Park Department. Montana has a lot going for it when it comes to kiteflying. They don't call it the Big Sky country for nothing—there's a lot of wide open space and ample good breezes, especially east of the Continental Divide. West of the Divide, including Missoula, is in the heart of the northern Rockies, which makes for spectacular scenery over which to dangle a kite.

NEW YORK

Through most of April, "Flight Fancies," an exhibition of kites and flight fantasy art was held in the National Art Museum of Sport at Madison Square Garden. Kites as art and technology were displayed in a park among trees, benches and soft sculpture clouds. The Go Fly a Kite store provided advice and kites to supplement the works of many artists represented.

Utica, NY, is on its way to gaining a spot on the kiting map. Betty Devins

and a group of friends there are full of enthusiasm and activity. Their main and maiden event is a festival planned for August. See their ad on page 55 for further details.

NORTH CAROLINA

The annual Outta Sight Kite Flight was held April 2 in Charlotte. The competition for Largest Kite had been on Jim Chamberlin's mind since the previous year, when he took third in the category. For 1977 he and a team of four other engineering mates had determined to create the largest kite not only in Charlotte but in the world.

They studied sleds for weeks in advance of the event, and a 20 ft. x 25 ft. prototype had flown well. Aware of the Edmonds, WA, attempt in the making at about the same time (see following), the team was feeling confident because their kite was 50 ft. x 60 ft. in size and contained 2300 square feet of effective surface area. They had planned to support their Grauel-vented 3-mil polyethylene sled on tube spars filled with expanded rigid foam. Unfortunately, they never carried out this clever idea, and the tube spars were floppy.

The big day came and the 40-odd ground crew showed up in Team Kite T-shirts. The flight was a disaster. Jim was reluctant even to talk about it. The effort, however, probably ranks high in the annals of spectacular kite fiascos—second only to the effort in Edmonds.

OHIO

News report from Bill Jones:

AKA's newest chapter got off to a roaring start in February when more than 20 people formed the Ohio Society for the Elevation of Kites.

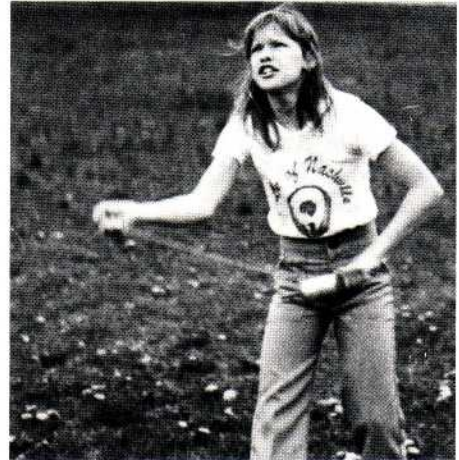
Based in Cleveland, this new group is out to encourage kiting in Ohio and surrounding states. OSEK, for short, has scheduled a series of kite flies throughout Ohio that will give kite people in the area a chance to get together for their favorite pastime. OSEK members also often travel to major kiting events around the country.

OSEK publishes a monthly newsletter of events and kite-related comment. To receive the newsletter, titled "Shoot the Breeze," to join the Society or to support it, send \$2.50 for a year's subscription/membership to OSEK Treasurer Judy Neuger, 4500 Chagrin River Road, Chagrin Falls, OH 44022.

TENNESSEE

The third annual Nashville Kite Flight was held on April 2, with Lee Scott Newman, kite author, one of the judges. George P. Turner was prominent in advance promotion and on the day itself. He reported that threatening weather did not dampen enthusiasm and that attendance was good. His protegee, Linda Mattos, 11, won most of the prizes. In the contest for the kite that was the highest flying in three minutes, she outwitted the other contestants by backing up an extra 30 feet for a much higher start. She flew

George Turner



Linda Mattos, 11, flies a Bullet kite at a high angle in Nashville.

a Bullet with drogue, which she had discovered by advance testing was better for the conditions that day. George also remarked:

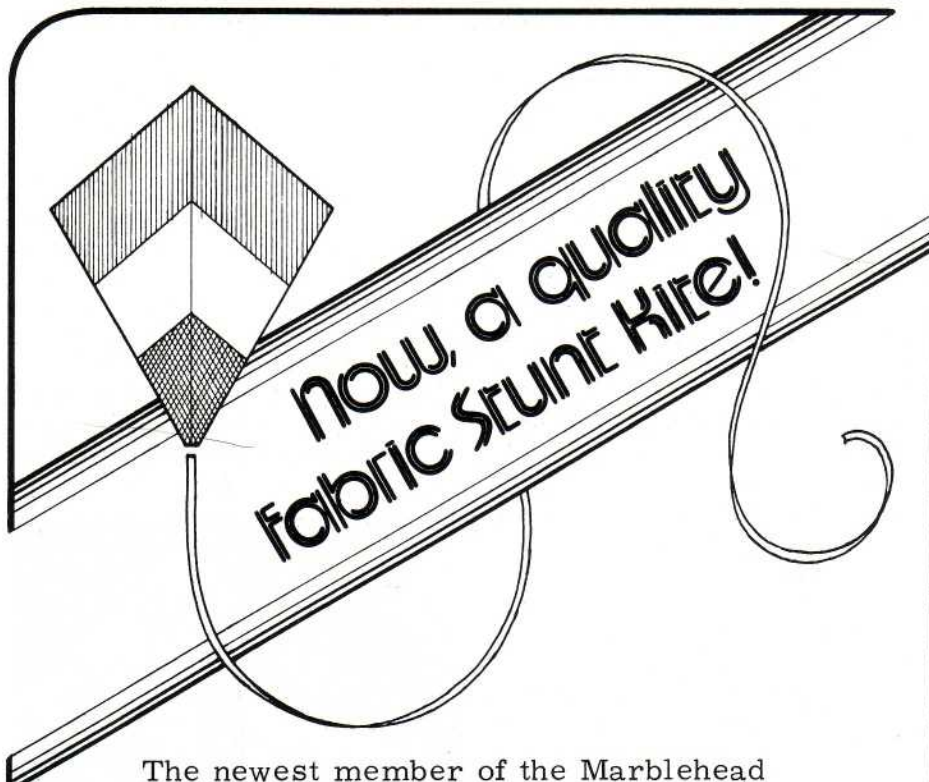
"This year there was a prize for the oldest kiteflier present. Not only did I win this prize but it appears I am a cinch to win it every year in the future. All I have to do to qualify is to just keep on living!"

TEXAS

February 17 saw the Houston area come alive for the Deer Park Kite Festival, a non-competitive day of learning, kite making and showing off. John N. (Jack) Jordan was on hand to teach and demonstrate. Jordan has been fascinated with kites since his children were young and he found the Galveston beach winds too strong for most kites. On retirement he became immersed in kiting and has built many unusual models.

From Austin, Charles Locklin writes:

The number of kite enthusiasts in Austin is increasing. Our 49th annual



The newest member of the Marblehead family of handcrafted fabric kites, the STUNT KITE adds a new dimension to kite flying. With its dual controls it can be made to loop and soar, making an incredible variety of intricate patterns in the sky with its long satin tail.

Constructed of light, strong ripstop nylon sailcloth in three brightly colored panels, the STUNT KITE is 40" high and has a 25' long removable satin ribbon tail. Flight is controlled by two kite lines attached to twin bridles. Details include solid birch dowels, brass rings, brass snap-swivel tail attachment, cotton web dowel pockets and our usual painstaking craftsmanship.

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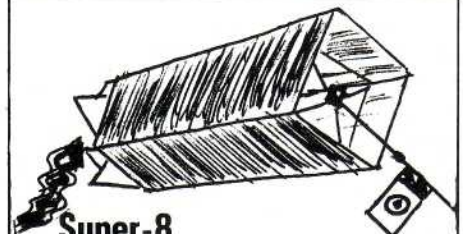
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News From Here & There

(Continued)

Kite Tournament was held March 20 at Zilker Park with over 200 entrants. Richard Robertson took a first place for the Most Unusual Kite with his 100-foot centipede. My "Chinese" Armadillo brought a respectable second.

In anticipation of our 50th event next year, I am compiling photographic and historical documents of kite activities in Austin. I hope it will develop into a commemorative booklet.

