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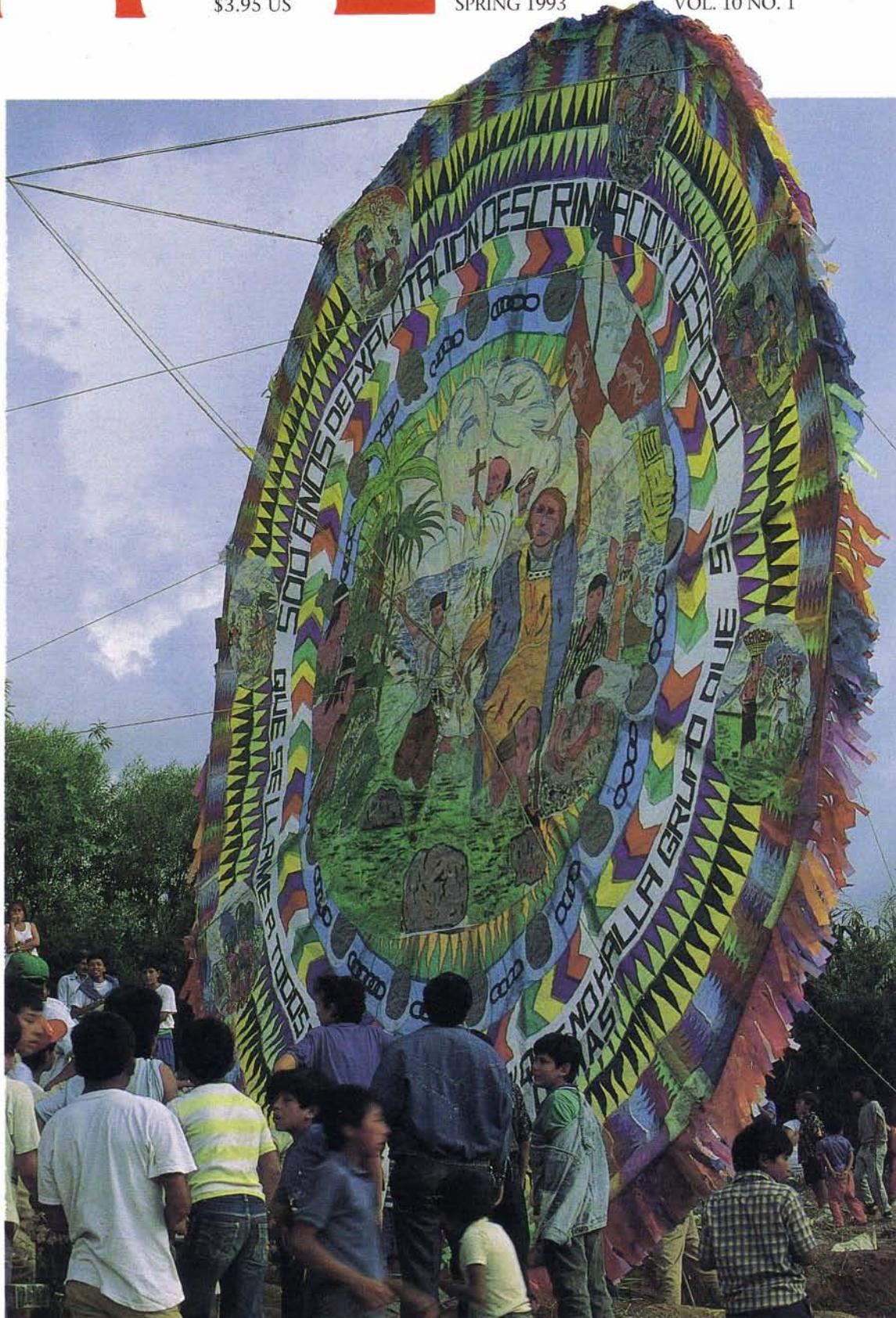
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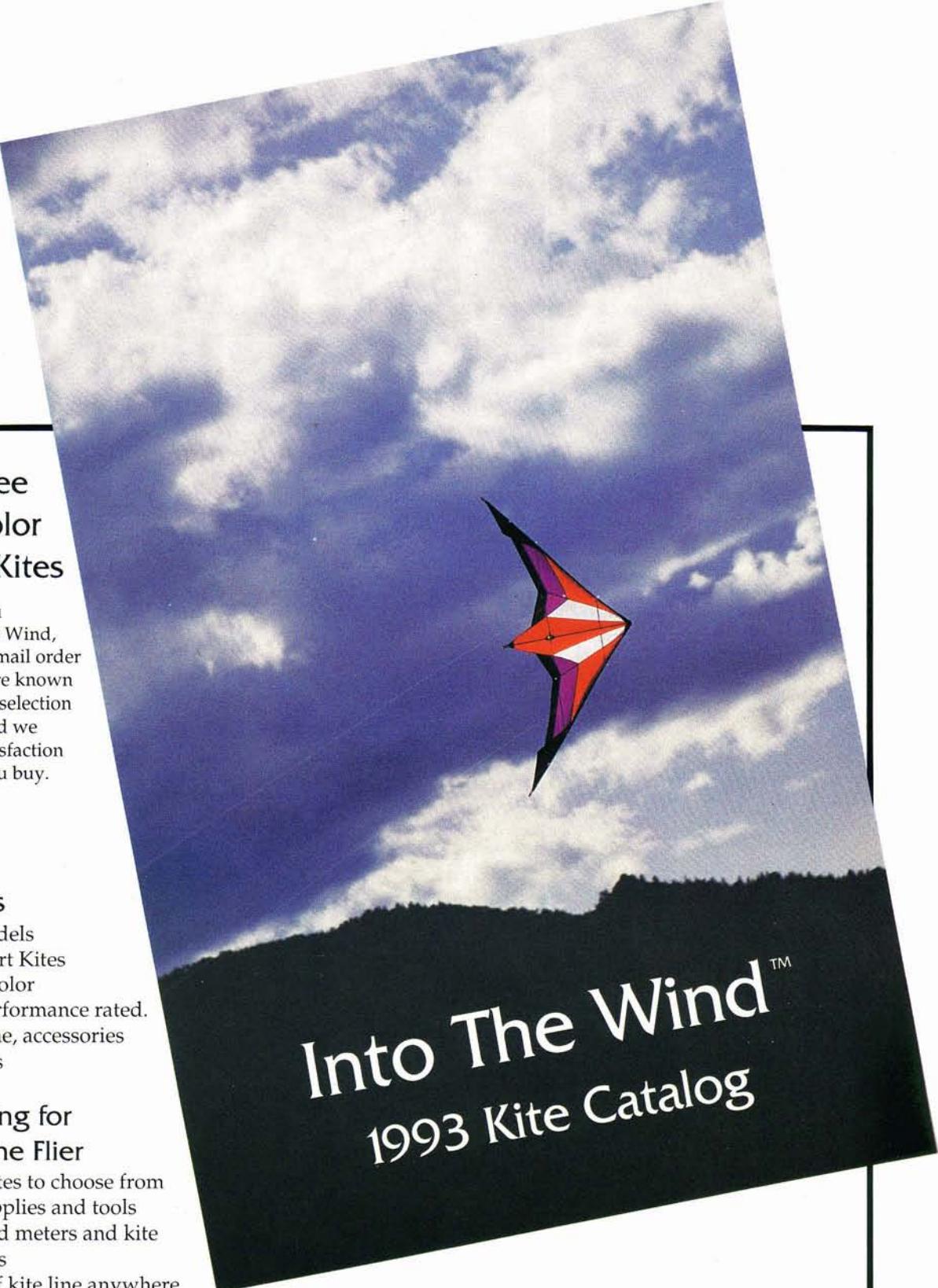
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Kitelines

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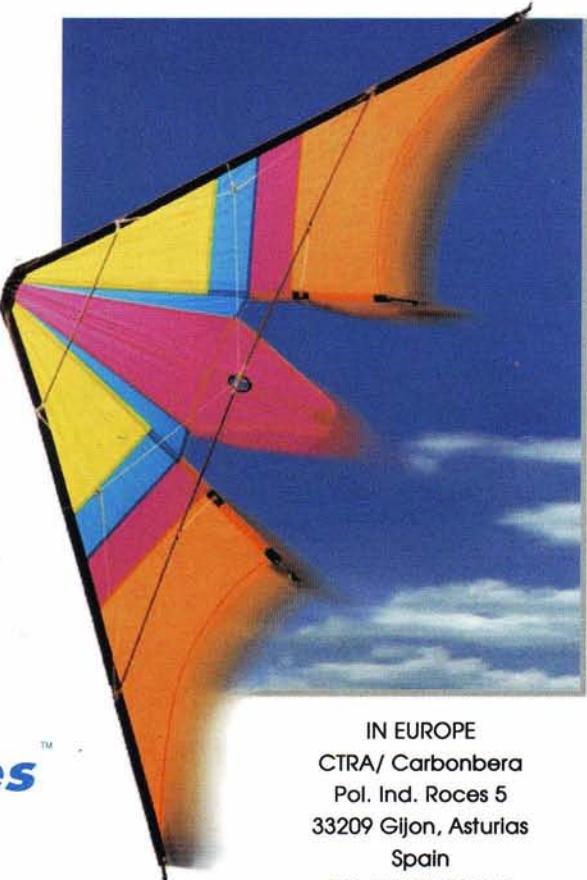
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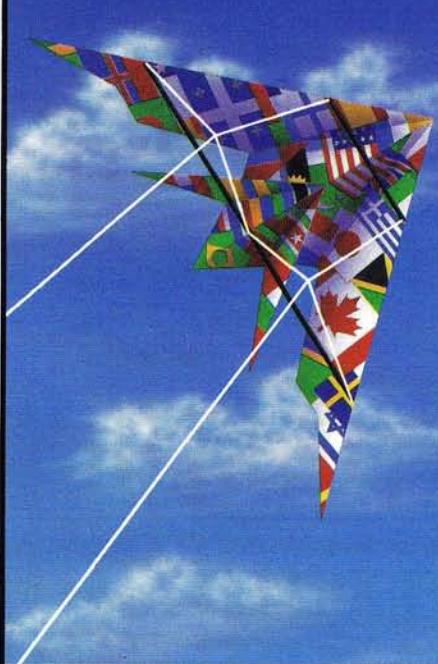
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KiteLines



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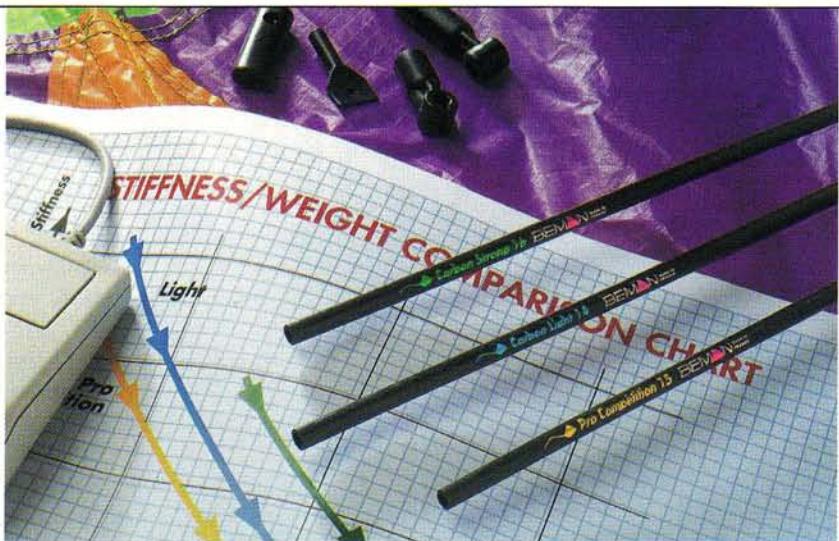
A giant kite is prepared for launch over the graves of Santiago Sacatepéquez, Guatemala on November 1st. Photograph by Michael P. Tourigny. (*Story on page 36*.)

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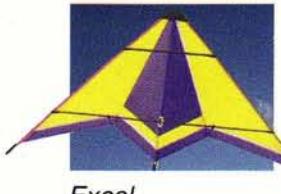
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LETTER FROM THE PUBLISHER

Resourcefulness & Other Traits

After 16 years of publishing *Kite Lines* ("we're not getting older, we're getting better"), we ought to know everything about kites, right?

Well, we don't. It's plain impossible. Not only do we carry inevitable human limitations, but the subject of kites has grown in erratic directions at varying speeds, like an adolescent. So we will admit to knowing a lot about kites, but not everything.

We like it this way—because we like to learn and to be surprised, and kites keep us doing those things.

It's not just kites that we're about, either. It's people, the ever-fascinating personalities who make up this enthusiasm and are integral to our every report on it.

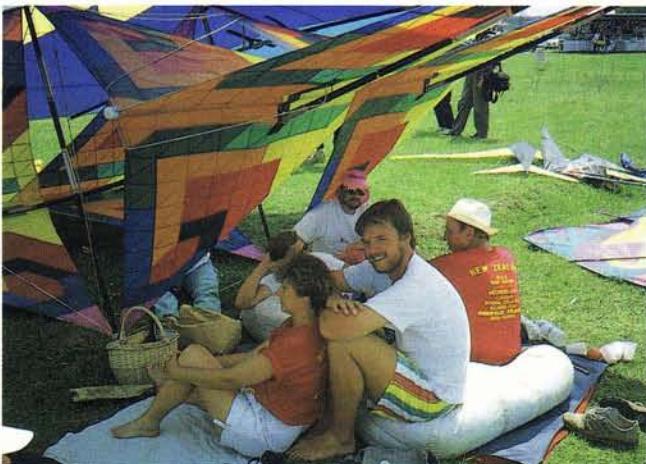
We've tried on occasion to find a pattern for the people who become kitefliers. No luck. But we kiters do possess a few traits in common, and here are some of them:

- a passionate interest in kites
- curiosity

- resourcefulness
- enthusiasm

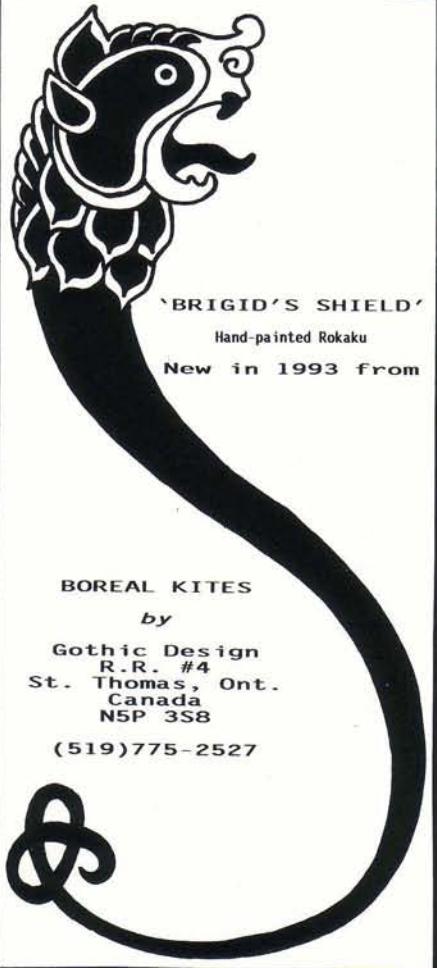
For the moment I would like to leave the list unfinished, let the pebble fall into the pond and start the ripples. I would like you, dear reader, to add to this list of shared traits of kitefliers. Send your letters to *Kite Lines*, P.O. Box 466, Randallstown, MD 21133-0466, USA, or fax us at 410-922-4262. I'll be happy to publish your words in future issues. Like kiting, like all of us, this magazine will continue to grow and evolve.

I've chosen some photographs from our travels that illustrate one of our shared traits as kitefliers, resourcefulness. The pictures illustrate variations on the theme of "Kites as Shelter." Perhaps sometime when you need shelter, you'll remember these scenes, put your kite to work and prove your resourcefulness as a certified kiteflier.



At Castiglione del Lago, Italy, last spring: Left, under Tri-D Box kite are, from rear, Peter Whitehead, Anne Whitehead (elbow visible) and Peter Lynn of New Zealand, with Olaf and Sabine Zabel of Germany in front. Below left, Guidori bambino under Guidori Edo. Below right, your editor and her mate under rokkakus.





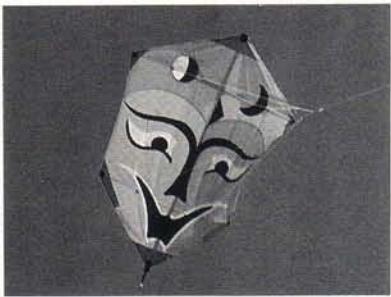
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In other words,
great kiting.

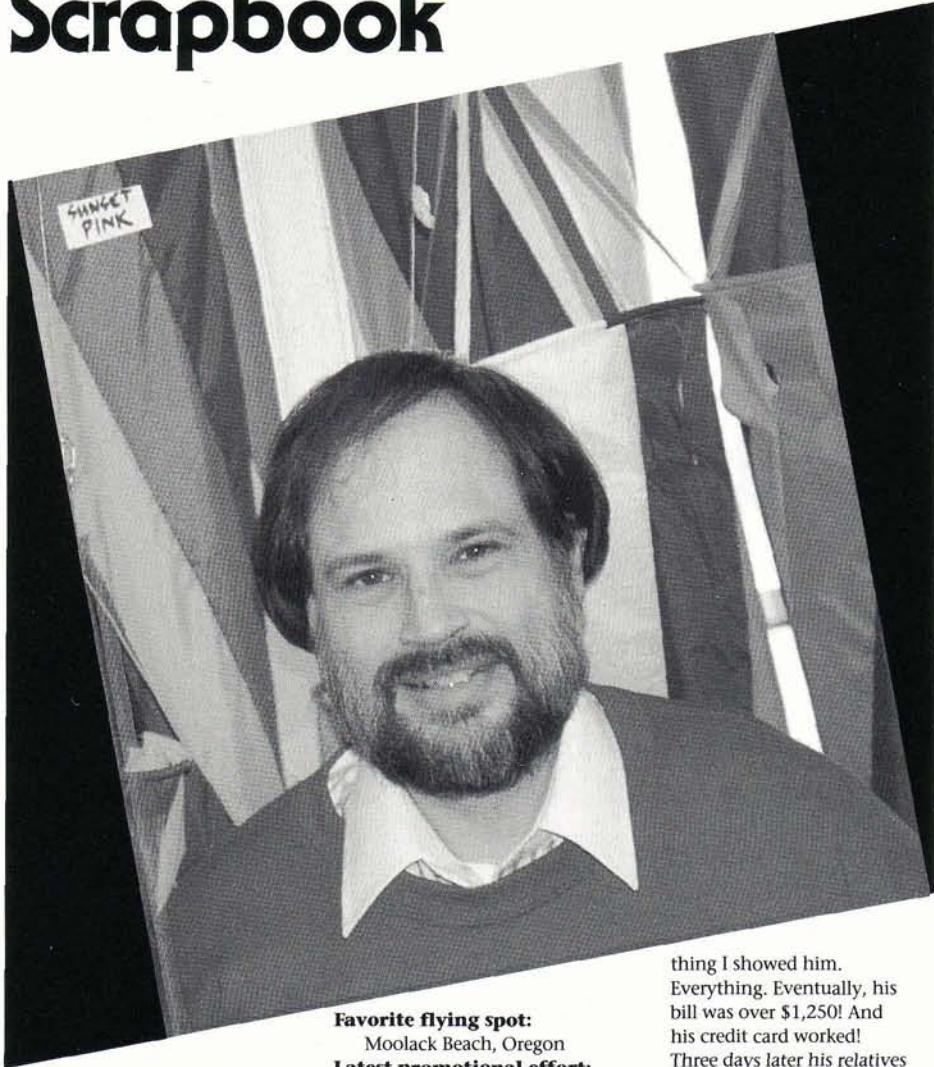
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Years in business: 14

Years profitable: 14

Years carried Kite Lines: 14

Owner: Steve Lamb

Age: 45

Favorite food: Thai

Last book read: *Shadows of Forgotten Ancestors* by Carl Sagan and Ann Druyan

Last kite book read: *The Fighter Kite Book* by David Gomberg

Favorite flying spot:

Moolack Beach, Oregon

Latest promotional effort:

Formation of the Lincoln City Kite Capital/Sister Kite Capitals Abroad Association

Specialty of the store:

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Most important advice ever received:

"Forget trying to make a living selling kites on the Oregon coast!" It was the most important because we had to react to it constantly. Sometimes you're better off not following your most important advice.

Nicest sale ever made:

My first year in business a gentleman came in and kept buying every-

thing I showed him. Everything. Eventually, his bill was over \$1,250! And his credit card worked!

Three days later his relatives called and explained he had escaped from a mental institution and could they please return everything.

Best fringe benefit of the store:

Providing an excuse to indulge my love of computers.

Favorite issue of Kite Lines:

Spring 1977 with the cover story on fishing kites made from leaves in the South Pacific. This issue was one of my early inspirations for getting started in the kite business.

Doesn't your store carry *Kite Lines*? To learn all the benefits of doing it, write for retailers information package: *Kite Lines*, P.O. Box 466, Randallstown, MD 21133-0466. Or telephone us at 410/922-1212. Or fax us at 410/922-4262.



Kite Repairs—Where?

Can you recommend a person or firm where I can get damaged kites repaired, reinforced, damaged spars replaced, etc.—i.e., made ready to fly again?

I have a dozen or more high price (\$200-\$350) kites which can no longer be flown in their present condition. I cannot do this work myself and am willing to pay for this service. Otherwise I shall have to throw them out—a pity! I would also like to have spare parts for these kites—something no maker currently supplies with new kites. Very few are marked with the maker's name. They were bought at various places over the years and I have no record of same.

