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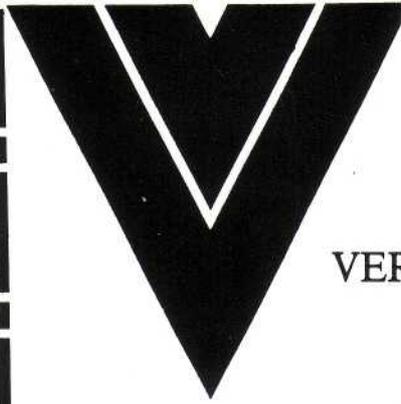
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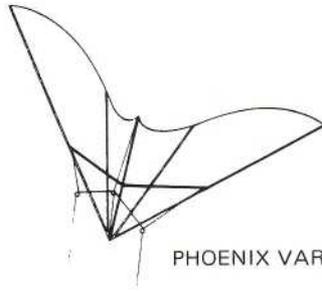
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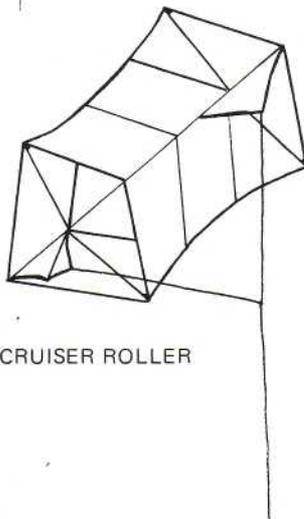
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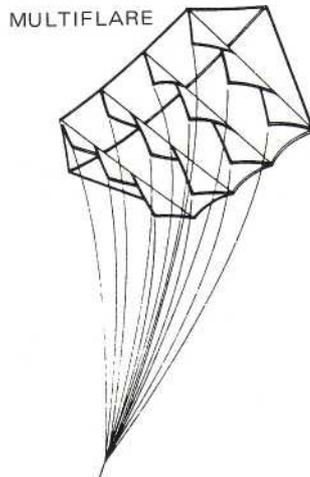
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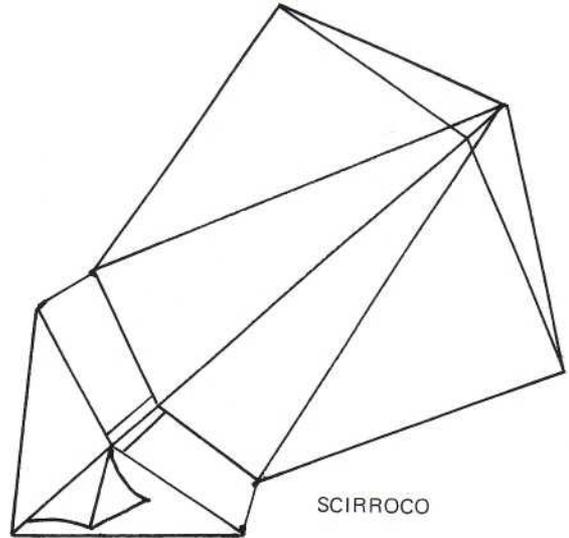
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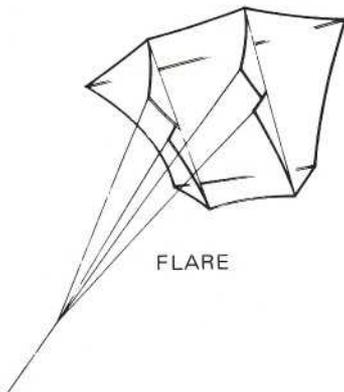
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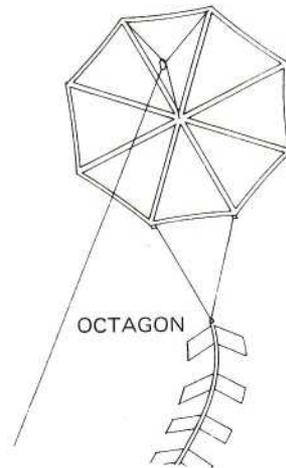
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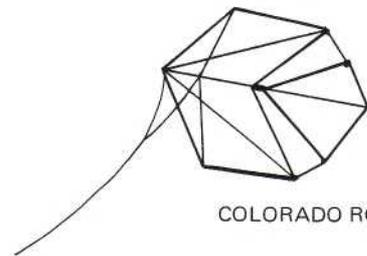
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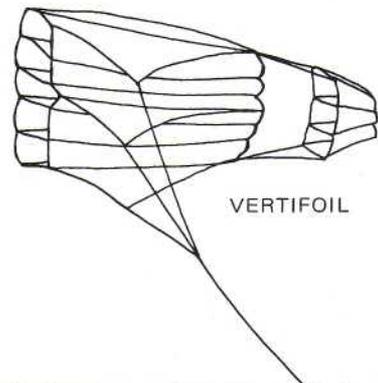
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Cover

George Peters likes to pose for his own camera wearing his kites as "wings." For him, kites are no less a serious art form because of the whimsical ways he uses them. Peters kites are often to be found in galleries, particularly those near his home in Hawaii. But he enjoys them more when exhibiting them in the sky. (See more about George Peters on pages 34-35.)

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succeeding *Kite Tales*

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Kite associations and clubs are located around the U.S. and the world. *Kite Lines* works for and with all of them and maintains an updated file on them. Write for information about your nearest group.

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Contributions and correspondence are always invited. Enthusiasts who contemplate sending substantial material should request our guidelines for writers and photographers. 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, staff or advisory panelists.

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Letter from the Editor

KITE RESEARCH LIBRARY IS NOW OPEN



Cathy Pasquale

In the course of work here at *Kite Lines*, we stuff shelves and files with information about kites and kites. We also collect rare kite books and memorabilia. This collection had been stashed in various cupboards and bookcases. Finally we have put everything together in one place, in a large new bookcase next to an easy chair and lamp. Voila!—a Kite Research Library is born.

With the addition of a photocopier later on, we expect to offer better services than ever to the kite community. Meanwhile, students of kites are welcome to visit us to browse, read and make notes.

We've acquired nearly every out-of-print kite book, and some of our treasures are Woglom's *Parakites* (1896), Marvin's

The Mechanics and Equilibrium of Kites (1897), Garber's Boy Scout kite manual (1931), Choe Sang-Su's *The Survey of Korean Kites* (1958), calendars, catalogs, children's story books containing kites, newsletters, magazines (including old *Scientific Americans* and the May 4, 1962 *Life* with Will Yolen's famous article, "How I Got So High on Kites") and such oddities as *The Gospel Kite*, a testament-like 32-page book from Boston's Sabbath School Society, 1845. In spite of all the literature we have, though, there are still a few more titles that we're looking for.

Our office hours are 10 a.m. to 10 p.m. EST weekdays; weekend hours variable. Please call first at 301/484-6287. We are always at your service.

Valerie

P.S. Some of the dreariest problems in the world have kept us from attaining the schedule we all want for *Kite Lines*. We are not going to recite them here or make apologies, which we detest. This little semi-apology is the last of this kind of thing we plan to print.

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Letters

FLORIDIAN FLIERS

My wife, who has been casually "hanging string in the air" for years, introduced me to this airy avocation with a 45-foot Mylar® dragon. When I told her that I had read that a kiting genius, Domina Jalbert, lived in Boca Raton, she promptly drove up to him, introduced herself and purchased a J-7.5 Parafoil. That set the bait and since then I've been as firmly hooked on flying as one of Dom's J-50s is hooked in the air.

A local sailmaker supplied us with prodigious amounts of rip-stop scraps to make pounds of sleds, deltas and a seven-foot double Conyne dubbed the "Enterprise." Every time there is wind, I'm out flying. I've coerced several of my scoffing friends (who tell me kites are for kids) to come along. Then I let them try to hold onto a J-15 in 20 m.p.h. winds. The next time they don't feel so silly holding onto my Soaring Wing, Peter Powell or six-foot delta.

Incidentally, for a recent kite demonstration sponsored by the Delray Beach Kiwanis Club, I thought that a largish delta flying at 1500 feet would be pretty nifty. I called the Federal Aviation Administration. Their representative of this General Aviation District, Chuck Smith, asked the dimensions and weight (seven-foot span and a few ounces) and replied that I could fly as high as I like, as long as I informed the local Flight Service Station. As it turned out, I was kept busy by six Rainbow stunt kites, so I didn't get to try out this new, nonstandard variation of FAA regulation.

Chuck Norris
Fort Lauderdale, FL

GAINS AND LOSSES IN ENGLAND

My eldest son Leo and I, on holiday in Scotland, celebrated the Royal Wedding by climbing Ben Nevis, at 4,400 feet the highest point in the British Isles, and flying my new frameless Soff-Tee-Kite from the top. It rose to between 100 and 150 feet on 300 feet of line, so I think that I could now claim a British height record. (By the way, I reckon they've built quite a bit onto this mountain since I last climbed it 20 years back!)

Kitefliers of London's Clapham Common were saddened by the death of 76-year-old Dick Godden (the last survivor of the pre-war Clapham Common Kite Club) who lived all his life within walking distance of the Common. He was a man of many talents and, until his retirement,



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2) Contest is open to residents of the United States, except Spectra Star Kites employees and their families, dealers, suppliers, and associates. Contest void where prohibited by law or otherwise restricted. No purchase necessary.

3) Winners will be notified by mail about September 30, 1982. For a list of winners send a self addressed stamped envelope. Contest will be judged by a 4 member panel.

4) Four photos will be chosen from the finalists to appear in our color catalog along with the photographers' names. The winners will also be announced in our regular newsletter "Newslines."

5) All photos become the property of Spectra Star Kites. None will be returned. Permission to reproduce any of the photos is granted by the photographer when signing the entry blank.

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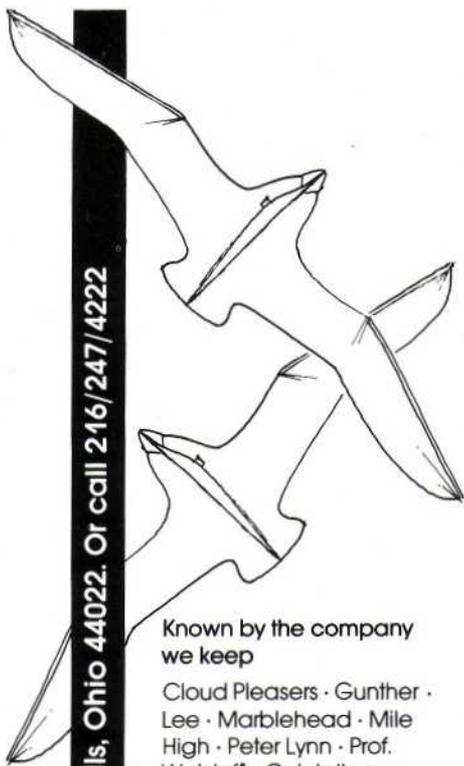
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Letters

...Continued

was a binocular maker with the nearby and now defunct firm of Ross (the people who made Fox Talbot's lenses). I had only known him for about three and a half years but I well remember being taken up to Clapham Common as a small boy over 40 years ago to see the 20 or 30 enthusiasts, of which he would have been one, flying their kites. In those days, one of the club members worked for Singer, the sewing machine firm, and used to get hold of the trade-ins for conversion to winding gear.

Of late years, on an average fine Sunday morning, about half a dozen fliers might be seen on the Common and it was a good bet that at least half the kites seen in the sky at any one time would have been made by Dick. His last design, which he called a "Gody," consisted of a rhomboidal box with Cody side wings. He had a great fund of stories about the old Clapham Common Kite Club, including the one about the kite that flew for two weeks from some tall trees at the end of the Common.

John White
London, England

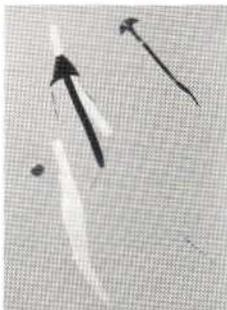
SKY-NETIC DROGUES

I am an artist-kiteflier and an art instructor at Buffalo State College. I have been flying for over 12 years now, most of the time along the shores of Lake Erie in Lasalle Park with my good friend Richard Wohler. Now for these last three years I have been developing an art form I call SKYnetic Sculpture. The free forms are based on the wind sock or drogue and take shape when the wind puffs them up. They are very colorful and kinetic. I usually hang them on my kite line and sometimes behind the kite. Sometimes I run one, two or four in tandem. They are enjoyed by spectators. I go to Rochester once a month and fly with Bill Schaeffer, Ed Grauel and Wyatt Brummitt. I refer to the four of us as the Four Soarsmen of Long Meadow Chapter.

James Vullo
Buffalo, NY



Jim Vullo's inventive drogues go flying.



THE JOY OF CRASHING

I very much enjoy reading about other nuts like myself who like to put together hairy ideas and usually watch them fail!

A favorite term of mine after we dump a couple of days of kite building is borrowed from a children's book. The scene is a boy looking at a wrecked airplane he had made up in his treehouse. The caption says, "Oh, well, tomorrow I'll make an ark."

We just completed a TV-station-sponsored kite day where we first crashed our six Malay kites on a line (two as outriggers) into the TV camera. Then we lost them all into the lake when a wind gust broke our line. It was a glorious day.

This week we are helping 70 third- and fourth-graders build kites. That's the most fun of all.

Allen Hurlburt
Tulelake, CA

INDIA INFORMATION WANTED

I would like to request the help of *Kite Lines* readers familiar with the areas of India where fighter kites are made.

In January 1983 and again in Spring 1984 I will visit the Ahmadabad-Surat area and the Rampur-Bareilly-Lucknow area to learn something about the craftsmanship of these wonderful kites and the ways the traditions of their production are transmitted.

Any advice, suggestions or information you can give me about the *patang karnee wallas* and their regions would be very much appreciated.

Dr. Judith Johnston
Department of Anthropology
Adelphi University
Garden City, NY 11530

COLORS A LA CHINESE MENU

One small point arising from Bill Tyrrell's words ["Mastering Nylon," *Kite Lines*, Summer-Fall 1981] on using high-contrast designs: I think we could do worse than to take a tip from the ancient art of heraldry. To simplify a bit, it's this:

Divide colors into:

- (a) yellow and white, and
- (b) everything else.

Then, as far as possible, always put one from (a) next to or atop one from (b), and vice versa. For some reason, to take one example, blue and red will merge into purple at a distance more readily than will red and white to make pink.

The "rule" isn't really hard-and-fast, especially in very old or non-British armorial bearings, but it's fairly general and pretty effective. (If you can be bothered, try replacing white with, say, green on a stretch of Old Glory and see

how much less striking the design becomes. (This rule is also the reason behind the God-awful-to-sew arrangement of Britain's Union Flag.)

John Spendlove
Preston, England

THE REWARDS

I am enclosing a few clippings [about his kite talks and demonstrations] which will help to explain what has been the result or "reward" for using the information in *Kite Lines*. You can see how the case has built up and this year I had to refuse several invitations for talks and exhibits.

In a sense, I must consider myself something of a failure because so far I have not met up with any dedicated "nuts" in this area.

From just my experiences I am convinced that retired persons could spend all their time on kiting and be so well rewarded—not necessarily with money

but with life's intangibles that make one wish that retirement had come earlier! Somewhere in this house there is a collection of thank-you notes from a class of sixth or seventh grade high-IQ students that I spent several hours with before school was out, and for the life of me I can't bring myself to destroy the notes!

David L. Meyers
Findlay, OH

DELTA TRAIN IN MILWAUKEE

Kiteflying may be catching on (finally) in Milwaukee. At a Wisconsin Kite Society fly, I flew a small train of deltas—two of Bob Ingraham's at the top of the train and six of Hartig's deltas under them. Many spectators were interested in my system for flying these deltas. I fly each on a separate independent line of about 50 feet and hooked onto the main line at junction points where I make a loop. Into these loops I pin the separate 50-foot

length sections that each hold one kite. The action and movement in the sky is a beautiful sight to see. Each delta was of a different color so you can visualize a nice dancing train of rainbow colors.

Vernon Blum
Milwaukee, WI

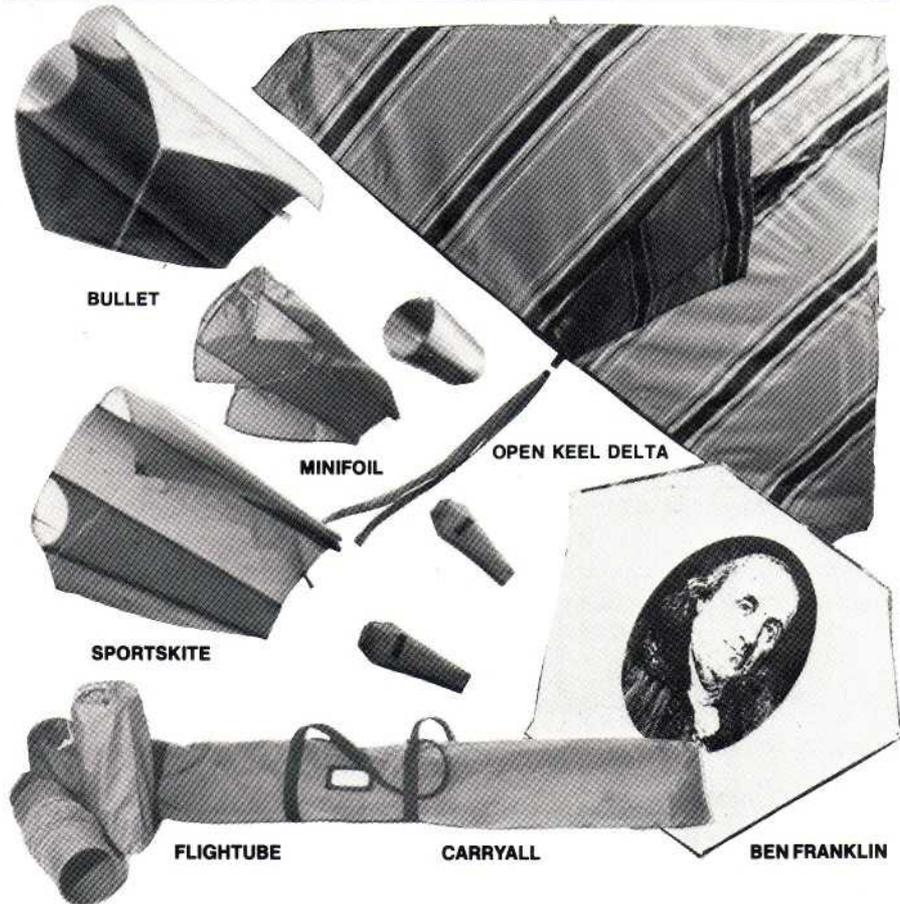
Readers are encouraged to write letters and reply to letters in this column. Send your kite thoughts to Kite Lines, 7106 Campfield Rd., Baltimore, MD 21207, USA. Letters may be edited for publication.

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What's New: Kites, Books, Sundries

Kites

By Mel Govig, assisted by A. Pete Ianuzzi

THE CLOUD TEASER

Most of us have thought of making a small delta and a few of us have tried to make one. If your experience was like mine, you tried several times before you got one that would fly well. Then you made another *exactly* the same that didn't fly for beans. If you recognize yourself as a fellow small-delta experimenter, you will appreciate the Cloud Teaser.

Bruce and Carolyn Kennington have built their reputations as the Cloud Pleaser people on their high-quality large nylon kites. They were surprised to find that small deltas were actually more challenging to make to the same standard of consistent performance. They went through a long period of experimentation to evolve the Teaser. I would say that they achieved what they intended. They have made a kite that flies well, as well as most deltas on the market and better than many—and at competitive prices—about \$10 and \$17.50.

We first tried the Cloud Teaser on a very windy day, in breezes over 20 m.p.h. and gusting to about 30. The gusts were enough to break a stick, but it was easily replaced dowel. And until then the kite flew well. On other days in 5 m.p.h. winds, it was an easygoing dream. The angle of flight was especially good.

I know of only a few other delta kites of similar size that have flown really well. Jack Van Gilder's deltas (in train or otherwise) and Bill Kocher's bird kites are among them. The Cloud Teaser joins a select company of well-behaved small deltas.

THE SWEEP WING

The folks down in Virginia at Wind Mill Kites have added to their offerings a high-aspect-ratio delta called the Sweep Wing. Similar to their Soaring Wing and Scimitar, it is very shallow relative to its width. The design is visually striking, in particular because of the graceful curves at the wing tips, setting the kite apart in the sky. The shape is emphasized by a contrasting color band outlining the leading edge and twitching on the twin tails at each side, outriggerlike.

In behavior, the Sweep Wing is much like the Soaring Wing *except* that the interesting (annoying?) ratchety flopping

occurs only at low wind speeds, just before the kite comes gliding down for lack of wind. The Sweep Wing takes your complete attention until it clears ground turbulence. Once up, it is very well behaved in winds from about 5 to 15 m.p.h. Above that, the symmetry seems taxed and the kite will loop off to one side or the other. Recovering from a loop is also tricky. As with most high-aspect-ratio kites, the only way out of a loop is to power through, if you have enough altitude and if you remember to pull rather than to let out line. All in all, though, the Sweep Wing is a pleasure to fly and as chic as any kite I know for about \$24.00.



The Sweep Wing is distinct in the contrast of its keel, tails and leading edge outline.

THE KITAMARAN

Spectra Star Kites has a flair for trying the new and different that has brought us a diverse line of colorful deltas and dragons

and occasionally some real novelties. The company is admirably adventurous. For example, a few years ago Spectra lofted the "Bug," a piece of hinged sculpture that didn't survive the market but was great for those of us who collect the unusual in kites and near-kites. Well, hurry out and buy a Kitamaran, because I doubt that it will long survive the market preference for simplicity in kites.

The Kitamaran did fly! Not well, not long and not without about a half hour or so of rigging according to the very complex instructions. We rigged our sample outdoors, but you would be better off to do most of this indoors. However, you would then have to transport it to the field as a not-very-compact package. We were particularly disgruntled to find that the assembly instructions called for measuring the rigging line to exactly 84 inches. Presumably the Compleat Kiter will have a tape measure along. We didn't but we got the kite to fly anyway. The Kitamaran did get above the horizontal, just. It did keep up most of the time, shifting from side to side and tipping over easily, as you'd expect with the top-heavy design. We had problems with the line attachment bending one of the pontoons and disturbing the symmetry.

Maybe a kite like this only needs to fly a little bit. Maybe it sails in the water better. We didn't test it that way. To do so requires that you plug the two holes in

DATA CHART

	Dimensions	Weight	Materials	P	AT	ED	EWV	AF	SL
Cloud Teaser	26x34"	1.5 oz.	rip-stop nylon, dowels	E	1 min.	G	4-20	60-80°	N
Sweep Wing	14x54"	3.0 oz.	rip-stop nylon, dowels	E	1 min.	E	5-15	45-65°	I
Kitamaran	34x42x42"	10.25 oz.	rip-stop nylon, molded plastic, Mylar®, dowels	P	30 min.	F	8-10	15-30°	S
Vertifoil	28x35.5"	4.0 oz.	rip-stop nylon	E	0	E	5-20	45-65°	N
Clarke Bat	19x68"	2.0 oz.	rip-stop nylon, dowels	E	1 min.	E	5-12	45-55°	N
Clarke Seagull	17x70"	1.5 oz.	rip-stop nylon, fiberglass rod, dowels	E	1 min.	E	5-12	45-55°	N
Sun Bird	33x35"	3.5 oz.	Tyvek®, spruce, fiberglass rod	E	3 min.	F	5-20	60-75°	N
Moon Bird	31x35"	3.5 oz.	Tyvek, spruce, fiberglass rod	E	3 min.	F	5-20	60-75°	N

Code: P=Portability; AT=Assembly Time (on field); ED=Est. Durability; EWV=Est. Wind Velocity (min.-max. m.p.h.); AF=Angle of Flight; Skill Level: N=Novice, I=Intermediate, S=Skilled
Ratings: P=Poor, F=Fair, G=Good, VG=Very Good, E=Excellent

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What's New

...Continued from page 12

the hulls that are used for bridling the kite.

There is an airfoil principle at work in the Kitamaran that might interest the aerodynamicist. A lot of lift is required to loft this rather heavy structure. The effective sail area is only 3.7 square feet, but it billows back to create camber. From a scientific point of view, therefore, the Kitamaran is a real surprise. And maybe worth its \$20.00 tab.