Another measure of kite interest in Austin has been the numerous requests from school teachers, scout and other groups for information and demonstrations. I know Dick has been responding to many of these also. I have had a display of kites in our public library and am currently teaching a class in kite building and flying in the Austin Community Schools.

WASHINGTON

Douglas Underwood writes to us from Whitman College in Walla Walla, WA, where he persuaded Rev. Joseph Lee and his wife Alice to come and show the students how to make Snow Goose kites. Interest in kites had previously been aroused on the campus by a visit from the Lees in 1972. In one January afternoon and following morning, about 10 Snow Goose kites were constructed. After making the intricate fabric kites, the participants, Doug said, "came to appreciate the time and skill which go into their construction, to say nothing of their design in the first place."



Imitation snow geese (kites) in real snow.

The Washington Kitefliers Association met on January 18 and elected new officers: Bill Lee, President, and Ken Conrad, Secretary. The group is planning to incorporate.

At a club fly on January 30 at Golden Gardens Park in Seattle, Jack Van Gilder was flying one of his favorite Thunderbird kites, and, as Jack tells it:

There was the usual exchange between flier and onlookers and the

usual question of "How much?" was asked. The stock answer came back at them: "Oh, probably \$1.50 worth of material—Tyvek,[®] Sears plastic drop-cloth, tape, glue and dowels. Figure your time at seven bucks an hour and it would be \$100, heh, heh, heh."

A quiet voice from the rear: "I'll give you a hundred bucks for that." A quick swivel of the head reveals a skid-row pan-handler type—meat-axe face, missing teeth.

Then the banter begins: "Well, you know, I'm kinda attached to this kite, winner of the 1973 Most Beautiful event in the Seafair contest, pictured in March, 1974, *Sunset* magazine, and all that."

Comes the unmistakable sound of crisp currency. Another neck-cracking swivel of the head reveals two fifty-buck bills aimed straight at the flier. A loud, "Take it, yuh dummy!" from John Dusenberry sews up the deal with an exchange of kite and reel for two pictures of General Grant.

March 26 and 27 were a big weekend for the Washington Kitefliers Association at the Pacific Science Center in Seattle. Their third annual exhibition and workshop drew 4360 visitors. They came to view over 200 kites on display and to pick up kite "kits" (material and directions for garbage-bag sleds) at 25¢ each. Six hundred of these were sold. The Center added more than \$900 extra for the favorable draw they created for the Center (based on half the admission receipts that were over the average for a weekend the

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U.F.O.

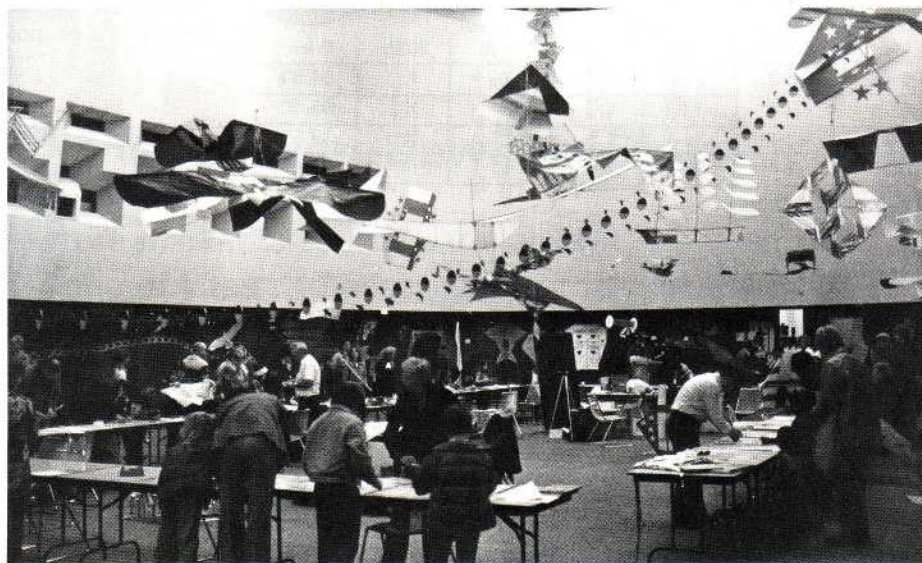
Constructed of space age "silver" mylar with an unbreakable fiberglass cross spar and outerworldly two tone fine printed image. This delta-winged kite is highly maneuverable in light air, soars and circles overhead in up to 17 m.p.h. breezes. Also available printed on clear mylar. Specify.

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T.F.D.

same month the previous year). The executive committee of W.K.A. apportioned some of this to the library system for books on kiting. The outstanding success of the occasion was attributed to several factors: good publicity, appropriate weather and timing, growing kite interest generally,

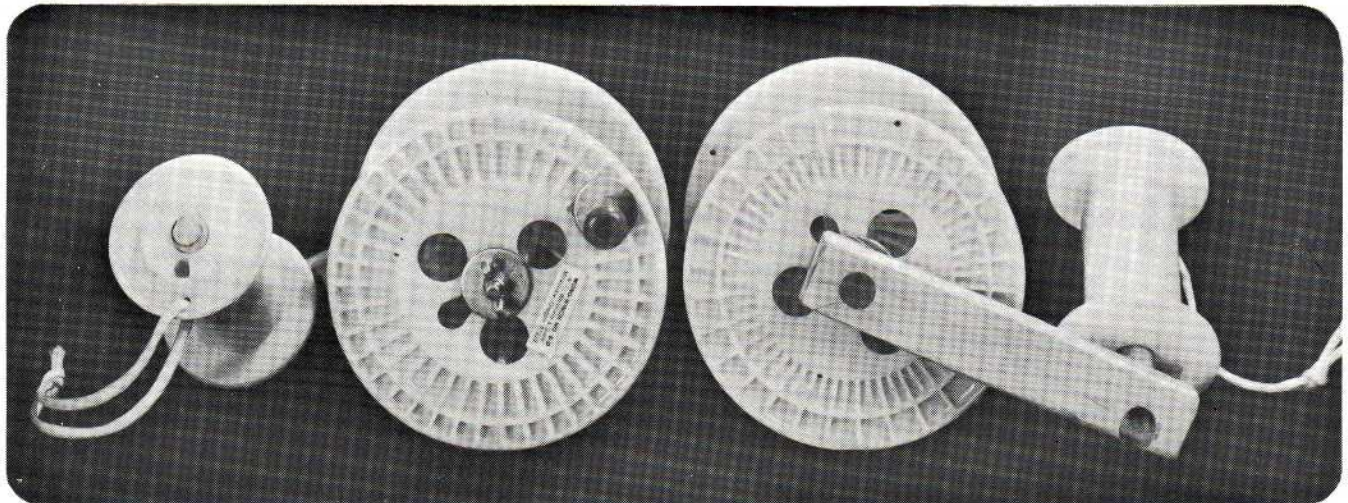


Washington Kitefliers Association Kite Show in March at the Pacific Science Center, Seattle, WA. A few of the kites: center top, John Dusenberry's 30-delta train; swooping diagonally left to right, Mr. J.C. Young's Chinese centipede; just left of center and above centipede, Jim Carnwath's 20-foot airplane kite. Slides and movies were shown in an adjacent room.

SOME REEL ALTERNATIVES

Make a list of the features an ideal kite reel should have. Check your list against the descriptions of the W. O. Weathers & Sons reels given below. You will discover that our Mono-winch* reels have more of the features on your list than any other reel; regardless of price.

Note our low prices. We can offer these prices because we use recycled (top-quality) spools.



Mono-winch No. 6D

No-strain-no-pain grip permits you to hold a hard pulling kite comfortably (see above). A first in kite reels.

Large capacity spool winds in a foot or more of line per turn.

Fly-from-the-belt capability.

Hardwood side beam permits easy attachment of your pet idea (line guide, pullup rod, etc.).

Drag brake that can be held for a light drag or set for full lock. A first in kite reels. **\$13.50**

Model No.	Re-wind Speed (MPH)	Mono-Filament Line Capacity (in Miles)				Price
		10 lb	15 lb	25 lb	30 lb	
5	1.5-3	2	1	X	X	\$4.50
6	2-4	3	1.5	X	X	\$6.00
6M	2-4	3	1.5	1	X	\$9.50
6D	2-4	3	1.5	1	3/4	\$13.50

Line not supplied

THE TWINGLE (Not shown)

This is a twin spool reel (two Sidewinder No. 5 spools pinned on the ends of a 22" axle, with a movable handgrip/bearing between the spools). Great for two-line kites.