Is kiting a throwaway sport or else one for do-it-yourselfers only?

—H. Ames Richards, Jr.
Stamford, Connecticut

Some letters call for action rather than a reply. We called places we thought might provide repair service and found that Gasworks Park Kite Shoppe (3333 Wallingford North, Seattle, WA 98103, tel: 206/633-4780) does. We also ran across Mike Morgan, who says he's willing to try anything. He does business as Apogee Kites (274 N. Goodman Street, Rochester, NY 14607, tel: 716/244-0010).

Are you willing to do repairs? Kite Lines will keep a list for reference.

Sparks from Kite Power

Congratulations on your excellent article on traction kiting ("Kite Power Comes of Age" by Nop Velthuizen, Winter 1992-93). You are providing a valuable service to this growing segment of our sport.

There were, however, a couple of errors in the article. The first is water launch of the kite. In the old days, it was necessary to return to shore to relaunch a fallen kite. However, Kiteski was developed to facilitate water launch, and it is now a piece of cake. We have launched dozens of times in a hour while training a novice kiteskier, all without returning to shore. The kite floats, does not soak up water, and flies nicely when wet.

The second is the issue of bridle lines versus kite sticks. We have been very impressed with the development of soft

Continued on page 43...

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The Propeller: A Quad-Line Stunter

By Hans Frydendall

I made this kite after flying a homemade Revolution. I wanted a kite with better ability to fly backward, so I started out by adding sail to the leading edge of the Revolution, somewhat like the Omni. Then I came up with the idea of adding a vertical spar with two extra kites on it.

After some experimenting, I found it best to have 60% of the total sail area in the trailing half, to give the kite better balance.

Later on I added mesh on the left and right kites to see what would happen. Well, I believed at first that the kite made more sudden stops, but lately I'm beginning to doubt it, because one of my models *without* mesh made quite sudden stops. Anyway, I've found out that flying ability is influenced by a lot of things, such as length of bridles and flying lines, stretch of the sail, handle size, not to mention the wind and the flier. So I would recommend that you start out *without* the mesh.

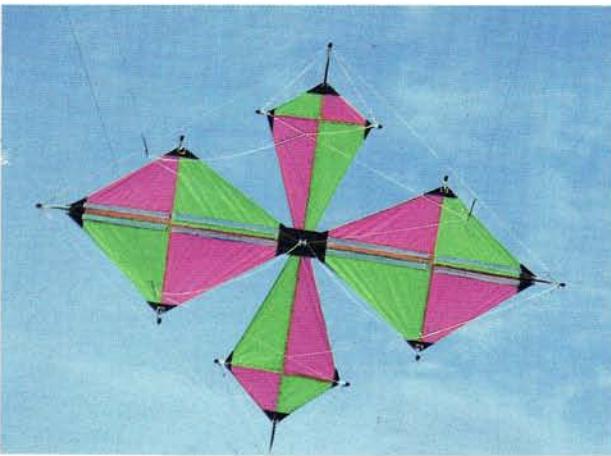
I've experimented with other proportions (more or less sail on the top and bottom kites in relation to the side kites, other shapes of the side sails), but this one seems to be the best.

Tools

- hole punch
- eyelets and eyelet crimping tool
- file and sandpaper
- cyanoacrylate (Super Glue)
- small hacksaw
- sewing machine
- scissors

Materials

- cardboard for templates, about 20" x 30"
- ripstop nylon, about 40" x 50"
- polyester (Dacron) for reinforcements and center patch, about 30" x 4"
- 1 line tension adjuster
- 50' 135-lb line for bridles and outer lines
- 6' 300-lb heavy nylon line for small loops
- 1" of $\frac{1}{2}$ " O.D. vinyl tubing for the center fitting
- $\frac{1}{2}$ " wide transparent or masking tape
- $\frac{3}{4}$ " I.D. electrical tubing for handles, 30" (e.g. Sealtight, conduit, or aluminum)



Spars

All spars (figure 1) are $\frac{1}{4}$ " O.D. carbon fiber. Lengths are approximately as follows:

- horizontal cross-spars: one 40", two 18 $\frac{1}{2}$ "
- vertical cross-spars: one 20", one 28"
- left and right vertical spars: two 22 $\frac{1}{2}$ "
- top and bottom horizontal spars: one 18 $\frac{1}{2}$ ", one 22"
- 3 epoxy tube ferrules, each 4" long

Spar attachment fittings

- 10" of $\frac{1}{4}$ " I.D. vinyl tubing
- 12 vinyl end caps to fit tubing
- 12 split rings, diameter about $\frac{1}{8}$ "
- 12' elastic cord (such as Bungee), diameter about $\frac{1}{16}$ "

Construction

Cut out the templates A-F (figure 1). If you want the sails multicolored as in the photo above, cut each template in two. If you make the sails in one piece, be sure to draw the center line on the sails. This will help you when the sails are to be attached to the center patch.

Cut, sew and hem the four kites. Attach reinforcements and make holes on all the tips except the center ones (figure 2). Make a hem on each center tip, about $\frac{3}{4}$ " (figure 3), and sew on sleeves for the cross-spars (figure 4).

Cut the 4" x 4" center patch out of double layered polyester. Glue and sew on the sails, aligning the center lines of sails with the corners of the center patch (figure 3). When a sail is sewn on, roll it up and put tape around it, to make it easier to handle when sewing on the rest of the sails. Finally, cut a 1 $\frac{1}{4}$ " square hole in the center

(figure 5) and hem it or melt it with a hot knife.

Make the 12 spar attachment fittings (figure 2). Cut the $\frac{1}{2}$ " vinyl tubing in 12 pieces, each about $\frac{1}{4}$ " long. Glue on the vinyl end caps and wait for them to dry. Make small holes through the caps using a hole punch, and attach the split rings.

Put elastic cord loops through the holes in the reinforcements on the eight tips where the four short spars are to be attached. Pull them fairly tight to prevent the spars from colliding with the outer line. Put on the elastic cord using a lark's head knot over the split rings (figure 2). Cut the spars to length and insert them so the sail is stretched properly.

Glue two ferrules at each end of the middle horizontal cross-spar (figure 1) so the spar goes halfway into the ferrule. Put the last ferrule through 1" of the $\frac{1}{2}$ " vinyl tubing and glue on stops (figure 5). Cut the rest of the spars and insert them in the sleeves. Attach the last four spar fittings by measuring the length of the elastic against the spar length.

Finally, attach the outer lines, the elastic cord at the top and bottom, and the line with the line tension adjuster (figure 6).

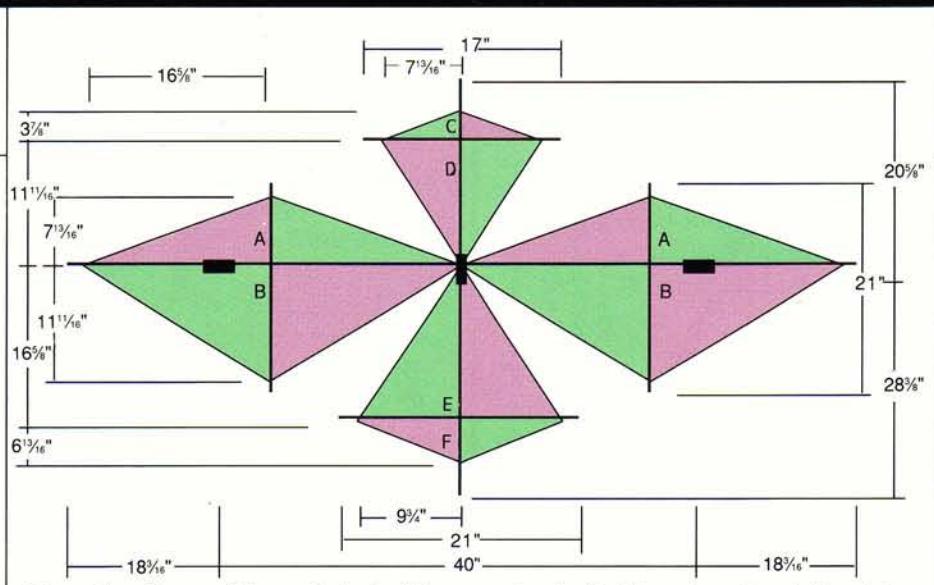
Bridling

Place the kite on the floor and weigh it down with some books to keep it flat. The bridles are attached to the split rings and the center (figure 7). Since the position of your fittings may vary from mine, depending on the tension of the elastic loops, you should only take the following lengths (for each of the four bridle groups) as a guideline:

Leg 1 - 13 $\frac{1}{2}$ " Leg 2 - 22 $\frac{1}{2}$ ",
Leg 3 - 27" Leg 4 - 20"

These lengths include 1" loops on each end of the legs. Attach corresponding legs to the split rings and center. Tie the other ends together with heavy line (figure 8). To insure the lengths of your lines are proper for your kite, the distance from the joined lines and the sail of the kite should be 13".

Make the remaining three bridle groups the same way, making sure bridle leg measurements are rotated so that leg 1



The position of the spar fittings on the horizontal cross-spar is not critical. It may depend on what length the carbon fiber comes in.

Figure 1

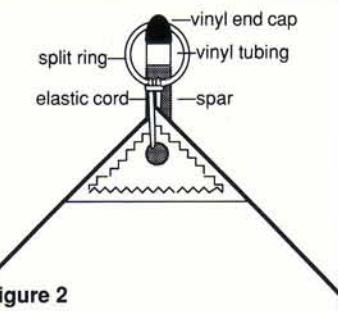


Figure 2

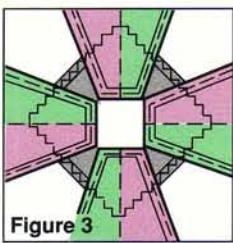


Figure 3

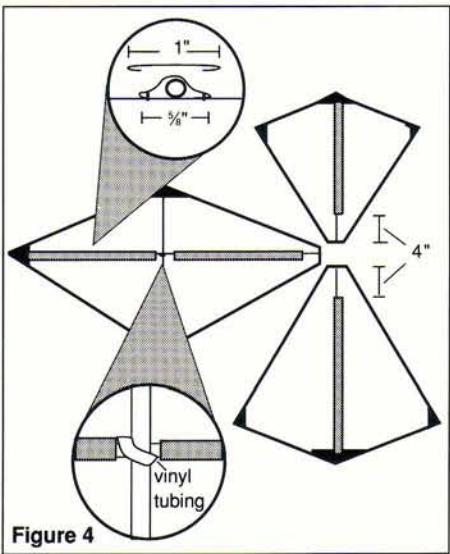


Figure 4

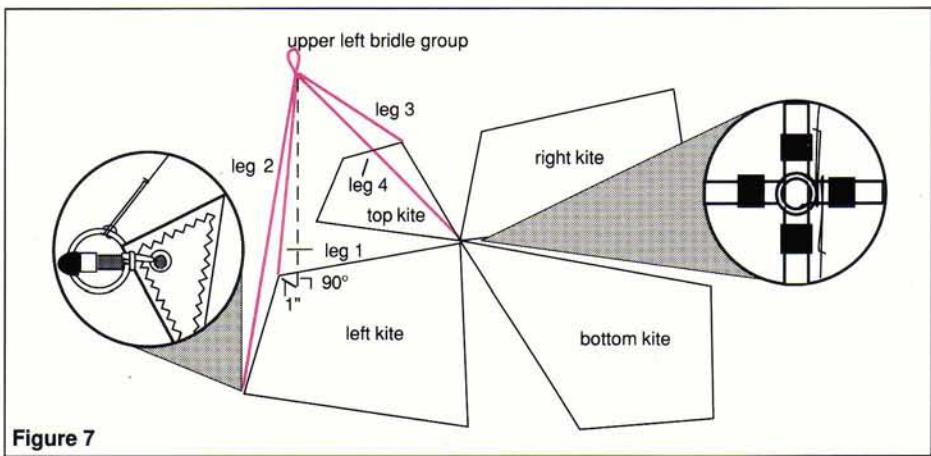


Figure 7

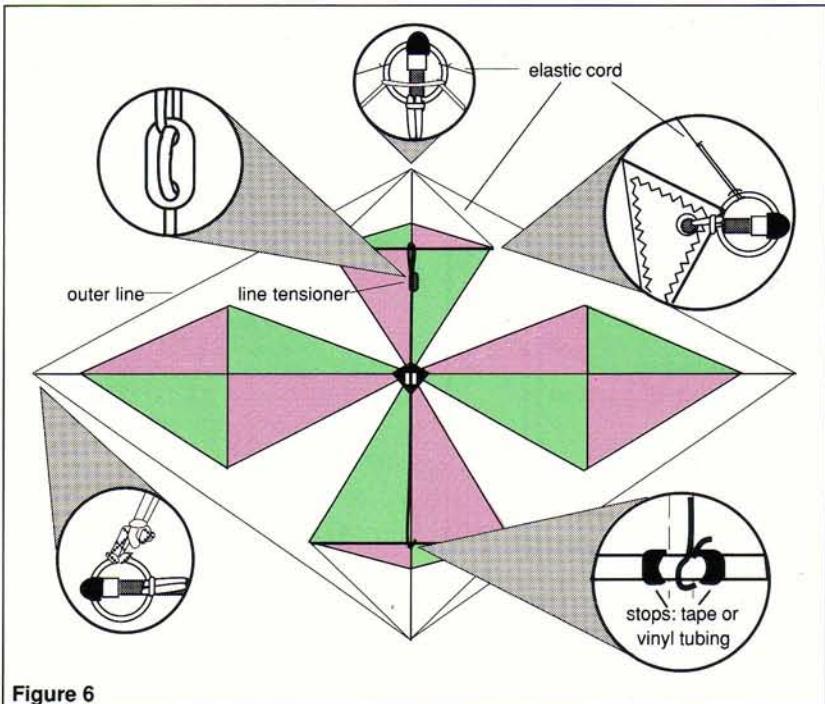


Figure 6

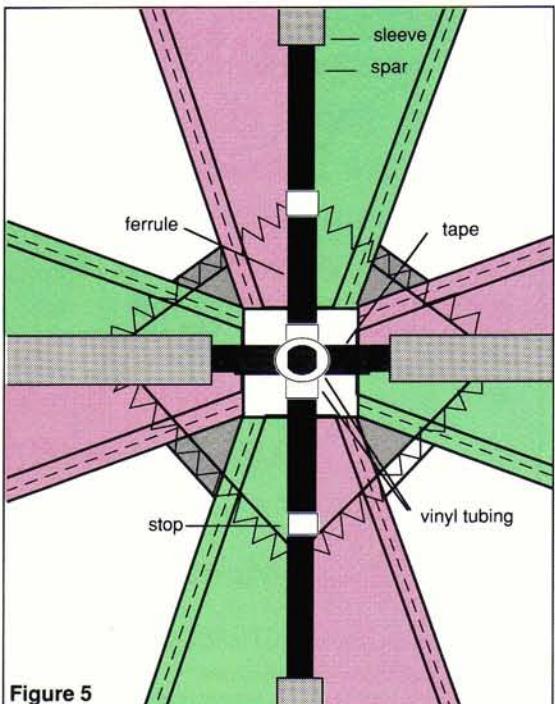


Figure 5

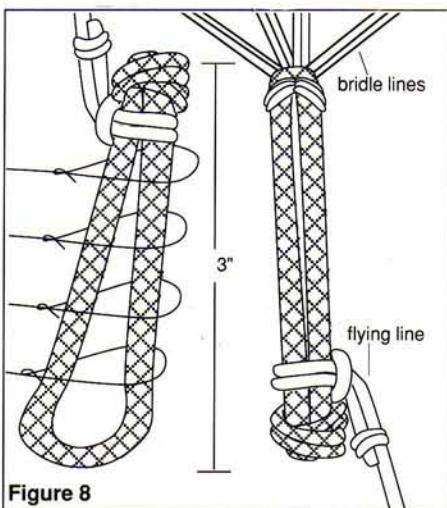


Figure 8

is on the upper part of the upper right kite, the lower part of the lower right kite and the lower part of the lower left kite.

Handles

Cut two pieces of $\frac{3}{4}$ " electrical tubing, each about 15" long. Bend them in boil-

ing water to an angle of 135°. Cut each half to 6", flatten and bend the ends. Make holes in the ends and join the flying line attachments (figure 9).

Flying Lines

I use 70# Spectra line, length about 75 feet (300 feet altogether). Cut all four lines to identical length and use the extension knots for adjusting.

Disassembling

Cut a piece of fabric to about 42" x 11" to make a carrying bag. Disconnect the four vertical spars and the two small horizontal spars and fold the kite together. Remember to untie the outer lines (figure 6).

In Case You Want to Stack-Fly

Make 11 identical loops of heavy line for each kite (similar to the one in figure 8). Attach them to the bridle points (figure 6). Make 11 identical connecting lines, each about 65" of bridle line, with a loop at each

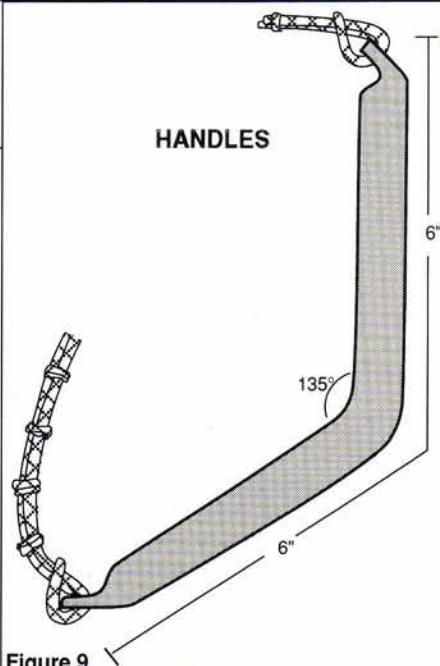


Figure 9

end. Attach the connecting lines to the knots on the loops. Do not allow the train lines to cross.

Hans Frydendall is a musician and a music teacher in Denmark. He has been making and flying kites for five years.

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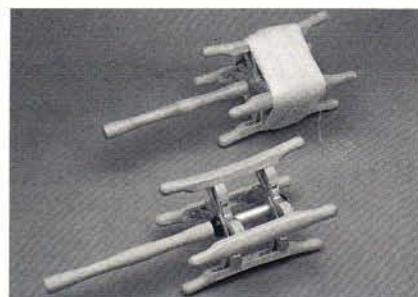
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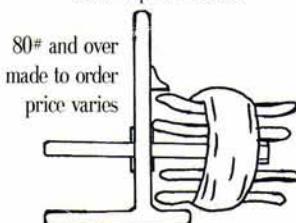
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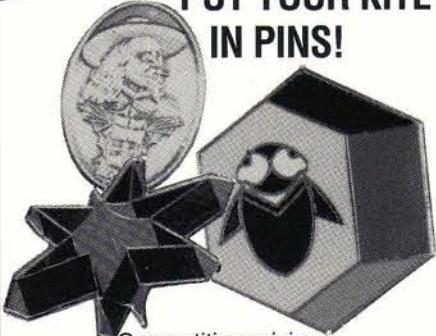
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trilby **KITES**

Some Assembly Required



By Mel Govig

There seem to be few kits available in America for making kites. Is it because we live in an instant gratification culture? Seems to us consumers ought to figure out and appreciate that they can save all those labor-intensive costs of kite manufacture by making the kites themselves.

The few kite kits on the U.S. market range in difficulty from putting in the sticks and making the bridle, to lengthy craft and sewing projects.

Previously, we have reviewed a few kits, such as those by Squadron Kites of California and Bits & Pieces of Wisconsin. These kits are appealing to model makers and builders, especially teenagers.

The kites in this review are all assembled with nothing more than tape or glue. For the most part, they are easy kites, for young children, and just barely fit a definition of *kit* as something needing more than mere assembly. The Eagle and Osprey are projects for older teens or adults, but require only gluing and stapling.

The kites for young children are all good, reliable fliers. As long as you follow the directions, there is little to choose from based on performance.

Although all of the sled kites can be flown in light winds without tails, it is my experience that young fliers prefer the color and activity of long tails.

Hang-em High Fabrics offers kits for sewing several fabric kites. We hope to share those in a future review.

The Paper Bag Kite by Great Winds

Originally designed by David Checkley, this kite has been on the market for years and is a reliable project for young school children. I can still recite Dave's original jingle, "If kites are your bag, this bag is your kite!" Great Winds Kite Co., Seattle, Washington is keeping this tradition alive.

The instructions are printed on the bag and are clear and easy to follow. For this kit, you have to furnish scissors, 4" of masking or adhesive tape and 6' of string (from your flying line). The greatest disadvantage of the Paper Bag Kite is that it is not very durable (if, for instance, it is bounced along the ground). The greatest advantage of the kite is that it is not very durable (if, for instance, it is abandoned in a tree).

Store or club graphics can be printed on bulk orders, or the kites can be purchased plain.

The Frustrationless Flyer by Great Winds

After "Hundreds of Sleds Hundred of Smiles" appeared in *Kite Lines* (Winter



1977-78) several clubs took to making these trash bag sleds. They are the least expensive way to make many, fool-proof fliers, but they do require the effort to cut all the sticks and covers.

Although Frustrationless Flyers cost more than trash bag sleds, they are an economical alternative for less effort.

The kits include precut covers, $\frac{1}{16}$ " wood dowel spars, premeasured bridles, adhesive patches for attaching sticks and bridles, and short dowels to reinforce the bridle attachment points.