THE VERTIFOIL

We've selected another kite to test from Vertical Visuals, the English kite manufacturer now importing kites to the U.S.

The Vertifoil appears at first to be just another Jalbert copy. On careful study, I see that three things remove it from that category. First, it employs three single-segment keels, like the Sutton Flow Form. Second, it is a low-aspect-ratio kite, 26 inches wide by 34 inches long. Finally, there are no curved or angled seams on the kite, making manufacture much easier than for the Jalbert or Sutton kites.

In performance, the Vertifoil flies light on the line, like a Sutton. Our sample did not achieve an impressive angle of flight, but it did fly steadily and well at about 50 degrees on a 10 m.p.h. wind.

The kite conveniently folds up and tucks into its drogue for packing into a near-pocket size of about 6" x 9" x 1½".

Our sample in olive drab, a currently fashionable color, did nothing to excite unfashionable us. Of course, the Vertifoil can be had in other hues.

There are several additional arresting designs by Vertical Visuals that we look forward to flying. We can afford only one

at a time. The Vertifoil is priced at about \$55.00, and it's one of the least expensive. The cost of importing these kites exaggerates their differential. But if money were no object, I'd want several of these unique, glamorous VV kites.

JOHN CLARKE'S WINDY KITES

Now being imported from England are the light-wind deltas of John Clarke. We flew the Seagull and the Bat with pleasure.

I have tried for years, with limited success, to make a lifesize seagull kite, so I appreciate the care that went into this bird. The Seagull flies very well in winds up to about 10 m.p.h. and soars like a real gull. The realistic effect with a slight flap is delightful. Above 10 m.p.h., the structure is too flexible to retain the gull effect, although as a kite it continues to fly in winds up to about 15 m.p.h.

The Bat kite, because of the battens in the wings and the location of the spreader bar, flaps in a whimsically batlike way—amusing and lifelike. The range of winds it could handle was better than average.

Both kites have hot-cut edges which experience tells me will eventually fray. However, since the cuts on these kites are either curved or on the bias, I wouldn't expect the problem to be serious. In fact, after four or five hours of flight, there is no sign of fraying on our test models. The excellent craftsmanship and delightfully friendly character of these kites made the prices, at around \$25.00 each (reflecting import costs), seem quite reasonable.

ULTRA KITE'S CONYNE BIRDS

Tyvek® is an excellent, undervalued kite material—lightweight, nonporous, inexpensive—and practically impossible to tear. Tal and Dorothy Ann Streeter favor this

spun-bonded olefin as a synthetic approximation of rice paper. But to my knowledge the only manufacturers using it are Ray Holland (Airplane Kite Co.) and Walt Leuzinger (Ultra Kite).

One of the reasons may be that Tyvek is opaque and blocks off any translucent color effect when the sun is behind it.

Also Tyvek is tricky to fasten to sticks. I've sewn it and been pleased, but a manufacturer who's going to sew might as well put that labor into a more colorful fabric, such as nylon or cotton.

Ultra Kite's two Conyne-type kites (the Sun Bird for \$11.95 and the Moon Bird at \$10.95) came through the shipping to us with all four longerons broken. I was able to replace them with ¼-inch dia. dowels before I went out to fly the kites.

As Conyne box kites, they are exactly what they ought to be: well balanced, very lightweight and strong (except in the mail). The planforms are interestingly nonstandard. And the kites fly at a fine angle.

The Ultras are among the few effective box kites being sold and at their reasonable prices—with guarantee yet—the resticking problem may be bearable for you.

CORRECTIONS

In the Summer-Fall 1981 *Kite Lines*, we gave an incorrect price for the Prof. Waldof Magic Box Kite. This kite should cost you only about \$40.00. In addition, we note that a "retrofit" assembly has been issued by the Prof. to strengthen the central fitting. We are glad to see such conscientious manufacturer concern.

In the same issue, our Data Chart listed the Trlby Stunt Kite as being made with a Mylar® cover when it in fact uses high-density polyethylene.

Books

By Valerie Govig and A. Pete Ianuzzi

HART IS BACK!

Kites: An Historical Survey, by Clive Hart (Paul P. Appel Publisher, 216 Washington St., Mt. Vernon, NY 10553; 1982), revised republication of the 1967 edition, 210 pages, \$30.00; paperback, \$13.95.

Good news: Clive Hart's comprehensive kite history will be available again (in late July for the paperback, late August for the casebound edition). Its thorough research had made it the preeminent book of its kind, much sought after in secondhand bookstores. The extensive bibliography alone could occupy students for years. This edition incorporates a new, expanded section on medieval pennon kites. Contem-

porary history is barely updated, but this is consistent with the book's *raison d'être*, pre-20th-century kites. The new volume's photographs and illustrations from original sources are all the same as in the first edition except that the color plates are not included. However, since color was never extensive or important in the first edition, there is no great loss. The book's jacket, though, carries a dramatic contemporary color photo, in the tradition of publishers dressing books in finery even when the interior is plain. But kites will value the contents of this book whatever the facade, happy for a second chance to obtain this important kite book. V.G.

A HANDSOME BIOGRAPHY

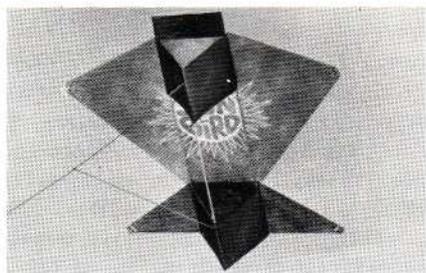
Genius at Work: Images of Alexander Graham Bell, by Dorothy Harley Eber (New York: Viking, 1982), 192 pages, \$16.95.

Most kite books are references, like tool boxes, to be dipped into for kite ideas and techniques. Such books may or may not "read well" and it doesn't much matter if they do. *Genius at Work* is for real reading—a blend of biography, travelogue and history.

Yet this book will surely attract buyers on the strength of its pictures alone. Justifiably. There are 132 of them, well selected, well printed and handsomely arranged in a physically elegant book, a

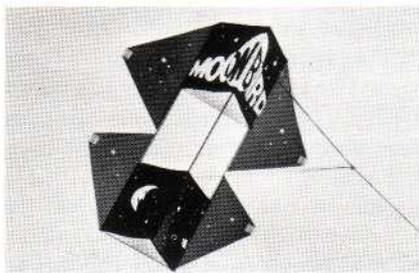
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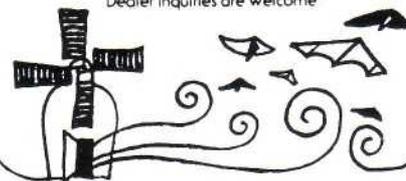
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rarity in today's economy. The rich gold and maroon jacket leads off with the well-known picture of Bell's wife, Mabel, inside a tetrahedral kite frame, enchantingly poised to kiss her husband. Inside the book, there are four photos of Helen Keller's visit to Bell (who gave much of his life to study for the deaf), including two showing her flying kites with Bell. Those pictures alone were, for me, worth the price of the book. Some of the other pictures are nearly as extraordinary, taken with "Brownies," some by Dr. Gilbert H. Grosvenor, Bell's son-in-law and the first editor of *National Geographic* (which Bell helped found).

But this is also a book to read. Doing so, you will journey to another place (Baddeck, Nova Scotia) and another time (turn of the century). Luckily for the author and us, Bell was an inveterate note-taker and his family and associates wrote many letters and memoirs.

Author Eber, as a resident of Baddeck, had opportunity to explore and interview extensively. Her tape recorder caught "the only one left who worked in the laboratory," Mayme Morrison Brown. Mayme's reminiscences dispel the stereotypes of Bell and give us the man who liked to "skinny dip," who worked at night because of the quiet, whose investigative

mind encompassed sheep breeding, alternative energy sources and the hydrofoil.

Bell's kites were tested over water, for safety in crashes, which were frequent but not discouraging to Bell or crew. They were aware of the wider engineering potential in tetrahedral construction and they built a 70-foot tower to demonstrate the principles as applied to large structures. The concept was rediscovered half a century later by Buckminster Fuller, who freely acknowledges his duplicate discovery in his prologue to this book.

Mayme Morrison Brown's recollections of work on Bell's kites are vivid. The crew sawed their own wood ("spruce or any kind of good wood") and sewed the hundreds of cells out of bolts of silk, mostly red, putting in tight "buttonhole" stitches about 1/8-inch apart—all by hand. A special foot-operated machine was used to pinch the metal on the corners of the cells to connect the joints. Brown recalled, "They were not exactly triangles. . . they had three faces that were covered and one underneath all open." This must have been a slip in memory, as the pictures clearly show (and experience supports) that two planes are covered and two left open.

The interview method used for this book has the advantage of bringing us fresh material in the words of direct parti-

cipants. This trades off against the inherent disadvantages of any oral history: choppy style, overgeneralizations, unclear and half-remembered remarks. These are minor drawbacks willingly borne in order to obtain this rich new portrait of a leading father figure in kiting history. V.G.

THREE SELF-PUBLISHERS:

GREGER, HOSKING, JORDAN

The do-it-yourself option in publishing has become more common and accepted recently. Kite books are no exception and here are three diverse examples:

Simple Fabric Kites, by Margaret Greger, illustrated by Joan Newcomb (Richland, WA, 1982), 45 pages, \$4.00.

This is the third in a series of little books Greger has done for newcomers to kites. This one provides good instructions on eight sewn kites for those who are familiar with standard machine stitching but not with kites. Specifically, the kites are the Hornbeam Sled, the Stapled Hornbeam, the Square Diamond, the Zephyr, the Corner Kite, the Winged Box (in fabric and in Mylar®) and the Flow Form.

Always practical and reliable, Greger writes only of the kites she has made and knows well. Her integrity was demonstrated when, just before *Kite Lines* went

What's New

...Continued from page 15

to press, we heard from the author that the diagram on page 34 had the vents incorrectly placed on the Flow Form. New pages were quickly printed and sent out to purchasers. Greger said, "The Flow Form is so dependable that I suspect it will fly with the vents however. But I do like to get things right." Rara avis.

One could quibble that the introduction is too sketchy if it's needed at all and that the drawings are at times muddy enough to interfere with understanding (the mud being perhaps the printer's rather than the artist's). But among the unexpected assets is a sequential drawing of the Flow Form ribs that will be an eye-opener if you want to sew this particular Parafoil derivative. Besides the kites, Greger shows us her kite bags and her bonded applique system.

Such a small book would not be expected to have a bibliography and an index but Greger's has both. Class in humble clothes. V.G.

Kites: Aussie Style; Plastic Kites Made Easy, by Wayne Hosking, illustrated by Wayne Hosking and Darryl Sheldon (Mt.

Pleasant, MI, 1982), 120 pages, \$6.95.

I was privileged to encourage Wayne Hosking to develop his book of kites from a handful of basics to the 23-some designs included. Though some are alternative treatments of similar kites, the generic approach is one of the book's best features. (We've seen too many kite books that palm off one construction skeleton in five skins with five names as if they were five kites.)

Hosking wisely writes for *teachers* of children, not children themselves, and his knowledge comes from direct experience with dozens of groups of youngsters from a wide range of ages, backgrounds and abilities. He learned what worked firsthand and his book conveys his strong concern for children's flying success. His concentration on inexpensive, available materials is admirable, too. In this connection, though, the drawings of kangaroos throughout the book create a discrepancy. Lovable as they certainly are, they mislead one to identify the book as a juvenile title. Photos of groups of kids making kites would have clarified and convinced the book's real audience.

The importance of design to a book's impact and function is visible only in books that lack it. This work suffers not so

much from the typewritten text (Margaret Greger typed hers, too) but the fact that no skills are exercised to overcome type flatness and clarify topic relationships. Similarly, the spiral binding unnecessarily contributes to the homemade look. I hope readers won't judge the contents by the presentation because, if you are already interested enough in making kites with kids, this book has much information directed to that purpose. The concise page on "How to Run a Workshop" should be memorized by every instructor who wants to teach kites.

The book amasses a lot of material, much of which will be familiar to kites, but gives it an occasional fresh twist. There are several collections of tips, such as the 11 "fasteners" (corner attachments). These are good sources of ideas but guidance is scanty for choosing the best in specific applications. The sled section, for example, although it refers to the *Kite Lines* sled article, fails to recommend the details which, selected, produce the fittest survivor. On the other hand, the book's kite rating system denotes ease of construction and flyability of each design. These judgments (though arguable) offer some needed guidance. Readers will also be grateful for the good bibliography and the index.

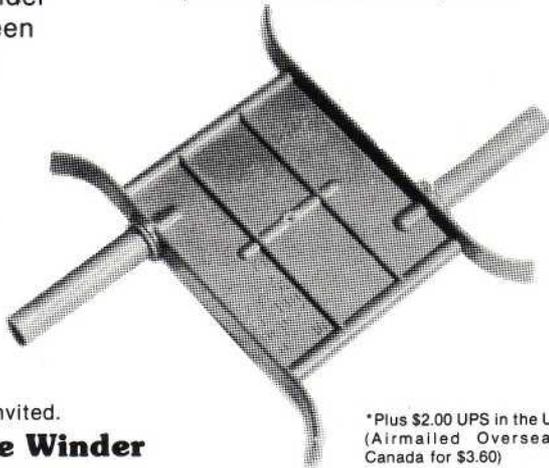
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Wayne Hosking knows and cares about what works in kites. That strength comes through past the conflicting signals of his book's format. V.G.

Make Your Own Kite (new kites), by John Jordan (Houston, TX, 1981), 90 pages, \$8.95; paperback \$5.95.

John Jordan's basic intention in this book is to tell how to build several unusual kites he designed. Jordan seems to have built and flown many kites and to really understand and enjoy them. I agree with his philosophy about kites. He seems to rank kites by (in order of importance): ability to fly at a high angle; ability to fly in a wide range of wind speeds; stability; durability; and appearance.

The book describes nine different kites in good detail, starting with a three-stick "barn door" and ending with a box kite made from eight meat trays. A special feature of the designs is that although Jordan makes his kites from unusual materials (computer cards, styrofoam), they can be obtained easily at little or no cost. However, Jordan says that his balsa wood kite is very difficult to make and should be tried only by experts. Of his Space Station Kite he says, "I do not think that anyone else knows how to do this." He is talking about carving expanded polystyrene into thin-walled cylinders. Anyone care to take up the challenge?

Jordan lives in a windy place (Houston, TX) and his kites all seem a little on the heavy side. He talks about a 6 m.p.h. wind as a "light wind" and calls winds of 25 m.p.h. or more "strong." For the rest of us, this is a book of beach kites.

Make Your Own Kite is for the experienced kiter who wants some new ideas in materials and designs. It is also a book for those who don't care about spelling, grammar, literary style and such. I was one of the few known to *Kite Lines* who could make my way through this unedited book by a nonauthor and not suffer pain. A.P.I.

As an afternote, it is interesting to see the catalog "literature" produced by kite businesses. The print jobs vary from leaflets whisked through the photocopier to multipage full-color dazzlers. Occasionally a surprise comes along that goes beyond the usual catalog constraints and becomes, in effect, a self-publishing effort that the author can neatly write off as a business expense. Grant Raddon, owner of Wind Play in Portland, OR, has just printed his catalog after some three years of gestation. I enjoyed seeing the galleys of his almost-a-book. Its minor flaws are overshadowed by Grant's collected anecdotes, humor and good advice on today's kites. V.G.

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Innovations: Ingenious Paper Kites by David Pelham



By Curtis Marshall and Valerie Govig
Photographs by Theodore L. Manekin

It's not origami and it's not like paper dolls. David Pelham (author of the favorite basic reference, *The Penguin Book of Kites*) has produced something new. It is being "published" as a "book," but that doesn't describe it. Call it kites in a kit that looks booklike. No, that's not quite right, either. It's paper sculpture that happens to fly. It's all these things and more. Part of the "more" is the mind of David Pelham. This book takes you on a tour of the author's creative processes.

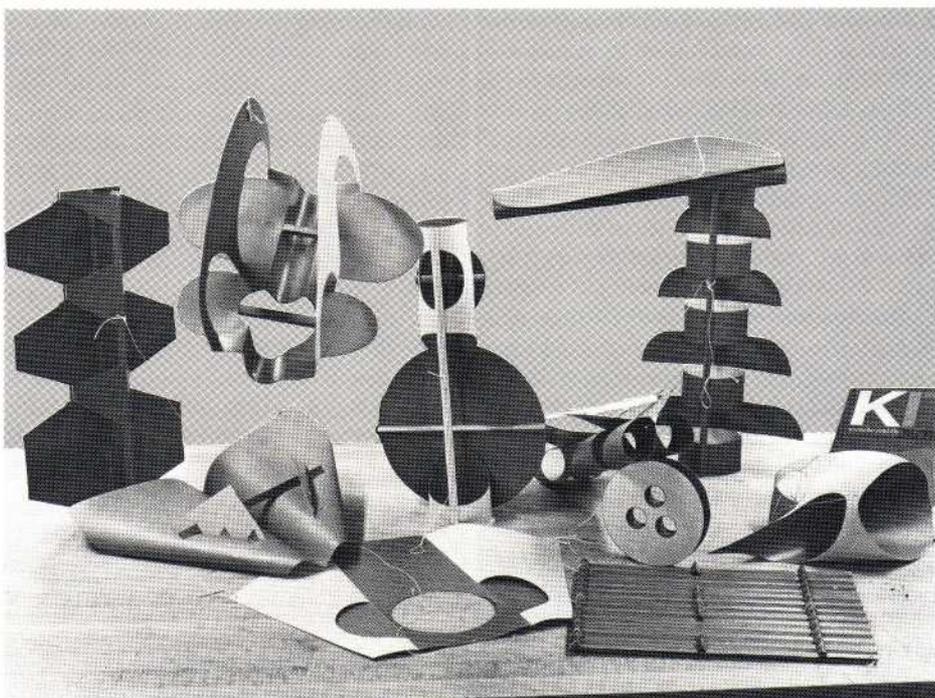
The large format (13¼ x 17¼") soft cover book, *Kites to Make and Fly* (New York: Viking Penguin, \$14.95), consists of a six-page introduction to kites plus one page of general instructions which apply to all 10 kites in the book. Then come the kites with two pages devoted to each. The first page carries illustrations and notes for the specific kite; the following page, easily removed from the binding, makes up into the kite itself. The back cover of the book, when cut, folded and glued, becomes a reel for the flying line.

Curtis Marshall, as Innovations Editor for *Kite Lines*, was joined in two afternoon sessions (for making and flying) by Mel and Valerie Govig, Pete Ianuzzi and Ted Manekin (Ted also acting as photographer). In this social setting we took our time and compared reactions.

We found the introduction's short treatise on aerodynamics, although not flawless, more than adequate for its purpose. The general instructions are clear, but following them may require some evaluation as there are unintentional black lines generated by overlapping of two colors and these must not be cut as if they were really printed black lines.

Choice of adhesive is important; it must be quick-drying and must adhere well to the highly sized paper. We used common white glue, which did the job, but better adhesives ought to be available. Pete Ianuzzi found, in making the reel, that slight sandpapering of the surface to be glued made it stick better.

The making done, we went out to fly. Our initial expectations were mixed. On the one hand, we expected magic, per-



fection! After all, this was from Pelham. On the other hand, everything in our experience said that small kites are the trickiest of all and these were also relatively heavy, not a promising combination. Thus we found ourselves expecting half-magic and less-than-perfection. Anything better would surprise us.

All the kites flew. That surprised us. But none were alike. Arranged in the book in order of difficulty of construction, the kites made quite another impression in the air.

For example, the Skyskid (all the kite names are cute) as a sled-type kite is first in the book and easiest to make—but ours flew at a low angle. At the other extreme, the Wind Wafer, "hell to make but fun to fly" (in the author's own words) was exactly that and an arresting idea based on fan folds for directional stability.

High Roller and Hijack, the last two in the collection, were not as satisfactory in performance, although Pelham's writing almost romances you into believing that instability is wonderful.

Everyone was drawn to the Jetstream, a cleanly curvy new idea in kite design. We cheered its flight, though we found to our regret that it did better with a tail.

One of the few that flew well without a tail was the Sky Hopper, which we felt had the best combination of construction and flying ease. For most of the kites, we added tails of nylon strips, which were often too light, in which case we made an attachment from field debris—and the Pine



Cone Correction became the order of the day. Purists would have been horrified.

We had lots of fun with these kites and would recommend them to fellow enthusiasts. However, the book should not be viewed as a child's construction project. The finished kites can, of course, be flown by a child, but an adult dexterity and attention span are required to accomplish the sometimes involved manipulations in assembly. Likewise, we wouldn't say it is necessarily the best introduction for neophytes, as the book's blurbs suggest.

The price will doubtless be clucked at by many and painful for those who will want two copies (to have their cake and fly it, too). As a work of multicolor printing to a specialized audience in these inflationary times, it's reasonable. And heck—it works out to only a buck fifty a kite.

Finally, many kites will find this book to be a minor landmark and another tour de force from that clever David Pelham. Just right for a vacation project—or a project that feels like a vacation—it will tease many minds into new avenues of kite design. ◇

Of Pelham, Books and Kites

Kites to Make and Fly was first published by Pan Books in March of 1981 in England, where it sold quite well despite its price and the rainy summer there that year. It was further loaded by a VAT (value added tax, Britain's equivalent of a sales tax) of 15% that normally does not apply to books. Because this publication was considered a nonbook, booksellers were faced with extra paperwork and were reluctant to stock the title. But the success was still enough to interest Viking Penguin in making the book available to U.S. audiences in February 1982.

It was the second kite book for David Pelham, 44, son of an aeronautical engineer. Pelham was art director at the U.K. *Harper's Bazaar* and then at Penguin Books for 12 years, where his obsession with flying things resulted in *The Penguin Book of Kites* in 1976.

Both books are thoroughly the products of Pelham, not only in kite design, research and writing but as layout and printed art, for which the author himself prepared each camera-ready page, with its

carefully cut color separations. Consistent with the thoroughness of his approach, he worked with the Pan Books production department as he developed the new kites, experimenting with weights and qualities of paper, even with fully inked samples of test stock provided by Pan. The huge amount of trial and error resulted in the 10 final kites that passed Pelham's test by flying at 1000 feet for two hours "without coming to grief."

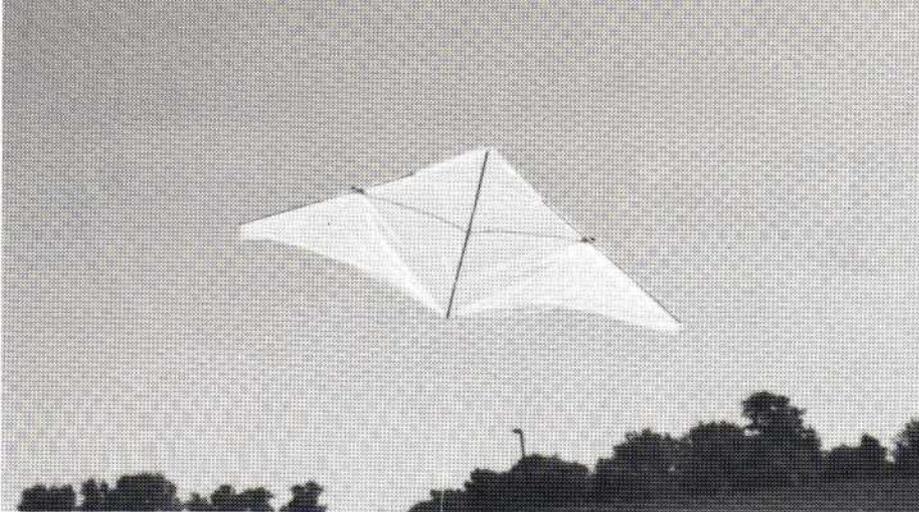
Pelham visited the printers 12 times to assure quality production on the heavily inked job with tight tolerances on "back-up" (matching up the printing on the two sides of the page). Pelham later recalled:

"The most exhilarating experience of all occurred early one morning; I had arrived at the printers bleary-eyed to pass the final page proofs. There, in the car park outside the machine room was the night crew, who had somehow found the time to make up all 10 kites from the instructions in the book, flying my kites in the early morning breeze like happy children. They were flying them from binding thread which had been 'borrowed' from the bindery." V.G.