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Mono-winch No. 6M

Similar to No. 6D, but without a drag brake and with a slightly lighter spool weight (see above). Quick spool change feature permits spools to be changed in seconds without tools. Ideal for Kitefishermen. **\$9.50**

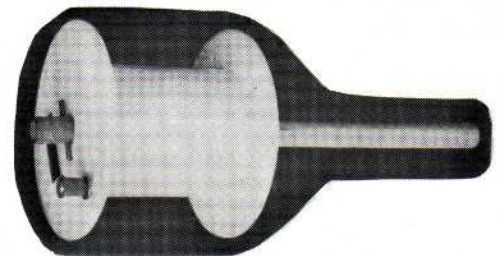
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Standard spool, order 6MS **\$3.95.**

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Sidewinder No. 6

Conventional spindle-type reel. Same spool size and weight as Mono-winch No. 6M. For fighting kites, light kites, and general line swapping. **\$6.00**



Sidewinder No. 5

Slightly smaller version of Sidewinder No. 6. **\$4.50**

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News From Here & There

(Continued)

a rejuvenated local kite shop and carryover benefits from the previous year's publicity.

Preparations are now underway for the Seafair International Kite Fly, sponsored by Seafair (Seattle's summer festival) and the Washington Kitefliers Association. It will be held July 16 and 17 at the new Elliott Bay Park, on the waterfront overlooking Puget Sound.

The park was dedicated last July with the assistance of W.K.A. at a kite-fly attended by Takeshi Nishibayashi from Tokyo. This year W.K.A. expects to host a number of kitefliers from Japan and other countries, including a large group from Vancouver, B.C., Canada.

The two-day festival will include kite fighting contests and a kite-boat race on the bay, the winner being the kiteflier-pilot team that is able to cover a two-mile course in the shortest time while keeping a kite continuously in the air. Another unusual event, won by Nishibayashi last year, will be the



Courtesy Port of Seattle

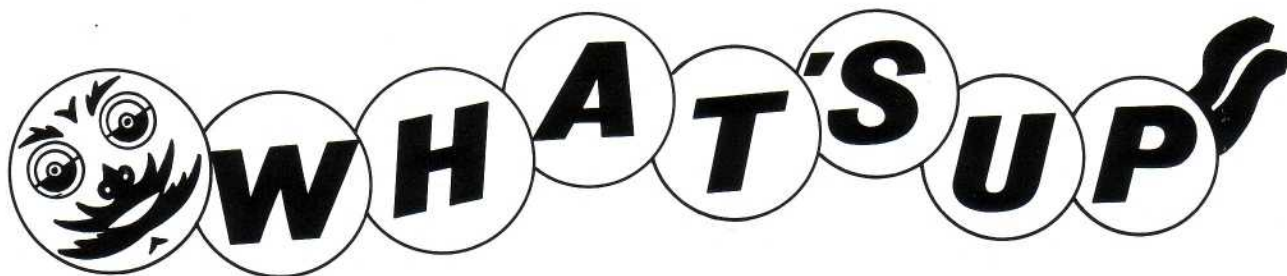
Left: Elliott Bay Park Kitefly, Seattle, site of the Seafair International Kitefly, July 16-17, 1977. This picture was taken at last year's dedication event, with Takeshi Nishibayashi's Happy Bicentennial kite.

Long Line Flight, to let out as much line as possible within two minutes, at the lowest possible angle. Various additional prizes will be awarded.

The Seafair International Kitefly will coincide with the International Exhibition of Flags, Banners and Kites at Seattle Center, July 10 to 24. The exhibition is co-sponsored by Allied Arts of Seattle, the City, County and State Arts Commissions, and by the National Endowment for the Arts.

Representation is expected from North and South America, Europe, Australia and the Orient. This display of flags, banners and kites is believed to be the first time the three art forms have been so combined.

One of the highlights of the exhibition will be a visit from Peter Travis of Australia, a potter and kitemaker, who will conduct three or four exotic-design workshops and show his movie, one of the few on kites (and some say the best). (Continued)

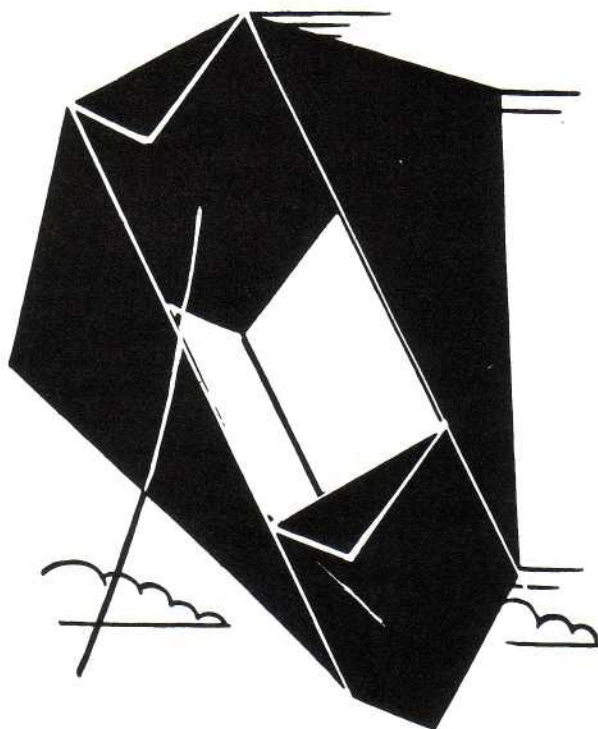


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News From Here & There

(Washington continued)

A GRAND FOLLY

Among heroic failures on record, none has been more heroic—or more a failure—than the Edmonds Community College effort to build the world's largest kite.

Dave Checkley writes:

March went out like a lion at Ocean Shores on Washington's Pacific coast. On March 30, a 30-knot gale frustrated efforts to launch what was billed as the "World's Largest Kite."

A team of 14 students from the Needle Trades Technology Center at Edmonds Community College, just north of Seattle, had been working since early February to build the monster box kite, including seven days of around-the-clock final assembly at Ocean Shores.

The Edmonds CC team, headed by Coordinator/Instructor Harry Osborne, was out to break the Guinness record, a project conceived by Osborne and Seattle disk jockey Bob Hardwicke, kite enthusiast and former student in Osborne's professional sewing class. I served as a part-time consultant and suggested the Cubic-Kite (multiple-cell box kite pioneered by Tsutomu Hiroi in Japan) for this pro-

ject because donated materials were available for it.

The frame was made of 6000 feet of $\frac{3}{8}$ -in. aluminum tubing provided by Reynolds Metals, connected largely with filament strapping tape. It was prefabricated in nine modules two cells deep, about 9 x 15½ feet. These sections were then joined in groups of three, which were finally assembled at the launching site. The 288 cells were sewn from 1.9-oz. rip-stop nylon.

The launch was originally scheduled for Sunday, March 26. High winds gusting up to 105 miles per hour prevented the Sunday launch and also forced down an earlier attempt for the Guinness endurance record; a seven-cell version of the same design was kept in the air for 33 hours by student Gail Schultz.

When the wind subsided on Wednesday, the sections were carried to the beach from the Ocean Shores fire station where they had been pre-assembled. The final assembly and bridling (done with assistance from John Dusenberry and me) took longer than expected, so the launch was delayed until late afternoon. By that time hundreds of onlookers and media people had arrived, many having been there the entire day in biting winds. As the sun descended, the wind picked up, and at launch time a 25-knot wind was blowing.

Because of the size and depth of the frame, it had been necessary to bridle the kite on the top as it lay flat on the beach; there were 36 bridle lines up to 70 feet long. Therefore the team had to tip the kite up from the back to bring it into vertical launch position, and during lifting, the wind caught the center. The bottom cells collapsed, apparently catching some of the bridle lines in the broken framework. The kite lifted about four feet off the beach, appearing, for an instant, to be rising. Then it dived to the left into the sand. The volunteer team on the $\frac{5}{8}$ -inch flying line kept running, and the combination of the gale wind and dragging on the beach completely destroyed the kite, which ended as a tangled mass of aluminum tubing and nylon.