The major advantage that these kites have over the small plastic trash bag sleds, besides the obvious convenience, is that Frustrationless Flyers are made of durable Tyvek that will last for many days of flying, in hot weather and cold, strong winds and light, without tearing or having the bridles and sticks come untaped.

The Pocket Kite by Catch the Wind

We've seen many sparless sled kites over the past 20 years, including Ed Grauel's Bullet, Dave Checkley's Pocket Kite, the

DATA CHART OF KITS

| Kite and its Maker | Suggested Retail (each) # of kites to order | Dimensions width x height | Materials Supplied | Items Required | Portability | Assembly Time | Durability | Clarity of Instructions | Building Skills Required |
|---|--|------------------------------|------------------------|---------------------------|-------------|---------------|------------|-------------------------|--------------------------|
| Paper Bag Kite: Great Winds Kite Co. | \$0.45-0.39 100 or 500 | 28 x 20 | paper bag | scissors, tape, string | fair | 5 minutes | poor | excellent | basic |
| Frustrationless Flyer: Great Winds Kite Shop | \$5.00-2.00 1, 10 or 20 | 30 x 24 | Tyvek, dowels, tape | string | good | 10 minutes | good | excellent | basic |
| Pocket Kite Kit: Catch the Wind | \$1.00-0.65 20, 80 or 500 | 27 x 18 | Tyvek | string, tape | good | 10 minutes | fair | excellent | intermediate |
| Two-Stick: Into the Wind | \$2.00-1.66 1 or 6 | 24 x 30 | paper, spruce | string | good | 5 minutes | fair | good | basic |
| Eagle: Jackite | \$50.00 1 | 60 x 30 | Tyvek, snaps | glue, staples | poor | 3 hours | good | good | advanced |
| Osprey: Jackite | \$20.00 1 | 49 x 20 | Tyvek, snaps | glue, staples | poor | 1 hour | good | good | advanced |



Pocket Sled by Wycombe Kite Company of England and, more recently, the Pocket Sled by Fancy Kites of Ohio, to name

only a few variations. Catch the Wind of Oregon must have known it's not easy to get these designs just right, so the assembly of this Tyvek Pocket Kite is a little more demanding than the Frustrationless Flyer and the results of misassembly are more likely to cause poor flight. However, the company made the kite easy to build. We think an eight-year-old, without supervision, would be able to assemble and fly it from the excellent instructions.

The Pocket Kite Kit includes all the materials except tape and string to build 20 kites.

The Two-Stick Kite by Hi-Flier

This kite is the classic two-stick diamond kite from your childhood, except without the rocket ship or UFO decorations on the



sail. The Two-Stick can only be considered a kit if decorating the white paper surface is enough to make you call it your work. Otherwise, you only attach spars and bridle.

Unlike yesterday's instructions, the separate directions with the kite are first-rate and tell you how to *correctly* bow and bridle it. They also tell you to add a tail and how much. Hi-Flier makes this kite for group sales through retailers such as Into the Wind of Colorado.

The Eagle and Osprey by Jackite

For older children or adults, these kits by Jackite of Virginia are worthwhile projects. The birds, when assembled, are realistic



representations, outstanding in detail, of their natural parents. We were provided with a preassembled Osprey and we assembled the Eagle.

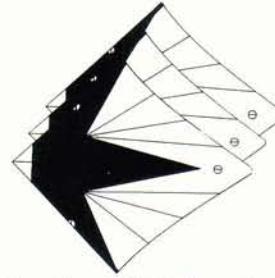
Start the construction only after reading all the directions, which are printed on the large sheets of Type 10 Tyvek that carry the punchout parts of the Eagle. (After punching out the parts, you'll want to reassemble the instructions in order.)

Building time, if you include drying time between steps, is more like three hours than the one hour given in the plans.

After the Eagle is assembled, it is necessary to coax the wings and tail into the curves illustrated. We could not fly it until we followed the suggestion to fly the Eagle at the tip of a long pole to "let it find its wings." After an hour or so in the wind, the wings did take on the natural curl that seems to be essential to flight.

Don't expect the Eagle to fly as a "static" kite. It is very active and will probably dip to the ground frequently. But, flown on a short line from a long fishing pole, it does give the sense of an eagle swooping down to catch a trout and flapping back into the sky. Although the designer would cringe at the suggestion, 20' of fabric tail taped to the tail feathers makes either kite perform more like a kite and less like a diving bird.

Once assembled, the Eagle is only moderately portable. The spreader can be removed and the wings rolled up to the body. You will probably want to store it hanging indoors as a beautiful mobile. ◇



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By Leonard M. Conover & Valerie Govig

Useful Storehouse

... und sie Fliegen Heute Noch—Geschichte und Geschichten um den Drachen (. . . and They Still Fly Today—History and Tales About Kites), collected by Hans Snoek (Bremen, Germany: Verlag H.M. Hauschild, 1992), in German, hardcover, 156 pages, \$29.95.

The first of two books (the second is not published yet), this is a work that calls for its own place on any shelf of kite books.

In the introduction, Hans Snoek clearly states his intentions: This is an attempt to collect all kinds of scraps concerning the kite and its history, to make up for what is seen as a lack of complete documentation on the history of kiteflying.

Here's a collection of material, attractively laid out and printed (all in black-and-white), including short poems, songs, tales, drawings, photographs, early kite plans—anything that is or has been related to kiteflying. The focus is mainly on our Western kite culture and its many facets (military, scientific, meteorological, recreational, photographic, etc.), although oriental kites are mentioned here and there.

There is an absence of contemporary kites with the exception of two pictures, of Peter Lynn's giant Octopus and Blowfish, which appear without comment and a bit out of context. The rest of the book ranges from the first known kite building plan in Germany ("Coerperlicher Drachen" by Daniel Schwenter, 1636) to the kites used at meteorological stations in Germany. Among others are beautiful box kites with their building techniques and systems; unusual old-time novelty kites; stories, including one about the once-revolutionary Steiff Roloplan; and great pictures of post-World War II kites and kiteflying in Hamburg, with big Eddys, giant Roloplans, original bird kites and old "UFO" kites.

The book ends with a 22-page bibliography of 250 titles (mostly in German, but also in English, French and other languages). At first one might think this is Snoek's own list, but it is by a teacher, Franz Denk, from 1943 and merely another item collected and

reprinted by Snoek! Furthermore, it contains numerous flaws—misspellings, incomplete names, nonbook items tossed in with books—which are left uncorrected (unless, of course, Snoek introduced the flaws).

A reader has to ask, can this be a *book*, this material collected and reprinted from count-



"First Art Effort," oil painting by G. Igler, reprinted in *...And They Still Fly* by Hans Snoek. Date not given.

less sources? Even though the results of Snoek's approach are inevitably fragmentary, it's hard to simply accept them as such.

It is unlikely anyone has come across this much information in his or her own research and reading. In this regard, Snoek offers valuable material otherwise not accessible. Also, the book is rather refreshing as a counterbalance to the glut of how-to-build manuals popping up like mushrooms.

Snoek's effort is admirable, but it leaves perplexity in the absence of any cultural or personal filtering and reprocessing or commenting on all this information.

We close the pages of *... and They Still Fly Today* with curiosity and expectation for the sequel to this book.

—L.M.C.

Generic Talk, Generic Things

Lenkdrachen—ABC. Eine Einführung in das Lenkdrachen-Fliegen (*The ABC of Stunt Kites. An introduction to stunt kite flying*), by Dr. Hans Erich Rocker (Barsinghausen, Germany: self-published, 1992), in German, softcover, 75 pages, 19.80 DM.

"Everything you ever wanted to know about stunt kites but were afraid to ask" says the back cover of this new book.

It's hard to take this seriously when you see the drawings and graphics, some of the most crude and unappealing ever printed in a kite book.

There is relief in leafing through it for the first time and realizing that—unbelievable but true—there are no construction plans! The relief is because of the recurrent trend, particularly in Germany, to quickly assemble a book using somebody else's designs with no credit whatsoever.

In this case the relief doesn't last very long as the reader finds the no-credit syndrome fully represented on the front and back covers, showing kites by Julian Wolfe Patrick, Invento and Peter Powell. The only mention of these kites is a few indirect lines early in the book, where the author describes which kites he likes and flies the most.

Although the writer's purpose was to cover all areas of stunt kite flying, to satisfy the needs of novices as well as seasoned stunt fliers, the text unrolls boringly with descriptions that rarely go any further than what already exists in available books or in the assembly and flying instructions of commercial products.

Aerodynamics is treated superficially and big errors appear here and there, starting with the statement that the delta kite is based on the flexible kite developed by Francis Rogallo in 1949, to the naming of such kites as the Saruga kite (suruga), the sparless sled-kite (which has two spars) by William Addison (Allison)—a gallery of horrors easily avoided simply by checking the information in other books.

The last chapter contradictorily suggests reading more volumes on kites, but men-

tions only *The Penguin Book of Kites* by Pelham and *Stunt Kites!* by Gomberg, without listing any other book!

To Dr. Rocker's credit, there is one portion of the book, about two pages, titled "Easy Kiting," describing an original pulley system developed by the author to fly big kites with less pull on the flier's arms, and/or to allow two people to fly it with the same basic advantage. This system is described in issue number 4, 1992 of the German *DrachenMagazin*, and it is the single item of interest in the whole work.

The rest is only generic talk about generic things, resulting in a book that doesn't contribute much to the literature. —L.M.C.

Book News & Forecasts

Coming Soon...

In May, another book is due from our prolific German friend Wolfgang Schimmelpfennig. Titled *Neue Lenkdrachen und Einleinerbauen und fliegen* (*New Stunt Kites and Single-line Kite Building and Flying*)

(*Liners to make and fly*), it's sure to be good stuff. . . . In late spring we're expecting another home-computer-produced book on stunt kites. This one, for the intermediate-level flier, is by Canadian Richard Synergy. We saw it in draft and made suggestions, but we can't comment till we see the final result. . . . Both the above books will be in the Kite Lines Bookstore as soon as we can get them. . . . Sometime this year we hope to see the latest Jim Rowlands book, *Kites and Wind-socks*, from England. And of course, the second Hans Snoek book may surface any time (see review of his first, opposite page).

Back in Print!

For the quadrennial New Zealand World Kite Festival coming up in early 1994, Bob Maysmor's publisher is considering a reprint of Bob's excellent out-of-print book on Maori kites, *Te Manu Tukutuku*. A reissued kite book is a rarity. If only this would start a trend. (Are you listening, Japan?)

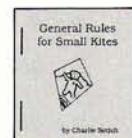
The Best Things in Life . . .

Have you seen the teeny tiny kite book by Charlie Sotich of Chicago, Illinois? Titled *General Rules for Small Kites*, it's compact to an extreme, takes less than a minute to read, has 11 pages and 8 chapters and comes in assorted bright colors and three sizes: 39mm wide (color slide size), 25mm wide and a microscopic 16mm wide. All are readable but you may need a magnifying glass.

This book has already gone into a Dutch translation by Jan Fischer, who produces it in the same tiny format.

You cannot buy *General Rules for Small Kites*. You can only ask for a copy if you're lucky enough to bump into Charlie on a field when he empties his pockets and finds a few copies among old gum wrappers and grocery lists.

—V.G.



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Celebs & kites in the fight against AIDS

Article &
Photographs
by
Pierre
Fabre

displayed before the auction (the most famous painters' kites are on the back wall).

During the auction: The four kites in the background are among the "best sellers." From left to right: *Grand Soleil* by Robert Combas (10,100 francs, about \$1,830 US); *11,000 Nuits* by Jean-Paul Marcheschi (20,000f, about \$3,630 US); *P.K. 92* by Peter Klasen (9,000f, about \$1,630 US); and *Ideogrammes* by Ricardo Licata (10,000f, about \$1,815 US).

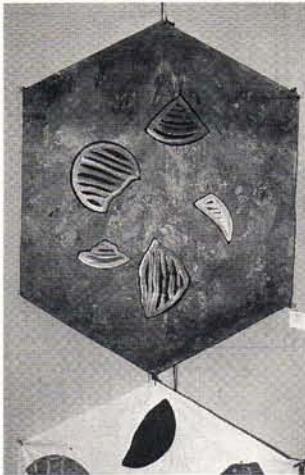


Elton John's kite being displayed during the auction; called *Colored Flames*, this kite was sold for 3,050f (about \$555 US). In the background, from left to right: *Plume n° 3* by Michel Gressier (800f, about \$145 US) and an unnamed kite by Pierre Fabre (it was about to be sold at 2,500f, about \$455 US, but Pierre preferred to buy it back at 2,800f, about \$510 US).

Buyer collecting his kites in the back room after the sale. Stacks of sold kites are still waiting to be taken away. The kite he is holding on top of his pile, Kumi Sugai's *Soleil au Serpent*, sold for 700f (about \$125 US), a bargain as fine art. This kite was painted on both sides with different colors—the back side is seen here.



Jacqueline Matisse's two kites, sold as a pair for 4,500f (about \$820 US). Top kite is named *Elements Gris sur Fond Brun*.



AIDES is an association in France helping AIDS victims. Founded in 1989, the French AIDS association (aides = help in French) is very active in providing better living conditions to AIDS victims and in spreading information about the disease. For the fourth time, this December 1st was a worldwide Day Against AIDS.

The kite, with all its strong symbolic value, was chosen as the 1992 campaign's theme, in order to raise funds for these works. Charlie Vican, who initiated this project, at first simply wanted to produce pins, t-shirts and posters with a logo picturing a kite. These would be sold during AIDS' meetings and at a kite event in Paris, organized with the help of the French Kite Federation.

This was accomplished and then in October emerged the idea of a big kite auction. Famous people were asked to decorate and sign 150 rokkaku kites built by volunteers of the AIDS association. Measuring 105x80cm (about 40" x 30"), the kites were made with wooden struts and Tyvek sails. The Tyvek was donated by Le Ciel Est à Tout le Monde, the oldest kite shop in Paris. An additional 75 similar rokkakus were painted by students from various Parisian art schools.

An Impressive List of Personalities

In less than two months, Charlie Vican managed to gather the most famous French stars from various fields. Among many others:

- Actors Anouk Aimée, Jean-Paul Belmondo, Catherine Deneuve . . .
- Singers Elton John (not so French!), Vanessa Paradis . . .
- Filmmakers Jean-Jacques Annaud, Luc Besson, Jean-Jacque Beinex . . .
- Fashion designers Pierre Cardin, Christian Lacroix, Sonia Rykiel, Yves Saint Laurent, Paloma Picasso, Paco Rabanne . . .
- Painters Robert Combas, Gérard Garouste, Peter Klasen . . .

A couple of famous TV journalists and the French President's wife, Danielle Mitterand, also signed their own kites. Only two kitemakers, Michel Gressier and myself, were included in this long list.

Surprisingly, Charlie Vican was not aware that a slightly similar project, the Goethe Institute's Art Kites exhibit, had visited Paris two years ago in its four-year world tour.

Kumi Sugai, of Japanese origin but living in Paris for 40 years, was the only painter to participate in both projects. His design for the AIDS kite reminded me of the rokkaku he had previously painted for Art Kites, with a similar geometric snake.

Jacqueline Matisse (Jackie Monnier) was one of the artists known for having previously

Kite by Philippe Cognée, sold for 4,100f (about \$745 US), too heavy to fly, but beautiful.



worked with kites.

For AIDS, she had made a pair of rokkakus, one painted with abstract grey shapes on a brown background, the other with similar shapes, multicolored, stitched on a white ripstop nylon sail. They were sold together for 4,500f (about \$815 US).

Jean-Michel Folon, the famous watercolorist and poster designer, had shown some interest in kites about 15 years ago. He worked on a book of kite photographs and designed a silkscreen printed kite for a limited edition. I was somehow disappointed that instead of making a kite for this auction, he offered for sale a miniature bronze statuette he had created.

Kites Signed by Pierre Cardin Soon in French Fashion Shops?

Because the participants were asked to paint a ready-made rokkaku, and because it requires some practice and experimentation to create an original kite shape, I didn't expect that any of the artists would have tried this.

It was then a very nice surprise to see two beautiful minimalist and original kites by Pierre Cardin, the world famous fashion designer. The largest, 1.5m (about 5ft) in height, had the shape of a face with neck, decorated with a red outline, the inner surface painted flat black with a few glossy

black lines barely visible. The smaller kite had similar graphics fitted on a triangular shape. Both had tails attached.

I couldn't help wondering how or when Pierre Cardin could have turned himself into a kitemaker! A quick look at the back of the kites left no doubt about their origin

Kite by Peter Stämpfli, sold for 2,200f (about \$400 US).



and gave me the clue: with their foldable split and heat-bent bamboo bones, they had, for sure, been made by an expert Chinese kitemaker. The sail was typically silkscreen printed. Inquiring about these kites, I was told that Cardin had already had them made from his design, in Beijing, before the AIDS association contacted him for the auction project.

Owning ready-made clothing factories in China, and being one of the best-known fashion designers there, Cardin often travels to this country of kites. Still, I was quite surprised to hear that he is now negotiating a contract with a kite manufacturer in Beijing which would produce a series of these kites bearing the signature of Pierre Cardin. They would retail in France, maybe through fashion wear shops.

How High Can the Bids Go?

As was expected, the kites which ended up being the most expensive were those by the most famous painters.

Above 10,000f

Christian Lacroix's *Les Fantassins de l'Apocalypse* sold for 4,800f (about \$870 US).



(about \$1,815 US) was bid for Combas, Garouste and Ricardo Licata. Jean-Paul Marcheschi is less known but his splendid kite, covered with pages of written dreams partially blacked with candle smoke, reached the top price of 20,000f (about \$3,630 US). It was bought by the French Ministry of Culture for its collections. (The Minister himself also acquired a kite, by the painter Richard Conte). →

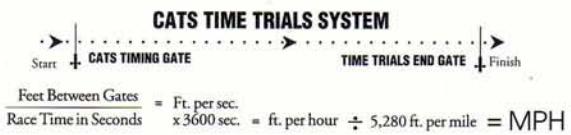
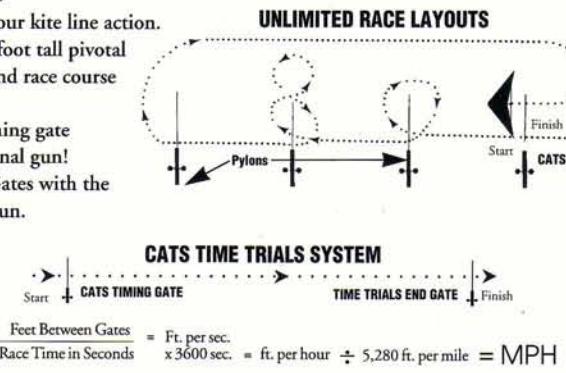


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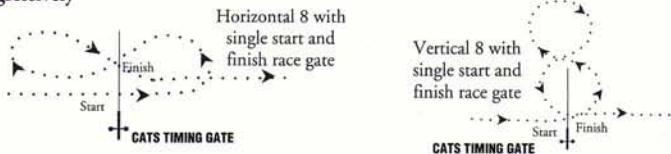
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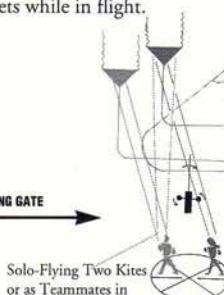
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Several kites by fashion designers were also very successful: Paloma Picasso's at 5,000f (about \$910 US), Paco Rabanne's at 5,500f (about \$1,000 US), Christian Lacroix's at 4,800f (about \$870 US).

Actor's and singers' kites, often less appealing because they were not painted by talented visual artists, failed to raise high bids. Only Elton John and Catherine Deneuve could go slightly above 3,000f (about \$545 US).

Most kite prices ranged between 600f (about \$110 US) and 2,000f (about \$365 US); only two could not be sold for a high enough price, and were withdrawn from the sale.

For Michel Gressier and myself, it was interesting to see if the originality of our kites would compensate for our being totally unknown by most of the attendees. To some extent we were rewarded when comparing the prices our kites attained (700f [about \$130 US] for Gressier's; 2,500f [about \$455 US] for mine) with those reached by some very famous people; yet I believe they could have been sold for more in an ordinary kite shop!

Another Auction to Come Soon

The total gross of this first auction reached approximately 310,000f (about \$56,300 US)—a fairly good amount even if not as much as could have been expected. Maybe the art students' kites should have been auctioned too, instead of being sold at a fixed price of 300f (about \$55 US). Many were just as interesting as those painted by famous artists.

A second auction, with 150 new kites, is already planned by AIDES to run during the Cannes International Film Festival in May. The association has already collected 100 kites for this sale and expects others from more famous artists. Possibly some movie stars will be involved again.

Let us hope it will raise even more funds. Probably each of us now has some friend or relative struck by this terrible disease.

When asked to make a kite for AIDES, I immediately accepted, specially thinking about our friend Lee Toy. I had met him in January 1992 at the International Kite Festival held in Thailand. Though following a rather constraining treatment, Lee had managed to come. Kitefliers from all around the world flew his "Shadowlines," an Edo-style kite, each of us holding one of the bridle lines. This so clearly now appears as a call for more solidarity.