Design Workshop

The FLAPPER

By Ed Grauel



The Flapper is a different and easy-to-make kite from Ed Grauel's workshop. It's a keelless delta wing kite with a new twist on stabilization via its small flap at the trailing edge.

THE FLAPPER

How to make the Flapper:

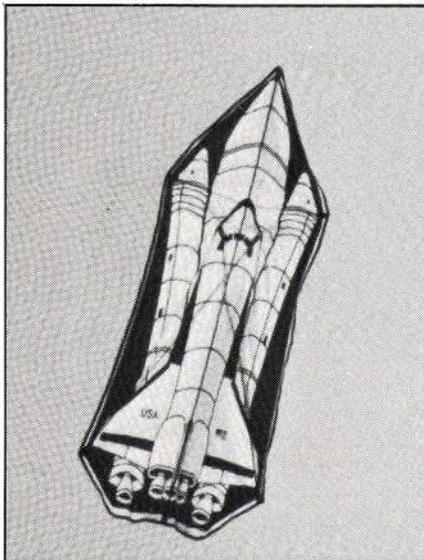
1. Flap down.
2. Flap folded up.
3. Sew ends of flap to kite.
4. Fold will billow outward in flight.

The idea of a delta wing kite without a keel has been around for a long time and a number of serious kitists have tried a variety of methods to achieve a dependable result. While some success has been reported, my experience has been that while one kite without a keel may be adjusted to fly reasonably well, another made in the same dimensions and with the same material will not. In short, the original effort frequently cannot be duplicated with any degree of reliability.

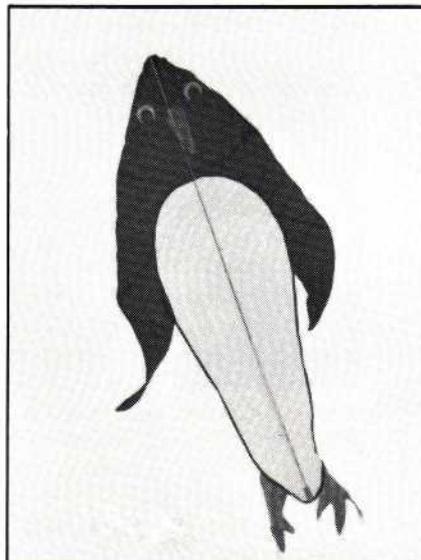
Any flat two-dimensional surface, including the delta shape, requires some kind of lateral stabilization to fly satisfactorily. Normally this takes the form of a tail, bowing, keel or some combination of the three. However, here's another way of achieving stabilization: use a flap or fold

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along the trailing edge.

The flap is folded upwards to form a pocket or envelope, as shown in the diagram. It can be an integral part of the kite or can be attached (by sewing, tape or adhesive) after the kite has been cut out.

The length of the flap should be half the measurement of the entire trailing edge, and the flap is placed one quarter of the distance from each outside lower wing tip. The width of the flap is determined by the total surface area of the delta wing without the flap. The flap should be about 3% of the area of the kite. For example, a delta wing 58 inches wide and 33 inches deep, with a total surface area of 971.5 square inches, can carry a flap of about 29 square inches area. Since the flap covers only half of the trailing edge, or 29 inches, it should be one inch wide. For a kite 46 inches wide by 26 inches deep, the flap should be 3/4-inch wide.

Materials to Make the Flapper

For the 46-inch-wide size, the following materials are required: a piece of fabric or plastic material 27 1/4" x 46"; two 3/4"

dowels 26" and 26 1/2" long; two 3/4" wing dowels 22" long, two eyelets or grommets and two small curtain hooks to insert at the ends of the spreader bar.

Instructions

1. Start by cutting out the delta wing shape as shown in the diagram. If material requiring hemming is used, add a half-inch on all sides for hems. If preferred, a 1 1/4" pocket can be sewn at the vertical center of the kite, for insertion of the mast (the 26 1/2" dowel), and one-inch pockets along the sides can be used for insertion of the wing sticks. Otherwise, the center and wing dowels may be attached by means of tape or adhesive.

2. Make a 3/4" fold along the trailing edge and turned upwards. The outside portions of the fold are attached to the kite by

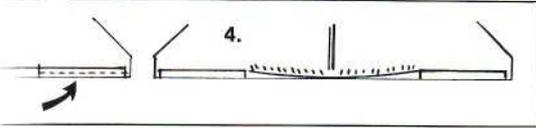
sewing, taping or adhesive.

3. Insert eyelets at the two points marked with small circles on the diagram. The eyelets will accept your 26-inch spreader bar with curtain hooks installed at the ends.

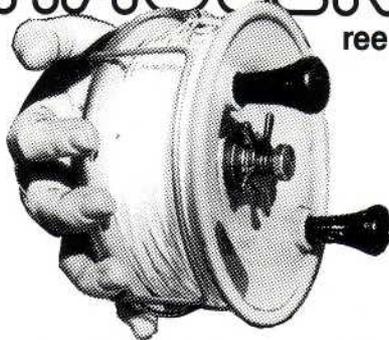
4. A two-point bridle is attached to the center mast about 20% and 90% of the distance from the top of the mast. The towing point is about 40% of the distance from the top bridle attachment point, but this position varies with individual kites.

Flying

The Flapper requires a minimum wind of four m.p.h. and will take a maximum of about 22, giving an excellent M/M (minimum/maximum) ratio of 5.5. A normal angle of elevation of 66 degrees translates into a fine lift-to-drag ratio of 2.246. ◇



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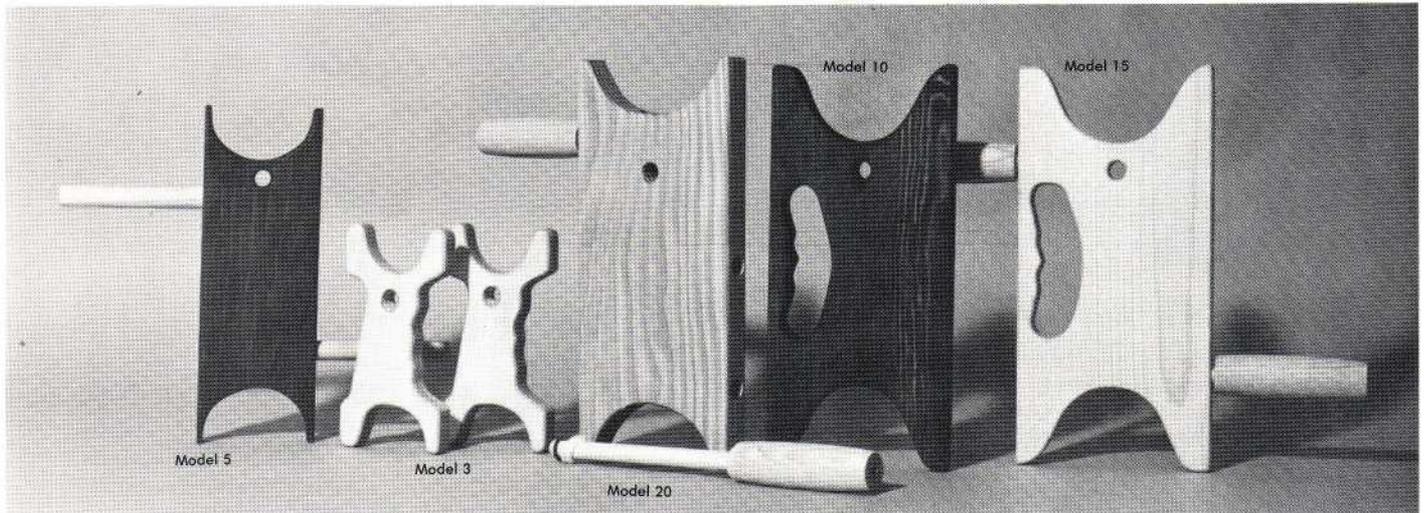
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I MUST TELL YOU ABOUT THE VENICE PIER KITE FESTIVAL...

By Dale Fleener

Dale Fleener is a perennial kite buff and student, now in law school but still flying.

The weather was really nasty the week before the festival, cold and raining very hard, and it continued afterwards for a few more days. But on March 27, 1982, the day of the festival, the rain stopped, the sun came out and the breezes were fresh and warm.

The local contingent was there in force. Some of them did bring along some warm clothing; what a lack of faith.

One of the earliest arrivals was Wayne Schmidt of Lancaster. He put up a few innovative and colorful kites that faded into comparative insignificance (as did everyone else's) when he put up his rip-stop All Saints Day, Colombian style kite. Not only was this a gorgeous kite, it was a dream of ingenuity. The framework was built on an umbrella hub and collapsed with a flick of the button when the flying was over.

Also there from Lancaster was the famous team of Bill Everett and Eva Creek. They didn't fly anything this festival, but just seeing Bill after his heart attack was a boost for all his friends and admirers.

Among other memorable kites were a centipede and a HUGE phoenix put up by the Rising Sun Kites representing the Taipei Kitefliers Association.

Tyrus Wong was there with his trains of butterflies and birds. Leo Eyman also

had his bird train up. Last year Leo was accosted by a member of the local security patrol who was investigating a report that "some people had an endangered species" on a fishing pole flying it. A crowd that was a little more aware of reality was on hand this year, and the scene wasn't repeated.

The Venice Beach Aerial Ballet, led by Steve Edeiken with his Rainbow Stunt Kites, put on a couple of fantastic shows. We were also delighted by the San Diego team from Hyperkites practicing the sincerest form of flattery when they showed up with their own version of aerial dance.

The ever popular and all-around nice guy, Vic Heredia, came up from San Diego to again amaze everyone with his skill with the Indian fighter kite. Mr. Stiles also came up from San Diego with his popular train of 125 kites. I won't even mention the spectacular tangle with the Aerial Ballet.

Some very unusual kites showed up, as they often do. Some were from the Art Design class at UCLA (University of California at Los Angeles) where the students come to the festival and fly their designs for the final exam. Also there were some notable vampire bat-type kites from Bali. I have no idea how to get one, aside from a trip to Bali, but I've been lusting for one ever since.

Finally, as all good things do, the day came to an end. The wind died down and the sun set; what can you do?

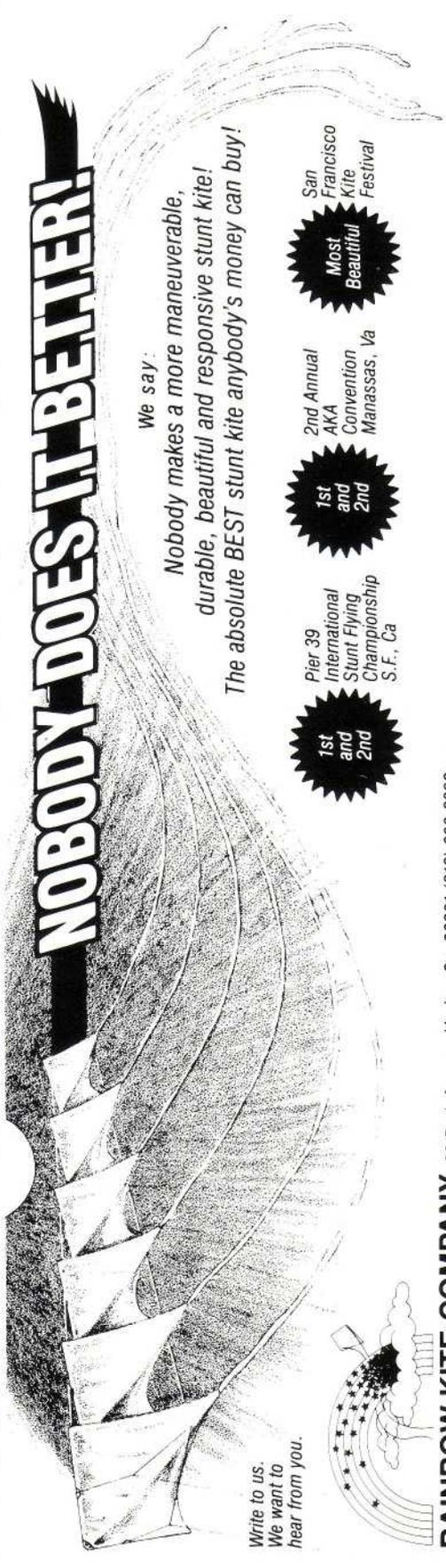
A small and excessively rowdy group of us then invaded the nearest pizza parlor (displacing the Little League soccer teams) and insisted that the TV be turned to the news (any news, we were on 'em all) so we could see ourselves running around on the beach.

Afterwards, replete with pizza, beer and wine, we trundled our sunburned selves home, satisfied that we had once again delighted the spectators on the bike path, the skaters, the stay-at-homes via TV, each other and most of all ourselves. ♦

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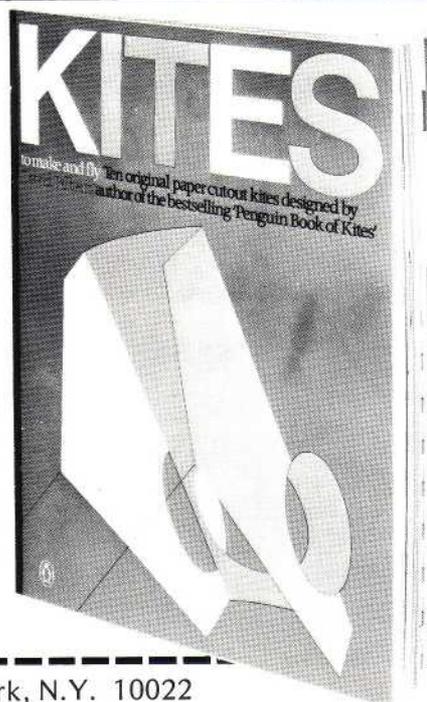
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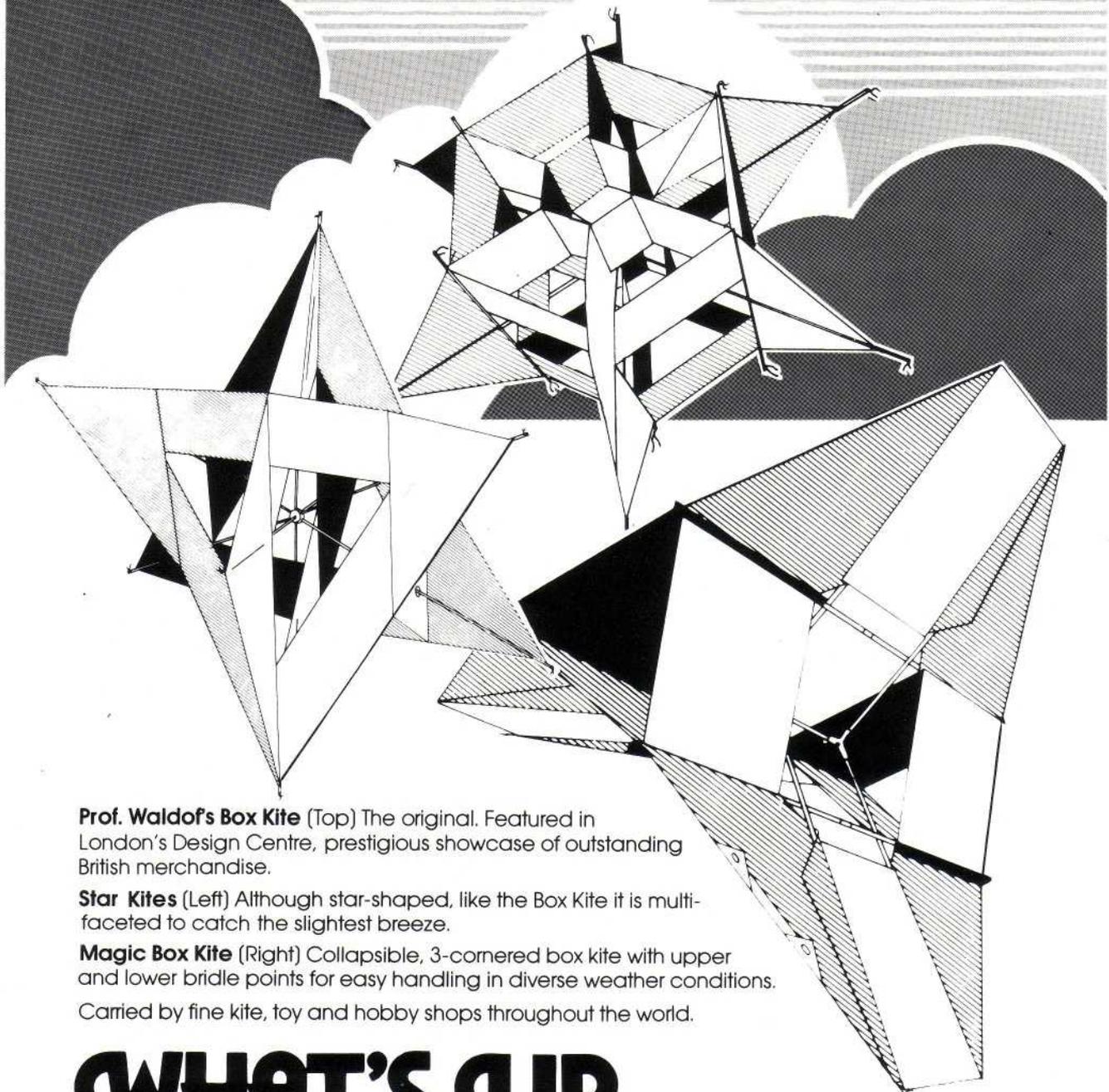
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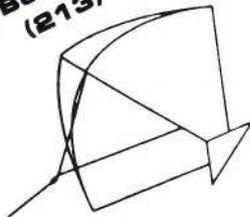
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What is Best of Show?

Best of Show

This Issue's Best of Show

This new *Kite Lines* series of featured kites was first suggested by our friend in Seattle, Louise Crowley. We will print a photograph of a reader's kite on a full page in full color in each issue of *Kite Lines*. Yours could be the next one! What kind of kite picture qualifies for this honor?

● First, the kite must fly well. Supporting information must be included describing your kite's typical flight and giving its dimensions, materials and history (in brief).

● Second, the kite must be beautiful. Agreed, beauty is in the sky of the beholder. This is an openly subjective criterion.

● Third, the kite must show some quality of originality in either form, craftsmanship, color, decoration or use of attached elements (not including reels).

● Fourth, the photograph (as a separate consideration from the kite in it) must be of high artistic and technical quality—sharp, well-framed, rich in color. For printing, we prefer 35mm or larger transparencies. We can also use color prints if they are 8x10" or larger. Tip: we favor vertical film format over horizontal.

The photograph should be taken in one of two modes: as a close-up of your kite in the sky, the kite filling at least one-third of the film area; or as a background-inclusive shot, showing people, scenery, etc., behind the kite. In any case, the kite should be shown well, and not necessarily flying, as long as your supporting information establishes the kite's flyability. In fact, background features give a reference point and sometimes increased interest to a picture.

We suggest you take *many* pictures of your kite. Snap it in the sky, at festivals, morning, noon and night—even indoors on display. Without any preconceptions of what a "correct" kite photograph should be, choose and send us no more than *five* photographs of *one* kite at a time.

In shipping, please enclose a self-addressed envelope with stamps or international reply coupons for return. Use strong packaging to protect your photos and supporting information.

Pictures used must be new and not previously published. After publication in *Kite Lines*, further rights revert to the photographer and kitemaker.

Kite Lines credits both kitemakers and photographers. A photographer may take pictures of a kite not his or her own, but in such case should ask the kitemaker's help in supplying information for the submission.

Now choose your kites and meet at dawn in these pages!

Karin Verschoor writes:

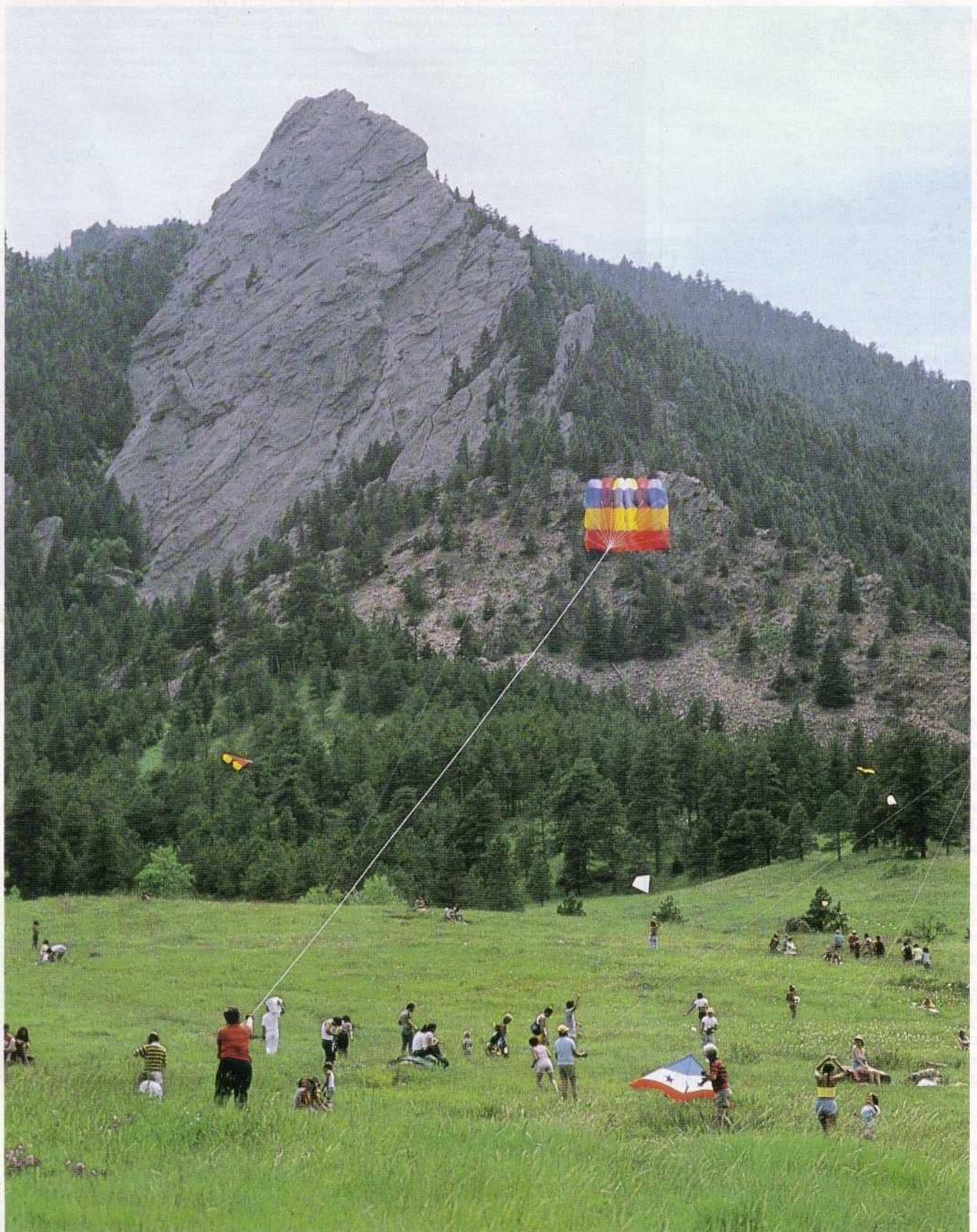
The "Madras" Parafoil measures 5 x 6 feet, weighs 1.5 pounds ready to fly and is constructed entirely of Stabilkote® (rip-stop nylon). A marine double-shackle swivel is attached to the kite and the 300-to-500 lb. test line is fastened on with a bowline knot (there being no lightweight swivels of adequate strength available in this area). The kite is actually larger than a J-30; I call it a J-30 and a half.

I decided that it would be interesting to exploit the translucent quality of Stabilkote, and the design is based on an architectural color problem using the mixing effect of the different colors in the top and bottom layers of the kite. Color intensities in Stabilkote vary considerably from dye lot to dye lot, so I had no idea how the kite would look in the sky until I actually flew it. The kite appears to be merely striped until it is in the air with the light coming through it, bringing out the madras effect.