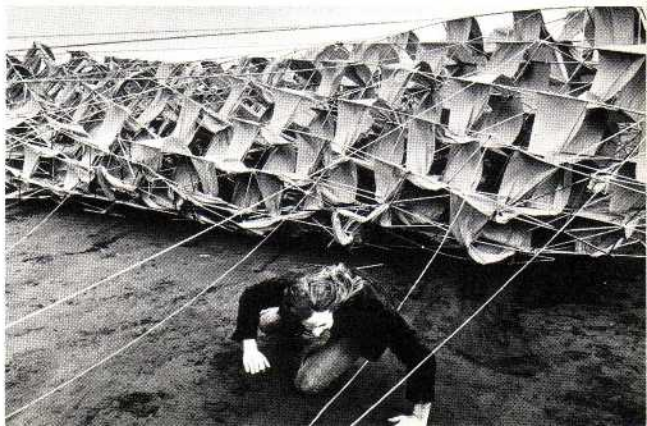
Although disappointed, the Edmonds CC group is now analyzing the problems and is re-engineering an even larger kite for another attempt next spring. The new kite will be rectangular rather than diamond-shaped, will be pre-assembled in larger units to minimize field assembly time, and will be bridled in advance in a wind-free environment.

Anyone interested in offering advice may write Harry Osborne, Edmonds Community College, 20000 68th Avenue West, Lynnwood, WA 98036.

(News from Here & There continues)

Photos: Michael O'Leary

Total weight of the would-be kite was 270 pounds. Total projected area of the cells was 1326 square feet (flown on an angle).



SPRING 1977

MYLAR STAR KITES NEWSLETTER

Mylar Star Kites welcomes our finest season — SPRING - 1977. We have been manufacturing the finest mylar kites since 1973, kites proven in quality, true state-of-the-art construction produced by dedicated craftsmen. Match our products side by side with all the other mylar kites and you will see Mylar Star's precise construction, tighter, more symmetrical shapes, larger dragonhead surfaces, neat, attractive packaging. Then go fly a MSK and you select!

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Utilizing MSK large dragonhead for extra lift

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- Over 20 ft. of strong, heavy gauge mylar tentacles
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- Exotic Flyer
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- Attractive header package
- Chinese serpent art silk screened design
- Multi-colored versions - rainbow
- Larger Dragon head
- New colors

Complete Color Selection

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Complete Manufacturing Facilities

Custom orders, silk screening logos, proprietary kites, special packaging, MSK is at your service.

Complete Product Line

Model No.	Description	Model No.	Description
4510-76	45' America Kite	3515	Small Octopus Kite (new)
4510-20	45' Rainbow Kite	1500	Mylar® Sled Kite (new)
4510	45' Dragon Kite	6515	Mylar® Star Fighter
2510-20	25' Rainbow Kite (new)	7500	4-Wing Box Kite
2510	25' Baby Dragon	1000	Spools
1515	25' Large Octopus Kite (new)		

Have a grand kite year,



News From Here & There

(Continued)

AUSTRALIA

R.E. Ted Padman writes:

Just recently the schools here had a "Come Out 77 Festival" Kite Fly in the Parklands, part of a festival for the performing, creative and visual arts for young people. Unfortunately, the wind was rather poor, but some of the lightweight kites such as garbage-bag sleds did fly. I saw Thai serpent kites that were very colorful. A della Porta kite was flying quite well.

CANADA

Every spring, after wintering in Florida, Ken Lewis comes back home to kites in Canada. His name is synonymous with kiting in his area; in fact, he is known as Mr. Kite of Canada. He is a chief organizer behind

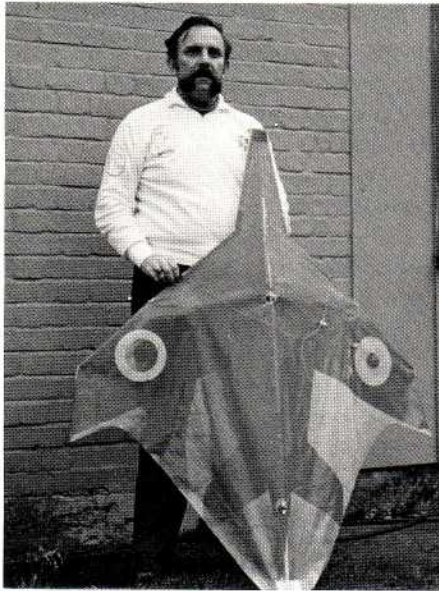


Ken Lewis with kite and other incentive.

the Glad Kite Festival on June 11 and the Canadian National Exhibition Kite Festival on August 28, both in Toronto. Ken is retired and works on kite promotion full time during the warmer months. He supplies information on kite making used in publicity for the Glad contest, where large cash prizes are awarded for kites made from plastic bags. It's likely Ken has had a hand, too, in the re-introduction of the Inn on the Park Kite Festival in Toronto on June 18, which will include a "Celebrity Fly Off" for benefit of local charities.

ENGLAND

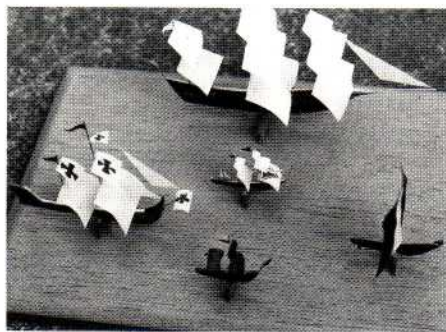
The development of the British Kite Flyers Association, led by Ron Moulton, has become big news in England. The squeakiest wheel in Europe, however, may be the Essex Kite Group, a tiny but enthusiastic band, founded by Clive C.O. Rawlinson. Their newsletter accounts for their minor fame.



Clive C.O. Rawlinson poses with Red Arrow.

JAPAN

The Yajima ship kites which appeared previously in *Kite Tales* (predecessor of *Kite Lines*) were the inspiration for Larry Hoffman's son Kenji in making models of his own. They all fly!



Kenji Hoffman's ship kites: foreground, smallest, 32mm long x 24mm high; background, largest, 120mm long x 66mm high.

New ZEALAND

Logan Fow writes us his "Kiwi Ramblings":

The Waikato Chapter in New Zealand is alive and well. If not big, it is at least enthusiastic. In the last few months it has:

1. Given three exhibitions in different museums. One was supposed to be for two weeks but was so popular that it lasted three months. These led to the display's being televised nationally, to radio interviews and to at least five newspaper articles.

2. Given two demonstrations of kite-flying. A wide range of kites, from an Allison to a traditional centipede, was on show. Clarence Croft's six-foot Allison is a beautiful kite and flies better than the average sled.

In February, David Thompson and I acted as judges at the Napier fifth annual Hawkes Bay Chinese Kite Festival. It was estimated that between 7000 and 8000 people were there, and entries were double the previous year's. There was just enough wind to fly on. Top prize for the prettiest kite went to a 14-year-old girl with a beautiful Chinese fertility kite. She had decorated it really well and copied the characters so accurately that the Chinese translated them for her. The most pleased kiteflier was a 12-year-old girl who stole the show and won \$50 for her school with a large minisled which flew like a charm.

The Hauraki Kite Day held in March was almost windless up to heights of about 400 feet. However, I got another first with my 30-meter centipede. About 5000 people turned up, but there were fewer home-built kites than in previous years. Organization was poor, and I felt that there was excessive commercialism. Large numbers of two-line deltas were sold with only 50-foot lines; it was almost impossible to fly them properly, so they were a menace to all and sundry.

In the local group, Clarence Croft stood down this year and David Thompson was elected president. David is an engineer and flies a trusty blue delta as well as a Loy-type delta and a Conyne. Clarence started the chapter four years ago and has done a lot to foster kiting, especially in the areas of fighter kites and folded paper kites. He has done much experimental work with the latter and also with sprung bridles. Sprung bridles have been applied to a couple of Eddys, and do they fly! They go like charms!

I've started another set of experiments with sleds, first to compare a sled with a ratio 1:1.333 to a normal two-stick ventless sled; and second to see if the Allison is superior or inferior to the normal Scott sled and the two-stick ventless sled. The Allison seems more stable than the Scott. ◇

Flying with The Old Pro

By Bob Ingraham

Founder, American Kitefliers Association

I got a big kick out of the conversation concerning kite tails which appeared in the new *Kite Lines* published in March.