Worldwide, each of us can help those affected by AIDS through organizations and associations such as AIDES in France. ♦

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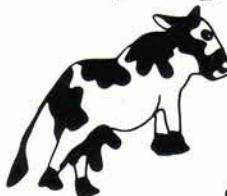
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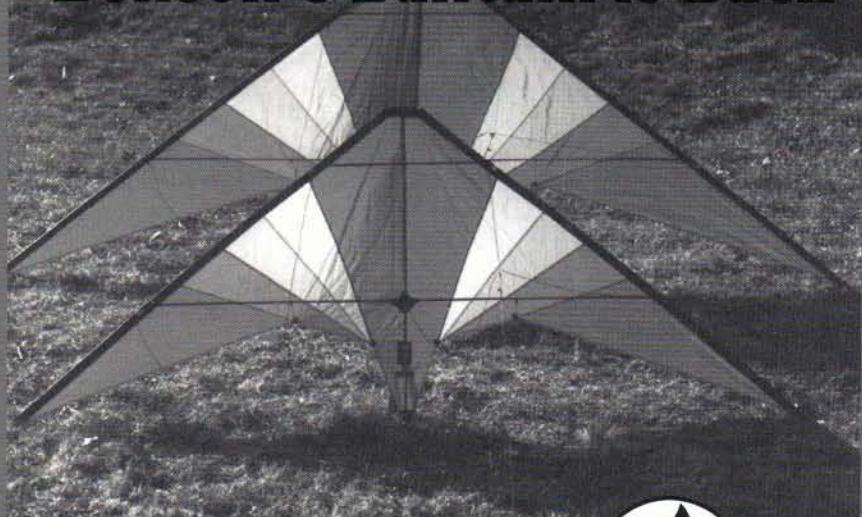


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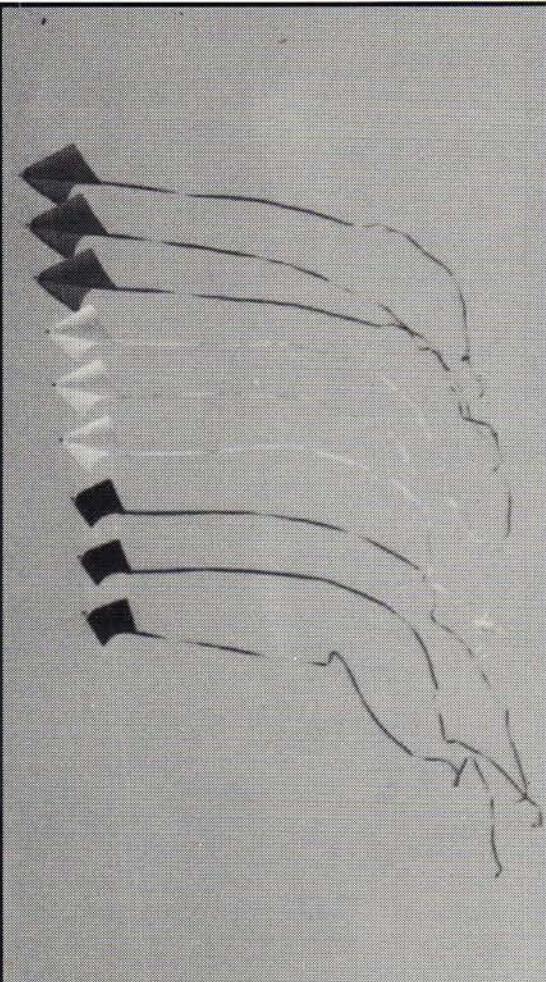
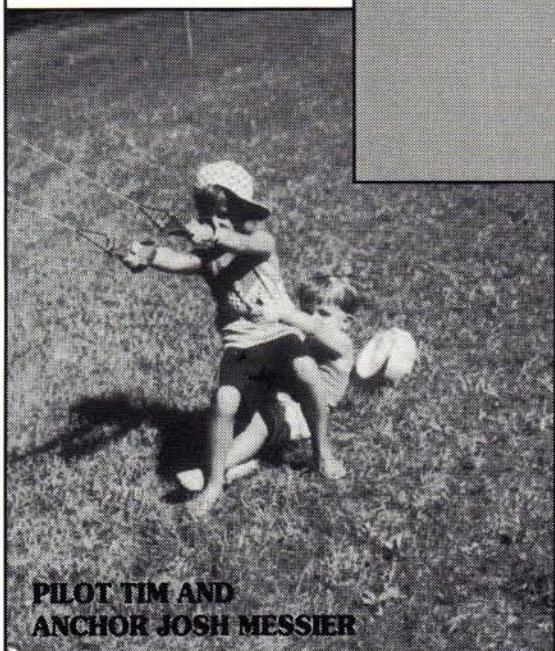
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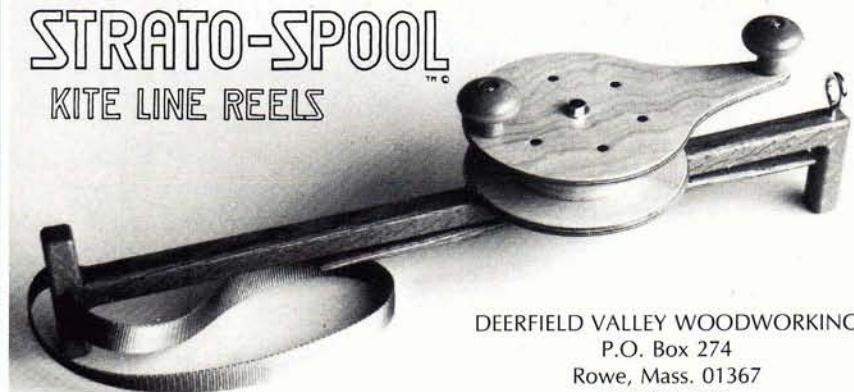


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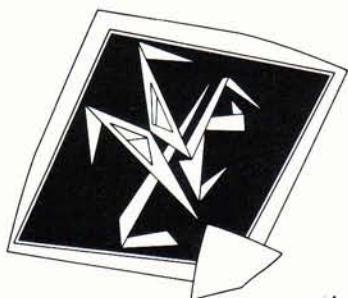
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"Otto Pilot" Flies Your Stunter

By Bill Paxton



The idea for Otto Pilot came while I was flying my Wind Shot* kite in Steamboat Springs, Colorado and watching the hang gliders soaring over the ski slopes above Mt. Werner. What a thrill! I wanted that effect with my stunt kites, so I made Otto Pilot. He looks like the real thing.

To accommodate a variety of kites, Otto Pilot has adjustable extensions for attaching the feet so that he can be used on almost any kite. Otto Pilot, without extensions, fits any kite, such as the Hawaiian ¾ Team, with a 16½" distance between the horizontal spars. Simple rubber bands hold him in place.

Construction is relatively easy with the use of a jigsaw. (If you don't own or can't borrow one, I have found most high school wood shops are very accommodating.)

TOOLS

- Jigsaw, with a fine tooth blade
- X-acto knife or razor blade
- Straightedge or T-square
- File or saw for cutting notches
- Paint brushes, various sizes

MATERIALS

- Layout paper or heavy brown paper
- 12" x 24" sheet ¾" birch plywood or ¼" foam board
- a bag of rubber bands, size 10
- 3/4" vinyl tape, black or color to suit
- Acrylic paint (to spray or brush), colors to suit
- Epoxy glue

For larger kites

- Two 2½" pieces .261 fiberglass tubes
- Extensions: two 8" pieces carbon tubes, diameter to fit inside fiberglass tubes

For the body material, I used ¾" birch plywood, available in most hobby shops, and ended up with a weight of 3.7 ounces, which I find will fly nicely with my lightweight delta stunter in winds as low as 5 mph and up to 20 mph on other kites.

The ¼" foam board material works fine in light winds and will give you a final weight of about 1.7 ounces, but I would

* "The Wind Shot Stunt Kite" by Mark Lohrey, *Kite Lines*, Spring 1991, pages 20-22.

not recommend it for winds above 10 mph. I also found the legs and arms critical in bending strength while attaching Otto Pilot to the kite in heavier winds.

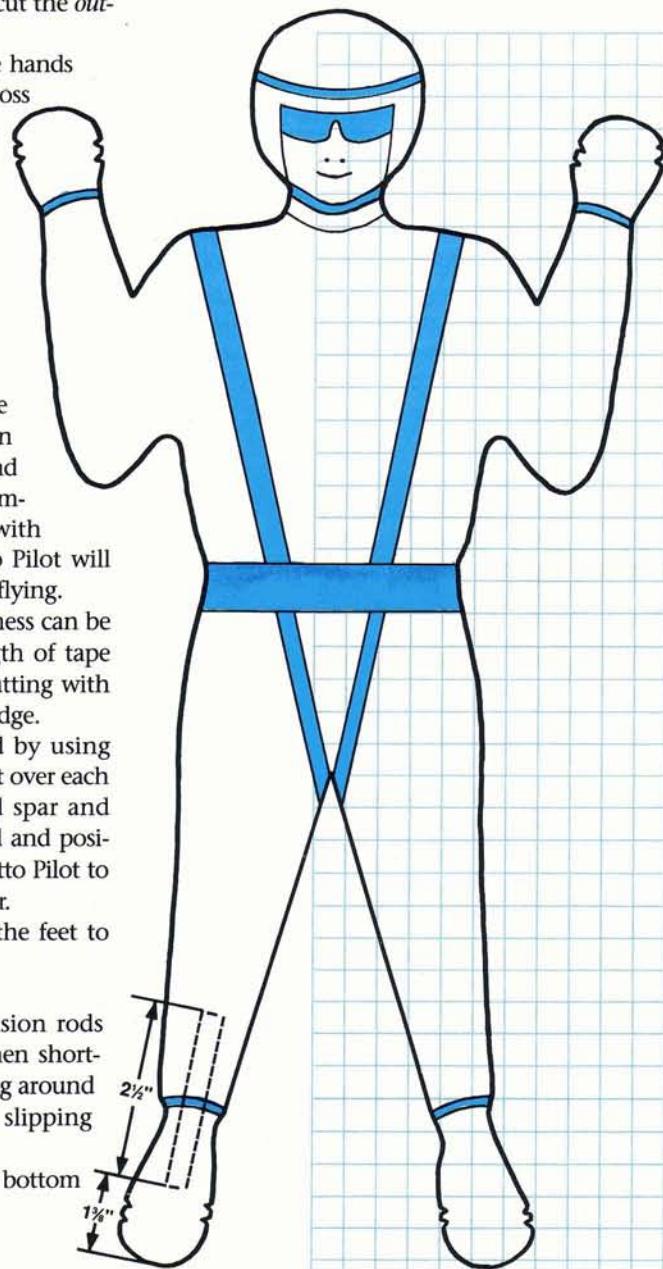
CONSTRUCTION STEPS

1. Start by folding a piece of paper in half and marking it off into ½" squares.
2. To make the pattern, draw the left or right side of Otto Pilot, with the vertical center on the fold.
3. Cut along the outside edge, unfold and you have the full pattern.
4. Use the pattern to trace and cut the *outline* of Otto Pilot on the board.
5. Before cutting notches in the hands and feet, place a straightedge across them to confirm the body is true vertical. Then cut notches with a file or saw.
6. Epoxy the fiberglass tubes to the back of the legs. (This is not necessary if you will *only* be attaching Otto Pilot to a kite with a 16½" distance between horizontal spars.)
7. Paint (spray or brush) the body (I used flat white) and then brush-paint the head, hands and feet with colored acrylics to complement the kite. Paint areas with contrasting colors so that Otto Pilot will stand out against the kite when flying.
8. Vinyl strips for the body harness can be cut to width by placing a length of tape on a hard, clean surface and cutting with a razor blade against a straight edge.
9. Installation is accomplished by using size 10 rubber bands, slipped first over each hand, then under the forward spar and then over the front of the hand and positioned into the notches. Slide Otto Pilot to center it on the kite's vertical spar.
10. Repeat rubber-banding on the feet to match spar spacing.
11. Insert the 8" carbon extension rods into the fiberglass leg tubes. Then shorten the rubber bands by wrapping around a finger three times and then slipping them onto each extension rod.
12. Position the rods against the bottom

spar and pull the rubber band under the spar and over the rods to make a tight fit.

Caution: Be sure the bridle is free and normal. Yeah, an obvious requirement but I can tell you, you get a crazy flight pattern if you forget! (O.K., so I was in a hurry one day.)

BILL PAXTON, JR. has packed his 77 years with hobbies: model airplanes, photography, amateur radio, model railroads, magic, furniture building, miniature house and furniture making, ceramics, watercolors, computers and—kites! Before retirement, he was an engineer at Lockheed in California.



How to Make a FAMILY OF FIGHTER

Fighter kites are a wonderful species. They are compact, inexpensive and easy to make. Fighters are unique among maneuverable kites because the flier's control is not absolute. The kite's flight path results from skillful cooperation with the wind, but uncertainty, surprise and discovery are also part of every flight. Flying a fighter has been called "dancing with the wind."

I started with fighters because the wind is usually light here in Bothell, Washington, where I live, and fighters can be flown in the lightest wind, even no wind at all. There are several different basic fighter designs. I have experimented for several years with kites based on the Nagasaki fighter. Its simple shape makes it easiest to build and an ideal vehicle for testing new ideas. I've developed a family of kites which I enjoy flying. Others might enjoy them also.

Design

A fighter's shape can be defined by two simple ratios: the aspect ratio; and what I call the tip ratio. *Figure 1* shows a typical shape.

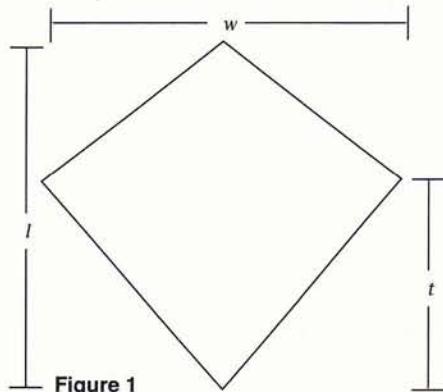


Figure 1

I use simple formulas:

$$S \text{ (square area of sail)} = lw/2$$

$$A \text{ (aspect ratio)} = w/l$$

$$T \text{ (tip ratio)} = t/l$$

when

l = the length of the kite, measured from tail to nose, along the centerline

w = the width of the kite, measured from wingtip to wingtip, perpendicular to the centerline

t = the length of the kite from its widest point (tip point), measured to the tail along the centerline



A portrait of the family of kites, with their builder.

Other relationships which prove useful in designing new kites are:

- To find the length, given the square area and aspect ratio, $l = \sqrt{2}S/A$.
- To find the width, given the length and aspect ratio, $w = lA$.

Over the past 10 years, I have built many different kites, searching for the "ultimate" S/A/T combination. What I learned was:

1. Higher aspect ratios fly in lighter winds. However, as the aspect ratio increases above 1.3, the kite becomes less willing to yaw (spin), especially in a downwind dive. I use 1.2 as a practical upper bound for aspect ratio.

2. Lower aspect ratios, less than 1.0, fly nicely in higher winds, but also are less willing to yaw. I use .8 as a practical lower bound for aspect ratio.

3. Changing the tip ratio moves the center of gravity. Moving the wingtips toward the nose (higher tip ratio) decreases the kite's willingness to yaw; moving them toward the tail (lower tip ratio) increases yaw.

4. Sail area is proportional to windspeed: the more wind, the less sail. I currently use 100 to 400 square inches as practical sizes.

5. As the kite's size decreases, the relative stiffness of the bow increases, which is desirable for stronger winds.

6. To maintain the same "feel," maneuverability and responsiveness, as the area changes so must the aspect ratio and the tip ratio. Larger kites are wider, with wingtips closer to the tail. Smaller kites are narrower, with wingtips closer to the nose.

My experiments taught me that 300 square inches was "large" and 150 square inches was "small." Since these sizes are in the ratio of 2:1, I decided to try sizes which changed according to a ratio, rather than by a fixed amount. I settled on the fourth root of two which is 1.189. I empirically developed a family of kites whose behavior is similar over a wide range of wind speeds. I found that several classic fighters have S/A/T combinations that are "in the family" or are "cousins."

The Family

The family's shapes and relative sizes are shown in *Figure 2*. The table gives their dimensions. Their sizes range from 126 to 357 square inches.

Construction

I use spinnaker-type ripstop nylon of three weights: $\frac{1}{2}$ oz. for the 357 size, $\frac{3}{4}$ oz. for the 300–212, and $1\frac{1}{2}$ oz. for the 178–126. Mylar film (.001"—.002" thick) can also be used and has the advantage of stretching less and not absorbing water. Both sail materials should be cut with a hot knife. This will minimize unraveling and tearing.

The bow is fiberglass or graphite rod. The spine is spruce, $\frac{1}{4}$ " by $\frac{1}{8}$ " in cross section. The spine is bent upward at the nose. Without this bend, the kites are very difficult to control near the ground, although they fly fine higher up. In the table, the nose bend

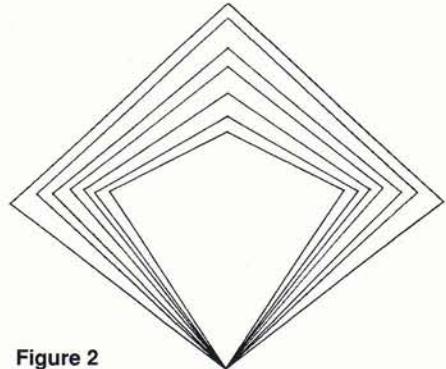
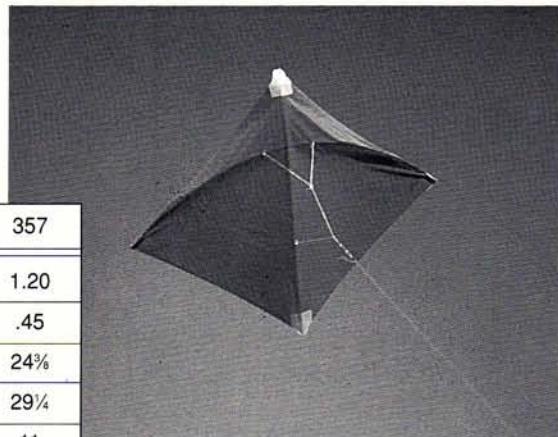


Figure 2

KITES

by Ed Alden



| Size in square inches (S) | 126 | 150 | 178 | 212 | 252 | 300 | 357 |
|--------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Aspect ratio (<i>A</i>) | 1.00 | 1.05 | 1.05 | 1.05 | 1.10 | 1.10 | 1.20 |
| Tip ratio (<i>T</i>) | .75 | .70 | .65 | .60 | .55 | .50 | .45 |
| Length, inches (<i>l</i>) | 15 $\frac{1}{2}$ | 16 $\frac{1}{2}$ | 18 $\frac{1}{2}$ | 20 $\frac{1}{2}$ | 21 $\frac{1}{2}$ | 23 $\frac{1}{2}$ | 24 $\frac{1}{2}$ |
| Width, inches (<i>w</i>) | 15 $\frac{1}{2}$ | 17 $\frac{1}{4}$ | 19 $\frac{1}{2}$ | 21 $\frac{1}{2}$ | 23 $\frac{1}{2}$ | 25 $\frac{1}{2}$ | 29 $\frac{1}{4}$ |
| Tip point, inches (<i>t</i>) | 11 $\frac{1}{8}$ | 11 $\frac{1}{2}$ | 12 | 12 $\frac{1}{2}$ | 11 $\frac{1}{4}$ | 11 $\frac{1}{2}$ | 11 |
| Fiberglass bow dia., inches | .08 | .08 | $\frac{3}{32}$ | $\frac{3}{32}$ | $\frac{3}{32}$ | $\frac{3}{32}$ | $\frac{3}{32}$ |
| Graphite bow dia., inches | | | .08 | .08 | .08 | .08 | .08 |
| Bow length, inches | 16 $\frac{1}{2}$ | 18 $\frac{1}{2}$ | 20 $\frac{1}{2}$ | 23 $\frac{1}{2}$ | 26 | 28 $\frac{1}{4}$ | 32 $\frac{1}{2}$ |
| Span of roll bridle, inches | 3 | 3 $\frac{1}{4}$ | 3 $\frac{1}{2}$ | 3 $\frac{3}{4}$ | 4 | 4 $\frac{1}{4}$ | 4 $\frac{1}{2}$ |
| Nose bend, inches | $\frac{3}{4}$ | $\frac{7}{8}$ | 1 | 1 $\frac{1}{2}$ | 1 $\frac{1}{4}$ | 1 $\frac{1}{2}$ | 1 $\frac{1}{2}$ |
| Nose bend radius, inches | 4 | 4 | 5 | 5 | 6 | 6 | 8 |

is the distance the nose of the sail is bent upward from the otherwise flat plane of the sail. Fighters have also been made with the spine bent up at the tail, but I have not tried this. To reduce drag and make the kites move faster, the amount of nose bend can be reduced to $\frac{1}{2}$ " on all the kites. However, this will make their slack line behavior somewhat less predictable.

I bend the spines by soaking them in room temperature water for three days, then bending them over circular plywood jigs of varying radii. The spines are left to dry on the jig for three days. To make the spine stronger, $\frac{1}{4}$ " veneer can then be laminated onto the front and rear surfaces. However, the plain spruce spine is adequate if one avoids diving the kite into the ground.

Graphite rod (.08" diameter) also makes a magnificent spine. A flier named Tim O'Sullivan in Seattle told me that graphite rod would split perfectly straight and could be bent. I split the rod with a razor blade at one end for 3"-5". Then I spread epoxy glue

into the split, and bend the split portion over the same type of jig as the spruce. The graphite spines I've made so far have been unbreakable in any landing. Thanks, Tim!

Bridling and Tuning

The behavior of a fighter kite is determined and adjusted (tuned) by its bridling. Fighter bridles attach to the kite at two, three or four points. The most common bridle is the two-point bridle. However, after many comparisons, I adopted the three-point bridle because it offers superior control over both the pitch and roll axes.