The kite first flew on the morning of the Father's Day Kite Festival, 1981, in Chautauqua Park, near Boulder, CO, having been finished at 3 a.m. the night before. Despite the light winds, it flew well, requiring no adjustments. It flies just like the first Parafoil I made in this size, a red one with multicolored fins, which was also at the festival. I have flown the red kite extensively in all sorts of wind conditions, both here and in Alaska. Although not especially large by Parafoil standards, it can still pull ferociously in strong, gusty winds, and I've been scared by the pull when I've flown it alone. On one occasion it took three men to haul it down. Last summer it traveled with me and had many fine hours of flying in the Brooks Range in Alaska where I was doing geologic field work. The winds up there were remarkably steady, the best I've ever flown in, and the Parafoil was perfectly behaved and docile in a wide range of wind velocities.

This summer, both Parafoils may be out above Denver's lakes in new roles as flying spinnakers, giving some of us an excuse to combine sailing and kiteflying. I'm hoping to put one to work carrying a camera with a radio control set-up for use in my work—as well as fun. As I write, I'm preparing for a trip to Prudhoe Bay, Alaska, and will of course take a Parafoil. The extreme cold is a bit hard on the Stabilkote, but what an adventure for the kite!





Number One in a Series

Empty Spaces in the Sky...



Shanna Marshall at age 6 on the Bicentennial Kite Calendar flying a Gray Marshall kite.

On April 25, 1982, Shanna Marshall, 11-year-old daughter of Dr. and Mrs. Curtis Marshall, died suddenly in Baltimore of a brain tumor. Shanna had been making and flying kites for several years. She was a regular entrant and winner in the Maryland Kite Festival. A reception three days after Shanna's passing was attended by many kites from the Maryland Kite Society, who expressed their sympathies to the surviving parents and brothers.

The loss of Shanna followed by exactly a month another tragedy for the family, the loss of their home to a fire. About 80% of the large estate was destroyed, including most of the interior furnishings, art and books. The stone frame of the house remains intact and suitable for rebuilding; however, the Marshalls have sold the house and moved (from a temporary home paid for by their insurance) to a new home in the Brooklandville area of Baltimore. The family's new address is P. O. Box 559, Brooklandville, MD 21022.

The fire destroyed only four or five of the Marshall kites. The Marshalls were featured in the Summer-Fall 1981 *Kite Lines*. Curt's lobster parafoil and Gray's parafoils survived. The equipment in the workshop was untouched.

Kite Lines was asked to publish the following message from Curtis Marshall:

"I wish to express my deep appreciation to the members of the kiteflying community who have been so kind in their concern and understanding for our family during our recent devastating experiences."



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Our list includes nearly all kite titles now in print, but it's not final. It will change and grow as we hunt new books for you. We welcome your suggestions.

Please note that *Kite Lines* is making these books available as a service and this is not to be construed as an endorsement of any title. But we do guarantee your satisfaction with our services. We want you to feel just as if you were in the town bookstore, picking up books and looking them over. When one is wrong for you, you can put it back on our shelf. No questions asked.

Our primary aim is to serve the needs of kites. However, we must do this without losing money. We carry a number of inexpensive items in our collection in order to make it as complete as possible. But we have found that the economics of fulfilling your orders require us to set our minimum order at \$10.00.

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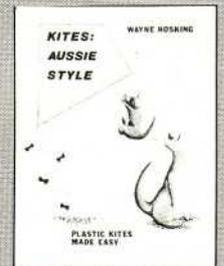


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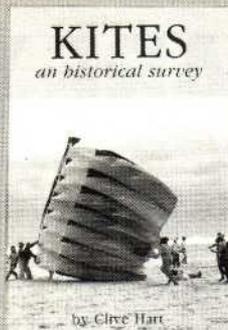
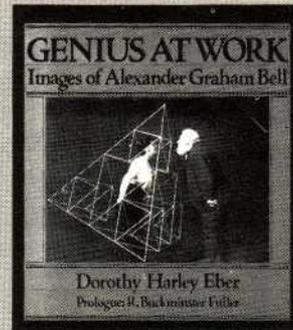
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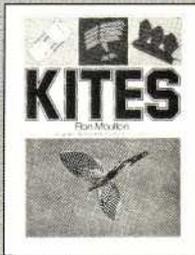
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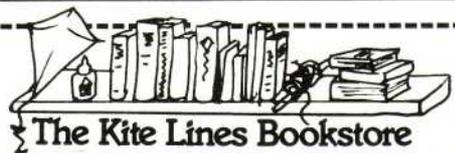


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SUMMER 1977 (Vol. 1, No. 2):

Which Is the Perfect Kite?; Person-Lifting Kites; Trains: Proposed Standards for World Records, Profile: Mike Weletyk, Van Gilder's Train, Tom Van Sant's Trampoline; Pfund on Controllables; Greger's Dutch Kite.

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Gull Delta Plans; Tail Selection; Profile: Ansel Toney; All Saints Day in Guatemala; Weathers—Kite Fishing; Micronesian Kite Fishing; Reels Analyzed; Seattle Exhibit; Sycamore Fire; Temperature/Kites—Ingraham; Greger's Vietnamese Kite; The C.P.S.C. vs. the Aluminized Dragon.

WINTER 1977-78 (Vol. 1, No. 4):

Medieval Dragon—Hart; Thorburn's Stacked Deltas; Tetrahedral Kite Symposium—Comparison Table, Tetra Plans, Tips; England's Jubilee Year; Shipping Kites—Ingraham; Making Sled Kites with Hundreds of Kids.

SPRING-SUMMER 1978 (Vol. 2, No. 1):

Rogallo Corner Kite Plans; Lincoln Chang's Modified Rokkaku; Profile: J. C. Young; Flexifoil Review; Spendlove's Taxonomy of Kites (poster); Kite Festivals and How to Run Them; Braswell's Figure Kiting; Cerf-Volant Club de France; Safety Issues; Publishing Kite Tales—Ingraham.

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Reels Roundup; Van Gilder's Reel Design; Tokyo and Smithsonian Kite Exhibits; Streeter in Paris; Kites in the Wilderness; Nirvana in Nags Head; Braswell's Two-String Delta; Profile: Stephen Bernstein's Chinese Bird Kite.

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Flow Form Kite Plans; Marshalls' Nylon Cutting Technique; AKA's First

Meeting and the Grand National Festival in Ocean City, MD; Brummitt—The Sky Is Big Enough for All of Us.

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Rotors Reviewed; Grauel's Shooting Arrow and Bull's-Eye Target Kites; Profile: Ham's Parafoils; Allison's death; Robinson's Facet Kite; Invention of the Flexifoil—Streeter; Events in Beulah Valley, CO; Kill Devil Hills; Seattle; Manassas; The Miracle of Sagami-hara—Poehler.

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Searching for the Real Will Yolen; David-Goliath Kite Story; Tetrahedral Variations—Bevan Brown; Kite Aerial Photography: Who's Done It and How; Shirone's Largest Kite; How to Bridle a Japanese Giant—Van Gilder.

FALL 1980 (Vol. 3, No. 3):

Scheveningen Festival; Kites as Art—Streeter; World Records in Kiting; E.C.C.'s Largest Kite; Expo of Asymmetrical Kites; Kuroda's Convertible Cubics; Spendlove's 14d Box; Piney Mountain's Hornbeam Sled Kite.

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Dieppe Festival—Fissir; Sled History—Scott; Reels Update; Falcon Review; What Is DELTA?; Kiting in Bangkok—Cann; Kite vs. Model Airplane—Whippo; Kite Club Directory; Cambaflare—Gilbey; Indoor Duration Record.

SUMMER-FALL 1981 (Vol. 4, No. 1):

Cerf-Volant Aerial Photo Winners; Mastering Nylon—Tyrrell; The Marshalls, Father & Son, their Alternate Bridling Method; Big Compass Plans; MKS Kite Retreat; Profile: Francis VIIbe; John White's HARDEC; New Records for Largest and Longest Kites; NYC Kite/Helicopter Conflict.

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I wonder if there's another single human-made object quite so special as the kite. *Kite Lines* brings us the hum, the music of the line. It's our magazine.
Tal Streeter, American sculptor and kite authority

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Profiles **GEORGE PETERS** at play with kites in HAWAII

by
Clare Chanler Forster

George Peters had never flown on a plane before he went to Aegina, a Greek island, in the summer of 1972. The unlikeliness of our meeting there that summer at the Aegina Arts Center was heightened by the at-first disappointing fact that he was 20 years my junior. I started learning from him from the moment his California point of view met mine from New York in this extraordinary part of the world.

A kitemaking day at the school was more like a playful experiment for the art class—and not one of the kites flew on that hot and windless day. However, George began his work with paper and string, and if nothing actually flew, most of what he made that summer hung, fluttered or floated in the air or in the sea. He made large paper birds, an octopus

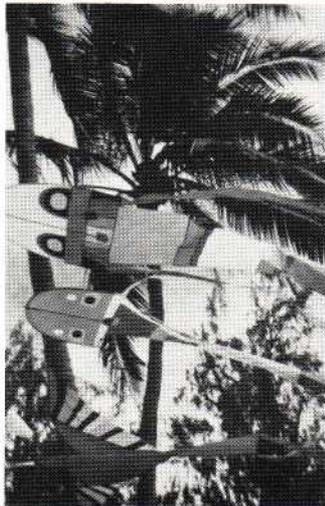
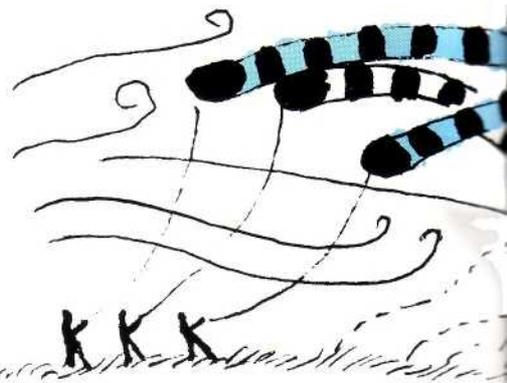
children's event. A strong gust came up and folded it neatly in half, breaking its bones. It broke my heart even though it was a sad excuse for a kite. So from that day the challenge was on."

During the same year, George became recognized as a Honolulu artist for his small constructions he called "slide theaters." These were boxed collections of paper and transparent forms activated by knobs and fishing line. The result of these small experiments was a two-day perfor-

sitates the collapsible feature of his designs.

As he tells it: "I started with my own designs, such as serpent kites with double tails made out of black plastic and rip-stop scraps from the show. Most of them were taped together instead of sewn and didn't last too long. I rented a sewing machine, then bought it since I knew I was going to be doing this for a long time.

"With the help of some kite books, I became more familiar with the traditional kites so I could experiment with designs of



Left, kites by George Peters, a pair of serpents and a bird, waft in the breezes among Hawaiian palms. Center, one of Peters's multisided kites—"a powerful puller in strong trade winds." Right, a 9 x 16 ft. Ao Manu (Hawaiian for Cloud Bird) kite at launch in Kapiolani Park, Honolulu.

and a snail-headed "student" seated at a desk. He hung chairs and tables from trees in the students' outdoor dining area in a typical surprise attack by night, using simple materials to transform familiar school surroundings.

For several years he had toured the United States by van, earning a living by painting watercolor portraits in shopping malls. For a while I traveled with him, selling my own watercolor paintings, and in 1975 we came to Hawaii where the trade winds and the supply of tourists for portraits were constant. Both the winds and the tourists have remained fairly steady throughout the last seven years.

The first spring, George went to the annual kite festival in Hawaii at Kapiolani Park. "I brought a small, rather crude kite I'd made the day before and weighted it down with a stone while I watched the

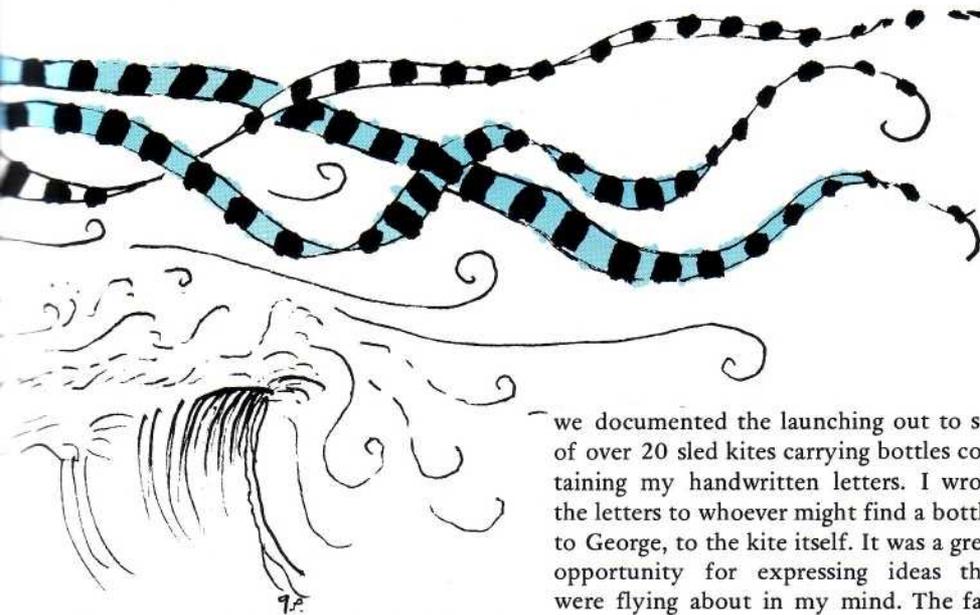
mance of a similar nature in the Foundry Gallery. "Kites, Clouds and Curtains" used cloud-painted transparent curtains hung throughout the gallery in a maze-like form. Kite-like paper and nylon banners were activated by strings pulled by the people who came to see the show. Background music, at my suggestion, included tape-recorded kite festival cries of "Get that kite up!", "The highest kite in flight!" and "Oh no!" as a kite struck the ground hard. The background sound helped create the illusion in the gallery of an actual kiting event.

After the show, George became a kite-maker in earnest, and with rip-stop nylon, dowels, bamboo, and rattan frames, he started production of a surprising number of kites for sale at craft fairs. The size of our small house and shared studio, where I paint and make small sculptures, neces-

my own. I worked on a multiple sled kite with three fins, four fins, five fins and finally a large one with seven sets of fins and measuring 6 x 9 feet. After adjustments, all the kites flew reasonably well. I've found the bridling is most important plus proper venting in these designs.

"Having some background in graphic design, I wanted to make things that were visually stimulating in the sky and if they flew well I'd get this wide squinting grin on my face. If, on the other hand, my week-long project made a spectacular crash in the middle of a soccer game, I would collect the pieces and trudge home. I worked on my two-stringers with a bowed cross spar for a couple of years before my sewing and craftsmanship paid off in a very fast and responsive flier."

In the last four or five years as a kite-maker, George has been involved with



kites on several different levels—as teacher, artist, craftsman and (perhaps his favorite) flier—trying out a new kite he has just made at the park.

After seeing an article in *Kite Lines* on

we documented the launching out to sea of over 20 sled kites carrying bottles containing my handwritten letters. I wrote the letters to whoever might find a bottle, to George, to the kite itself. It was a great opportunity for expressing ideas that were flying about in my mind. The fact that we have as yet received no answers doesn't bother us at all. What was surprising to me was the great speed with which the bottles raced over the sea towards the horizon, like bouncing porpoises.



Above, Peters in his "personal flying machine" of foil feathers. Right, a delta of 18-foot wingspan designed after the Pelican Kite of John Green, Sheffield, England.



the making of small sled kites, we began teaching workshops in schools. There were other workshops, too, on some of the outer islands, where long-tailed dragon kites were made from black and white garbage bags. On the "big island" of Hawaii, we made several of these and flew them over the crater, with its sulfurous fumes and strong winds which blew one 300-foot kite into the still-active volcano of Kilauea.

We worked together for a show called "Collaborations: Artists/Writers" at the Contemporary Arts Center in Honolulu;

During most of last year, George worked on preparations for his first one-man show, an installation at the Contemporary Arts Center called "Air Show." Hung on the walls were large, man-sized pairs of wings, kitelike plastic forms, sails and other objects such as bridges of nylon and string that seemed to float in the large gallery space.

A show opening in Phoenix, AZ, in July 1982 is mainly of flying kites—several Japanese "Edo" kites, large bird kites and some pieced nylon banners in featherlike shapes. George has made kites of ancient

Hawaiian design using kapa cloth and sennit twine for a special project, a film (produced by the same company that made *To Fly*) using the very large screen. He also makes kites for the Following Sea craft gallery in Honolulu.

At times the drone of the sewing machine makes me wish that I could fly away myself, but in every other way I enjoy living with a kitemaker. Our house is filled with kites, banners and paintings; our days include trips to the park, a short walk from where we live. There is nothing like a kite for making new friends and often these are small running children. The Fourth of July finds George on his trimaran sailboat attaching sparklers to a line traveler for release over the water.

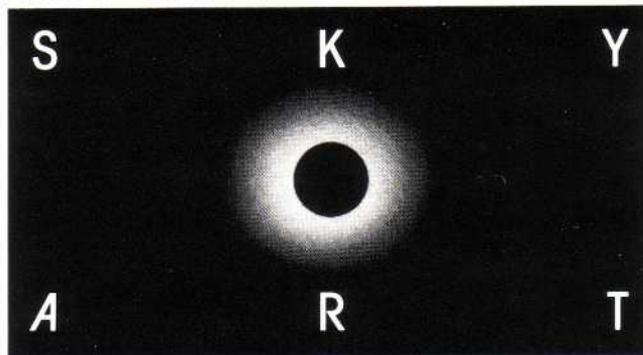
We both love the act of kiteflying, which seems like fishing in reverse, pulling in friends and fellow kitemakers from all over the world. Some special sources of inspiration have been Tal Streeter and his book, *The Art of the Japanese Kite*; Tom Van Sant for his wonderful exhibition here a few years ago; and the flying spirit of Hawaii in the late kitemaker, Lincoln Chang.

There is no clear connection between the islands of Oahu and Aegina, but whatever it is that keeps us doing what we're doing together is fine by me. ♦



CLARE CHANLER FORSTER is editor of the "Hawaii Craftsmen" newsletter.





Contrails across a midnight blue December sky, backlit by a full moon, stopped me for a few moments of wonder—wonder that I might not have felt but for the Sky Art Conference '81 two months earlier. The Center for Advanced Visual Studies at the Massachusetts Institute of Technology in Cambridge, MA, sponsored the affair from September 25 to 29, 1981.

The conference probed everything related to the sky, from the experimental Gossamer aircraft of Paul MacCready to airplane-flown poetry. The sky as canvas to the artist or laboratory to the scientist drew together several hundred participants under the chairmanship of Dr. Harold E. Edgerton, M.I.T. professor and inventor of the strobe light. Grave discussions of our common human destiny under one sky (despite its acid rain and missiles) and our need to integrate with nature were interlaced with whimsies such as Howard Woody's free-flight sky sculptures, which floated like silver-purple mushrooms over Boston. More Sky Art Conferences are in the works for the next few years, to be held in Vienna, Paris, Los Angeles, possibly Tokyo. I attended the conference for *Kite Lines* because we thought that the subject would be of interest to our readers. We hoped, too, to lend a touch of kites as earth anchors to the cosmic proceedings. I had little idea how much I would take away from the conference.

Story by Mel Govig
Photographs by Mira Meshulam

The sky is our concept of infinity, bounded by images light years away, yet at our fingertips, giving us a sense of space that is both exhilarating and humbling. It also challenges us to say something bold. In this environment, big is beautiful because it is visible and because it makes humankind less insignificant in the universal order of things. The point also was made several times at the conference that the atmosphere of the sky is a forgiving medium for art. However, sky works are by nature transitory, passing through the sky and leaving behind only what we, as participants and viewers, choose to remember and record—as here.

More was to be had from the Sky Art Conference than my mind and time would permit me to absorb. But four kitefliers and four flights were of special interest to me.

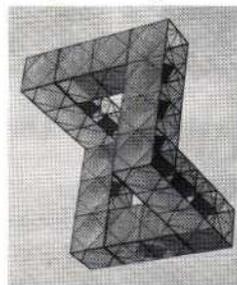
● Tal and Dorothy Streeter came with Tal's wonderful rip-stop and bamboo Rokkaku kites. Seven feet high and about 40 square feet, these kites are impressive in their simplicity and efficiency. Tal, in both his lecture and his flights, demonstrated the characteristic understatement that marks him among the most complex

of artists. He strives for simplicity, even on a scale of giants. He resists the temptation to decorate, and seeks after simple truths. A slide show visit to some of his gigantic sculptural pieces gave us a new insight to his kite art.

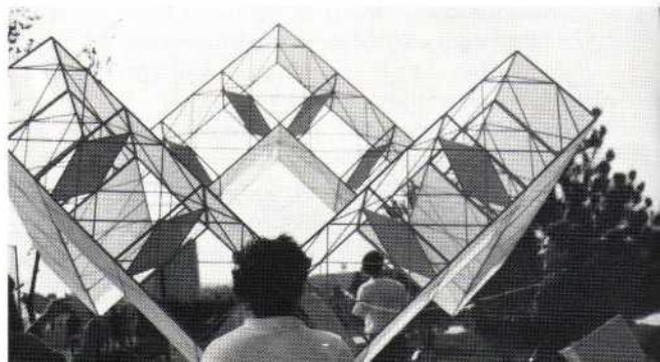
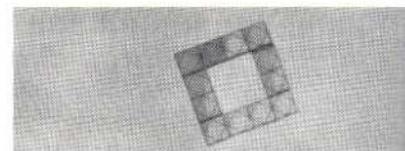
● Tom Van Sant presented a film record of his project "Reflections from Earth," by which a mile-wide eye was created in the desert by a coordinated team placing mirrors by calculated arrangement to stare at the Landsat satellite in space.

Besides showing his "Reflections" project, Tom presented his beautiful kite film (I've seen it three times now, not enough) and flew his giant centipede kite with three-foot-diameter disks. Bringing his kites to the field and assembling them, Tom and his wife Lisa also assembled a crowd. From the crowd, Tom selected five or six very large, very strong M.I.T. students, briefly instructed them and lined them up as his flying team. Then Tom quietly lifted the head of the centipede and the kite leaped to the sky. Three quarters of a ton of collegiate beef strained while perhaps 140 pounds of Tom Van Sant urged them on! Beautiful.

● From Spain, Jose Maria Yturralde came to Boston with tissue and balsa and while here constructed a magnificent three-dimensional six-foot kite, almost a cube. His box kite described half the edges of the cube, leaving the vacant half



Flying geometry, a partial cube made and flown at M.I.T. by Jose Yturralde of Cuenca, Spain, is seen here in four views.



to play with our perception. Flown from a single monofilament line, the kite seemed suspended in air. Viewed from different angles, it appeared to be a hexagon, square, bow tie or V shape and all of the combinations between. Even having seen the structure on the ground, I found it a challenge to reestablish perspective as the kite changed views. An added note on Jose's kite: at one point the line broke and it drifted away. It was recovered three blocks away from the bed of a pickup truck. The kite was not damaged—remarkable for tissue and balsa.

● Another kite event was engineered by Chilean light sculptor Alejandro Sina, who advertised plans to fly a "neon kite" as part of the conference. On the afternoon before he was to fly, I discovered him trying to lift about 20 pounds of neon tubing and bronze wire on a four-foot nylon Conyne box kite. I helped him realize that there were at least two big flaws in his plan: first, the kite could never lift all that hardware; and second, it was a poor idea to fly a kite on bronze line when there was a 40,000-volt power line located on the other side of the street. Fortunately, I had a J-15 Jalbert Parafoil in my bag to solve the lift problem. Since Alejandro had only 80 feet of lights, we tackled the safety problem by hooking the light string to the kite line at about 150 feet up the line. By positioning the lights in the center of the athletic field, it was possible to keep the lines away from power lines and spectators. After a few tries, he got the lights working. On a darkened field, a string of two-foot neon tubes was suspended in air, programmed to flash at intervals ranging from once a minute to 60 times per second. It was a great show, and I was pleased to be part of it.

Another friend of many of our readers, Anders Holmquist, was a participant at Sky Art. I don't believe he flew any kites, but a display of his flags was included, and he made an interesting, poetic presentation of a fabric sculpture which he installed in a river in the desert near Paolo Soleri's Cosanti, Arizona. (As an aside, I note that the influence of Anders and other banner artists can be felt among kitefliers. More and more kites are accompanied by colorful windsocks, banners and flags, both in the air and on field poles.)