When I was younger, less diplomatic and very new to the game of publishing, I made some scathing remarks about kites which required tails, and the wrath of several of my old-timer kiteflying colleagues fell upon me.

I was forced to retract my statements and modified them considerably in later writings, but my feelings remain the same as before. This time I will sum up in a conversation which took place between the former AKA Executive Secretary (Hazel Ingraham) and me over a Sunday morning breakfast:

HI: What do you have against kite tails? I think they're pretty.

RI: I don't have anything against them. I just don't like them on my kites. I am an aerodynamicist and want my kites to fly by themselves for purely aerodynamic reasons and not because they are supported and stabilized by added influences, like an outrigger canoe.

HI: Does it bother you when you see kites with tails?

RI: Not at all. I have become very tolerant of the preferences of others,

realizing that there are very great differences in individual intellectual capacities. I don't give a hoot if they put tin can tails on their kites if it pleases the poor misguided souls.

HI: Just exactly what are the reasons you are so vehement about the use of kite tails?

RI: I'm glad you asked that question but not very. But, first of all, there is a well-known fact that almost anything will fly. If its configuration leans even slightly toward the accepted airfoil contour and it is firmly tethered, it will fly. You may have to have an 800 mile-per-hour wind, but it will fly. So, I contend that it isn't a question of whether a kite will fly but how well it flies and compliments the aerodynamic understanding of the builder. A flag flapping in the wind because it can do nothing else isn't a tribute to the aerodynamic art.

HI: Aren't there some kites which don't actually need tails but have them nevertheless?

RI: Yes. Any kite that flies well without a tail can handle one very nicely, but with some sacrifice of its design capability. I have often put tails or streamers on some fine kites which were actually embarrassed by them, just to impress those with weaker intellects who can't recognize a kite unless it has a tail.

HI: I have always thought that all the kite tails on kites at the kite fiestas made everything much prettier.

RI: I must admit they do. But it's like the May poles we used to wind on May Day before the Russians took over the celebration. (I never wound one because I played in the high school orchestra and performed Mendelssohn's "Spring Song" about 8000 times during the winding.) The winding was very pretty but when it was over all you had was a pole all wound up in ribbons that caused the school janitor to labor for hours getting it unwound.

HI: That is one of the worst comparisons I ever heard.

RI: Well, maybe. But what would you think of an airline that had the crew out attaching a 600-foot tail to a Boeing 747 before you boarded it? Wouldn't it shake your confidence in the aircraft?

HI: I don't think so. It would make them a lot prettier to watch. As a matter of fact, I think they do use tails on some of them. The ones that go over here sometimes have long tails, don't they?

RI: Those are contrails, dummy. Not tails. They are vapor caused by the warm moisture expelled by the jet engines.

HI: But, do you really hate kite tails?

RI: Not really. It's sort of a pose. I like to stir up controversy about kites. There's nothing that brings a kiteflier out fighting faster than when he reads something attacking his own preferences.

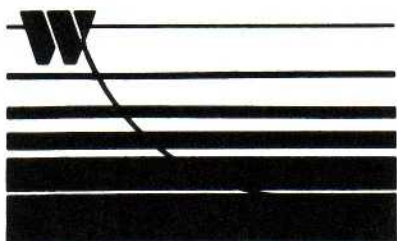
HI: It seems to me that you have flown lots of kites with tails—not only short ones but some very long ones. Am I right?

RI: True. And I probably will again. I still have that 300 feet of colored banners I used to fly off the big Parafoil.

HI: Why do you do it if you pretend to hate kite tails?

RI: Just to show off. A lot of people don't recognize a kite when it has no tail. Without one they'll say, "What is that?" With one they'll say, "What are you doing, flying a kite?"

(Note: It is doubtful if this conversation ever took place. HI and RI, married for 40 years, both talk at the same time and one never hears or pays any attention to what the other is saying.)



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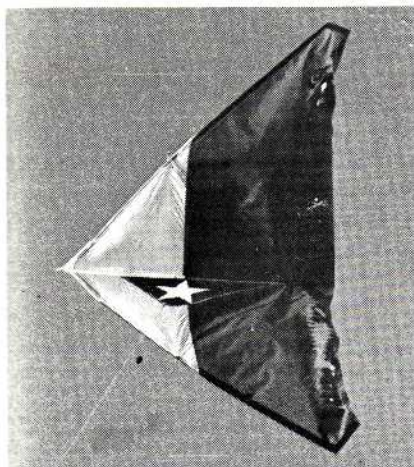
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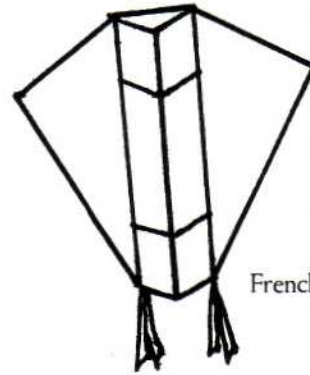
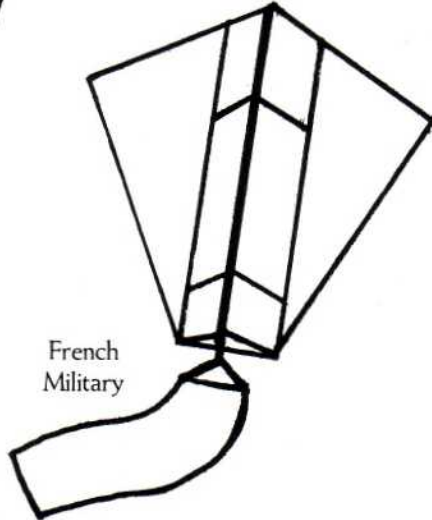
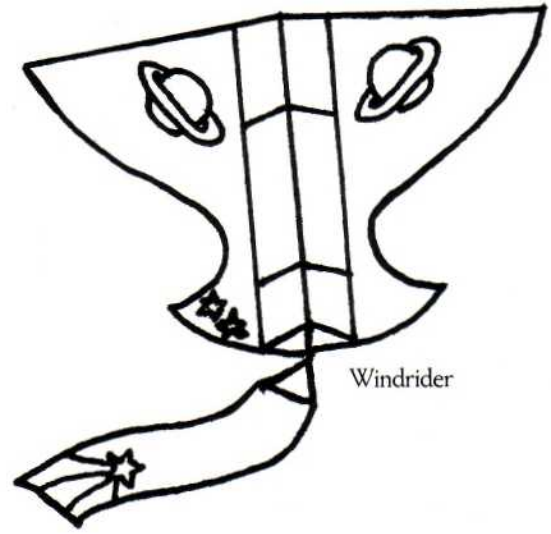
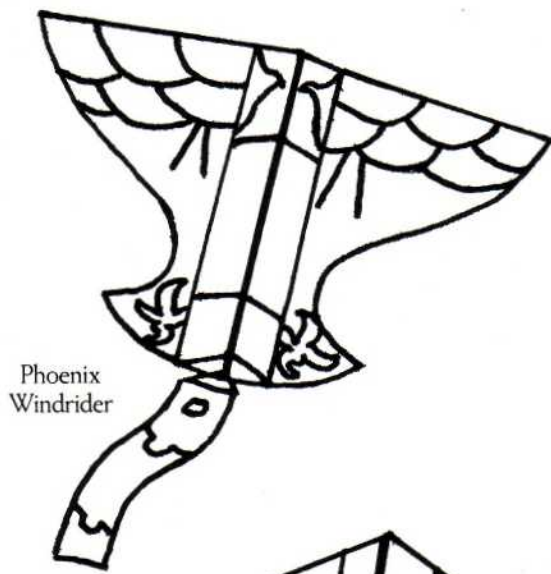
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The Dutch Kite



Anneke Davis

By Margaret Greger
Drawings by
Joan Slattery Newcomb

When I first show people this all-paper kite, they nudge each other and whisper, "It'll never fly, Wilbur!" But I have my moment when I demonstrate that it flies well, is remarkably durable and makes a fine target kite.

I was vacationing in Nebraska one summer and was overcome by a desire to make use of the Midwestern wind. I made a Dutch kite from a grocery bag, attached a strip of newspaper for a tail, and flew it on my brother-in-law's fishing

line. When he suggested trying to shoot it down, I agreed to the test.