The bridle is constructed of three parts:

1. *The roll bridle*, which attaches to two points on the bow, equidistant from the spine. In the table, the span of the roll bridle is the total span along the bow. The roll bridle attachments are one half this distance on either side of the spine.

2. *The pitch bridle*, which attaches to the center of the roll bridle and to the spine.

3. *The towline*, one end of which attaches

Largest kite, 357 square inches, in flight.

to the pitch bridle, the other end to the flying line.

There are two adjustment points:

1. *The roll point*, where the pitch bridle attaches to the roll bridle. This point moves along the roll bridle and adjusts the roll axis.

2. *The pitch point*, where the towline attaches to the pitch bridle. This point moves along the pitch bridle and adjusts the pitch axis.

Tuning the kite consists of moving the pitch and roll points as follows:

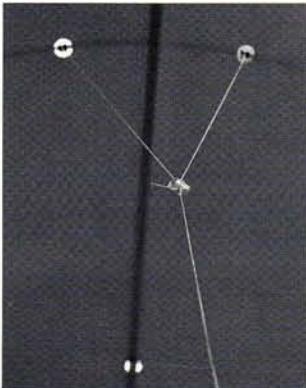
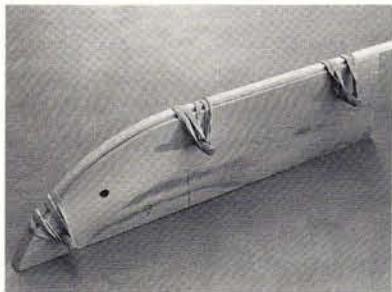
1. The roll point is adjusted so that the kite will fly in a straight line when the flying line is kept taut. Moving the roll point toward either side will make the kite turn toward that side, which can be useful in certain kinds of games and contests.

2. The pitch point adjusts the kite's willingness to yaw. Moving the pitch point toward the nose increases yaw. Moving it toward the tail decreases yaw. This setting is very much a matter of the flier's skill and preference.

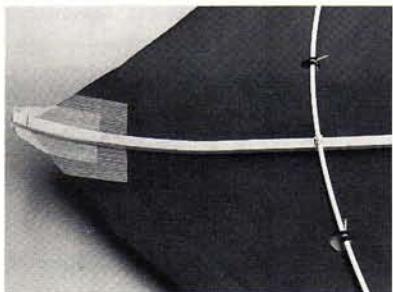
Here is a good initial setting: center the roll point on the roll bridle and adjust the pitch point so that the straight portion of the kite's spine is slanted tail down about 15 degrees below horizontal when the kite is hung by its towline.

The bridle line must be of high quality. I use braided Dacron fishing line, 20-25-lb test, flame-sealed on the ends. Special bridle

Below: A spine bending jig, with the spine clamped to the jig by rubber bands.



Left: a close-up view of the whole bridle in flight position.



Left: a back view of a finished kite, showing the nose at the left, the bow-spine crossing and the roll-bridle-to-bow attachments.

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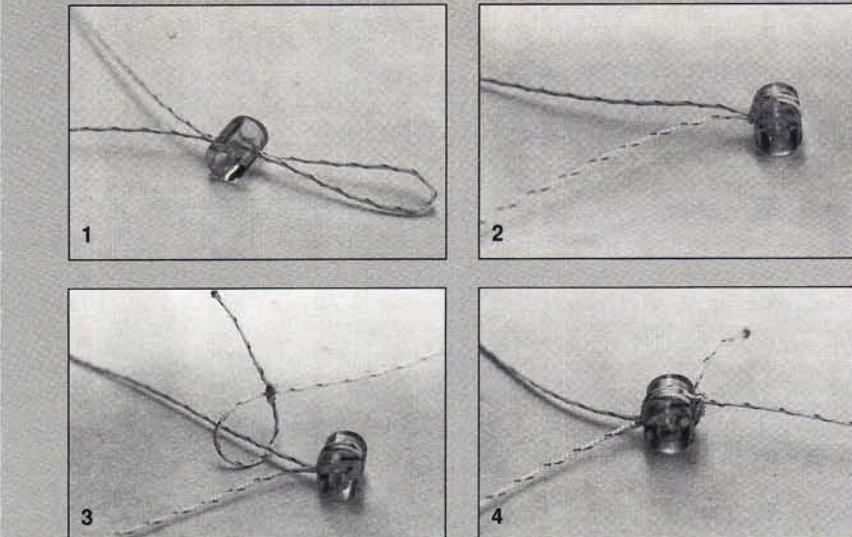
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The assembly sequence of the "microtuner." The center of the roll bridle line is threaded through the walls of the tube, crossing the tube's diameter. It is then looped around the ends of the tubing, forming a lark's head knot enclosing half the tubing's circumference. Loosening this lark's head and lengthening one side or the other of the roll bridle is how the adjustment is made. Then the lark's head is retightened and locked in place by tightening an outer noose knot around the tube's circumference.

connections are required to make the adjustments precise, stable and repeatable. The roll point connection must be especially precise, or adjusting the smaller kites is very tedious.

A connecting system I call the "microtuner" has proved satisfactory. It is based on a piece of clear vinyl tubing, $\frac{1}{8}$ " outside diameter, $\frac{5}{16}$ " long. The noose knot around the microtuner is tied in one end of the pitch bridle (Figure 3). It is a modified overhand noose knot and will not jam tight. It can be loosened by tugging on its short tail.

I attach the roll bridle to the bow with the same knot, which tightens around the bow between two "bracelets" of epoxy. The lower end of the pitch bridle attaches to the spine

similarly, halfway between the tail and the bow-spine crossing.

For the pitch point connection, I use a "reversing lark's

head" knot, which I learned from my friend Bud Koger of Bellevue, Washington (Figure 4). The knot is formed by making a lark's head in the pitch bridle, then threading the towline through the lark's head, then tying the towline in a fixed loop (I use a double overhand knot). To move the pitch point, tension is applied to the pitch bridle line outward from the pitch point knot; this causes the lark's head knot to "reverse" into the towline loop. The reversal feels like a little "pop" when the knot is tight. The pitch bridle line is now straight, and the lark's head is in the towline loop. The lark's head can now be slid along the pitch bridle line. Then the towline loop is tensioned on either side of the lark's head, causing the knot to "reverse" back into the pitch bridle line, fixing the position of the pitch point.

Rubbing both the pitch bridle and towline loop with beeswax along the connection region will prevent the knot from loosening. This knot tends to creep a little as it reverses, so several tries may be necessary to get the adjustment perfect.

Flying Line

Cotton or linen lines have very little stretch and offer the best control. Unfortunately, both will tend to twist and tangle during the constant giving and taking of line necessary in fighter flying. Waxing the line is a simple matter. I use four different weights of line, from lightest to heaviest: No. 40 cotton sewing thread, No. 24 cotton sewing thread,

Continued on page 30 . . .

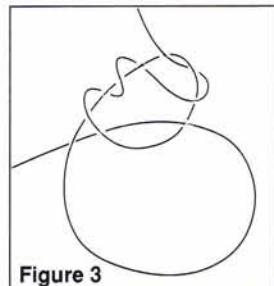


Figure 3

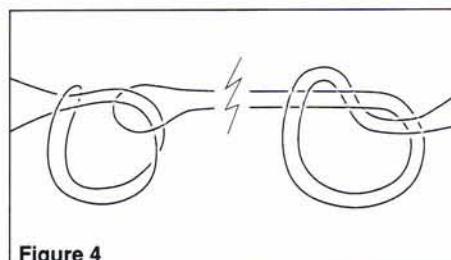


Figure 4

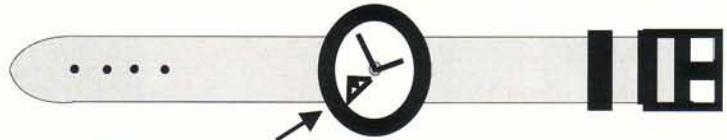
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I wax my cotton lines by drawing them through a bath of ordinary white paraffin, melted in a double boiler.

Reels and Line Handling

After making several kinds of reels and line holders, I've settled on the simplest, the circular "doughnut" or "halo" reel. It has no moving parts, it's inexpensive and, most important, line will spill off the reel easily during a fight. The line spills off the side of the reel like a spinning reel used for fishing. When rewinding the line onto the reel, one hand holds the reel stationary and the other wraps the line around the reel. The twist imparted by spilling off is reversed when you wrap back on.

When you are flying, the reel lies on its side, on the ground, just in front of you. The "working line" also lies on the ground in front of you in a very loose pile. When you give line to the kite, the line comes off the top of the pile; when you pull line in, line is deposited on top of the pile. With waxed line and practice, tangles will be minimized. When retrieving the kite, it is best to move around, laying the line on the ground in a single layer. Even waxed line cannot be rewound onto the reel from the bottom of a pile without frequent tangles.

If you follow these suggestions, you'll enjoy "dancing with the wind." □

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The lower end is immersed in molten paraffin. The eraser is positioned about 1" above the paraffin's surface. The line slides through a slit in the eraser,

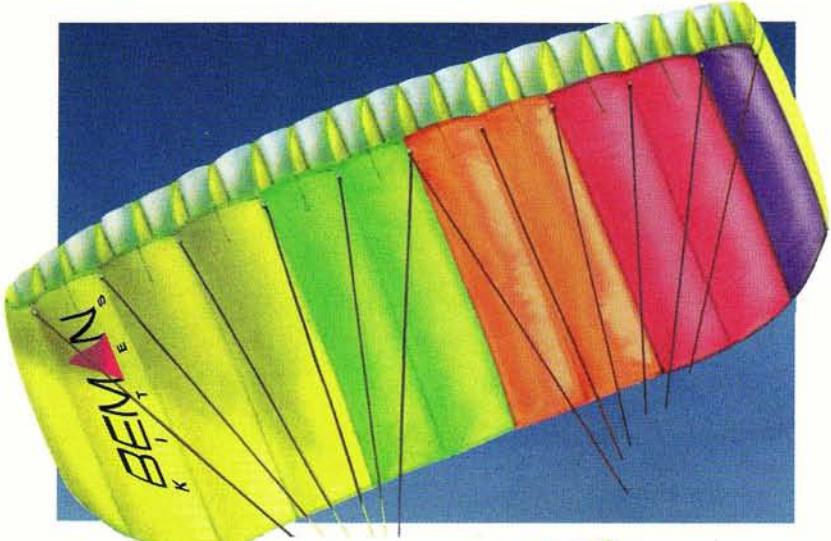
removing excess wax. By travelling around some rollers twice, the line's total path in the paraffin is about 25", from initial entry to final exit.

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JAVA

SECOND WEST JAVA INTERNATIONAL KITE FESTIVAL

Some kite trips are full of the most wonderful surprises, particularly when very little detail is given to you about the trip before you go.

When I caught a plane from Bali to Jakarta after the 7th Bali International Kite Festival*, I had no idea that I was going to attend a kite festival in the princely Asian style: spectacle, travel, grand openings, unusual kites and

ceremonious award presentations.

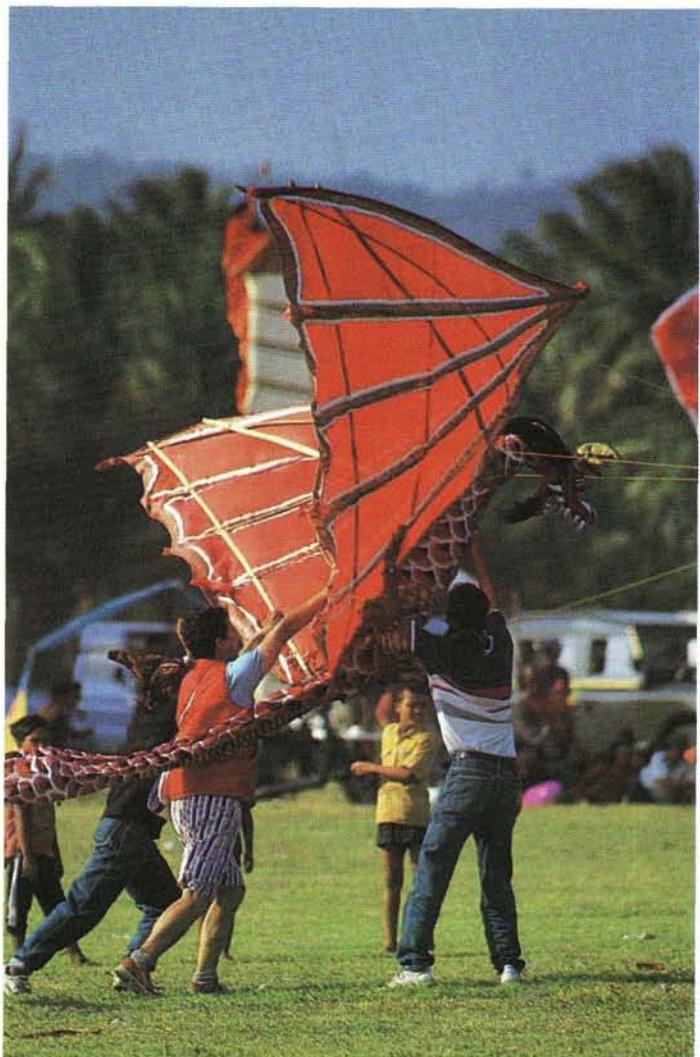
The only information I had was that I had been invited to the "Pangandaran Kite Festival, West Java, Indonesia, 1992." I had met some of the Javanese kitemakers previously at the festivals in Thailand and seen their beautiful butterfly and bird kites. I also remembered the article† by Gilly Marcus and Bianca Severijns about Javanese bat hunting using fighter kites on the beaches

of Pangandaran. But because only a few of the 50-plus international kitefliers who attended the Bali festival had heard about the festival in Java, I was a little worried that the festival would not be well organized. Luckily my worries were unfounded.

One of the advantages of kite travel is the chance to see some of the cultural and historical features of the land. This Javanese trip was full of these opportunities, due in no small part to the visitors' arrangements being handled by a travel agency which

* See "The Great Kites of Bali," by Shakib Gunn, *Kite Lines*, Spring 1985, pages 30-34; and "Return to Bali," by Simon Freidin, *Kite Lines*, Summer 1989, pp 30-35.

† See In the Wind: News, Rumors & Miscellany, *Kite Lines*, Winter 1990-91, page 62.



Opposite page: The "wind" is paraded by Javanese dancers in the spectacle of the opening ceremony.

Left: Local dragon kite in flight.
Below: Peacock god kite is held up for view.

Bottom: a dragonfly and a bird represent the fine detail of Javanese kitemaking; the Dutch tall ship kite of bamboo covered with cloth is the work of Abdul Hamid, president of the West Java Kite Association.



Story & Photographs by Simon Freidin

specialized in internal travel through Java. Every journey we made in Java included side trips to natural wonders: the Keba Raya Botanic Gardens (a major source of rare Asian plants and trees), Tangkubanperahu volcanic craters (totally inactive), Pangandaran Chugerarum Nature Reserve (where Gilly and Bianca saw the fruit bats being captured by kites). We also enjoyed a unique river cruise through wild jungle and small riverside villages.

It turned out that this festival was one of

24 major events the Javanese were putting on as tourist promotions for "Visit Asean Year," and so it was brimming with spectacles which demonstrated Javanese arts and culture. It also meant that I and many of the other kitefliers on the trip had to learn a new skill: participating in Javanese dancing (full of intricate hand movements and flirtatious themes) in front of the local governors, tourism department heads and other dignitaries—on three separate occasions! (I always thought that kiteflying would keep

me flexible and open-minded!)

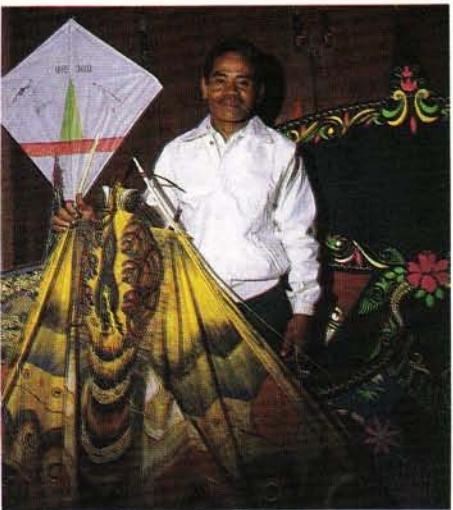
The kite festival opening ceremony brought comment from the international guests. I remember Albert Verschoor (of The Netherlands) leaning over and saying this was the most fantastic ceremony he had ever participated in. Although not on the Olympian scale of the kite festival openings in Weifang, China, this West Java ceremony involved over a hundred dancers and an equal number of kitefliers. But unlike the Bali and Weifang openings, where the



Eiji Ohashi in Java: Top, he runs a workshop to make small rectangular kites with a frame of his own design, attracting a large (sometimes too large!) crowd of children. Right, his medium-wind train of hexagons with a decidedly un-rokkaku spar layout. Below, a detail of his rectangular train, spattered the same as the hexagonal train and carrying hand-painted traditional Japanese figures.



Right, Abdul Hamid with a variety of West Javanese kites.
Below, a butterfly is sheltered before flight.



occasion is dedicated to invoking the gods or demonstrating cultural strengths, this opening dance was dedicated to kiteflying! Little wonder that I took nearly a hundred photographs of it.

International representation was small: 13 kiters from Malaysia (all from Malaysian Airline Systems including Jamaludin Ahmad [Jamul] and Nasir Othman [Nash] demonstrating their prowess with stunners), three from Japan (Eiji Ohashi, his wife Eiko, and Seiko Nakamura), two from the Netherlands (Albert and Trees Verschoor) and myself (the sole Australian, and given loud applause from the Indonesians, who have strong regional trading ties with Australia). The remaining visitors were from many parts of the Indonesian archipelago: Bali, Sumatra, Surabaya and parts of Java.

As at the Bali festival the previous week, high winds prevailed for all three days of the festival. Thus, the range of kites flown by the international guests was limited, and many of the Javanese structures of bamboo and other natural materials were damaged. Ohashi was one of the few who came prepared; he brought three kite trains, suitable for light, medium and strong winds.

In spite of our limited showing of kites, we fliers attracted a crowd of about 100,000! (Java's population numbers in the hundreds of millions and there are 27 million in West Java, so it was only a tiny crowd!) Competitions were held for stunt flying and fighter kites (there is strong local fighter kite competition).

Javanese kites do not have the unique traditions of the giant Balinese kites, but are more influenced by modern culture. The materials are bamboo and cloth; the forms include ships, planes, birds and butterflies. Of course, Balinese kites were a feature of this kite festival also.

One traditional style of Javanese kite is a fighter, which probably came to Java from India. These kites are flown on a cutting thread (*benang gelasan*) of cotton, using a mixture of ground glass, egg and glue as the cutting agent. Typically, 3000-foot flying lines have the first 600 feet coated in cutting agent. A kite fighting competition was a feature of the festival, and two games were played. The first game was called "kite pulling," using small fighter kites (2'6" high). The players could move about freely, but when the two flying lines made contact, the fliers would immediately pull until one kite line broke. (An assistant was employed to wind the line onto a wooden roller.) The other game was called "kite stretching," using kites about 4' high. Here the

Continued on page 56 . . .

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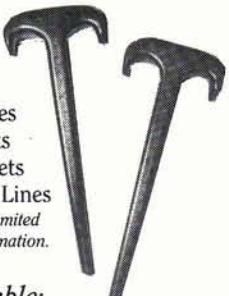
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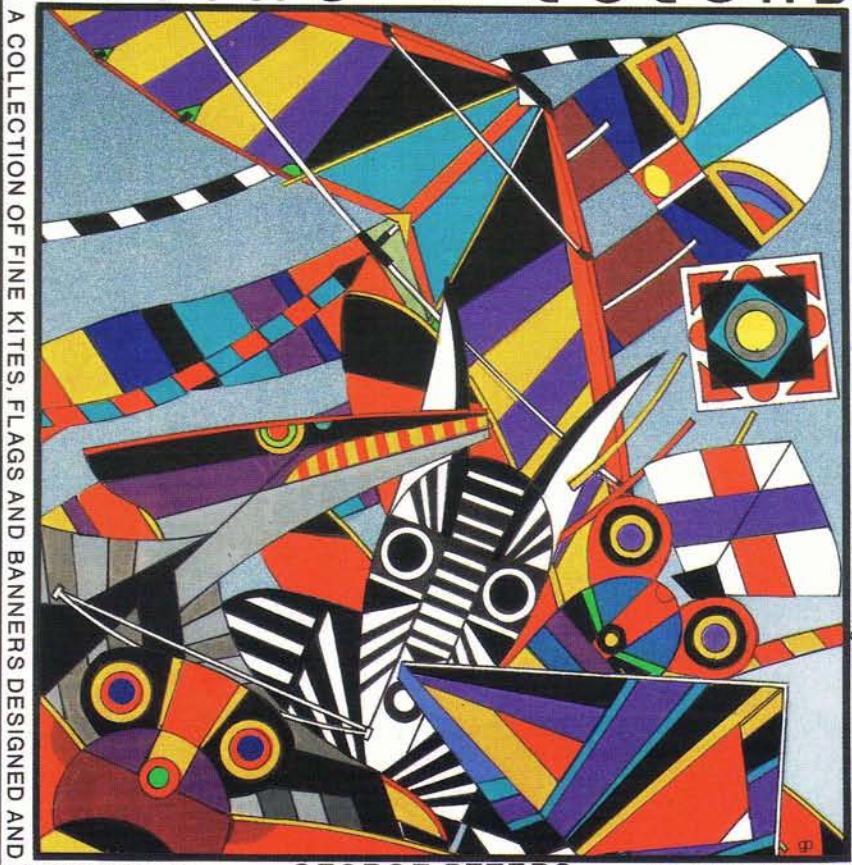
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THE SOUL-LIFTING KITES OF GUATEMALA

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Article & Photographs by
Michael P. Tourigny

November 1, known in Guatemala as *Todos Santos* (All Saints Day) or *El Dia de los Muertos* (the Day of the Dead), comes paradoxically alive with brilliantly colored kites in a tradition that apparently is unique to this place in the world.