For me, the highlight of Sky Art was not a kite, but an event with a special lesson for those of us who seek to share our aerial pleasures with a crowd of participants. Otto Piene, director of the conference, flew a huge nylon sculpture called Blue Star Linz. More squid than star, this famous work is constructed of

rip-stop nylon arms connected to a center umbilical about 30 inches in diameter and 100 feet long. A portable blower on the ground inflates the arms, 50 or 60 of them, into a big blue creature rather like an enormous dahlia. The whole construction is lifted by clusters of helium-filled clear plastic balloons about 30 inches in diameter by 50 feet long. The display started at about 8 p.m. with assistants filling plastic tubes with helium and laying out and inflating the rip-stop portion. As the balloons were inflated, they were tied to a fence around the field, creating a garden of waving silver grass 50 feet high. The balloons squeaked and groaned in the wind. As they rubbed together they

created static electricity that made them draw together and then, every few seconds, let out a snap as static discharges passed from balloon to balloon.

The crew handled the Blue Star Linz with 10 or more long rope tethers. It was beautiful to see the crowd involvement as people would rush fearlessly to touch it, roll on it, get under it as it settled its long soft arms over the crowd. Such laughing and giggling you have never heard.

Though I went as a spectator to the Sky Art Conference, I felt as if I were a part of it. In all the activities, there was a common thread of participation. I now have a new respect for Big and a benchmark against which to measure Big. ◇

Friendship is Always the Best Part. . .

One of the most pleasant aspects of any kite trip is the chance to renew old friendships and make new ones. The hospitality of George and Mary Stantis saved me from the cold isolation of a hotel room. More than that, it gave me the chance to watch a master kitemaker—George—make and fly some of his finely tuned fighter kites. For three days, George and others in the Kites Over New England group made me feel at home. Ted Kuklinski, Carl Poehler and others joined me to help Alejandro Sina with his "neon kite."

I am especially grateful for their assistance in an experiment to which I alluded in the last What's New column in *Kite Lines*. In testing the Trlby Ace, I flew it both as a stunter and as a one-line maneuverable (fighter) kite. The Trlby has unusually quick response to line action combined with rather slow travel across the sky. What's more, it imparts a feeling that you could tell what the kite was doing without seeing it, simply from the feel of the line. If I could feel this, I reasoned, then a blind man could.

Our kite friend Charles Goumas has been blind from birth and lives in the Boston area. We had met him two years before at the Smithsonian Kite Festival in Washington, DC. He had come from Boston to "see" it and our talk with him revealed his appreciation for kites.

Charles works as a darkroom technician at a hospital, has an apartment, goes to school, travels—"I don't consider myself that restricted," he says. We asked him how he became interested in kites.

"I get *Better Homes & Gardens* in Braille and they had an article on kites. I was just fascinated. I previously thought kites were just children's toys. I started with Gayla kites and such, and then one day I found out about a kite

store. I haven't been the same since."

By the time he arrived at the Smithsonian, Charles was an experienced flier and had tried most of the common kites. The delta was his favorite. He said, "I like trying different types of kites—the variation in their feel. I especially enjoy the feel of lift, of pull. It's definitely a spirit-lifter. You can be depressed and when you get that kite up you feel that everything is all right again.

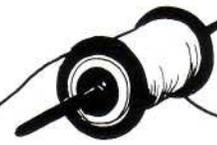
"I have a sense of direction of the kite unless it's really far out, about 1,000 or 2,000 feet. Kites sort of give you the feeling that they're searching for something.

"I guess part of my interest in kites was my interest in flying. I wanted to be a pilot and since I couldn't I guess kites were the nearest I could come to it.

"Where I work I have an hour for lunch and there are big fields, so I try to fly nearly every day. I like to go to the beach but can only do it on weekends. Also there are a couple of parks in walking distance of where I live and those are good places to fly, too. I have gotten a lot of adventure out of kiteflying and I guess it gives people pleasure to see a kite fly."

My pleasure was big that day in Boston. With Ted Kuklinski as chauffeur, Charles got to M.I.T. and we had a chance to test the Trlby as a "feeling" stunter. For about 20 minutes, I stood behind Charles and gave him a play-by-play of what the kite was doing under his control. Then Charles continued to fly the Trlby for over an hour. By the end of that time, he was reaching out to try the more adventuresome Vics and even George Stantis's quick kites.

My question was answered: a blind man can fly a fighter kite. And one of my biggest thrills that weekend was the way I got that question answered. M.G.



By Mel Govig

KITE/KITEFLIER. It is difficult to separate the two in a discussion. This is true for all kites but in no case is it more true than for fighter kites.

I would like to offer some clues to getting the most out of the various fighters available. I don't pretend to be the best at flying any one of these kites; I may be one of the few to have flown them all.

My editor has coerced me into accepting the idea that kites everywhere will be grateful if I reveal some of my hard-won "secrets" of kite fighting, even if it means losses of future battles for me. Boy, that's tough, but here goes.

Fighter Characteristics

All of the kites discussed here are variations on the oriental diamond kite (except for the Korean, which is very different in techniques and responses and appears perhaps unfairly on our chart). All the kites are nearly square in shape, similar in size, and are what I call *flat bowed*—that is, the cross spar is bowed in the plane of the kite sail. Most of the kites are made of modern synthetic materials, typically rip-stop nylon or lightweight plastic film and fiberglass spars ($\frac{3}{32}$ " to $\frac{1}{32}$ " dia.) These materials are proved to be durable for hours of flying.

The Basic Principle

All diamond fighter kites operate on the same basic principle: when the kite is flat, placing little or no

tension on the line, it will spin like a flat kite without a tail; when the line is pulled, putting tension on the line, the bowed spar rotates back, creating a dihedral angle, and the kite moves in the direction in which it is pointed.

Fighter Variations

The vertical member (spine, longeron) varies among fighter kite versions. The classic tissue paper India fighter has a slight bow in the spine over its entire length. In these and some other fighters, the longeron is rattan or bamboo and fairly flexible. In storage the bow flattens out in a few hours. The bow is often put into the new kite on the field by the flier, who draws the spine over his or her head or knee. This ritualistic scare tactic of the experienced flier relieves any brittleness in the cover, assures the flier that the kite is sound and sets the amount of fixed bow in the kite.

Some fighter kites have a set dihedral from the cross point to the top of the kite that tips the nose to an angle of about 10 to 15 degrees. On the Freestylers by Spectra Star Kites, there is a similar 10-degree dihedral, but at the tail. As far as I can tell, the effect on performance is the same. The Aussie Fighter has a straight, tapered fiberglass longeron, like the tip of a fly fishing rod. Reversing the longeron in the kite's top and bottom pockets changes the location of flex. With the taper down, the kite is more flexi-

ble at the tail and flies more stably, recovers more rapidly from loops and moves more slowly across the sky.

Choices and Behavior

The wind can affect both performance and the choice of kite. If the kite does not have a bowed longeron, you will find it very difficult to fly in winds below 5 m.p.h. If the kite is perfectly flat, on a slack line it will tend to slip off to either side or take a nose dive down the flying line. The acceleration of these kites is so fast that they will climb to—and past—90 degrees in little or no wind. However, if the kite is slightly bowed, it will remain face toward you and will nose into the wind, even on a light line.

Large size in fighter kites is not a virtue. Larger fighters can become a strain on the fingers in strong winds (10 m.p.h. or higher). Even a one-foot fighter can relieve you of a lot of finger skin on a windy day. In addition, smaller fighters can usually be made a bit stiffer, a bit quicker to turn and generally more active, if that's what you like.

Each kite has its advantages and no manufacturer does a "copy" of any other's kite. You may enjoy this variety, as I do. But to begin your fighter flying, I suggest you obtain several inexpensive plastic kites. The tissue kites from India are the cheapest as a rule, and may therefore seem to be a good choice, but because they

are more fragile they may inhibit your learning. Polyester film, such as Mylar, will bounce back from your inevitable crashes.

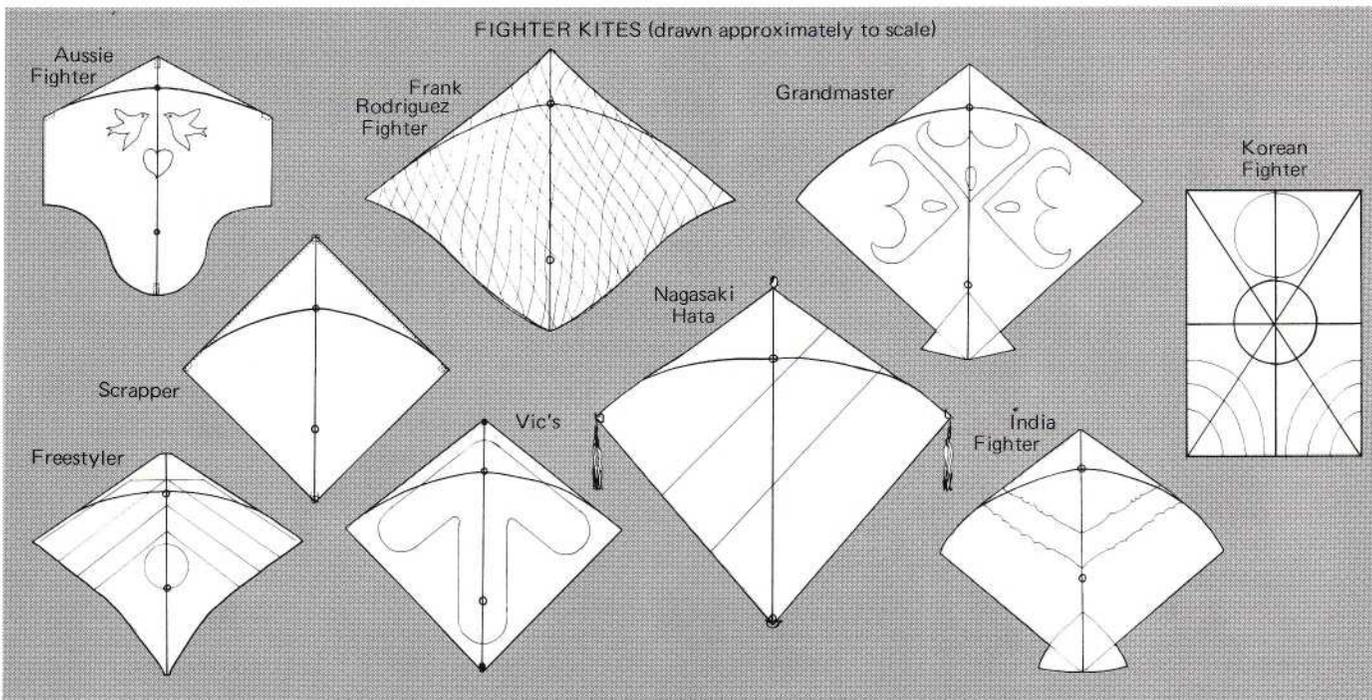
The Durability Factor

Durability is important not only for the kite's cover but also for its spars. All the materials in the American-made fighters are very tough. The spruce longeron in the Vic's is relatively more breakable, but for that kite it is possible to replace the stick. The molded plastic spine in the Freestyler is not unbreakable as it may appear to be.

An additional element affecting durability is the method used to affix cover to spars of a fighter. Fabric kites with sewn pockets can be quite hardy, but the tape pockets on plastic kites vary with the tape quality. I have had kites practically self-destruct in hot weather when the adhesive softened and the cover dropped off the bones. Tissue paper and glue, of course, are very fragile, although wash-covered kites, even glued to spars as they are, seem to hold up a bit better (and be easier to repair) than tissue-covered ones.

Durability tends to be more a function of craftsmanship than of materials. Not all the kites are created equal where durability is concerned. Craftsmanship tends to be subjectively assessed and is easily confused with mere neatness, which is not at all the same thing. It's my view that craftsmanship is relative, as appropriate to

FIGHTER KITES (drawn approximately to scale)



Drawings by Valerie Govig

to Pick and Wield your Weapon

the kite. You expect to see hand finishing on kites from a limited-output maker and uniformity from a mass-production company. Surprisingly, though, a sense of personal pride of work comes through in all these kites, with the possible exception of Spectra Stars, which of course are made on a different quantity scale.

Choice of kite isn't always based on durability, performance or price but often on subjective factors such as appearance. The intangible attractions of a teddy bear fighter, for example, are too subjective to handle in this article, but could have overriding influence and legitimate importance for you.

To Tail or Not to Tail

Adding tails increases the interest when you are flying fighters by yourself, as you may find you usually do. A 25- or 30-foot tail inscribes the motion of your kite on the air and shortstops the inevitable "helpful" suggestions from spectators about adding some tail to make the kite fly right. (A colorful plastic streamer is included with the Freestyler.) An old ¼-inch cassette tape makes a dramatic tail for fighters. Also good are surveyor's tape or any thin, slick ribbon. Not so good are crepe paper, porous cloth or rope. Choose a tail for minimum flight effect but maximum visual effect.

The Battle Line

Select a thin, light but strong and nonstretching line, about 8- to 20-

lb. test. "Tiger Tether"™ is my personal favorite. Cotton, such as "button thread," is used by many.

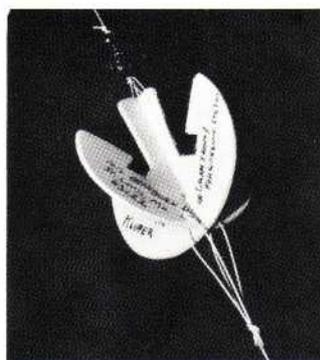
You do not need to use a lot of line in kite fighting; 1000 feet is plenty because you normally will fly at only 100 to 200 feet. You can fly higher but your control will diminish. You do need extra line available to let out rapidly in a dive or to replace losses after cuts.

The glass-coated cutting line from India (called *manjha*), available from stores specializing in India kite supplies, is traditionally made from powdered bottle glass mixed with cooked rice, adhesive and coloring. You attach a length of it (say 100 to 200 feet) to the kite bridle. The rest of your line (ordinary and white) completes the trip to your hand. Cutting line does not *look* sharp. It doesn't even feel sharp on the spool, just slightly tacky. But it can be very dangerous, especially to bystanders, who should be cleared from the area in the kites' line of attack. Also be sure to clean up any line—especially cutting line—left on the field after the fray.

You cannot effectively fly fighters wearing gloves, so if you use *manjha*, be prepared to shed a little blood. In India, cut fingers are accepted as part of the game. "Cuts heal in a week or so," we are reassured by master fighter Dinesh Bahadur.

Other Armaments

Besides *manjha*, kites may be armed by razor-tipping the wings



The patented, safe Kite-Klipper™ is attached to its kite line, ready to cut down a foe's line and kite.

(as on the Brazilian papagaio kite) or knife-studding a tail appendage that swings like a wrecking ball in the sky (a Greek practice). A particularly vicious cutter made from slivers of broken bottles is described in (of all places) *The American Boys Handy Book*, 1882, by Scouting leader Dan Beard, writing of innocent boyhood amusements.

I had been pondering ways of attaching a safe cutting device to a kite line when I heard about John Fergusson's cutter (see picture). This patented weapon isn't yet on the market, and Fergusson is looking for manufacturing help. I hope he finds it because the cutter works and is almost totally hazard-free.

Lipstick Battle Disclaimer

This may be as good a chance as I'll ever get to disavow the arming of kite line with lipstick instead

of *manjha* for contests. My wife (the editor) and I dreamed this up and ran it at the Maryland Kite Festival in the early 70s, and Will Yolen immortalized it and our Marquess of Queensberry rules in his *Complete Book of Kites and Kite Flying* (1976). The method works, in a way. You can see and count the marks that spiral up the kite line from each hit (the Kiss of Death) by an opponent. However, the application of the lipstick (I'll never forget Revlon's Million Dollar Red) and the handling of the lines afterwards left a lot of red on contestants and judges alike. The friends we asked to do this have never let us forget it.

About the Spool

Although there is a bit of mystique surrounding the handling of the traditional fighter spool, it is much more important to be skillful with the kite. Any winder will do, but a spool, spiked or anchored at an angle to the kite, will spin off line as needed. As you work the kite, line will collect around you; move about so it will spread out rather than fall in one place and tangle.

The Basic Rule of Flying

In flying fighters, the basic rule is: pull to go; let out line to stop or spin. In between are all the subtle touches you can really learn only with the string in your hand. Start out flying to get a feel for your fighter, sensing that ever-necessary tension on the line. Grandmaster kites come with ten feet of tail

DATA CHART OF FIGHTER KITES (listed alphabetically within groups)

Cover	Kite, Manufacturer, Notes	Approx. Price	Dimensions	Weight —Oz.	Spine	Cross Spar	R	A	SD	ED	EWV
Rip-Stop Nylon	Aussie Fighter, by Action Craft; tapered, reversible spine; trailing edge apron; various decorations or solid colors	\$12/16	19x19½"	¾	fiberglass, not bowed	fiberglass, removable	VG	E	F	VG	5-20
	Scraper, by Vertical Visuals, imported by Hi Fly Kites, Ltd.; hemmed leading edge; bright solid colors	\$7	22x20"	½	dowel, not bowed	fiberglass, removable	E	E	G	E	5-15
Polyester Film	Freestyler, by Spectra Star Kites; tail included; spine bowed at tail; various bright-colored print graphics	\$7	22x22"	¾	plastic, tail bowed	fiberglass, removable	VG	G	G	F	5-15
	Grandmaster, by Grandmaster Kites; Competition and Fast models; tail battens; many colorful decorations	\$21	29x24"	1¼	bamboo, bowed	fiberglass, nonremovable	E	VG	E	G	2-12/ 5-20
	Frank Rodriguez Fighter, at Go Fly a Kite, New York; trailing edge flap curls under; gossamer-look graphics	\$8+	31x22¾"	¾	rattan, bowed	fiberglass, nonremovable	E	G	E	G	2-10
	Vic's Fighter Kite, by International Kite Co.; 1-, 2- or 3 cross spars; adjustable bridle; various bold graphics	\$8/9	23x21"	½	spruce, bowed	fiberglass, removable	G	G	VG	VG	2-15/ 6-20
Paper Classics	India Fighter Kite, by anonymous makers, imported; fragile; varying styles; simple to intricate decorations	\$3+	23½x20"	<½	bamboo, bowed	bamboo, nonremovable	E	VG	E	P	2-12
	Nagasaki Hata, by Kohei Morimoto, imported by Fujin; bamboo nose curl; lashed cross-point supported by spine carving; various traditional decorations	\$24	29½x27½"	1¼	bamboo, not bowed	bamboo, nonremovable	E	E	VG	G	5-15
	Korean Fighter Kite, by the No family, imported by Great Winds; fragile; behavior and reel unlike India fighters; various traditional decorations	\$12	14½x22"	¾	bamboo, bowable	bamboo, nonremovable	E	E	P	P	2-15

Ratings: E=Excellent, VG=Very Good, G=Good, F=Fair, P=Poor

Code: R=Response, A=Acceleration, SD=Sustained Dive, ED=Estimated Durability, EWV=Estimated Wind Velocity (min.-max. m.p.h.)

and advice to start with all of it attached, then cut off a foot at a time as your skills develop. You should try early to learn to feed slack line rapidly to a diving kite to permit it to drop gently to earth.

You can read instructions included with most fighter kites. These are good for getting you started in fighter flying. The Grandmaster booklet provides not only excellent information but attractive illustration and design. It should be in any fighter kite library (which will fill only a small shelf*). But here are a few tips to help make the learning easier.

Getting Unstable

When your kite is flying stably at its normal flying angle, it will seem to want to stay just sitting there. To induce the desired tumble or spin that starts your fighter's action, you might jerk on the line and eventually get response, but radical change is more likely to work. On a light wind, let out six or ten feet of line *quickly*, and pull it back in. In a stronger wind, it may take just too much drop to make a change. In this case (and my preference in both light and strong winds) you pull in line rapidly, accelerating past the normal angle of flight. Then a slight release of tension will spin the kite. The best kites, on a 5- to 8-m.p.h. wind, will respond to changes of only a foot or two, allowing you to maneuver the kite without piling line in and out around you and without herky-jerky motions.

Adjustments

A kite that leans to one side can sometimes be corrected if the cross spar is removable (as in the roll-up models). You can try reversing it in its pockets, a logical action that works for me only 50% of the time. You may also wish to try the correction stick method, attaching a sliver of bamboo or toothpick at a right angle to the leading edge to stiffen the side to which the kite leans. I don't go that far, but I hand massage the spars to try to equalize the flex or bow in them.

*Among the few references on kite fighting are:

Dinesh Bahadur, *Come Fight a Kite* (New York: Harvey House, 1978), 56 pp. The only book on kite fighting, though now out of print, may still be available in some shops. Skip the first third; the rest is useful.

Mahfuz Ali Khan, *India Fighter Kites: A Simple Introduction to Kite-Flying* (New York: Bahadur of India, 1960), 8 pp. Just the basics, but a revelation in its time, now out of print. It was borrowed in pieces by Dinesh Bahadur for an article, "Legend and Fact of Kite Fighting," *Kite Tales*, Vol. 9, No. 2 (Summer 1975), pp. 30-32.

Another area of adjustment is the bridle, which you can raise or lower to your taste or for a given wind. Contrary to advice I've heard elsewhere, you lower the bridle for higher windspeeds rather than raise it. The classic bridle adjustment for high winds is made in order to reduce stress on the sail and frame—at the cost of performance. If you're more interested in performance than breakage, then your adjustment will be just the opposite of the classic.

Traveling and Looping

Very few one-line maneuverable kites will fly to right or left more than about 15 degrees without either your pulling in a lot of line or your constant rhythmic yanking on the line. Even then, getting your kite to travel beyond about 30 degrees to either side is unusual except on very light winds. Here is a trick, however, that will usually take the kite to 45 degrees or farther.

You will find that your kite wants to spin naturally clockwise to the left and counterclockwise to the right. Flying as far as you can to the right, if you move your right hand (I'm right-handed) 18 inches or so quickly toward the kite without releasing line, the kite will usually turn back toward center. Immediately pulling the

string back toward you will usually produce a quick counterclockwise loop and move the kite further to the right. This motion, repeated, seems to move the kite as far as possible to right of center downwind. Correspondingly, left and clockwise spins will move the kite to the left.

Keeping in mind what I have just said, you'll see that figures of eight can be done easily near center, doing clockwise loops to the left and counterclockwise loops to the right. Attempts at clockwise loops to the right (or counterclockwise to the left) are tricky and result in too-rapid acceleration toward the ground (i.e., crashes).

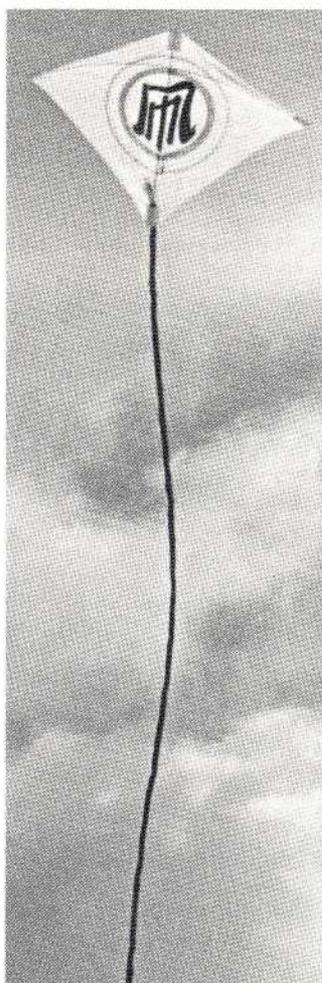
An interesting exercise is to fly your kite horizontally, left to right and back again, in smooth, low strokes just a few feet from the ground. As you develop this skill, it could be formalized by means of poles and streamers set up downwind for the kite to thread through or pass under in the kiting equivalent of limbo dancing.

It is possible to fly the lighter fighters in a still room with only the flier's constant motions keeping the craft airborne. I admire the superachievers like Dinesh Bahadur, who did this when he set the first Indoor Duration record in kiteflying. (I would not want to do this stunt myself!)

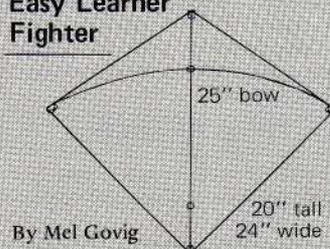
Now to the Fight

If your object is to cut the other kite line using manjha, none of the printed instructions are very helpful. As a hint, the line that moves the fastest usually cuts the other line. A moving line with no tension is hard if not impossible to cut. So to cut, you want your kite to be able to pull out line rapidly while still keeping the line taut. To avoid being cut, you want to be able to climb or dive rapidly to avoid your opponent's line and, in extremis, to be able to let the line go completely slack. Arguments about whether to cut going down or from below are likely to lull you into a false sense of security from position. Note, however, that to cut from beneath, you will probably have to use a quick sawing motion of your line, and an alert adversary will let his or her line run over yours and cut you down before the second pull.