He and my nephews used all their ammunition on it, filled it with holes, clipped its tail, and finally, with a lucky shot, cut the lower end of the bridle string. Dutch was still floating at 15 feet when they decided to pull it down and present it to me. This gallant survivor traveled to classes with me for a number of years.

The Dutch kite flies easily in light to medium winds and can be towed by a bicycle or walked around the park by a two-year-old. It is a tolerant kite; that is, the less-than-perfect model will still fly.

Making this kite calls upon many skills — measuring, folding, cutting,

gluing, and taping — and I have come to regard the design as relatively difficult and not one to be attempted by the very young. But a teacher friend introduced it to his first grade class with considerable success. He said, "We make it the project of the week. The first day we do the folding. Next day we glue. Then we put the bridles on. By the end of the week, we're ready to fly." When I visited the class, the children were competent kite craftsmen, able to make kites, fly kites and repair kites, and brimful of achievement besides. It was this teacher, Lee Wilbur, who introduced bamboo reed as reinforcement, improving ruggedness.

MATERIALS for one Dutch Kite

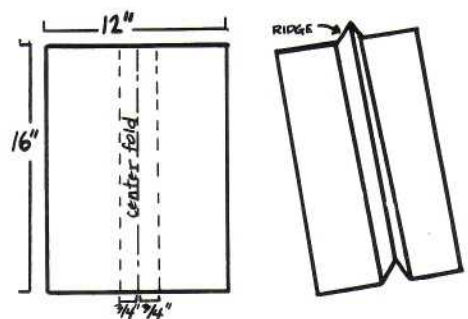
- Stiff paper, such as butcher paper or light construction paper, 12x16"
- Paper scraps for bridle grips
- Light string, 24" for bridle
- Matchstick bamboo reed, or use any stick 1/16" diam.
- Crepe paper for tail, 1"x4"
- Glue

TOOLS

Pencil, scissors, ruler and paper cutter (optional)

INSTRUCTIONS

1. Fold and crease paper in the middle the long way. Fold and crease again 3/4" from center fold. Open flat, the folded section forming a vertical ridge up the middle. This will be the front side of the kite.

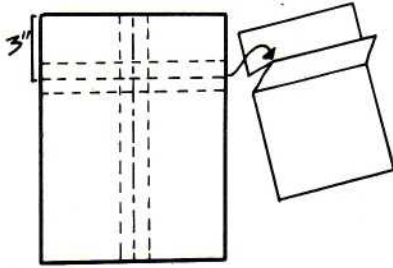


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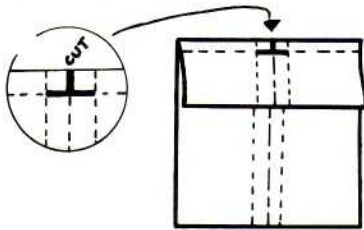
THE DUTCH KITE

(Continued from page 57)

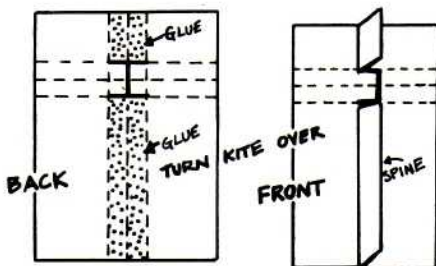
2. Open paper flat. Fold and crease on a line 3" from the top (short way). Fold and crease 3/4" from this fold. This will form a horizontal ridge.



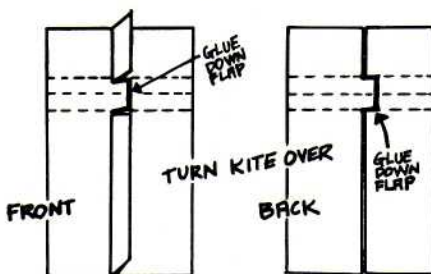
3. Unfold the 3/4" -wide crease and cut on heavily marked lines.



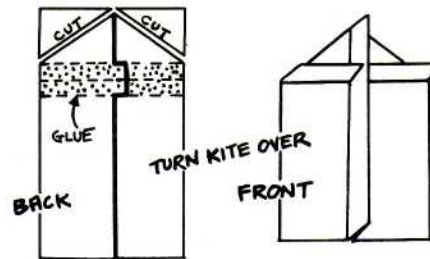
4. Open paper flat, ridge side down. Brush glue on top and bottom sections of the long vertical fold (between the fold lines) but not on the horizontal fold section where the H-shaped slit is. Lay bamboo reed, cut to size, on the center crease, a short piece above the cross fold and a long length below. Fold in center, spreading sides out flat, thus gluing the spine of the kite.



5. The cut flaps on the intersection of vertical and horizontal ridges (cross fold) should slide over each other, one coming out on front of the kite, the other on the back. Glue these flaps down on front and back of kite.

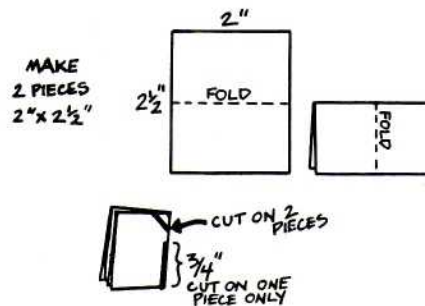


6. On the back, brush glue on the cross fold and horizontal ridge area. Lay bamboo reed in the crease. Bring together to form the horizontal ridge. Trim off top corners.

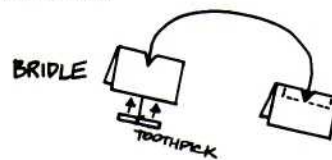


Now for the bridle:

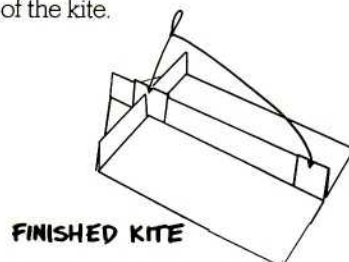
7. Take two scraps of paper, each piece 2x2 1/2", and fold in half, across the 2" dimension. Fold in half the other way and snip a small corner off the center fold, making a hole in the center of the paper. On one scrap, cut about 3/4" up the middle fold below the corner cut.



8. Open pieces up. Tie each end of the 24" string to the center of a 2" bamboo reed. Thread the sticks through the holes in the small papers, so that the sticks ride in the creases and the papers are linked by the string.



9. Over the intersection of the ridges (parallel to the vertical ridge), glue the paper with the slit, which separates to fit over the horizontal ridge. The other end of the bridle is glued over the vertical ridge at the bottom of the kite. Last, glue on the tail, a 4' strip of 1"-wide crepe paper, to the bottom center back of the kite.




A simple way to set the bridle angle on a light kite: Slip a finger through the bridle string, so it forms a right angle with the kite at the juncture of the upright and cross ridges. With the other hand, pinch off a loop in the string, bringing the part of the string nearest the top of the kite up to meet the other portion.

Pick a wide open place, fly and enjoy!

FURTHER EXPERIMENTS

Keeping the same proportions, you can scale the Dutch Kite down to as small as 3x4" (before folding). For tiny versions, use crisp, lightweight paper, broom straw for reinforcements, and make the folds and the scraps for the bridle assembly as narrow as possible to save weight. Fine strips of crepe paper will serve for tail. Fly on "crystal" thread, a very fine monofilament, sold in sewing centers. (Anything heavier would mean a flying line heavier than the kite.) These pocket-sized kites fly well, but they need a fairly strong wind and considerable skill.

Dutch Kites scaled larger than standard are giraffes, subject to slipped discs and other back ailments.

The Dutch Kite is excellent for flying in train. Use 15-lb.-test line for the master line, to which all the kites will be tied. Tie the first kite to this line and let it out about 50 feet. Using crochet thread, or other light flying line, put up a second kite to about 25 feet. Tie a loop in the master line, break off the second line and tie it through the loop. You now have two kites on one line, and can continue adding others in the same manner. The added kites help take the drag from the line, and the limit you can fly in this way is unknown. 

The Dutch Kite first appeared in *Adventures with Paper* by A. van Breda (London: Faber & Faber, 1955, now out-of-print). As adapted by Margaret Greger, the design was included in an article, "The Complete Kite Curriculum," in *Learning* magazine, March 1975, and subsequently appeared in her book *Blown Sky-High* (see Classifieds), © 1977 Margaret Greger, from which we have excerpted by permission.