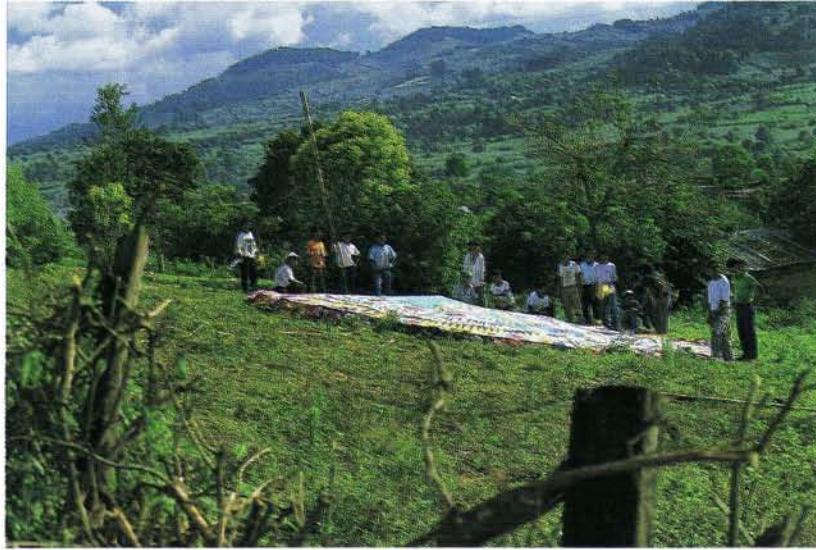
Guatemala is a country diverse in heritage and culture, and in many ways detached from the modern world, so it is not hard to understand why so many customs, legends and myths continue to prevail and play such an important part in the lives of the Guatemalans.

ORIGINS

What's difficult to decipher in Guatemala is whether the roots of these customs are to be found in the Mayan heritage, the Indian, the Spanish or a little of each. As



Left: One of the few kites to get airborne this day is approximately 18 feet in diameter and carries images of Mary, Joseph and Jesus.
Below from top: last minute adjustments are made to the largest of the giants; normally quiet roads are overtaken by onlookers and food vendors as the giant kites make their way to the graveyard.



with most myths, documentation does not exist. Information must be obtained orally from elders who in turn learned from fireside stories told by their parents or grandparents. If handcrafts were involved, the skills were passed down through the generations.

What I was witnessing this warm overcast day probably was a simple tradition which grew more grandiose with time.

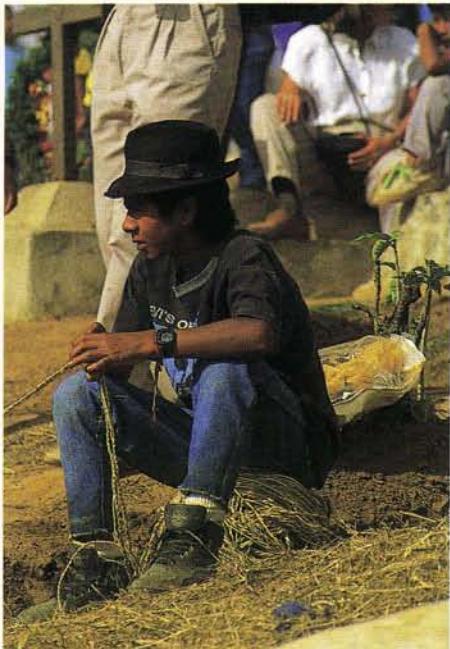
The memory of kites (*barilete* in the local Spanish parlance) flying over the hills of Guatemala goes back to the turn of the century. However, the earlier kites were much simpler in design and no larger than those that I once flew into trees. Their appearance in Guatemala is credited by some to the Chinese. Guatemala did not have a large Asian population at that time, but it is believed there may have

It's an annual tradition
in the town of Santiago
Sacatepéquez-flying kites
over ancestral graves. In
scenes rich with color and
culture, the populace
celebrates a unique heritage.

been a small influence from neighboring Belize, known then as British Honduras, which had brought in Asian slave labor.

However, in the beginning the kites were not flown on any particular day. It is widely believed that the dictator of that time, Jorge Ubico (1931-1944) saw the kites being flown and suggested that they should be made bigger. Some think that because his birthday fell on November 10, he was trying to encourage a celebration of grand proportions to coincide with his birthday. Whether or not this is true is difficult to ascertain, but all sources of information point to the period between 1945 and 1950 as being the first time that the giant kites were spotted.

What is certain is that early November marks the end of the rainy season in Guatemala and the beginning of the long



Top: the dead are temporarily forgotten as their graves become perches and benches for onlookers while more than a dozen kites prepare for flight.
Above: a patient native waits for the winds that never arrive.

dry season, which brings on the gusty winds. (Some superstitious farmers dread the sight of the first kites because they fear that they stop the rains.)

The most widely held belief in modern times is that the kites being flown on the Day of the Dead enable the spirits of the departed to travel along the kite line and escape to the heavens. Yet, the idea that there is any link between the spirit world and the world of the living is vehemently denied by the Indians. They claim that a simple custom has been sensationalized by non-natives to tantalize and draw crowds to what is quickly becoming a commercial event (there are now awards for the longest flight, best design and largest kite). However, in more recent investigations of some of the religious leaders, these suggestions were neither confirmed nor denied.

BUILDING THE KITES

The task of building these kites starts as much as a month before November 1. All work is carried out in the evenings, as all members of the work party must first finish their jobs or daily chores. In Santiago Sacatepéquez, the number of artisans who still carry on the making of the giant kites is but a few and almost exclusively Indians. However, in each group, non-Indians may participate.

Construction takes place in the home or yard (depending on the size of the kite) of the principal kitemaker in each group.

The frame of the kite is formed by lashing reeds together at the center, to form a radial design, though bamboo must be used on the largest of the kites. This can be reinforced by adding a square frame of reeds superimposed on the radial. The circular design is the most common, and the only difference between the kites lies in their size and adornments.

Thin, transparent "china" paper of various colors is cut into triangles and glued together with a paste derived from the starchy, edible yucca root. The design is something agreed upon by all members of the group and may imitate as closely as possible the patterns and colors found in the locally woven fabrics worn by the women and identifying their village. A second single piece of tissue, the size of the whole kite, is added to the back of the "quilt" for reinforcement. Finally, paper figures of people and objects are attached.

Once the kite is fastened to the frame, paper streamers are added to the edges to serve both as ornament and stabilization. Flags of the countries of the group's members (including Honduran, Panamanian, Nicaraguan, Salvadoran, Costa Rican) are fixed to the top, and finally a tail fashioned of braided cloth and extending at least 20 feet is tied to the frame.

The kite line is rather primitive-looking hand-braided jute that can be as thick as a thumb. The ball of line necessary to hold some of these kites can easily weigh 50 pounds.

DAY OF FLIGHT

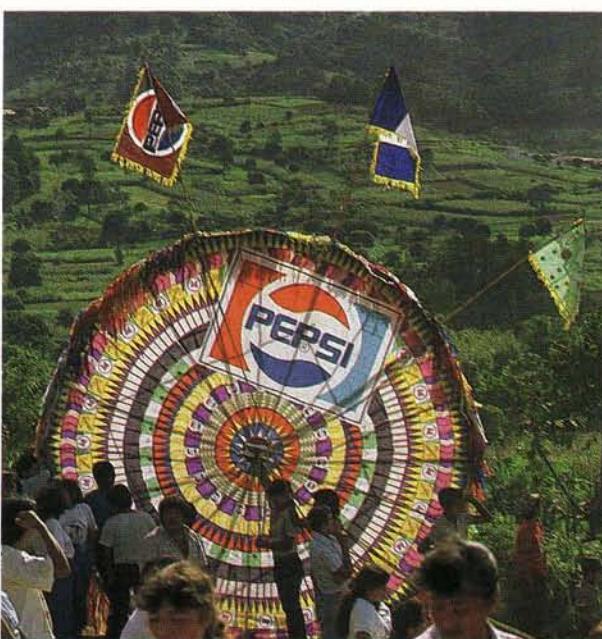
Before dawn, on the morning of the first of November, the groups proudly head out one by one with their works of art poised above their heads. They wind their way down the narrow roads leading to the hillside graveyard of Santiago Sacatepéquez. This graveyard, unproportionately large for a village of perhaps 10,000 inhabitants, hangs at 6,500 feet above sea level, overlooking a valley still lush and green from the past rains, dotted with small *fincas* (farms) of the local farmers. The graveyard has been previously decorated with flowers, garlands and pine boughs. The common sound of firecrackers marks the beginning of yet another deserving event.

All that remains now is the arrival of the spectators and the winds. On this day there are plenty of the former and little of the latter. Vehicular traffic into this normally placid village is backed up for miles, and pedestrian traffic down the final trails to the graveyard is so thick that it is difficult for the last kite on the scene, also being the largest, to take up its place in history.

To fly any of the conventional giants requires the coordinated efforts of approximately 10 people. Usually two men raise the kite and hold it steady, while six men place themselves along the kite's line. The last two men act as anchors, holding the ball of line. The kite is positioned at the lowest point of the cemetery while the men and the line are positioned up to the top. A strong gust is needed before the men will start to run over and around the graves. As the kite ascends, the anchor men feed out the braided jute for as long as the winds will allow. When the first hints of a wind arrive, the hillside erupts in activity as the men with line in hand scurry up the bank, dodging onlookers and tombstones.

While up, the kites resemble stained glass windows as the sun streams through from behind. After their flights, some kites are returned safely to their place of departure, while others rocket earthbound to shatter in fields of corn. I saw at least one, after a very brief solo flight, snap its line and zig-zag its way down into the bushes.

The largest kite of this day never left the ground. There were times when more than two dozen men positioned themselves along the line of this flying billboard, optimistic that the next gust was the one needed to send it aloft. After enough time had elapsed, disappointment grew deeper in each of the men's eyes as their flight plans were aborted. →



Few traditions escape the jaws of commercialism. From top: Canal 3 is one of the local Guatemalan television stations; one of the smaller kites of the day shows typical reed framework and brilliantly colored streamers; a reinforcing square of reed is silhouetted against the radial design, the most common found at Santiago (this kite is approximately 12 feet in diameter).

I was told that the paper remains of the casualties would be burned that night on top of the graves, while their skeletons would be stored away for next year. However, I did not see any fires and was later told that the kites would be repaired and flown throughout the balance of November and December.

KITES IN THE CULTURE

The proud craftsmen of Santiago Sacatepéquez will not sell their handiwork, resisting the strong tugs of commercialism pulling at the original traditions, whatever they are, associated with this magnificent event. Elsewhere in Guatemala, kites are becoming more popular and apparently some are available to purchase. My own children acquired Ninja Turtle kites the next day to fly with their neighboring Guatemalan friends in a vacant field back in the capital.

As sketchy as the origins of this tradition appear, one thing remains certain. In a small country that is so economically poor, it is still very rich in heritage, culture and tradition. While crime and corruption run rampant around them, there is still a small handful of proud artisans who give a large amount of their time once a year to grace the skies of Santiago Sacatepéquez. Theirs is a struggle to keep alive something that they have inherited, yet whose origins have long been forgotten. ▽

Below: This protest kite, the largest of the day, is not brought in for flight until the middle of the afternoon when the crowds are at their thickest.

Bottom: The colors and patterns worn by these Guatemalan women inspire the designs and colors found on the kites.



MICHAEL P. TOURNIGNY is a freelance photographer from Victoria, British Columbia, Canada who traveled with his wife and two children through the U.S. and Central America for two years. Besides witnessing Todos Santos on November 1, 1991, he researched the event through reading as well as interviews with long-term residents and two folklore experts at the Universidad de San Carlos de Guatemala.



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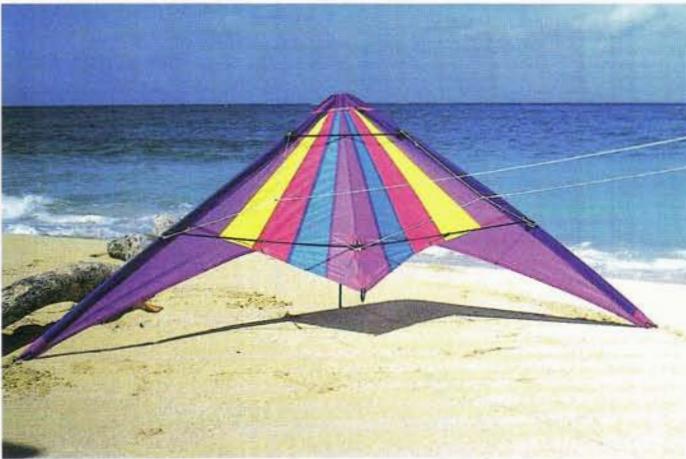
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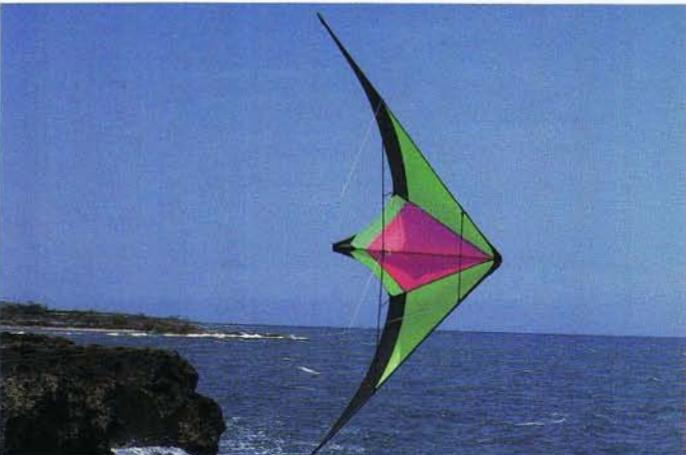
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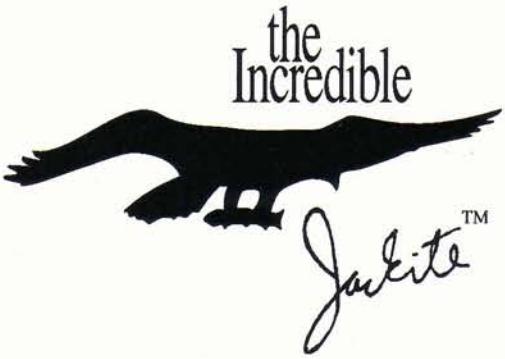
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sails. But just as aviation moved from the externally braced biplanes and triplanes of WWI to the internally braced monoplanes of WWII, so must we reduce the number of bridle lines if we are to remain efficient in the higher speed range of 30 to 60 knots. Kiteski does this with eight bridle lines and a three-pound carbon spar. This efficiency allows us to extract more wind energy and to propel our payload, which happens to be a person on a ski or skis, at faster speeds on water than any other sailing craft.

Also, my son Cory reminds me that Theodore Schmidt was actually the first kiteskier. His work with Flexifoils and waterskis predates Troy Navarro.

—Wm. G. (Billy) Roeseler,

VP Engineering & Manufacturing, Kiteski
San Diego, California

Thanks for making some good points.

We neglected, deliberately, the subject of kite traction over water because it deserves, and will receive, attention unto itself. The Kiteski water launch was still so new when our article was prepared that its successes were not known much beyond the business itself. We knew the situation could change within weeks and we did list Kiteski in a sidebar as a source of new things happening.

Likewise, the multiply-bridled soft kites are the current solution for buggy traction. No doubt the Kiteski rig will become a favorite for traction on water. Will it be adaptable to land? Many chapters in kite traction are yet to be written.

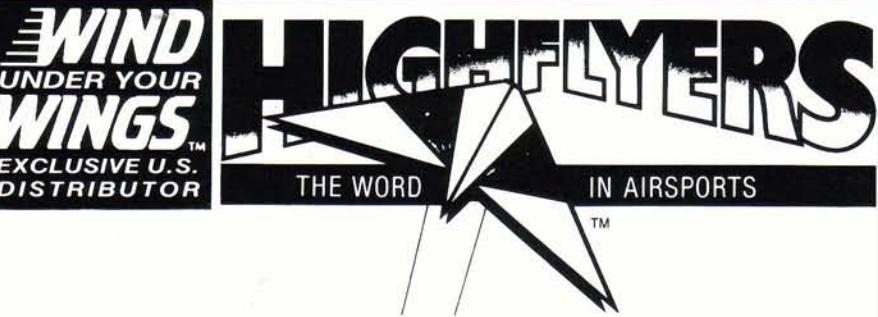
And yes, Theodore Schmidt's kiteskiing came before Troy Navarro's. Theo will be writing in an upcoming Kite Lines.

Finally Identified

I laughed at your rather scathing review of the new book *Kites* by Wayne Hosking (lower case to reflect my opinion of him). Yes, it is my kite on the cover and I am disappointed that Mr. Hosking decided not to credit the designer/builder of that kite, nor the makers (Scott Skinner, Adrian Conn and Kathy Goodwind to name just a few) of many of the other fine kites inside.

Congratulations on keeping up to the editorial standard you set for *Kite Lines*. I look at all the kite magazines that I can lay

Continued on page 45 . . .



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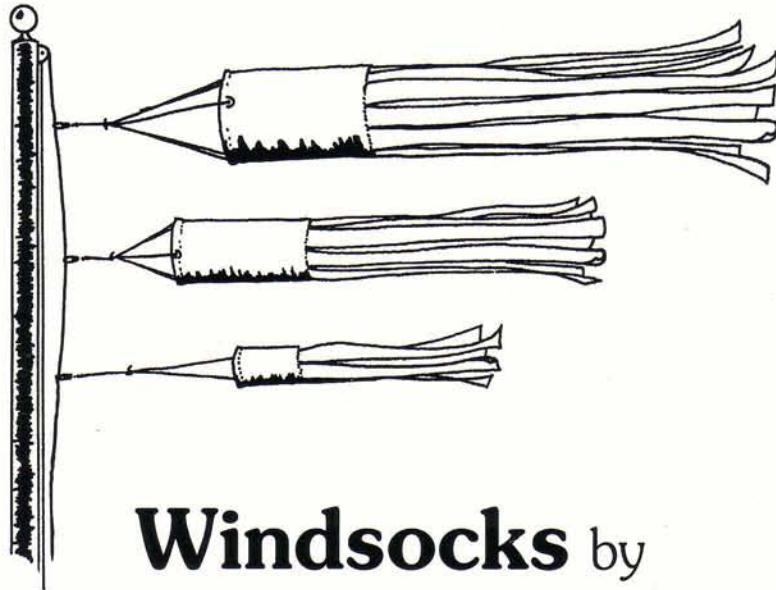
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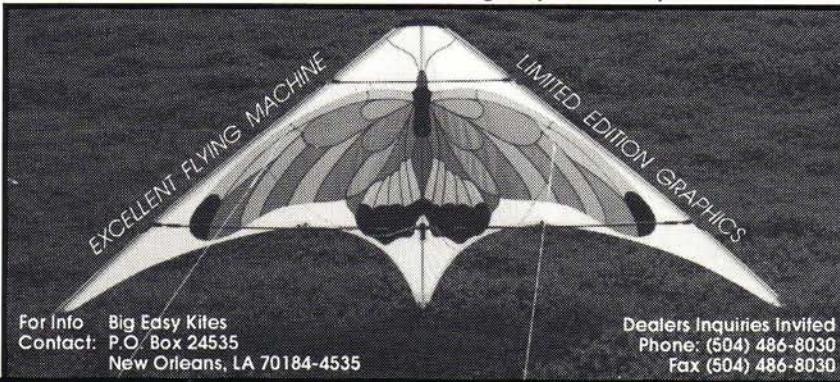


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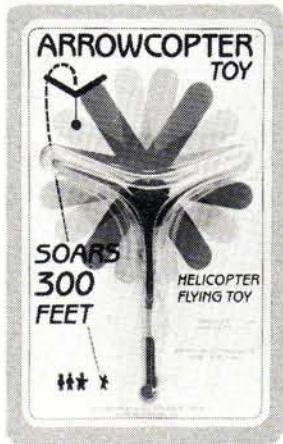


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my hands on, but yours is the only one that I read cover to cover. —*Tony Wolfenden*

Elwood, Victoria, Australia

By the Way

Thanks for Bill's (Wilbur Green's) obituary.

Just for the record may I mention that Chris was never a partner of Bill. He had his own engineering business. Chris was just his best friend and they were always interested in one another's projects. This is just in the interest of accuracy and in no way makes my appreciation less.

—*Viola Green*
Pharr, Texas

Corrections & Clarifications

In our Winter 1992-93 issue, the GX-3 Cambered Stunter in Design Workshop was shown without mention of the fact that the grain of the fabric should be parallel to the leading edge, trailing edge and spine. This is generally true of all sewn kites and perhaps was obvious to most kitemakers. Nevertheless, we apologize for its accidental omission.

In the same issue, the Data Chart of Fighter Kites on page 39 contained two pricing errors: The GAF fighter by Carlisle Kiteworks is about \$17 retail, and the prices for Merlin Kites reflected prices in England; imported into the U.S. or elsewhere, the kite prices are higher.

Our kite reviews on pages 15-16 identified a large delta as being named the Colossal Kite; its name is the Great Big Kite, made by Colossal Kiteworks.