Most maneuvering of fighters, as with two-line stunters, occurs at 5 to 10 degrees off center and above or below the natural angle of flight. But as I noted, at that natural angle a fighter kite is usually very stable and it will take exceptional action on your part to put it in motion. Immobility is vulnerability in a kite fight. Beware the opponent kite that is accelerating



Easy Learner Fighter



By Mel Govig

If you're looking for a cheap way to practice flying fighter kites before you invest in finer, more subtle craft, try a plastic quickie.

This is just one of my various efforts to simplify kitemaking and adapt it to available materials, especially garbage bags ("tall kitchen"). You can decorate the plastic with felt-tip markers as I did.

The main advantage (and disadvantage) of this plan is that it uses ordinary $\frac{1}{8}$ -inch-dia. dowel. You need one piece 25 inches long for the cross spar and another piece 20 inches long for the spine. (One 48-inch dowel can be cut for this.) Dowels are available almost anywhere but in highly variable quality. Flexibility needs to be even over each length of spar, so select carefully. If you have access to bamboo or rattan you may have less difficulty getting samples up to standard. Fiberglass rod in the skinny $\frac{1}{16}$ -inch-dia. size is best of all if you can find it because it is

practically unbreakable and perfectly even in flex.

Any lightweight plastic will work; I use 1.2 mil bags. Plastic does have grain. Avoid bias in plastic by making the center of the kite run either vertically or horizontally across the bag. One edge of the bag is the kite's center line. The bottom angle is 90 degrees and the bottom half is a 24-inch-wide 90-x-45-degree triangle.

You can use rip-stop nylon for the cover if you like, in which case start by cutting a 24-inch square.

After cutting the cover, fold over the side tips $\frac{1}{2}$ -inch and tape them with $\frac{1}{2}$ -inch tape. Add more tape to close a pocket at each wingtip. Set the center stick and tape it in place, securing the tape from the front surface over the center stick and onto the back surface. Press tightly in place.

Insert the cross spar in the pockets, between the center stick and the cover. It is longer than the kite is wide and it should bow upward, in the plane of the kite.

Bridle at two points, the cross point and a point 4 inches from the base of the kite. The bridle should hang at a right angle to the cross spar and should be just short of the wing tip in length—so it won't swing around the corner of the wingtip. You can tail the kite or not as you wish and fly it in winds from about 5 to 10 m.p.h.

up as well as to the right or left. At the end of every skyward dash of a fighter, there has to be a turn. Which direction it will take, and how soon, are the stuff of which kite battles are made.

After you have practiced techniques and engaged in many battles, you will learn about angles of opposition, wind effects, anticipating your colleague's moves, wear-and-tear on the cutting line, etc. As Vic says, "Once you get these things down, it's all in your reactions—it's split-second decisions." The subtlety is such that (as Dinesh says) only a small tug of the forefinger when the line is moving out can make the kite revolve—with lethal effect.

The most fabled skill in kite fighting is possessed by perhaps one in 100 of India's kitefliers. It is ensnaring the cut-loose kite and retrieving it as a battle trophy. My friend Mukesh Shah claims that his brother "always brings his cut kites back." I stand in awe.

Feigning and Funning

I highly recommend feigned combat with friends, which provides many pleasurable hours as well as good training. The object is to avoid contact but to attempt attack. Practice diving or darting your kite with the opponent as a target. Come as close as you can to your adversary without touching or entangling. These "kissy" games can continue without interruption, whereas, in my experience, kites armed with manjha have short encounters, and the learning experience is interrupted by the mechanics of repeated relaunchings.

You can carry this game another step forward in formality by counting points for "touches." Vic Heredia (of Vic's Fighter Kites in San Diego, CA) suggests you take a point for each time you touch your opponent's line from beneath. After a set number of points, you reverse the target and give points for touching your foe's line from above.

Other Games

Competitions, such as Tom Joe has set up in California for "balloon-busting," hold promise for kites. A pin on the kite nose makes a dramatic bam! as it pricks a series of balloons posted around the field. Balloon targets might also be towed by strong-pulling kites between combatants.

Vic Heredia has run an assortment of contests, one of the most popular being the tail-trimming match using paper streamers that are sliced away in a piece-by-piece progression that leaves the kites more active with each hit.

Planned target attacks, a little like skeet shooting, could be explored. Vic again makes a suggestion, that you dive at objects such as lightweight cans perched on 15-

to 20-foot poles at 50 feet. We'd like to hear from readers about new approaches to fighting fun.

Kiting Etiquette

There are some unspoken courtesies practiced by most thoughtful kites. Some apply especially to fighter kiting:

- Be friendly to other kites but keep your distance—don't add another kite to an already crowded situation; take turns when the area is crowded; give extra space to long-tailed kites; get close to another kite only to untangle lines.
- First kites on the field have right of way over later arrivals; however, it is the duty of maneuverable kites to yield to stable kites.
- Never engage a kite in battle unless your foe is forewarned and forearmed. Agree on the rules of the fight before fighting.

(Readers, you're invited to add your rules of kiting etiquette for follow-up in a future *Kite Lines*.)

Passing the Torch

I've only hinted at the manifold challenges of kite fighting. It's a form of kiteflying that is very near an art, or what the people at Grandmaster Kites call "dancing." The only limit is your time and patience in gradually building skills. The two-line stunters are relatively quicker to learn and to master. The rather American tendency to want the quick entree into a new game may be why kite fighting is still uncommon in this country. You will see more of it where kiteflying in general is prevalent, where people start to develop skills and share techniques.

You can help others acquire the habit by persistent public flying. And you can take advice from Eugene Hester of Fort Worth, TX:

"I delight in giving away the demonstration kite to an astonished onlooker who has never seen a fighter kite flown. Odd as this may sound, it is a decidedly selfish act on my part. I am planting a seed-kite and I am hoping it will result in an aerial match in about a year or two."

People like Eugene Hester and the steady growth of kiting as a whole make me believe that fighter kites will yet find a larger public to appreciate them.

Many people have given us the benefit of their experience and knowledge on the subject of fighter kites. Special thanks go to: Dinesh Babadur (Come Fly a Kite, San Francisco, CA) and his deceased uncle, Surendra Babadur; Ken Conrad (Great Winds, Seattle, WA); Eugene R. Hester; Rick Kinnaird; Bill Kocher; James Lambrakis; John W. Loy; Sasb Lulla (Fighting Kite Co., Long Beach, CA); Lloyd Mowry; and especially to those champions of enthusiasm, Vic Heredia and Mukesh Shab.

The Authentic India Fighter Kite

(Are you ready for the real thing?)

By Gordon Teekell

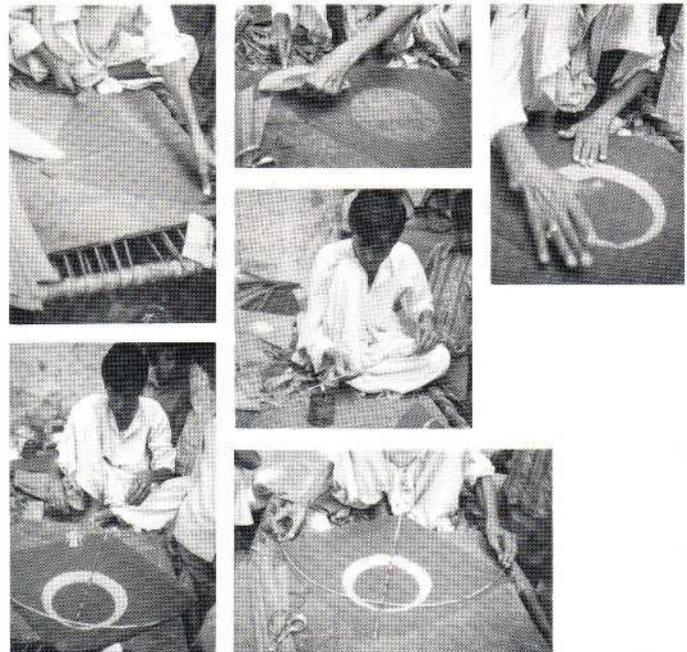
Photographs by Dinesh Babadur

A great deal of skill is involved in making India fighter kites. Although the steps may seem simple, it's not easy to combine strength, balance and lightness in any project. Precision is the key to a well-made fighter kite and the man pictured has had to repeat the steps many thousands of times to achieve his level of expertise.

More and more Americans are "graduating" from the plastic kites to the subtleties of the paper fighters, both to make and to fly. Regular battles have been held for individual and team fliers in the last five years, especially in Southern California. But in India there are millions who for decades have been flying these kites.



The spine and bow of the India fighter kite are each prepared by shaving and tapering the bamboo. The spars are made flat where they will contact the paper and rounded where the wind will flow over them.



Top left, the paper for covering is folded in half for cutting symmetry. Top center, a hole is cut for inset of design piece, to which paste is applied. Top right, inset is then fitted in place and smoothed out; the fanciest kites are for export and plain ones are flown in India; however, almost all the kites are delicately scored with a shell to strengthen the paper. Center, the bamboo is tempered with a candle for strength and to burn off slivers. Bottom center, the spine is glued at the kite's center, then the bow is held in place to check for fit and balanced flex on each side; end paper tabs are then glued around each end and a string frame is run around the edge of the kite, over which a paper hem is folded and glued. Bottom left, one of the last steps is adding a tassel at the kite's tail. With the addition of reinforcements at spine tips and the leading edges of the bow, the kite is ready to be bridled and flown.

'Kite Clouds' of

By Valerie Govig
talking with Mukesh Shah

Photographs by Bhanu Shah,
© 'CULTURE,'
Ahmedabad, India.

Kites are full of mystery and contradiction. If you don't believe that, consider India's kites.

We are told that painstaking craftsmanship goes into each India fighter kite—yet that a kitemaker can produce 300 a day. We learn that kiting is a national sport in India—yet only in certain regions or cities. We hear that kites are flown year-round there—but mostly on January 14, the holiday called *Utran* by some, *Utarayana* by others. We are told that the skills of kitemaking and flying are a disappearing tradition—yet millions of kites are made and flown there each year. We accept the enthusiastic claims of our friends from India that kites are respected and loved there as nowhere else—yet we discover that some Indian sectarians deplore kites and associate them with gambling and debilitation of the poor. (It is said that bills are attached to kites in some regions, inciting surges of competitive boys to the rescue of cut kites.) We learn that kites are made of newspaper in most Indian households—yet that only “pro-sional” kites are flown in fighting. We hear from Dinesh Bahadur that he has won championships and prizes (which can be as much as \$6,000) and a world record for

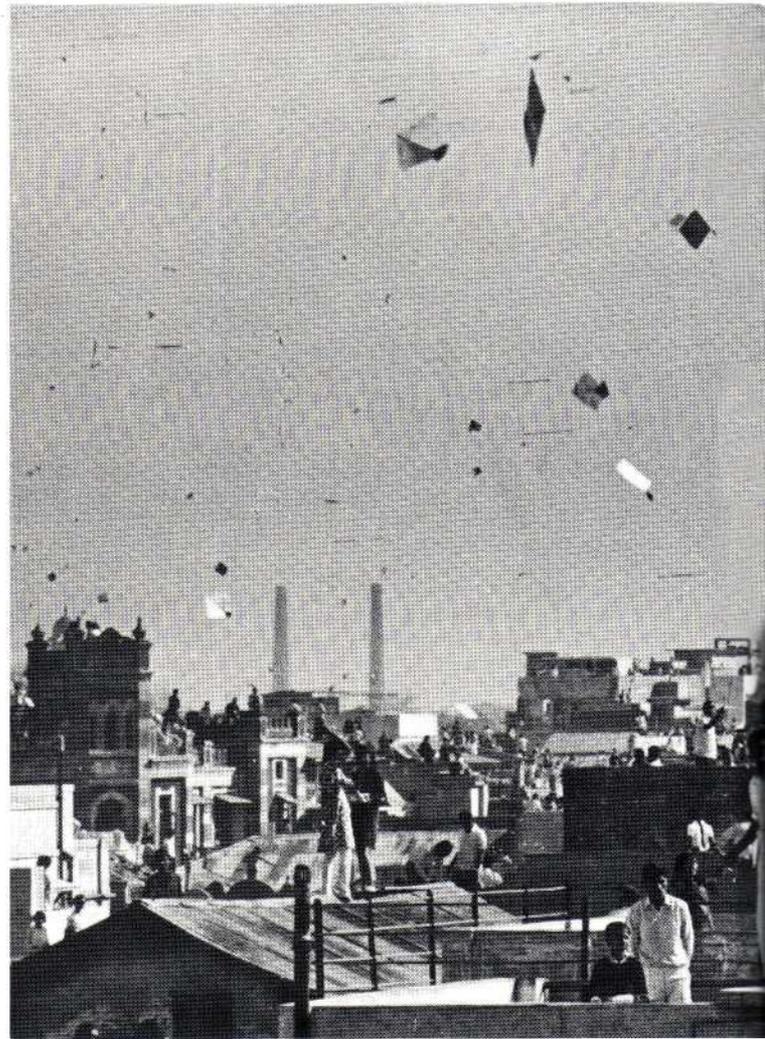
most kites cut in one day (780)—yet the sport, he says, is really noncompetitive.

In spite of all these unanswered questions, there is no doubt that kites are made and flown in India at a tremendous rate. The country had an early start, going back to 2000 years ago when kites were introduced from China. The extent of innovation or modification imparted to the kites by India's practitioners is unknown, but the refinement of the India fighter today ranks it as the standard to which others are compared.

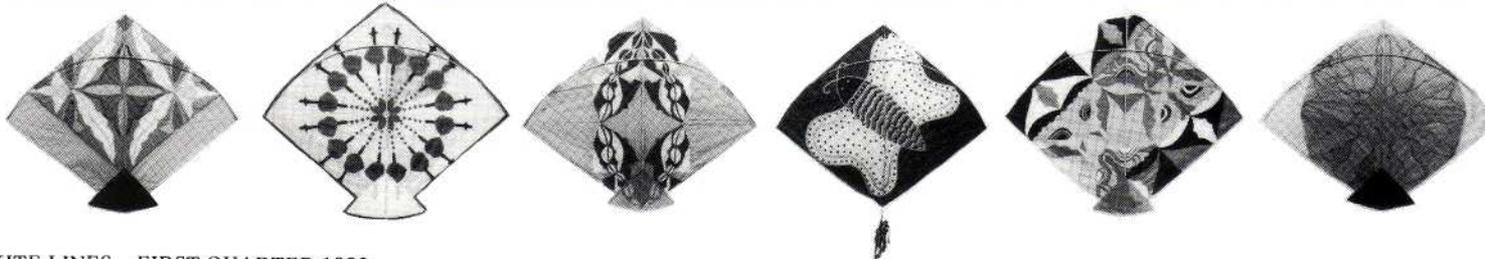
Of course, each ethnic group defends its own kites as superior.* And each of the fighter kites has its advantages, whether it comes from Thailand, Korea, Japan, China, Pakistan, Indonesia, Malaysia, the Philippines, the West Indies, Brazil or elsewhere. Still, when we think of fighter kites we think of India first. Here is the seat of the *pench*, or kite match, whether it's one-on-one, a team battle or an open air free-for-all.

Mukesh Shah brings evangelistic enthusiasm to America from his home in the legendary kite city of Ahmedabad (or Ahmadabad as spelled in the atlases). As young as 5 years old, the children of Ahmedabad start to learn kite

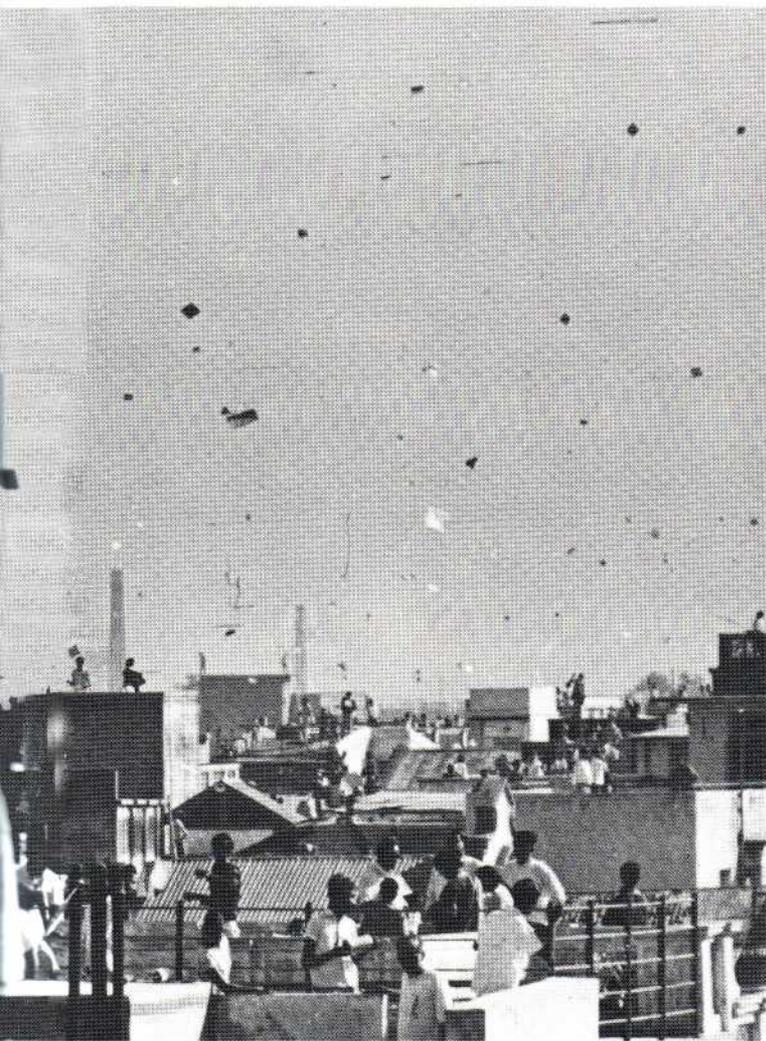
*For example, Choe Sang-Su says, in *The Survey of Korean Kites* (Seoul: Korean Folklore Society, 1958): “There is no doubt that Korean kites are superior to those of other countries.”



Top center, a feverish scene of 'Kite Clouds' over Ahmedabad at Utran. Row from left: children retrieving a kite ('Wait, wait—I'll set it right!'); a young man



India's Utran



fighting and enter the cycle of cutting and being cut and gaining ever greater expertise.

Mukesh was inspired by his love of kite fighting to make a Super 8 film in 1978. Though barely edited and silent, it graphically conveys the frenzy of Utran in Ahmedabad.

The preparations begin with the building of kites in large quantities, enough to fill whole rooms, as well as the making of manjha, the glass-coated cutting line. Like the night before Christmas in the West, there is last-minute shopping and bargaining the evening before the event, and a sleepless night for the anticipating children. The adults are busy (much like parents putting a bicycle together for Junior) in late-night bridling of the kites, which are sold unbridled in bundles of 20. (The kites are regarded as an investment and you hope to get perhaps 30 cut-loose kites back.)

As soon as the sun comes up on the big day, the youngsters are out on the rooftops (which are mostly flat, although falls off them are not unknown). As Mukesh tells it:

"Within no time, the rooftop of every single house gets crowded with people of all ages flying, cheering, shouting, playing music and having early morning tea and breakfast.

"Soon the sky is crowded with thousands of beautiful, colorful kites forming what are called 'Kite Clouds,' covering the sun completely. It becomes difficult

to identify your kite. All you know is that your string feels tension and therefore you do have something up there flying.

"Most of the elderly people prefer to just enjoy kiteflying, while kids, teenagers and young adults engage in kite fighting, each trying to show his mastery of the art.

"As the day passes, the sun getting hotter and wind just about right, more and more people take their turns at getting kites up, enjoying them thoroughly and forgetting their hunger and thirst. Occasionally, when the wind dies down, they take a delicious hot-and-spicy picnic lunch in the open air.

"As evening approaches, the older people leave, but the younger ones are still trying to take advantage of kiteflying and fighting in the last rays of the sun.

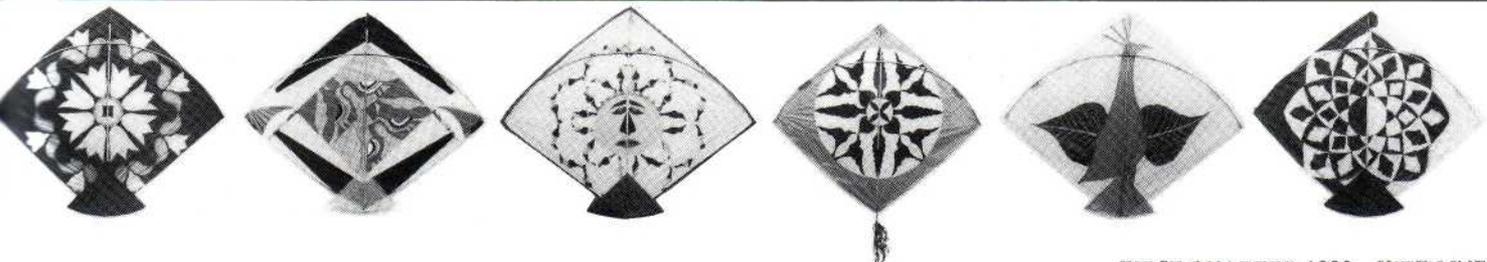
"Soon it is dark and for most of the people the day is over. However, for those who are stubborn and do not wish to leave, a new but short period of activity begins.

"It is called 'Tukkal Flying.' Lighted candles surrounded by artistic paper covers are sent out in a series (every 50 to 100 feet) on lines raised by the round-shaped Tukkal kites. These stable kites are lovely to watch in their lighted movement.

"Eventually everyone comes down off the rooftops for a spicy late supper at which stories about the big day are told. Finally it is time for sleep—and dreams of kites. . .kites. . .kites. . .!"



being egged on ("Entrap it, cut it!"); players and helpers on variously slanted roofs; a manjha-maker drawing balls of ground glass amalgam over kite lines to dry.



A SCHEVENINGEN ALBUM

JACQUES & LAURENCE
FISSIER, our international
correspondents, capture
Kites with their cameras.



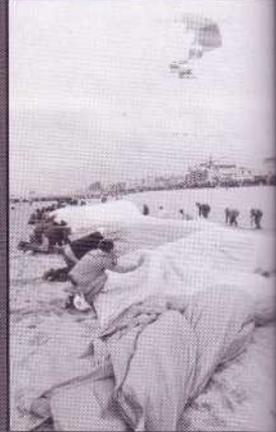
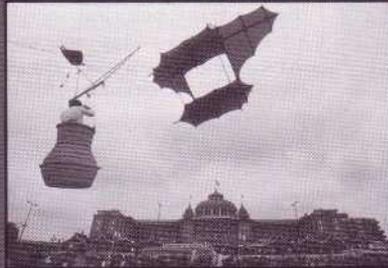
The beach near The Hague,
Holland, June 1981 - from the
great album of memories of
Scheveningen, we have
excerpted typical examples
to reveal the spirit of this
important festival.



Without wind -
& without windmills -
would there be a
Holland? Or a kite
festival at
Scheveningen?
(However, we also
thank Vlieger-OP
& Fokker,
the sponsors!)



A great fixture at the festival
is the manlift by a train of Cody
Kites made by Nick Morse
(England).



(All happens in view of the
splendid Kurhaus Hotel, which,
if it did not exist, would have to
be built by the Dutch Office of
Tourism to complete the decor!)

The Largest Kite (prior
to its successful flight
in August) does not have
the right wind today -
but the fabric is a
shelter - also a game.

David White (England)
shows his exquisite 3D
dahlias - they grow in
the clouds.

← Inventive Keith Stewart
(England) in his amphi-
bious tricycle powered
by a train of 5 deltas.



Jenny van Driel, art student from Gent (Belgium), suffers loss of her duchess figure kite — to a dog!