Classifieds

Services and products are listed as a service and listing does not imply endorsement by the American Kitefliers Association. Publisher reserves the right to reject any ad not in keeping with publication's standards, and to abbreviate to save space. Rates: 20¢ per word, \$2 minimum. Post office box numbers and telephone numbers count as two words, abbreviations and zip codes as one word. Check or money order, made payable to American Kitefliers Association, must accompany copy and be received prior to closing date (as given on masthead, page 5). Send to *Kite Lines Classifieds*, 7106 Campfield Road, Baltimore, MD 21207.

WANTED

CLIPPINGS: News and articles of kite interest are actively solicited by AKA. First person to send an original with name and date of source will receive a small reward. Later duplicates received will be returned if sender supplies stamped, self-addressed envelope. Send clippings to American Kitefliers Association, 7106 Campfield Road, Baltimore, MD 21207.

INFORMATION on rare kite materials sought for exchange by AKA. Reliable suppliers of bamboo, aluminum tubing, fiberglass rods, Tyvek[®], Mylar[®], nylon rip-stop, plastics, rice paper, glues, tapes, line, fixtures, etc., are encouraged to write and/or send samples to AKA, giving full details of sizes, grades, colors, prices, etc. Send to American Kitefliers Association, 7106 Campfield Road, Baltimore, MD 21207.

OLD KITES: Lewis fishing kite, WWII box kites (emergency equipment), etc., old books, articles, about kites. Will pay. Pat Hammond, 215 Argyle, San Antonio, TX 78209.

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SLIDE SHOWS: Two educational 80-slide shows, "All Manner of Kites" (about 14 min. on history and varieties) and "How to Go Fly a Kite" (about 9 min. on flying techniques, contests), to show separately or in succession, with synchronized tape cassettes. Rentals are \$15 ea. or \$25 for both for 3 days, including ship. one way. Rentals may apply to purchase prices of \$45 per show or \$75 for both in trays with tapes. (Also available with scripts instead of tapes at \$40 ea. or \$70 for both.) Write for order form to Maryland Kite Society, P.O. Box 10467, Baltimore, MD 21209, or call (301) 484-4861 or 655-9320.

Super Kites, book by Neil Thorburn, \$2.50, 4738 Elm-hurst Dr., San Jose, CA 95129.

LIMITED NUMBER of kite books: *World on a String*, Jane Yolen, \$5.95; *Kite Craft*, J. & L. Newman, \$4.95; *Complete Book of Kites and Kiteflying*, Will Yolen, \$9.95. Prices include mailing at book rate. Send check or money order to: Bob Ingraham, P. O. Box 1511, Silver City, NM 88061.

"HOW-TO-DO-IT" BOOK of 14 kites. Delta, snake, military and sled kites in fabric, with simple instructions and diagrams. Tested designs for various kites in plastic and paper. Kite-making with classes and groups. By Margaret Greger, ill. by Joan Slattery Newcomb, \$5 by mail. *BLOWN SKY-HIGH*, 1425 Marshall, Richland, WA 99352.

BACK ISSUES of *Kite Tales* magazine beginning with Vol. 8, #4 and extending through Vol. 10, #3 only. \$2 ea. including mailing. Order from: Robert M. Ingraham, P. O. Box 1511, Silver City, NM 88061.

AKA EMBLEM PATCHES now available direct from AKA. Washable, red-white-and-blue, 2½x2½", \$1.75 ea. (2 for \$3.25, 3 or more \$1.25 ea, all postpaid. (Foreign orders add estimated postage.) Send check or money order to American Kitefliers Association, 7106 Campfield Road, Baltimore, MD 21207.

RETAILERS LISTING

The Kite Kompany, Inc., 33 W. Orange, Chagrin Falls, OH 44022, (216) 247-4223.

The Kite Shop, Jackson Square, 542 St. Peter St., New Orleans, LA 70116, (504) 524-0028.

The Kite Site, 1075 Wisconsin Ave., N.W., Georgetown, DC 20007, (202) 965-4230.

Now we're at the beach! THE KITE SITE of Georgetown, DC, has a new store at 904 Boardwalk, Ocean City, NJ, open mid-May to mid-Oct. Drop by and see our beautiful kites!

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Whimsicall Kites, 4113 Padre Blvd., P.O. Drawer 488, Pt. Isabel, TX 78878.

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Bennett Arnstein, Super Plastic Deltas—Plans, 3049 W. 8th St., Los Angeles, CA 90005, (213) 388-3517 (eves and weekends).

Explorers, 21 W. Micheltorena St., Santa Barbara, CA 93101, imported kites, reels; wholesale only.

Flying Tiger Associates, P.O. Box 48634, Los Angeles, CA 90048.

High as a Kite, 691 Bridgeway, Sausalito, CA, 94965, (415) 332-6355.

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Kite Plans Co., Box 417, Somonauk, IL 60552.

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Quicksilver Kites, 701 Shrader St., San Francisco, CA 94117, (415) 386-4820.

Rogallo Original Flexikites, Kitty Hawk, NC 27949.

Shanti Kite Spools, 210 Chattanooga St., San Francisco, CA 94114, (415) 648-2621.

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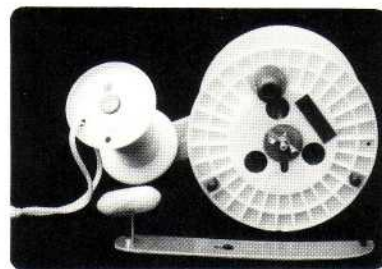
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June 6

Thomas Ansboro files first rotor-kite patent 1891.

Shirone O-dako Festival (giant kites), June 6-11, Shirone, Japan.

11

3rd Annual Ghirardelli Square Kite Festival, June 11-12, Marina Green, San Francisco, CA. Contact: Come Fly a Kite (c/o Shelley Hall), 900 North Point, San Francisco, CA 94109, tel: (415) 441-2965.

2nd Annual Glad Kite Festival, with large cash prizes for kites made of Glad plastic bags, Ontario Place on the lakefront, Toronto, Ontario, Canada. Sponsor: Union Carbide Canada Ltd. Contact: Starword Communications Ltd. (c/o Carolyn Myles), 165 University Ave., Toronto, Ontario M5H 3B8, Canada, tel: (416) 863-1754 or 366-5801.

12

2nd Annual International Kite Fight, Redondo Beach Pier, Redondo Beach, CA. Sponsor and contact: Sunshine Kite Co. (c/o Randal Joe), 233-B Fisherman's Wharf, Redondo Beach, CA 90277, tel: (213) 372-0308.

Back-to-the-Hills Kite Fly, non-competitive, at Virginia Kendall/Metropolitan Park, Quick Rd., Akron, OH. Sponsor and contact: Ohio Society for the Elevation of Kites (c/o Tom Rask), 2687 E. 128th St., Cleveland, OH 44120, tel: (216) 791-6563.

17

5th Annual Indoor Kiteflying Competition, with a \$250 prize for duration, in San Francisco's Hyatt Regency Hotel. Sponsors: Anchor Steam Beer Co., KFRC Radio and Come Fly a Kite store. Contact: Come Fly a Kite, 900 North Point, Ghirardelli Square, San Francisco, CA 94109, tel: (415) 441-2965.

18

Festival of Sport 1977, including kiteflying, June 18-19, New River Sports Complex (Perth Road, Recreation Ground), White Hart Lane, London, England. Sponsor: Haringey Sports Council, London. Contact: British Kite Flyers Association (c/o Ron Moulton), P.O. Box 35, Bridge Street, Hemel Hempstead, Herts HP1 1EE, England.

1st Annual Inn on the Park Kite Festival, with \$1 admission fee, at E. T. Seton Park, across from the Inn on the Park, Toronto, Ontario, Canada. Sponsor and contact: Inn on the Park (c/o Sharyn Thomas), 1100 Eglinton Ave. E., Toronto, Ontario M3C 1H8, Canada, tel: (416) 444-2561.

19

5th Annual Father's Day San Francisco International Kite Festival, with \$1000 for largest kite and other big prizes, Polo Field, Golden Gate Park, San Francisco, CA. Sponsors: Come Fly a Kite, Inc., and city, neighborhood and commercial groups. Contact: Ron Young, 507 Howard St., San Francisco, CA 94105, tel: (415) 495-0100.