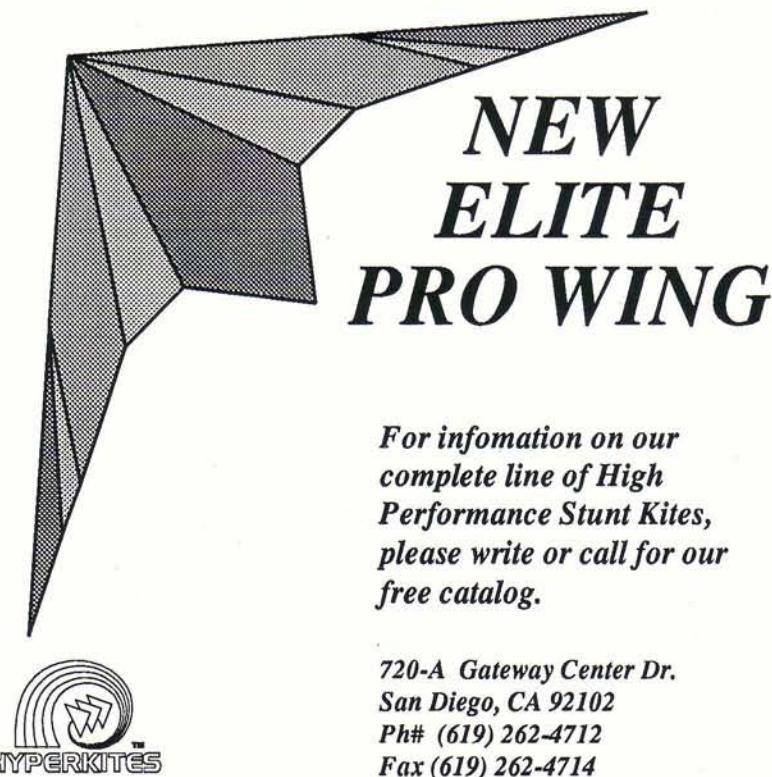
In the sidebar to the article "Kite Power Comes of Age," on page 36, the correct telephone number for Stanley L. Rogers of Lincoln City, Oregon, maker of sand skis, is 503-994-8709.

Lastly, the maker of the alderwood quad-line handles on page 25 was misidentified. He is Richard N. Curran of Puyallup, Washington.

Kite Lines apologizes for the errors.

Write us a letter! Anything you write to *Kite Lines* may be considered for publication, so please mark it "not for publication" if you want no doubt to be left about it. Address to: *Kite Lines*, P.O. Box 466, Randallstown, MD 21133-0466, USA. Or fax us at 410-922-4262.

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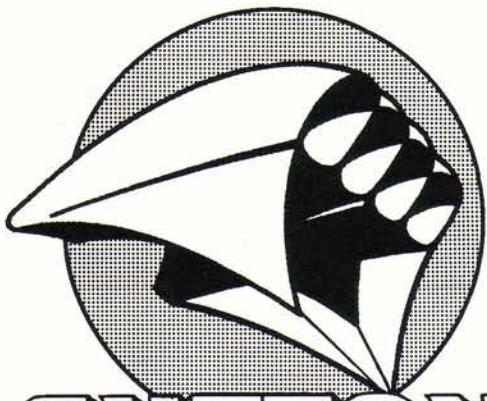


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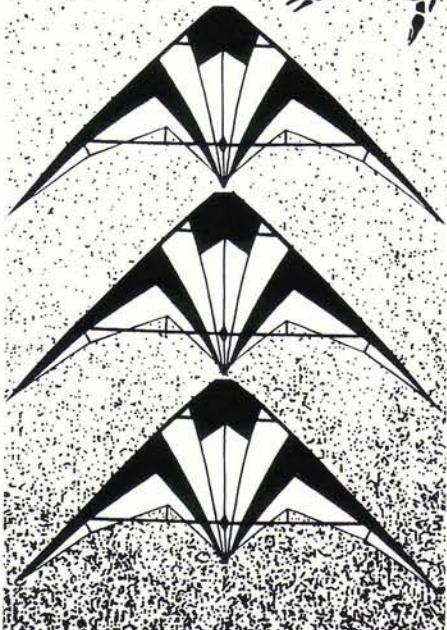
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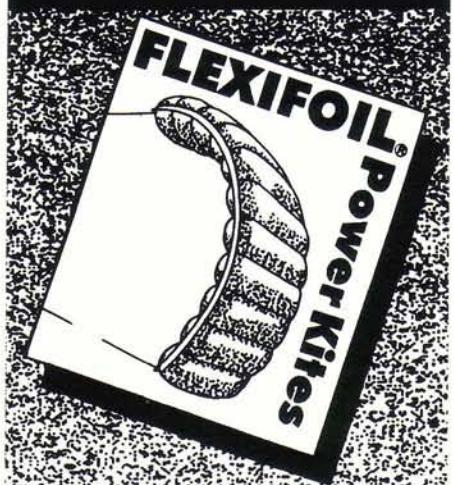
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VIBES! STEVE BROWN WRITES: INSPIRED BY RON REICH'S TWO-KITES-JOINED-with-a-long tail routine of a few years ago, Jim Dingsdale and I joined our two kites with a 150' nylon tail. The only trouble was that if the kites went to opposite extremes of the wind window, the kites would drag each other out of the sky. This became a tug-of-war contest for us.

Then we got a pair of Kitemandu Predators, 14½' kites. These kites have so much pull and power they don't fall out of the sky. Instead, they pull the nylon tail tight, which in turn vibrates over its 150' length, making a very loud thrumming (heard over the stereo roar of the Predators). The sound can be described as "water pouring on a giant sheet of plywood" or "standing in the midst of a huge flock of birds taking off."

It's quite an effect, which could be duplicated by a pair of any very powerful kites, maybe even a pair of skew-bridled rokkakus, Jalbert Parafoils, who knows? (We do break the tail every now and then.)

—Steven K. Brown
Ladysmith, B.C., Canada

WHOEVER SAID KITEFLYING was a passive sport? On Cable Beach in Western Australia, stunt kite enthusiast Uldis Sverns was cooling his legs recently in the shallows while flying his West Coast Angel along the surface of the water. To his surprise a local sea snake took more than a passing interest by wrapping itself around his legs. Sea snake venom kills within four minutes, so drastic action was called for. Using the pull of his Angel, he leaped clear of the snake's clutches, calmly landed his kite—then promptly headed for the nearest bar.

—Neil Taylor

Wembley, Western Australia

TAND BACK! THIS APRIL IN LE Touquet, France, a team of experienced fliers will attempt to fly "The Big 200," namely 200 six-foot Flexifoils in train. The most flown before was 153, by Bill Werme in 1985 in Schaumburg, Illinois (*Kite Lines*, Summer 1986). The most Flexifoils stunted in train before was 84, same person and place. Fully stunted kites in train are a separate, tougher category to crack, and the absolute record for that is 253 kites,

set by Mix McGraw using the much smaller Hyperkites (1988, Ocean City, Maryland). Big sponsors, crew and technology are behind this new try. Big wind and big luck are all they need.

ALSO IN LE TOUQUET IN APRIL We will see the biggest BOL ever, 126' in diameter, using four miles of 48,000-lb-test Spectra bridle lines and 9,000 sq. ft of fabric. It's being made by Bonnie and Ed Wright of Clayton, for Bob Anderson of Concord, in California, to debut at Le Cervolong. Designer Michel Gressier's going to love it! (or hate it?)

WHO IN THEIR RIGHT MIND would ever schedule a major kite festival to go up against the AKA convention the first weekend in October? The Third International Kite Festival in Kherson, Ukraine, that's who. Seven pages of news, half of it in Ukrainian, attest to the seriousness of this effort, devoted to "space kites" and organized to involve schools and youth groups. "All those who so desire may take part in the Festival after paying the organizational fee: 500 rubles/adults and 100 rubles/

young participants," says the letter. (An international monetary service wouldn't quote on the volatile ruble, but the "rate" currently is about 700 rubles to the dollar.) International kitefliers (who've read pages 48-49 in this issue!) may send name, address, kite club affiliation, number of participating guests and "payment in hard currency" to P.O. Box 110, Kherson 325000, Ukraine. Spearhead and contact for this event is Alexei Zverik.

from 148DM and you've spent 124DM (about \$76 US) for prestige and these "collectible" cards with pretty kites on them. Oh, yes, they're "limited edition," too, only 3,000 made!



EAVE A MARK IN THE WORLD: Wear Bass shoes! Certain models have a kite pattern on the sole. "Great for making tracks in the snow!" says Glen Haynes of Pennsylvania and a wearer of Bass himself.

KITE DANCING HAS ALWAYS been Joe Vaughan's preferred name for spontaneous movements with his Grandmaster Fighter Kites—oops!—Dancing Kites. So why not participate in a real dance performance? Joe did just that, in New York in January with the Wendy Rogers Dance Project. Reviews of this "modern" dance work were mixed, with the most favorable comments going to Joe and his kites!

KITES ON YOUR TELEPHONE calling card? Not farfetched, not at all. Just live in Germany, apply to the Berliner Volksbank and pay 148DM (about \$91 US). You get four cards with kites on the back. Each card is worth 6DM (about \$3.70 US) in phone calls per card, automatically deducted. Does this make sense? Subtract 24

IN THE FACE OF IRREFUTABLE evidence, the French courts have ruled that the patent by Paimpol-Voiles for "sandwiching" of leading edges and using elastic on leading edge spars of kites is invalid (see *Kite Lines*, Fall 1992, page 8). These techniques were widely used well before the filing of the French patent.

However, the judges, in a controversial decision, said that elastic wrapped around the end of the spine, at least if it is heavy enough to "strengthen the spine," infringes the patent. On this basis, Trucs, S.A., the alleged infringer, has been ordered to pay damages.

All kites previously said to infringe the patent can now be freely sold in France, provided they avoid elastic-wrapped spines.

Trucs thus won a significant victory for themselves and many other kite manufacturers. On the spine matter, Trucs is now weighing whether the cost of appeal would be worthwhile. Stay tuned for further consequences of the French half-remedy.

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PUZZLED ABOUT THIS ad? So were we. We just had to check it out. We called and learned there's a man in Virginia called Kites who cures hams, apparently famous enough in those parts that no confusion seemed possible to the advertiser.

... So You Want to Go



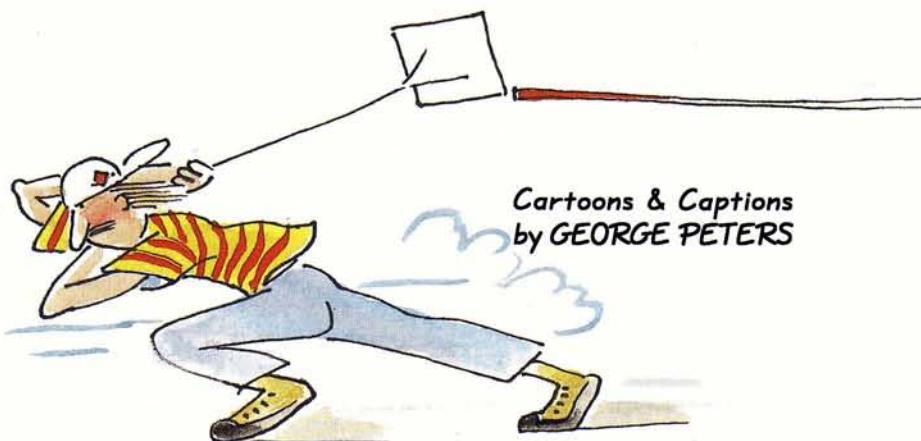
- Never bring more than you can carry yourself across four football fields, a busy intersection and up three flights of stairs to catch a train that is starting to leave the platform.
- When traveling in a group by bus, be sure to take a group photo before departing so you can identify members who are missing at the end of the journey.



- Elect a team leader whose sole purpose is to count who is there on the bus. Conspire among yourselves to leave the team leader at the first pitstop.



- When the hotel accommodations are not exactly what you expected ("Does the chicken come with the room?") and the bed is a little bit hard and splintery, you can always fashion a hammock from the curtains.



Cartoons & Captions
by GEORGE PETERS

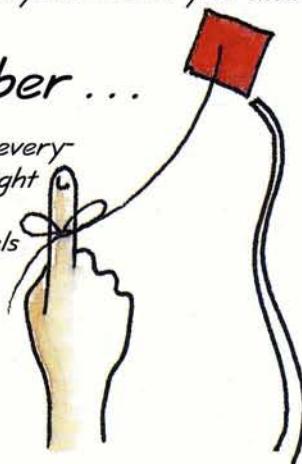
- After a long trip and great expense, be prepared to fly and demonstrate your kiteflying ability in either dead calm, rain, snow flurries, 110°F heat or hurricane force downdrafts.
- Attempt to learn at least some of the language. Not only the standards of "Please," "Thank you," "Good Morning" and "Goodbye" but also some conversational words like "Really!", "Hmmm!", "Right!", "Uh huh" and "Gotta go, nice to chat with ya."



- When your host serves you stewed yak sautéed in intestinal juices and garnished with pickled bear paw, you have to take at least three bites while smiling.
- Be selfsufficient in your requirements. Bring your own anchoring systems, a portable field shower, a tent not only for yourself and your kite gear but for 100 wet guests. Carry a portable sewing machine, patch kit and lots of extra spars. And don't let anyone borrow your mallet.

And remember . . .

- It's the travels where everything is easy and goes right that are quickly eroded from memory. The travels that are accented by difficulty, discomfort and catastrophe are the ones that make the best stories to tell over and over again.



to an International Kite Festival

Pointers from Scott Skinner

- Know and plan for your baggage allowance. Often what you bring in won't be questioned, but what you bring out is another thing. Often weight is not the problem, it's girth and volume that are looked at suspiciously. Duffels and ski bags pass muster. Consolidate your bags (e.g., tape them together).
- Recognize that you probably won't fly more than 4 or 5 kites (you won't have time). Save your space for kites to bring home.
- Approach travel with an open mind and roll with the punches.
- Remember that you're an ambassador, representing your country.

Hint from Judy Neuger

- Learn and observe courtesies and gestures of your host country.

Skye Morrison's Advisories

- Inform yourself about the political situation in a country before you go. Do not travel during any form of unrest.
- Bring your own coffee.

Betty Street's Law
• Adapt to where you are.

THE KITE LINES RULE BOOK FOR PARTICIPANTS AT INTERNATIONAL KITE FESTIVALS

- Budget your time and money far ahead.
- Keep to the schedule. (A schedule is your touchstone with sanity.)
- Expect culture shock, especially in regard to sanitary facilities.
- Be willing to try the local food.
- Learn at least a few basic phrases in the language of your host country.
- Your Bring List should include: an umbrella (for rain or shine), an extra pair of shoes, a packable hat, moist towelettes, sunblock, antacids, aspirin, your own tethers and spare parts, and twice as much film as you think you will need.
- Also bring gifts, because you'll get them—such things as pins, patches, business cards, photographs, t-shirts, small kites or accessories.
- Handle your money in an inconspicuous manner.
- Prepare yourself with clothing for weather extremes, including temperatures uncustomary for the country.
- Fly your kites all you can—that's why you were invited.
- Know that your hosts are surely doing the very best they can.

Wisdom from Jon Burkhardt

- Treat your trip as an adventure, and keep your sense of humor.
- Take notes on a map of your travels.

Plays from Tom Casselman, the Artful Dodger of Excess Baggage Charges:

- The festival organizers or a U.S. baggage manager in the foreign country should be asked in advance to arrange for excess baggage, so it will be OK on the computer. Otherwise . . .
- Don't leave from a hub city; they're stricter. Once in the system, the bags can't be recalled on the weight allowance. Peter Lynn once was asked to pay very big bucks for excess baggage, so he said, "OK, you own it, and I'll file a declaration of lost baggage. You'll have to pay the insurance anyway."
- You get two bags and two carry-ons for international flights. Women's purses don't count, so carry a big purse. Your main bag should be a compound of several bags, or an expandable bag. Dave Checkley used to take a roll-cart and put four or five little things on it; technically it's one carry-on.
- Try to check three bags at the front desk. Sometimes they'll let you. If they won't, take one bag as an extra carry-on. Then at the plane, don't be the first to get on, be last, when they're in a hurry. They'll usually tag it and let it go on. At any time, if any problem, say, "The previous crew OK'd it." They hesitate to be inconsistent.
- If asked to pay extra, delay till the next stop, when they may pass it.
- Flaunt any premier status you have, saying, for example, that you're a "guest of the royal family." Look them in the eye and say, "There is no excess baggage charge."
- Join a nonkite travel group. They only count the total number of bags for the total of people booked. No one has as much baggage as kitefliers. The tourist bureau can contact the airline to get the ID number of the travel group.
- Always plead ignorance. It doesn't hurt.

Thought from Maurizio Angeletti

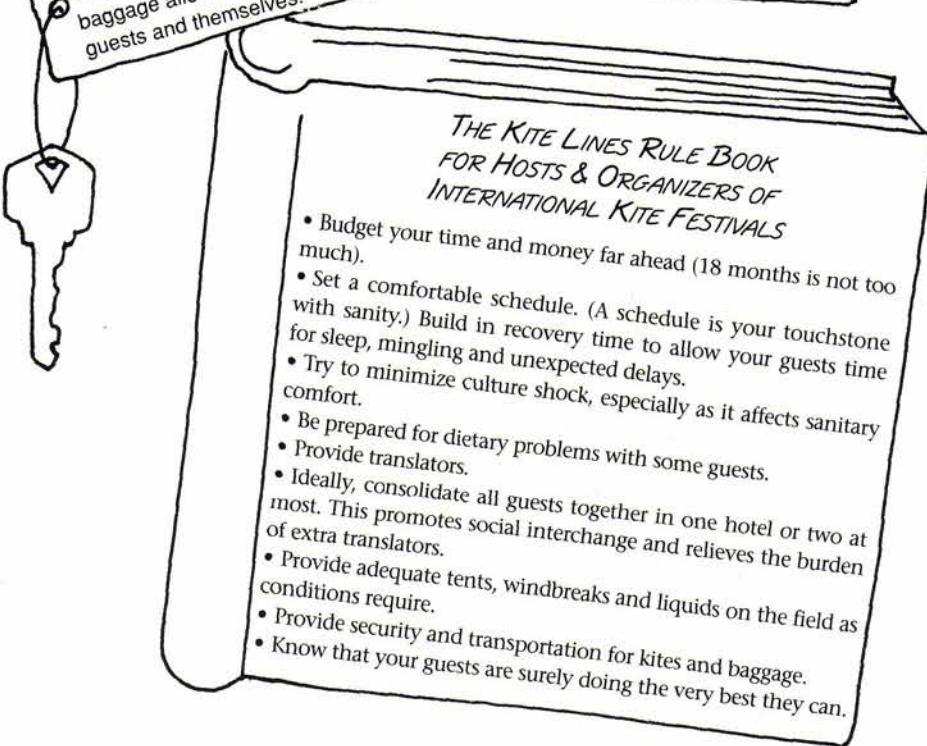
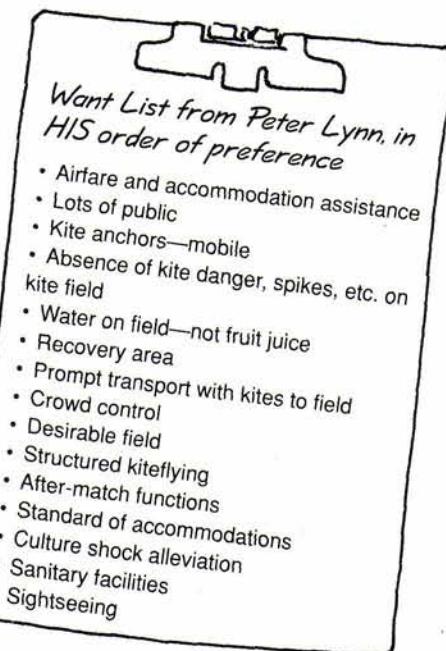
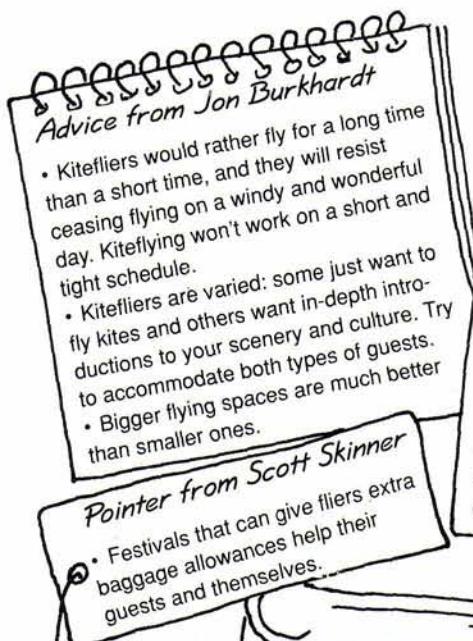
- Take the time to see other kites and when you like them say so to their makers.

... So You Want to Host One?

turn the page . . .

...So You Want to Host One

...Continued



Suggestions from Tony Wolfenden

- High on my list of requirements is a decent, flyable wind. It is amazing how many times sites are chosen for all reasons other than the wind, and the cleanliness of that wind. (Coastal flies with on-shore breezes are almost guaranteed to be successful.)
- Organizers should know that the majority of kitemakers/fliers don't travel halfway around the world, suffer extremes of heat and cold, rain, sand, dust, burrs, ticks, jet lag, strange food and much wear and tear on equipment (that is, both bodies and kites) just to fly kites . . . We travel to be with other like-minded people, to share a bit of sky.