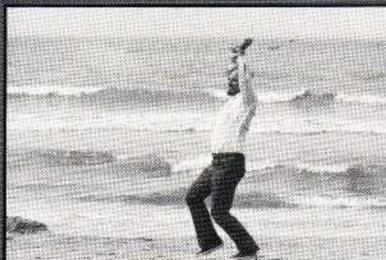
Mini-Cody (or gargantuan flier!) is one of 3 brought by jazz pianist Hans Wiegel of Leiden.



Lads preparing a line climber for their "technical discovery," a giant sled kite they made with 3 times nothing, a little thread & some salvaged nylon.



A cellular checkers game.



Dancing to a dirigible.

Resigning to repairs.

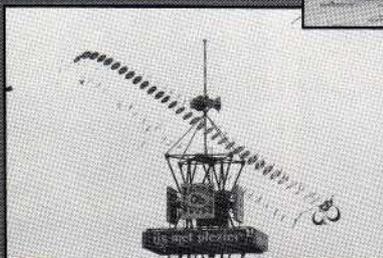


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STATESIDE

News From Here and There

DISTRICT OF COLUMBIA

Paul Edward Garber, Historian Emeritus of the National Air and Space Museum, Smithsonian, and organizer of the Smithsonian's annual Kite Festival, writes:

On July 1, 1981 the Museum had been opened to the public five years, so it was decided to celebrate. "Do it yourself aerospace" was the theme and several activity tables and display cases were placed in different halls. I was asked to do kites.

High above the table I hung four kites: a Bicentennial logo kite (the Museum opened in the Bicentennial year), Mickey Mouse making goo-goo eyes at Minnie Mouse, and a large delta lettered "Fly Navy." Grouped against the wall were Eddy, barn, square box, shield, Chinese bat, bow-top pear and other kites.

The work table was flanked by two panels. One showed colorful scenes at the Smithsonian Kite Festivals along with the following four sentences:

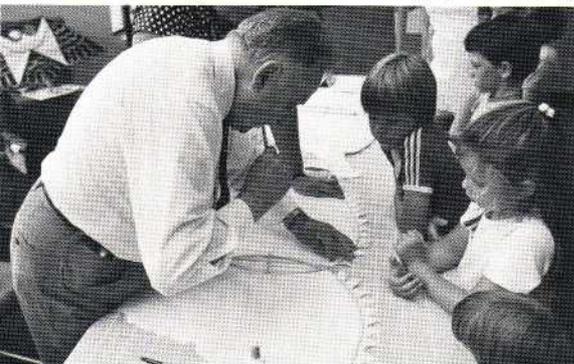
- 3000 years ago the first form of aircraft was invented; it was THE KITE.
- 105 years ago the Smithsonian acquired its first aircraft. It was A KITE.
- 15 years ago the Smithsonian's annual Kite Festival was begun, where anyone can GO FLY A KITE.
- 5 YEARS AGO THIS Museum was opened to the public. To help celebrate I am here to show you how to make A KITE.

The other panel was covered with color pictures of butterflies, and in front of them was a frame of a butterfly kite.

Throughout the five days of the celebration, I made kites and explained the methods and adjustments necessary to insure a good flier. My most popular examples were butterfly kites, probably because Mrs. Garber was decorating them in natural colors and patterns. Others who helped were Stephen Bernstein and Bevan Brown.

Ed. Note: The "Flying for Fun" exhibit in the NASM (the Museum's only place to display kites) has been gone for over a year. We've heard that kites may be put on display again sometime. Meanwhile, of course, Paul Garber continues as unofficial national curator of kites.

Two of kiting's elder statesmen show the rest of us a thing or two. Left, Paul Garber teaches kite-making at the Smithsonian. Right, Ansel Toney is honored at a town ceremony in March, 1982.



FLORIDA

Wyatt Brummitt writes:

The Orlando Kite Festival this spring (1982) was a resounding success in terms of numbers and general excitement. As usual, it was held on the grounds of the Orlando Museum of Art, and Paul Schiemer plus a good committee, mostly socialites, provided the go power. At the very last minute I learned that the top prize was The Wyatt Brummitt Award, given for general, all-around excellence in design and performance. It was won by a charming little girl, about 14, who obliged with a kiss in exchange for the Award (I won on that exchange). There was very little flying wind, but a lot of excitement.

(Wyatt has been hospitalized recently and his wife Esther is terminally ill; the Brummitts have given up their Rochester, NY address for a permanent stay in Florida, where Wyatt is working on a new kite book. Words of encouragement should be sent to the Brummitts at 2320 Forrest Road, Winter Park, FL 32789.)

INDIANA

On December 12, 1982, Ansel Toney will become 95 years of age. For the last several years, he has been honored in the media as a kitemaker, but all the publicity has not changed his farmer's schedule of late-to-bed, early-to-rise. Now retired, he puts kites in the air instead of crops in the earth. His big colorful deltas decorate the nation's skies; he gives away his kites for the cost of materials. He makes a wooden reel, as well, to hold 1000 feet of line. Toney also teaches kitemaking to children and adults. His most famous students are Nick and Sallie Van Sant of Kites of the Four Winds, who make some of Toney's designs professionally.

The little city of Farmland, IN, Toney's home, put up signs last year on routes leading into town to honor Toney. But a state law prohibiting such signs caused

officials to take them down. Protests were carried to the Indiana state legislature, where the Ansel Toney Bill to allow the signs was enacted. Presentations on Ansel Toney Day left the honoree speechless.

Toney began making kites seven years ago. He had been married 70 years when his wife died last year. Now he says that kitemaking keeps him young. An article in the March *Reader's Digest* was one of the latest items about him. But Toney doesn't let the publicity interfere with his kitemaking on his new Pfaff sewing machine. And he never turns away a visitor who is interested in kites.

NEW YORK

After the flap during the summer of 1981 over how high kites could fly over Brooklyn, a new dispute developed. According to John C. Bell, some of the original members of the Brooklyn Kite Club broke away from the group and made an agreement with the police to fly their kites at no higher than 500 feet. Then a light plane crashed in the Hudson River because of a nylon kite line hoisted at dusk when the kite could not be seen. The pilot swam to shore and the plane was pulled out of the river. Judge Becker, who had originally dismissed the case as being "for the birds," was forced last winter to change his decision and he asked the Brooklyn Kite Club to agree to the 500-foot limit.

WASHINGTON

On March 14, 1982, Harry Osborne, leader of the Edmonds Community College kite team, climbed up on an aluminum ladder to retrieve a large delta kite from power lines and touched a live wire. It had been raining and the ground was wet. Harry got hit with 7,200 volts. It blackened his righthand index finger and came out through a hole in his left thigh. He went to the hospital for six days and lost his finger—luckily not his life. The utility company said that the chances of survival of such a jolt were one in 18,000.

Harry says: "No matter how intelligent you think you are, remember that wire is a killer and under no circumstances should you go up after a kite." His violation of a longstanding kiting rule was an acute embarrassment for Harry, but he confessed to it in hopes of deterring others from similar folly.

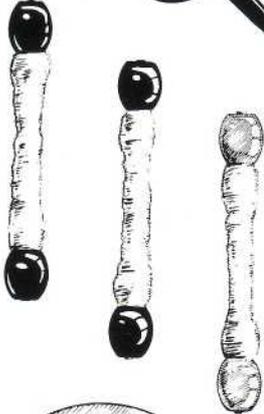
News from Here & There Continues. . .



Winchester News-Gazette

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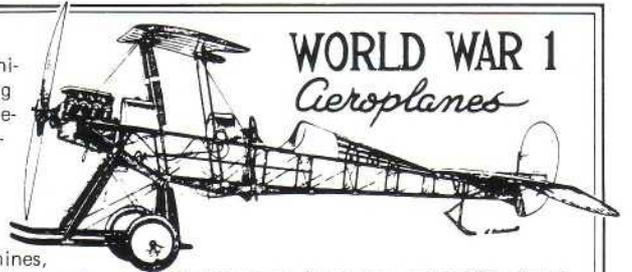
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over the world (there are some 700 of the former and some 900 of the latter!) The organization has operated from the beginning on voluntary contributions; and we sell back issues, xerox copies of early aircraft and engine manuals and working drawings, and appropriate advertising. Sample issue \$3.

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INTERNATIONAL

News From Here and There

AUSTRALIA

In the heat of December, Helen Bushell wrote of the Australian Kite Association:

We keep up our monthly flies over here and sometimes have up to 100 people.

We also had the Pakistani cricket team visiting for a test match. These are "big time" in Australia and we were asked to fly kites as lunchtime entertainment—a tremendous opportunity—if the grandstands didn't set up turbulent winds.

They did! The day dawned hot and ominous with thunderclouds. A hot north wind (the type I never fly in because of its variability) decided to change at the moment we went onto the arena. A few drops of rain fell, then a "willy-willy" snatched several kites and threw them up into the grandstands, where a policeman retrieved them. Peter ran around the oval a few times with Superbird and Batfink (big flexi-extensions) and Anthony flew the Australian and Pakistani flags until they, too, crashed. We ran a dragon around and then fled back to the pavilion. Gusts of 35 knots were whirling dust and paper into the sky, so it was a great debacle and I had to admit that Tony Johnston and the other pundits were right—you can't fly kites in the Melbourne Cricket Ground!

ENGLAND

Rick and Eileen Kinnaird spent a lovely honeymoon in England in August, 1981. In London, Rick bought an "Invader," a kite made by Vertical Visuals (Jilly Pelham and Mike Pawlow) and visited with Ron Moulton (British Kite Flying Association) and kitemaker Nick Morse at The Kite Store on Neal Street. Later they enjoyed a Chinese meal at a restaurant called "Kites," which is decorated in VV



Jilly Pelham and Mike Pawlow under their multi-segment sculpture in London's restaurant "Kites."

kites, notably a dramatic multi-segment dragon kite sculpture.

Later Rick and Eileen stopped at the Round Pond and then went to visit with members of the Northern Kite Group. The Kinnairds stayed in a castle and taught the young master there to fly kites. They are now living in New Jersey and showing up at local kite events with their Invader.

On October 24 and 25, 1981, London was suddenly visited by the Japan Kite Association with what Ron Moulton described as "literally hundreds of top quality decorated kites." The group arrived in



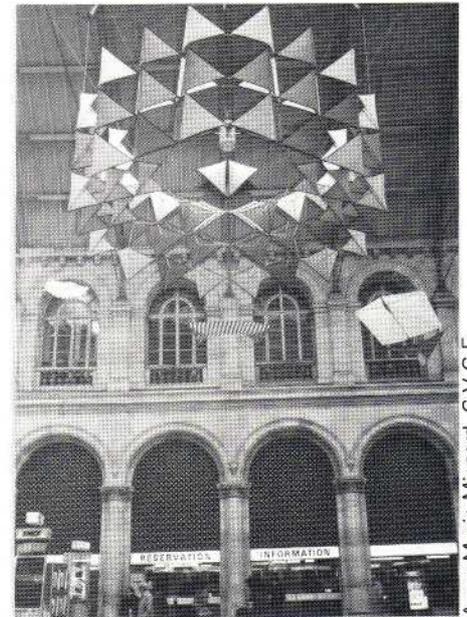
The Japan Kite Association visits London's Parliament Hill and unrolls a giant traditional Shirone kite of about 1000 pounds. They also show their wedding wish kite made in honor of Charles and Diana; it flew well under tow.

conjunction with an exhibition at the Royal Academy of Arts, in part sponsored by the *Observer*. Kites hurried out in full force to see, show and share kites.

FRANCE

Andre Mignard, Secretary of the Cerf-Volant Club de France, reports:

Try to picture one of the largest and most beautiful iron-framed glass roofs built in Paris under the reign of Napoleon



Andre Cassagne kite at the Gare de l'Est, Paris.

III and you will have an idea of the spectacular setting in which our members displayed their handsome kites in late 1981.

The management of the French National Railways invited us to exhibit at the Gare de l'Est, unveiled in July, 1849, and now regarded as one of the most successful station designs ever inspired by the aesthetic possibilities of iron.

Hanging the kites from the iron tie rods wasn't the least of our difficulties, even with the help of a "cherry picker."

All of our familiar models—the Madiot, Saconney, Pomorseff, triple Conyne, delta, roller and others—were on display. Passersby were especially impressed by a round arrangement, the *Bac* of Andre Cassagnes. This revolutionary design with a six-meter (19-foot) span is based on the Bell tetrahedral kite module.

The show was enjoyed by commuters and intracity passengers alike, and earned us articles in print and national television coverage. We're at work on the next one.

NORWAY

Martin Roubik

Springer tells

us about the

Norwegian

Kite Society

(Det Norske

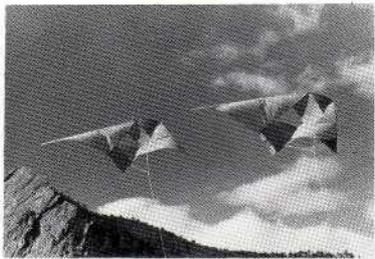
Drageselskap,

Josefinesgt. 38, Oslo 2):



In February, 1979, we decided to establish a formal kite group. We were rather lucky in the first year to be able to rent a

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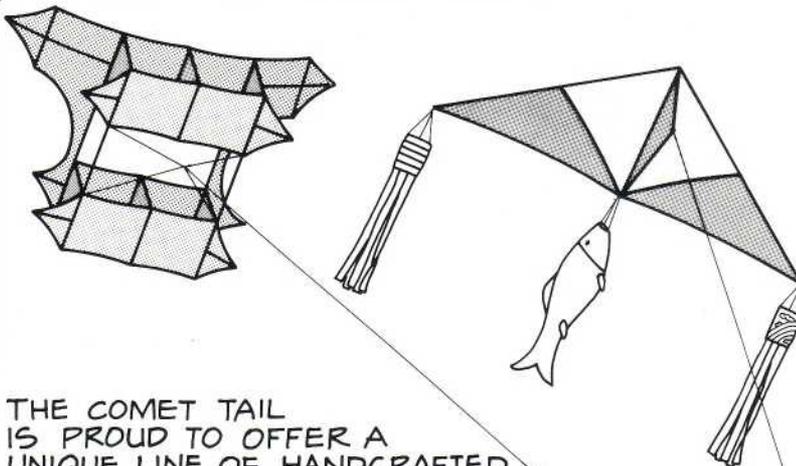
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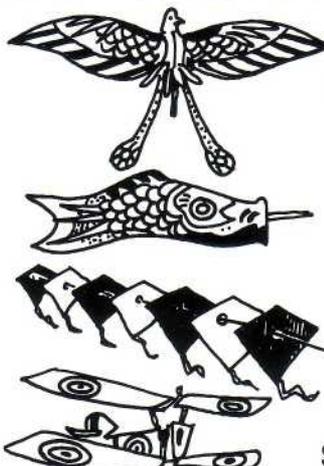


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PX80



News From Here & There

...Continued from page 52

nice place which we turned into a kite exhibition/workshop open two afternoons a week. We had a lot of visitors, ages 9 to 60; many of them became devoted members of our society. Later we visited several schools and youth clubs to hold workshops combined with flying demonstrations.

We had a crowd of about 400 persons at our fourth annual kite festival June 13, 1981. A lot of kites were built on the spot, some Chinese kites were sold and a few memberships signed. We got a whole front page coverage in Norway's largest newspaper, the *Aftenposten*.

In May, 1981, we went to Stockholm, Sweden. The local arts and crafts school has an 18 years long kite festival tradition there. You wouldn't believe it—25,000 people turned up in a park right in the middle of town! At least 5000 kites! As far as we are informed, there is no formal kite group in Sweden.

SINGAPORE

Shakib Gunn writes:

The biggest competition ever held in Singapore drew about 20,000 people on February 13-14, 1982. Prize money totalled \$28,800 Singapore dollars (\$13,714 US).

The first day was mostly competitions; the second day was taken up by demonstrations by teams from Japan, Taiwan, India, Malaysia and Singapore. (Sadly, the six-man Korean team could not get visas.)

We did not get the best of weather: little sunshine, poor wind, 9.4mm of rain late Saturday afternoon. (Next year it is planned to hold the festival around mid-January to catch more monsoon wind.)

On both days there were demonstrations of kite fighting by two 10-man teams of Singapore Malay fliers. The kites were too small but the *caca* (powdered glass) did its stuff. Three fighting techniques were used: *tarik* (pull), *bulur* (release) and *gelek* (rotate). Hardly anyone who spent a childhood in Singapore did not at some time buy a 10¢ kite to *potong* (cut) someone down. Sadly, few people fight now.

The Kite Associations of Japan and Taiwan brought some really beautiful kites—for example, from Taiwan, a very light 100-cell dragon, snakes, sharks, a peach, a fan, an umbrella (the latter about halfway three-dimensional, enough to fool most).

From Gujarat, India, the team let us see some very light, finely balanced kites in flight. H. D. Sailor used an oversized reel to retrieve miles of line out. He spun it in his hands until it reached maximum handling speed, threw it up in the air like

a pancake, caught it and accelerated it again—all neatly done and at great speed.

Our Malaysian friends from Kelantan, home of the *wau bulan* (moon kite), are not only fliers but builders. They proved this amply after the aircraft carrying them to Singapore barred them from bringing their kites aboard. (Ironically, the airline's symbol is a *wau bulan*—badly modified and flying sideways.) Resourcefully, they worked in their hotel room until 4 a.m. to make new *waubulan* from scratch.

Separate competition categories were created for oriental kites, *wau bulan* and western kites, pre-classified into open and student sections, for a total of 78 prizes. The emphasis was on kite design and craftsmanship. "All kites must be made by the participants themselves," stated the entry form. However, most points were given for performance. As the chief judge said, "A beautiful piece of artwork that cannot fly is not a kite."

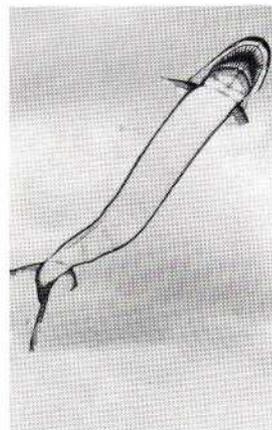
Varied entries included a close-to-scale replica of the Bleriot monoplane that crossed the English Channel in 1909. There were kites in the shape of human figures, some more than two meters tall with dimensional papier mache faces. One competitor joined two together and called it a Chinese Romeo and Juliet.

The most commonly used material was standard nylon, often of the umbrella variety. (One competitor said his first prototype delta had been made from the off-cuts of 96 umbrellas!) For spars, bamboo was naturally preferred. A flier from Malaysia brought a Parafoil and two rather elegant birds, all built from books and imagination, in isolation, without help.

Most embarrassing was the Singapore team's train of 20 1.8-meter deltas. They did go up after two failures due to ground turbulence, but on the third try the whole lot stormed into the sky like an express train and ploughed into Taiwan's dragon that was minding its business 50 meters away. It was stamping feet, bits of line and dragon over all the spectators, twisted deltas, lots of shouting and cutting and fun while everyone was extricated.

Most sad was Tan Siak Yam, 68, Singapore's great old kite builder and flier (everything from biplanes to *wau bulans*, squids to double-geese—you name it, Tan makes it). He lost seven kites in the downpour Saturday. The so-called "rice paper" we use simply ain't waterproof. All that was left were some soggy bamboo frames.

We invite anyone traveling this way in January 1983—or any Sunday of the year—to join us on our field by the sea and stay for a barbeque *satay* dinner in one of the stalls overlooking the beach. Call me at Hagley & Hoyle, tel: 2223191.



Singapore, from top: finalists in three classes are Wau Bulan, western and oriental; hungry Taiwan shark; Taiwan dragon (before deltas' devastation); Tan Siak Yam and one of his kites.

UNITED ARAB EMIRATES

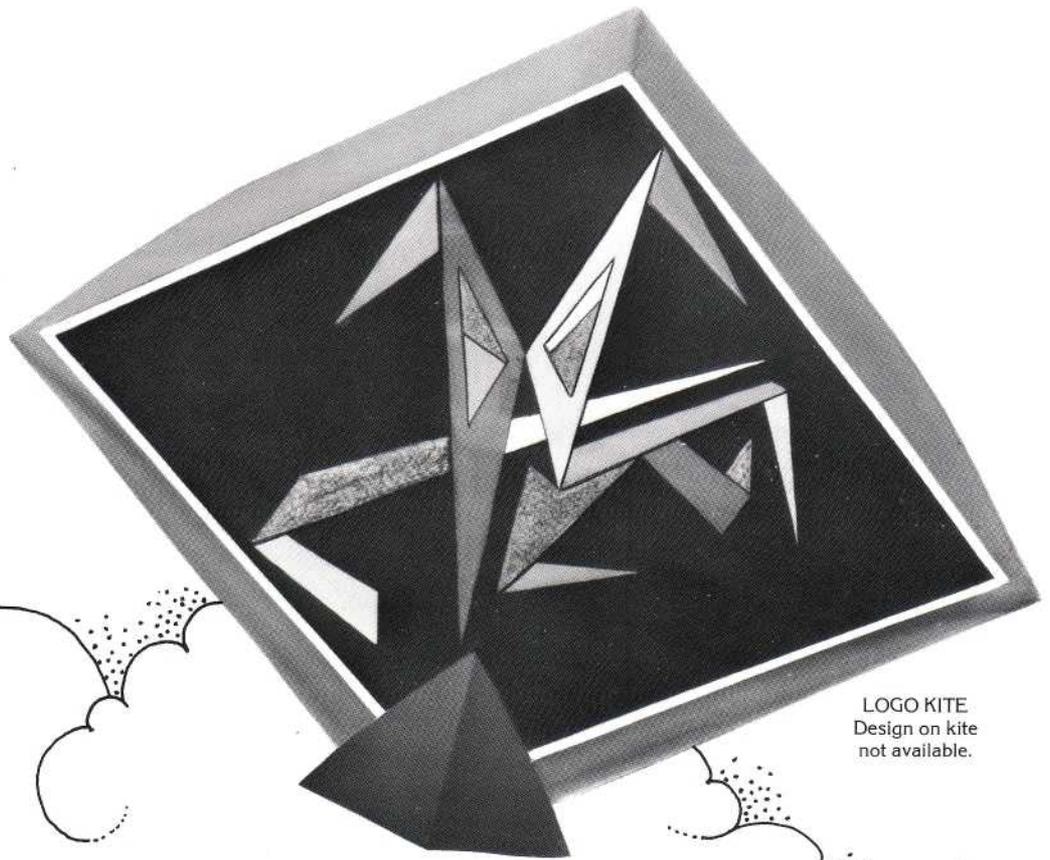
Ahsan S. Khan reports from India:

I was out of the country to Dubai, United Arab Emirates, for the organization and supply of the kite festival held under the sponsorship of Al-Ghurair Centre (a shopping and residential complex). Mr. Dinesh Bahadur of Come Fly a Kite, San Francisco, and I were consultants for the kite festival, held from October 16 to 23, 1981. Entries were open to the general public, as the emigrant population is large and consists of mainly Indians and Pakistanis. The competitions were held on the system of cutting the maximum number of kites with *manjha* (glass-coated thread). There were individual and team



Mr. Waheed holds his kite, first prize winner, individual, at Dubai, eastern Arabian peninsula.

prizes ranging from 1000 to 3000 dirhams (\$260-\$780US). The entries' prizes were all swooped away by the Pakistanis. ◇



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For the Record

This department is devoted to reports of record-setting achievements with kites. News will appear from time to time, as it arrives, in *Kite Lines*. Publication of a report is not to be construed as official recognition by *Kite Lines* or any other party of any attempt at a record.

Left, the big open field at East Bloomfield School in Holcomb, NY, easily accommodates over 600 kids and kites—+ teachers, parents. Below, giant try at Myers Middle School in Louisville, KY.

Mostest at Bloomfield School

On June 5, 1981, the entire 600-plus student body of East Bloomfield Elementary School in Holcomb, NY (near Rochester), made and flew kites. Coordinated by Sue Boardman, the project was thoroughly prepared for in advance to extract every kernel of education value—plus fun and fame—from the process.

Kite Lines was there in the persons of Mel and Valerie Govig. A local TV crew made a delightful show of the event. Mobil Oil Co. supplied the Hefty plastic bags and was planning to make an educational film on the Bloomfield kitemaking and flying experience.

The warm, sunny day was blessed with good and fairly constant winds. In the afternoon, everyone trooped out to the open field behind the school and the sky filled up with dancing sled kites—"Bloomfield" lived up to its name.