KIM Radio Mile-High Fly-In, non-competitive, Washington Park, Denver, CO. Sponsor and contact: KIM 98 Radio (c/o Sandie Reale), 5350 W. 20th Ave., Denver, CO 80214, tel: (303) 234-9500.

26

Great Waltham Kite Festival, The Playing Field, Great Waltham, Essex, England. Contact: Essex Kite Group (c/o Clive C. O. Rawlinson), The Croft, Howe St., Great Waltham, Chelmsford, Essex, England.

27

English Capt. B. F. S. Baden-Powell builds his first man-carrying kite, 36 feet tall, 1894.

30

Alfred E. Hartig files adjustable keel kite patent, 1966.

July 4

3rd Annual Ocean City, NJ, Come Fly a Kite Contest, Athletic Field on 6th St. off Boardwalk, Ocean City, NJ. Sponsor: Ocean City Public Relations Dept. (c/o Mark Soifer), P. O. Box 174, Ocean City, NJ 08226, tel: (609) 691-4947.

10

Flags, Banners and Kites Exhibition, July 10-24, Flag Plaza Pavilion, Seattle Center, Seattle, WA. Sponsor: Allied Arts of Seattle, 107 South Main, Seattle, WA 98104. Contact: Dave Checkley, The Kite Factory, 678 W. Prospect, Seattle, WA 98119, tel: (206) 284-5350.

Lake Erie Islands Kite Fly, non-competitive, Commodore Perry Monument, Put-In Bay, OH. Sponsor and contact: Ohio Society for the Elevation of Kites (c/o Tom Rask), 2687 E. 128th St., Cleveland, OH 44120, tel: (216) 791-6563.

15

Silas J. Conyne files winged box kite patent, 1901.

16

6th Annual Galleon Kite Contest, on Highway 158, adjacent to the Galleon Esplanade, Nags Head, NC. Sponsor and contact: The Galleon Esplanade (c/o Margie White), P. O. Box 67, Nags Head, NC 27959, tel: (919) 441-5505.

5th Annual Seafair International Kitefly, July 16-17, Elliott Bay Park, Seattle, WA. Sponsors: Seafair and the Washington Kitefliers Association. Contact: Dave Checkley, The Kite Factory, 678 W. Prospect, Seattle, WA 98119, tel: (206) 284-5350.

Vancouver Sea Festival Kite-In, Vancouver, B. C., Canada. Contact: High as a Kite (c/o Marcia Madill), 201-131 Water St., Vancouver, B. C. V6B 4M3, Canada, tel: (604) 687-8041.

17

6th Annual St. John's Kite Festival, non-competitive, on Confederation Hill overlooking city and ocean, St. John's, Newfoundland, Canada. Sponsor and contact: Memorial University Extension Service (c/o Susan Sherk), 21 King's Bridge Rd., St. John's, Newfoundland, Canada, tel: (709) 753-1200, ext. 3484.

23

4th Annual Summer Let's Fly a Kite Festival, a non-competitive fly, Venice City Beach at Washington, Venice, CA. Sponsor and contact: Let's Fly a Kite (c/o Gloria Lugo), Fisherman's Village, 13763 Fiji Way, Marina del Rey, CA 90291, tel: (213) 822-2561.

24

6th Annual Harpers Ferry Family Fly, non-competitive, Harpers Ferry Caverns grounds, Harpers Ferry, WV. Contact: Maryland Kite Society (c/o Ted Manekin), P. O. Box 10467, Baltimore, MD 21209, tel: (301) 332-1619 or 685-2370.

30

4th Annual Martha's Vineyard Kite Festival, essentially non-competitive, Ocean Park, Oak Bluffs, Island of Martha's Vineyard, MA. Sponsor: Project, a division of Community Services. Contact: Kiteworks (c/o Hani Dzugas or Diane Mackellar), P. O. Box 2010, Vineyard Haven, MA 02568, tel: (617) 693-1453 or 267-9090.

August

1

William A. Eddy files first bowed kite patent, 1898.

7

2nd Annual Festival of the Kite, a non-competitive fly, on the sand south of the Redondo Beach Pier, Redondo Beach, CA. Sponsor and contact: Sunshine Kite Co. (c/o Randal Joe), 233-B Fisherman's Wharf, Redondo Beach, CA 90277, tel: (213) 372-0308.

13

3rd Annual Cape Cod Kite Festival, Provincetown, MA. Sponsor and contact: Outermost Kites (c/o Christina Davidson and Gabriel Dix), P. O. Box 1032, Provincetown, MA 02657, tel: (617) 487-3766.

2nd Annual Cleveland Games Kite-In, Convention Center Mall, Cleveland, OH. Sponsor and contact: Ohio Society for the Elevation of Kites (c/o Tom Rask), 2687 E. 128th St., Cleveland, OH 44120, tel: (216) 791-6563.

Mission Bay Fly-In, Ski Beach, across from Vacation Village, Mission Bay, CA. Contact: San Diego Park and Recreation Dept., City Administration Bldg., Community Concourse, 2nd and C Sts., San Diego, CA 92101. Sponsors: The Kite Store, (714) 270-2692; and Kites & Strings, (714) 295-7769.

14

Paul Edward Garber files Navy Target Kite patent, 1944.

Sunny Sunday Kite Fly, non-competitive, Inner Harbor, Baltimore, MD. Contact: Maryland Kite Society (c/o Ted Manekin), P. O. Box 10467, Baltimore, MD 21209, tel: (301) 332-1619 or 685-2370.

15

Francis Rogallo flies first fully successful flexible wing, 1948.

19

Orville Wright born, 1871.

20

Utica Kite Flight Festival-Thon, Aug. 20-21, Utica, NY. Write or call for entry blanks and exhibitor booth rentals. Sponsor and contact: Utica Chapter of AKA (c/o Betty Devins), 1038 Albany St., Utica, NY 13501, tel: (315) 733-3343.

28

Canadian National Exhibition Kite Festival, Bandshell, Exhibition Place, Toronto, Ontario, Canada. \$1 entry fee for entire exhibition. Write in advance for entry form. Contact: Ray Wismer, The Kite Store, 848-A Yonge St., Toronto, Ontario M4W 2H1, Canada, tel: (416) 964-0434.

Do you have a date for the Calendar page? Send it to *Kite Lines*, 7106 Campfield Road, Baltimore, MD 21207, tel: (301) 484-6287. Deadlines are April 1 for Summer, July 1 for Fall, October 1 for Winter and January 1 for Spring. Listing does not constitute endorsement by AKA, but is done as a service. Events are free and competitive unless otherwise specified. Schedule is subject to change; visitors should verify dates beforehand. To be listed, events must be well-established and open to adults. Send the following information: Name of event, date (or closest probable); which annual; whether competitive and prizes or awards (if unusual); entry fee (if any); site; city; sponsor(s); contact name, mailing address and telephone number. (Where sponsors number over three, none will be listed.)



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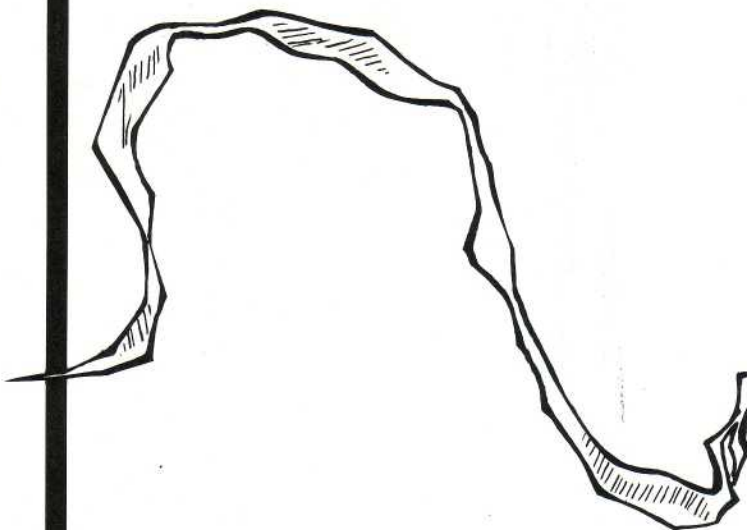


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- River Wind Kite Works St. Louis
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