The enthusiasm was overflowing and the occasion was immediately dubbed a Most: Most Children to Make and Fly Kites in One Day at an Elementary School.

Kite Attendance Record in Nashville

Jerry Harris, President of the active new Windance Society in Nashville, TN, writes:

Here is our entry in the world record category for attendance at a kite event. "Art on a String, Music on the Wing" at the Parthenon art gallery in Nashville was attended by exactly 13,843 persons from March 7 to 30, 1982. That's an average of 659 persons daily. Record attendance was 1183 on the first day of Spring, March 21.

Attendance was verified by an automatic turnstile and supervised by Parthenon attendants. The figures do not include those persons who witnessed our public demonstrations outside in the park on March 21 and 28. According to Parthenon Director Wesley Paine, "Art on a String, Music on the Wing" was the most successful and well-attended event of its kind



Records Claimed in Kentucky

Truman Williamson, art teacher, claims the following records, set in 1979-1981 at Myers Middle School, Louisville, KY:

1. Largest hand-launched kite (3500 square feet) by students 15 years of age or younger, on April 23, 1980. The kite "flew" to 20 feet for 15-20 seconds before gusts broke the center support.
2. Largest number of kites—1940—flown on one line in the USA.
3. Largest number of kites—1940—flown on one line by students 15 years of age or younger.
4. First flying scale model of the Wright Brothers glider kite. (Ed. note: Paul Garber made such a kite in 1969.)
5. Largest kite flown in Kentucky in 1981—175 square feet.

ever held at the Parthenon. The event was sponsored by the Metropolitan Board of Parks and Recreation, the Windance Society and Jack Tamul Productions.

Controversy and Comments on Standards for "Largest Kite"

The grumbles were not long in coming after Robert S. Price suggested (in the Winter-Spring 1981 *Kite Lines*) that recognition for a record for Largest Kite should be linked to a flight period commensurate with the kite's size. Subsequently, Price improved upon his proposal with a new idea that a Largest Kite should fly one minute for the square root of area in feet.

The absolute logic of this proposed standard notwithstanding, it met with some resistance on the part of the fliers whose biceps would carry it out.

Kite Lines followed up with a letter to our Editorial Advisors and other friends with a special interest in world records. Here is a summary of their responses.

Nearly everyone (11 out of 12 replies) preferred a flat standard for the sake of simplicity and also because an 80-minute flight for a 4000-square-foot kite (for an example of the Price proposal's requirements) would seem like overkill to any knowledgeable observer. Of course, that's the real rub. Knowledgeable yet disinterested third party witnesses do not often appear at these world record attempts. Information is taken more or less on faith, and validation of records seems to fall to the media. This untidy state of affairs adds extra complications to already difficult undertakings.

Pete Ianuzzi had recommended a half hour as the minimum flight time for a Largest Kite. A number of replies were in agreement with that; however, two "votes" went for 15 minutes, two for 10 minutes and one for 3 minutes. There was general consensus disapproving what Brooks Leffler described as the "unnecessarily complicated" Bob Price standard.

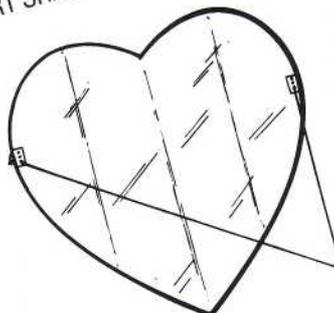
As a reasonable compromise, *Kite Lines* now recommends 20 minutes as the minimum flight duration for kites claiming a record for Largest. However, if two or three knowledgeable but disinterested observers are on hand to record the flight, the duration qualifier could be eased back. As Tal Streeter and Truman Williamson pointed out, 3 minutes was enough for the Wright Brothers in their First Flight in 1903. The shorter the flight, the more nearly perfect its quality should be. But when the quality is unknown, the 20 minutes stands. V.G.

CORRECTION

In the Summer-Fall 1981 *Kite Lines*, obviously incorrect dimensions and conversions from metric were given for the Largest Kite, the CS 550m², flown at Scheveningen, The Netherlands, August 8, 1981. Here are the correct figures:

Dimensions:	16.3 x 32 + 6.06 x 1.12 + 1.68 x 3.73 + (1.12 + 1.68) x 6.51 = 552.88m ² , rounded off to 550 square meters
In feet:	105 x 54.12 x 7.872 = 5,952 square feet
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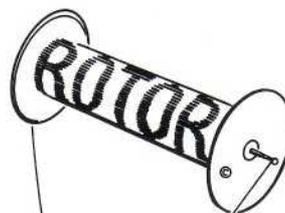
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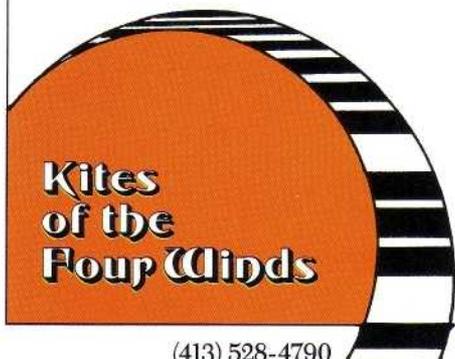
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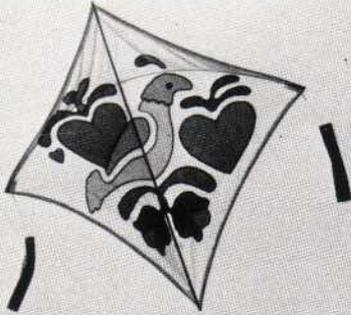
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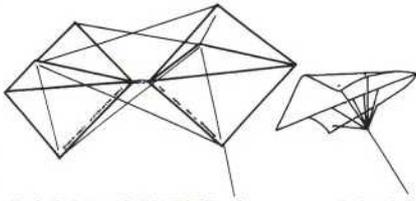
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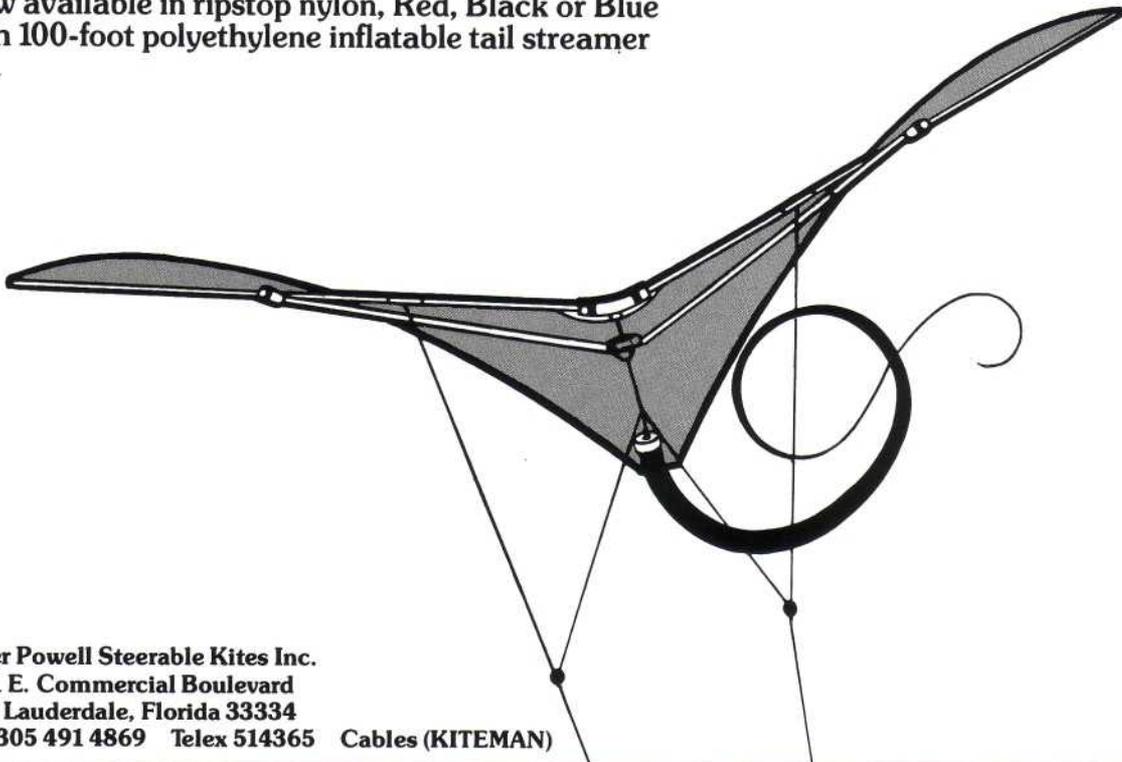
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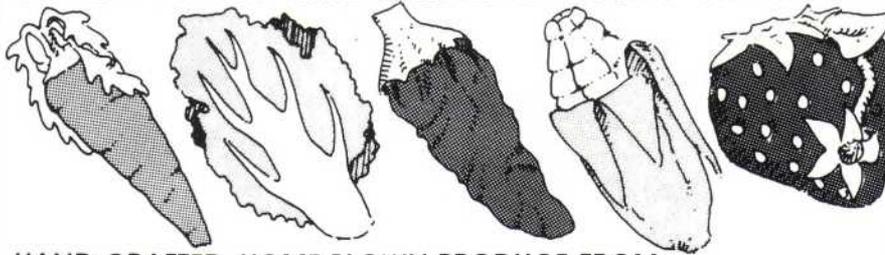
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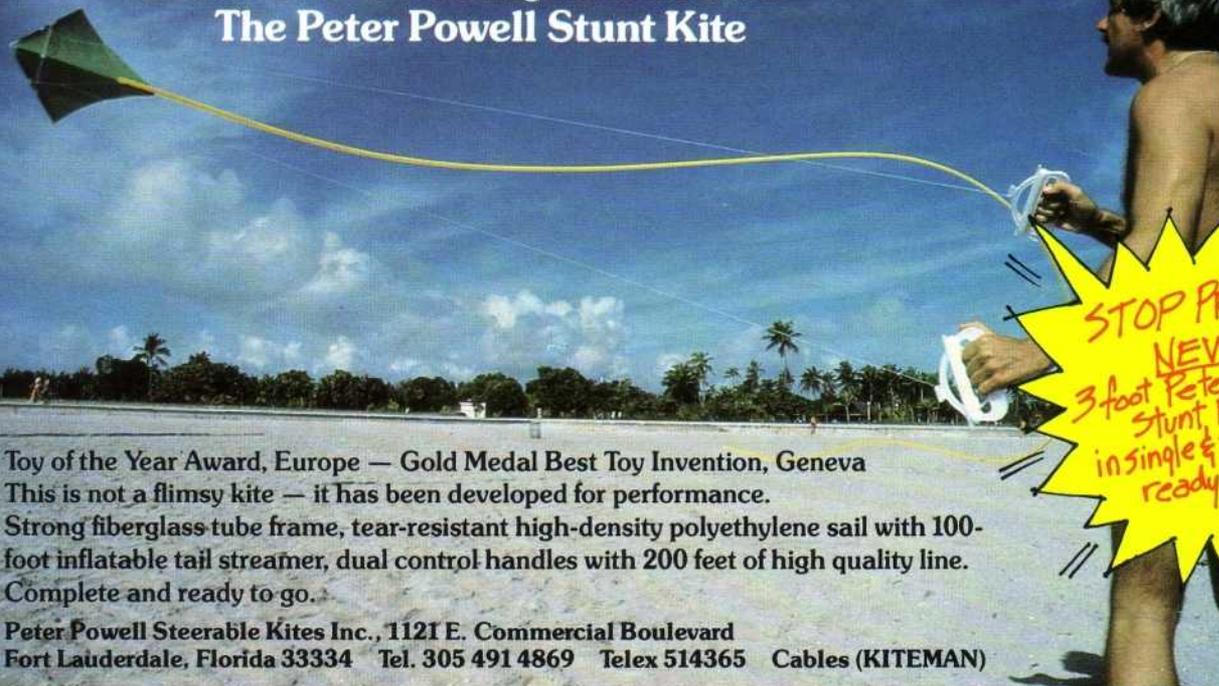
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Current record, expected in next Guinness: 5,940 sq. ft. kite by team of 10 at Scheveningen, The Netherlands, Aug. 8, 1981

Greatest Weight Lifted by Kite (single line, single kite)

Current record, recognized by *Kite Lines*: 420+ lbs. by G. William Tyrrell, Jr., at Ocean City, MD, Sept. 22, 1978

Kite Train (most kites flown on a single line)

Current record, recognized by Guinness: 4,128 kites by Kazuhiko Asaba at Kamakura, Japan, Sept. 21, 1978

Duration of Flight Outdoors (better known as Endurance; participants must provide own proof)

Current record, recognized by Guinness: 169 hours (7 days and 1 hour) by Will Yolen and the Sunrise Inn team, at Ft. Lauderdale, FL, May 7, 1977

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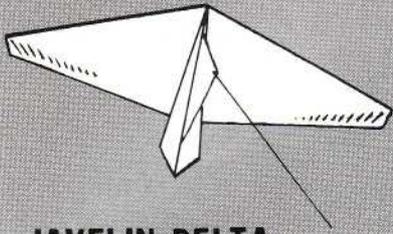
Current record, recognized provisionally by *Kite Lines*: 1,500-foot "dragon" kite by Randy Joe and team at Redondo Beach, CA, Nov. 7, 1981

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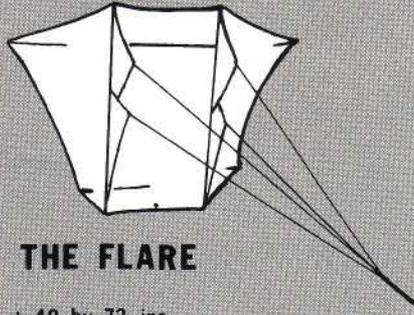
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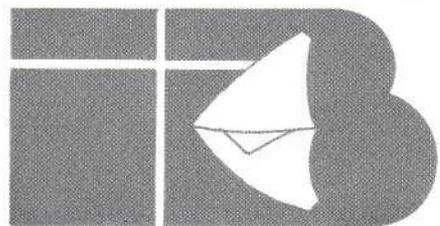
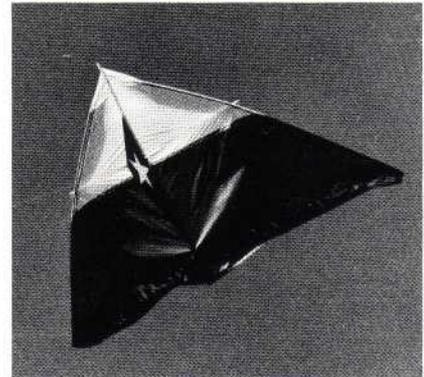
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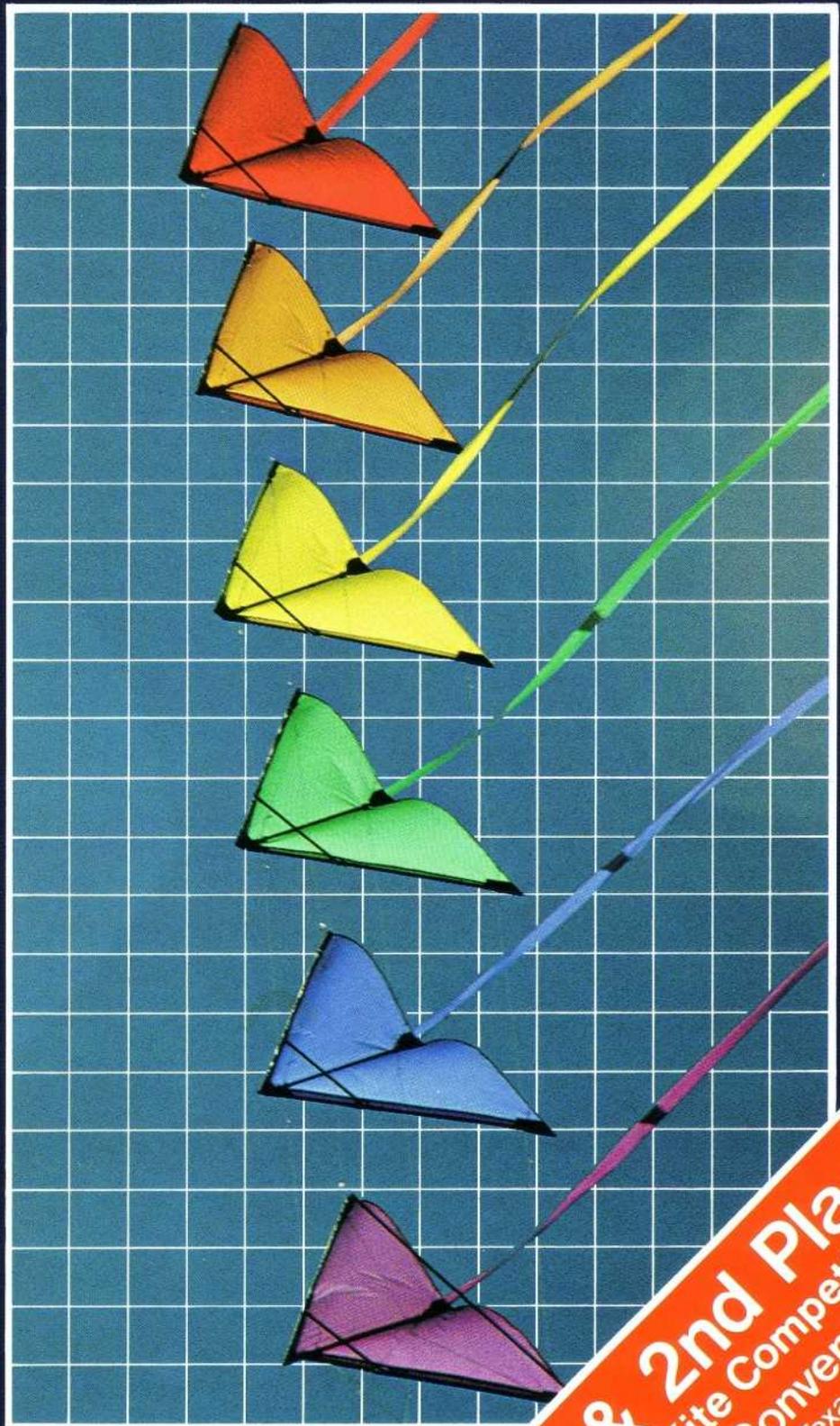
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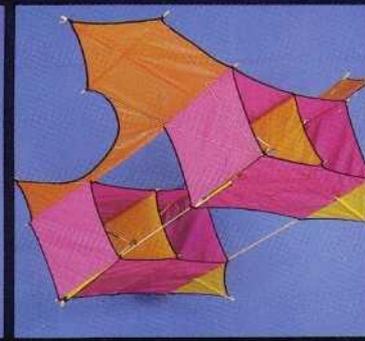
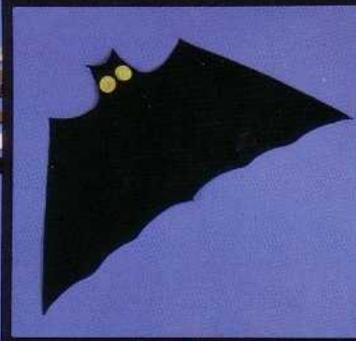
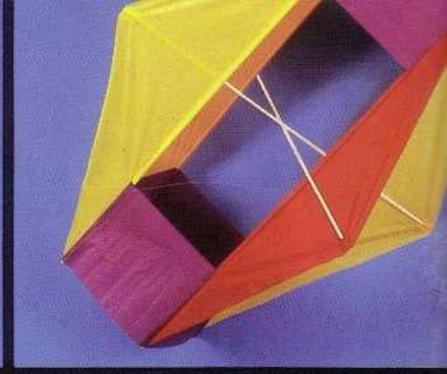
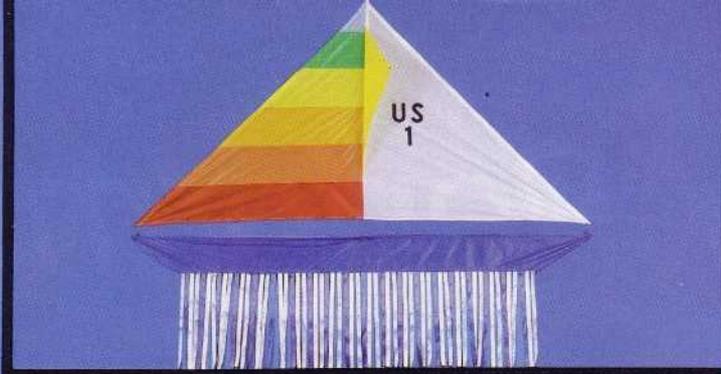
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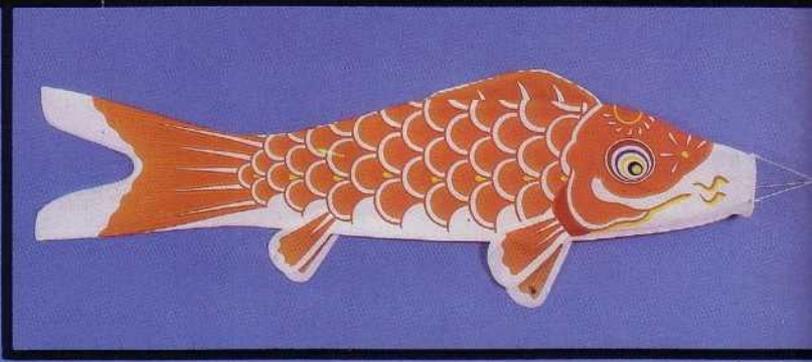
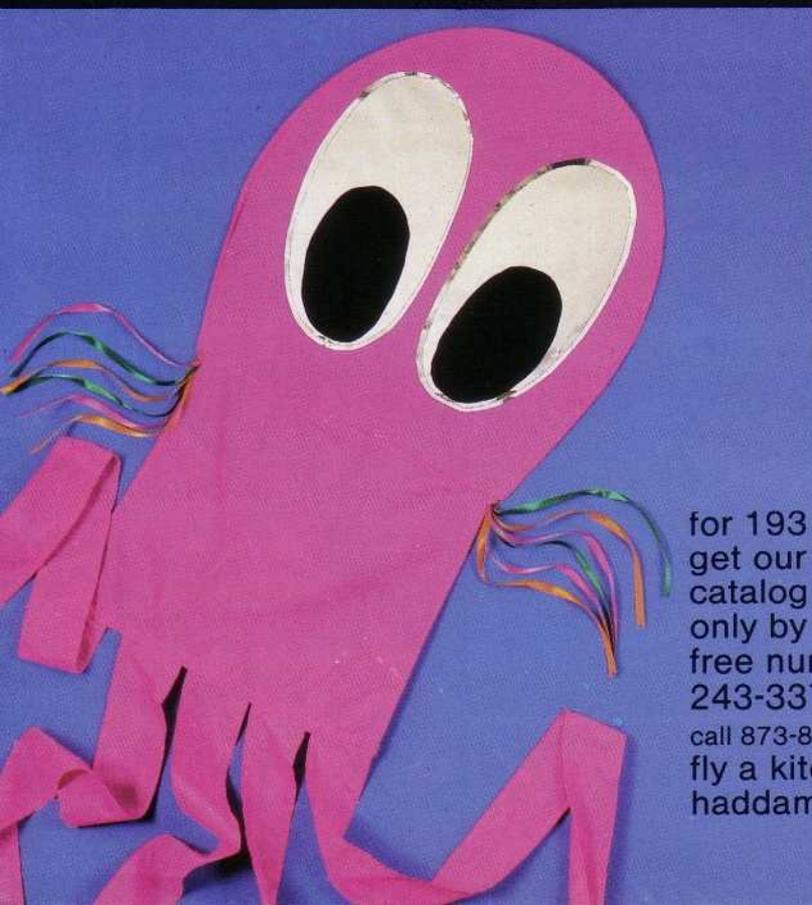
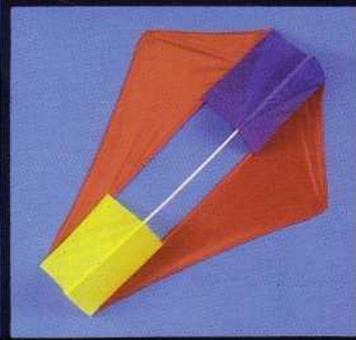
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