TIPS & TECHNIQUES

Taut Keels &

1 To Mark Your Hem Allowances

From Francesco S. Ventimiglia & Cinzia Foschini, Tibiday Kite Team, Cervia, Italy

When I make a kite with rounded appliqués and I need to mark the additional hem allowance, I use two pencils (with hexagonal bodies, not round) joined by transparent tape or a rubber band. One marks around the template and the other marks my cutting line. This gives me a $\frac{1}{4}$ " hem allowance for my kites.

2 To Slow Down Your Sewing Machine

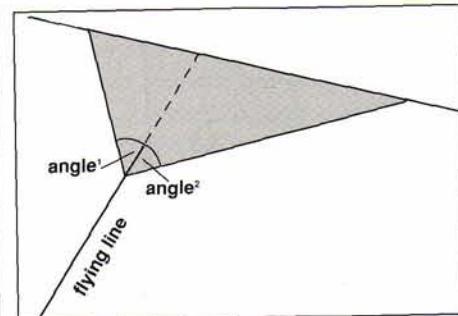
From Francesco S. Ventimiglia & Cinzia Foschini, Tibiday Kite Team, Cervia, Italy

Dimmer switches have been used to control the heat of hot cutters, but did you think of using them to slow down your sewing machine?

If you plug your sewing machine into a simple dimmer switch (available in electric supply stores) and plug the dimmer into an electric outlet, it's possible to control the maximum speed of sewing. It's especially good to use when you sew complicated rounded pieces.

3 Flapping Keel Troubles and their Cure

From Maurizio Angeletti, Lörrach, Germany



Many kites have keels for stability. Some kites have just one keel (deltas), some several keels (flares) and some many keels (parafoils). To perform its task, a keel has to be *taut*. A flapping keel splits the airflow unevenly and adds unwanted drag.

You want the two edges of the keel to have the same tautness. To get this, draw the keel and the angle formed by its two

TIPS & TECHNIQUES

Neat Tricks



edges. Bisect the angle, then extend the bisecting line fore and aft. The forward line through the towing point is the position of the flying (or shroud) line.

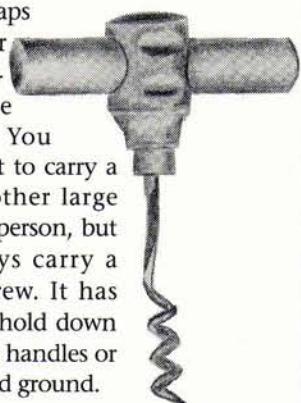
There are many more factors at play, of course. The leading edge of a keel will always bear more pressure than the trailing edge, and so will the first row of keels in relation to the following ones in parafoils of other multi-keeled kites.

The use of grain of fabric, the location of towing point(s), the actual size and shape of the keel(s) are but a few elements that interact with the rest of the kite.

If we take most of the available printed plans for flares and parafoils and draw the bisectors of each keel and their extensions, we'll find that they *don't* align with their flying line, and that their keels flap in flight. This is something very easy to see in numerous pictures. We can correct it when we design our own kites.

4 A Pocket Corkscrew as a Quick Tether

From Lee Sedgwick, Erie, Pennsylvania
 If you're flying alone and want to be self-sufficient when your kite misbehaves or goes down, you need to anchor it, perhaps quickly, in order to stay in control and be able to relaunch. You would not want to carry a dog stake or other large tether on your person, but you can always carry a pocket corkscrew. It has enough bite to hold down a big kite by the handles or reel in ice or hard ground.



Tips & Techniques is a forum for you to share your favorite hint or trick for making and flying kites. Each published item earns your choice of (1) any book(s) from the Kite Lines Bookstore to the value of \$15 or (2) a subscription or extension for four issues of *Kite Lines*. And as a bonus you will also receive recognition from the worldwide kite community. Send details, drawings and/or photographs to *Kite Lines*, P. O. Box 466, Randallstown, MD, 21133-0466, USA, or fax drawings and details to us at 410-922-4262.

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kite aerial photography by Yves Rameaux

IRELAND

If you are in love with Ireland and with kite aerial photography, you will want to travel as I did to this great poetical island. By car (to more easily carry the equipment) it was two hours from Paris to Le Havre, then a full night by ferry from Le Havre to Rosslare. At daybreak I found myself along the narrow winding roads of Ireland.

I had decided to devote my stay to the county of Connemara, one of the most typical parts of Ireland, quite wild, with its large peaty or rocky tracts, its deep lakes and its indented coastlines.

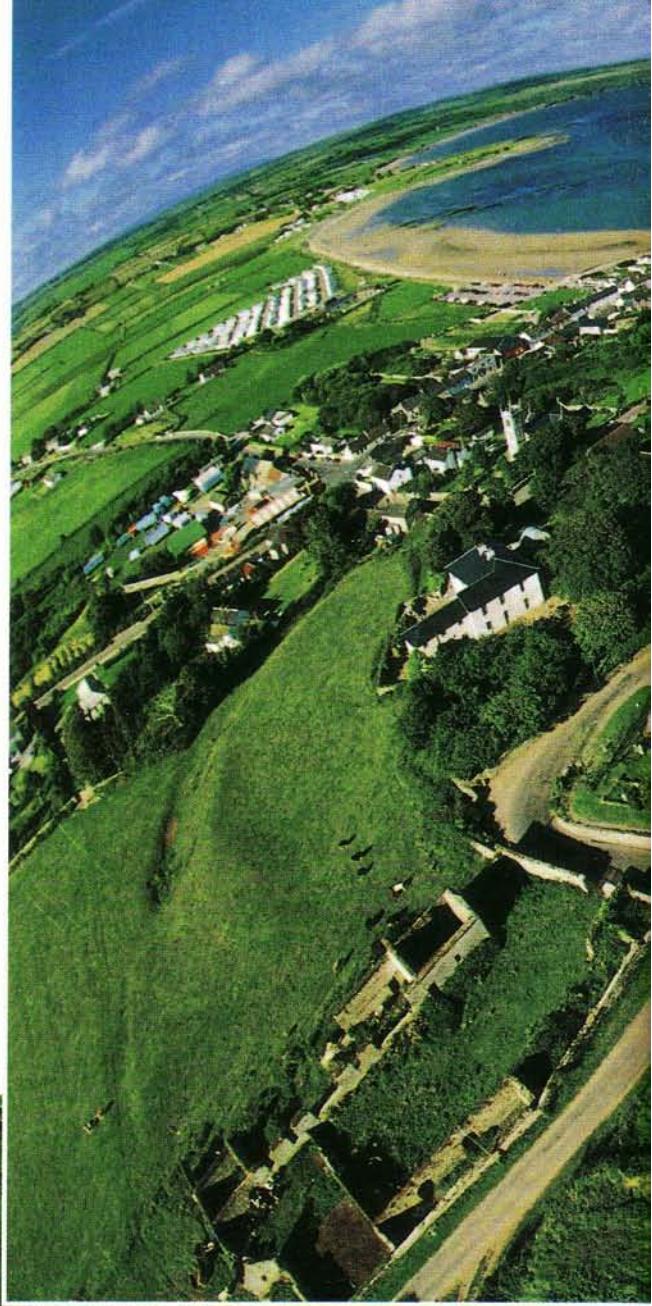
Thus I headed northwest toward Galway. But there, from road to road, from mountain to seashore, from B&B to B&B, the rain kept falling for six days—it was quite out of the question to take a camera out, let alone a kite.

On the seventh morning, it was still raining. I heard on the radio that the weather would temporarily improve in southern Ireland. So I decided to go to Kerry and the peninsulas of the southwest, very beautiful and greener with their climate softened by the Gulf Stream.

The next day, the day before leaving, the sun rose at last and there was a nice wind! Lost time had to be made up for, and within two days I made eight flights, often in quite distant places, driving on narrow and dangerous roads.

Moving quickly was made easier by a constant wind, not too strong, allowing the use of delta kites, which are quickly set and unset, and above all, by my electric winch, which allows a very quick retrieval. Some flights were carried out in less than 20 minutes total, from arrival to departure.

Afterward, I had only one desire: to go back soon to the green landscapes of Ireland—and perhaps the sun.





Yves Rameaux of Romainville, France is a radiologist by profession and one of the most active and creative members of the Kite Aerial Photography Worldwide Association (KAPWA), whose journal often features his work.

Yves took the following equipment to Ireland:

- *Kites: 4.00m delta, 4.90m delta, 2.00m rokkaku, 2.40m rokkaku and 1.80m Peter Lynn Tri-D box (Pelybox).*
- *Flying line: two hand reels, each with 500m polyamide line (80 and 120 kg), and one electric winch (supplied by the 12 volt car battery) fitted with 400m Kevlar, 120 kg.*
- *Photo equipment: two radio-controlled suspensions, each fitted with a Nikon F 301 and lenses (50, 35, 24 and 16 mm fish eye) and weighing 1kg-1.3kg completely rigged, depending on the lens; and one ultralight radio-controlled suspension fitted with a Ricoh FF 9 with a total weight of 550g.*
- *Film: Fujicolor and Ektachrome.*

Above: Tour Ronde (12th century) in Ardmore

Left: Pointe de Beara

Far left: Village d'Eyeries

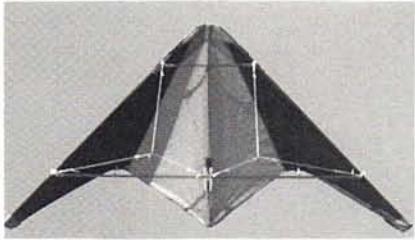


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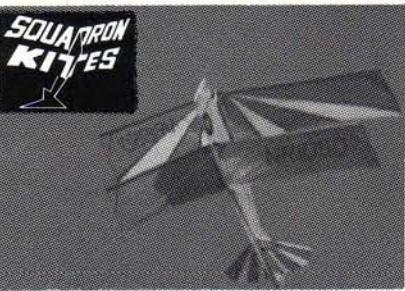


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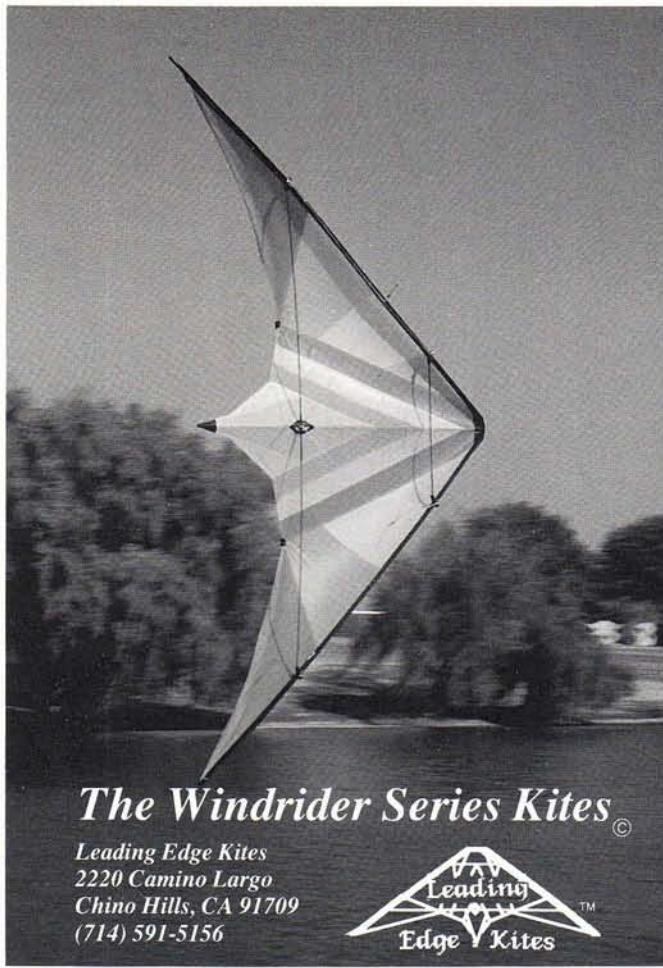
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The Texas No-Wind Kite



By C. W. (Bill) Mosley

In 1984, C.W. (Bill) Mosley accepted a Kite Lines challenge to set the record for most consecutive days of individual flight. He did it and his record still stands: 366 days (it was a leap year). In response to a letter we forwarded to him from a skeptical Don Christie of Palm Bay, Florida, asking how he did it on windless and rainy days, Mosley wrote this article about his kite. Although the design is similar to others we have seen, it was independently created and has a certain documentary cachet.

—Editors

The thing this record really proves is that sometime during every day, no matter how bad a day is, there is a chance to fly a kite. And it also shows that there is no such thing as a "kite season."

Okay, so it wouldn't be easy. If it was easy, everybody would do it. Of course, on sunny days with nice wind anybody could do it. But I'd also been frustrated by bad weather, hurricane winds and calm days. And on top of the mechanics of how, there's also where and when.

Well, some of the mechanics were easy to overcome. Sturdy kites for high wind. Waterproof kites for rain. Really light nylon monofilament when there's just no way around flying near lightning—that's after waiting for it to quit, checking how far you'd have to drive to get out from under it, and the excruciating inner search to see how determined you are to be unique in all the world.

But the real problem is flying with No Wind. Big, light deltas work. Delta-Conynes, too. But these are costly to make, and I couldn't afford to buy all the kites needed for a year of anything-goes kiteflying.

So I invented what I call The Texas No-Wind Kite.

Made of tissue, Tyvek, plastic, newspaper or magazine page, it flew when the Texas Johnson grass wouldn't twitch, when the roadrunners weren't running, when the rattlers had a hard time breathing. It could fly in a vacuum.

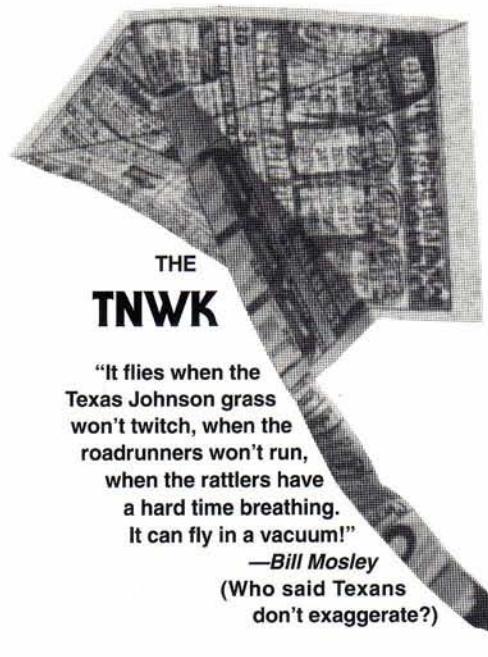
When the slight breeze dies to *nothing*, the TNWK tends to float away from the flier very slowly, keeping the string taut against the chance of a breeze rising. And when the breeze does rise, even slightly, the kite stays with it, thanks to the keel.

The TNWK is cheap and easy to make. I've made hundreds, in many different sizes. I made several to sell and took them to craft shows, and I have used them in kite workshops. One day I put a TNWK made of magazine page and bamboo sticks on the end of a spool of sewing thread, let out all the thread and then let go. I never found it. It may still be flying.

High-density polyethylene makes a cloud-light kite as big as the biggest shopping bag you can find, but you have to add extra sticks for the flimsy material to keep its shape. Paper or Tyvek works best.

Thin bamboo and $\frac{1}{8}$ -inch diameter dowels are not sturdy. A stiff breeze or a tree can ruin the kite quickly. But a big piece of plastic or Tyvek will take stronger sticks, and adding a tail to the lower end of the keel will increase the wind range.

At any rate, a world's record for consecutive days of kiteflying really isn't too hard to achieve. All you need is the right kite for the wind. Every day.



The Materials

- one page newsprint 12" by 20"
- two matchstick bamboo or $\frac{1}{8}$ -diameter dowels, 12" and 15"-16" (varies with final distance between wingtips)
- glue or tape
- plastic, crepe or tissue paper for tail
- strapping tape (optional) for reinforcing the tow point

The Mechanics

The key to this design is to use material that is 3 by 5 units. In this example, a unit is four inches.

1. Fold the sheet of paper in half to make a rectangle 12" high by 10" wide.

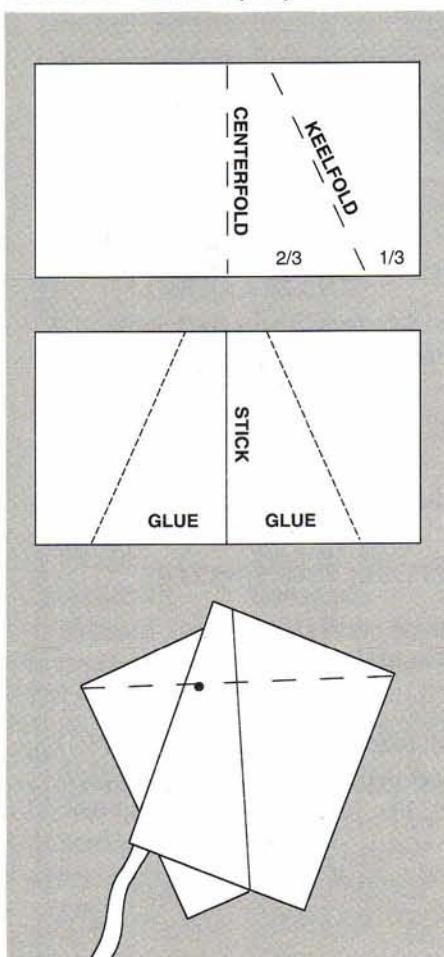
2. Make a keel fold from a point on the top edge about an inch from the centerfold to a point on the bottom edge about $3\frac{1}{3}$ " from the centerfold. Turn over and repeat the keel fold on the other side.

3. Glue a 12" stick into the centerfold. Glue the halves of the keel together. Spread the wings flat while the glue dries.

4. Measure and cut a spreader stick which will run from wingtip to wingtip. Glue its entire length.

5. Punch a hole behind the keel stick, approximately where the keel stick and spreader cross when the keel is folded to one side. Punch other holes $\frac{1}{4}$ -inch above and below it for alternate bridle points.

If desired, attach tail to bottom end of keel stick. Reinforce tow points with strapping tape.



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Java

...Continued from page 34

two players maneuvered their kites in any fashion they wished after first contact. The fliers had to keep their lines taut and could not move outside their own six-foot-square area marked on the ground.

Kiteflying is a popular hobby in West Java. During the windy part of the dry season (July to August), kites can be seen flying all over the region, in particular above fallow rice paddies while the crops are being sun-dried.

The Javanese trace their kites back to the 12th century when cotton was first used for thread and cloth. These early kites were made of a leaf called *daun dadap* (*Eritrina*) which was tied by cotton thread to a bamboo frame. The best bamboo grows in the foothills of the mountains and is called *bamboo temen*. The early kite forms were predominantly drawn from natural flora and fauna: birds, dragonflies and butterflies. Kites were traditionally flown as an offering to Dewi Sri, the goddess of fertility, during celebrations for a successful harvest.

It is only recently that modern kite styles (human forms, ships, airplanes and mythological characters) have emerged in West Java, more than a little influenced by the kites of the neighboring island of Bali and the introduction of overseas kites (including stunters) brought into Java.

Another Javanese kite festival is planned for July 1993, this time including tours across all three states of the island. For those who love kite traveling, that festival will be an excellent way to experience a very different culture.



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EMPTY SPACES IN THE SKY

Leland Toy



Peggy Sue Got Married.

None of this made him a living, though, and it was an architectural drafting job that took him from California to Arizona. From there he traveled to many festivals, including nearly every AKA convention. The AKA recognized Lee in 1990 with its Steve

Edeiken Kiteflier of the Year Award.

For all his warm and easygoing ways, Lee held quietly intense yearnings. He wanted to see more professionalism in everything to do with kites, more recognition of them as an art form. One of his last kites exemplified not only the art of kites but the personal interplay they foster. Called Shadowlines, the kite was made as a group project and flown as one also, from multiple bridles by many people; each flier had to cooperate to maintain the kite's shape in the wind.

In his last days, Lee prepared "Wings of the Imagination," a two-year traveling exhibition of 27 kites from his collection, including some of his own works. Galleries from inside or outside Arizona may apply to borrow the exhibition from the Arizona Commission on the Arts, 417 W. Roosevelt Street, Phoenix, Arizona 85003. The first installation opened on January 29, 1993 at the Yavapai College Art Gallery in Prescott, Arizona.

Memorial kite flies for Lee were held at the Marina Green in San Francisco and elsewhere. Other memorials to him include a Leland Toy Rokkaku Challenge trophy for the Cielo Encantado Fiesta in October in Silver City, New Mexico; and a traveling kite which will collect handprints and signatures of friends on squares of fabric to make up the tail. The 13-foot delta, titled "Hands Across the Sky to Help Fight AIDS," was made by Diana Aurigemma of Seattle, Washington.

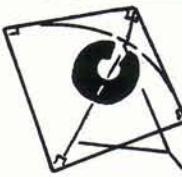
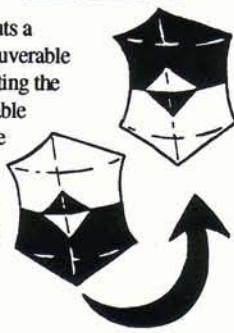
Many people are lucky enough to have a kite or banner made by Lee. In the *Kite Lines* office hangs one such banner, given to us in 1983 when we were feeling a bit lost. Lee unrolled it and wrote on it: "Kite Lines Above All!!! THANKS for Everything!" What a good feeling! Lee had not forgotten us. We will never forget Lee.

—Valerie Govig

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Below: Aerial view of Hans Schepker and his son flying BIG BIKE, taken from a camera mounted on its fiberglass frame.



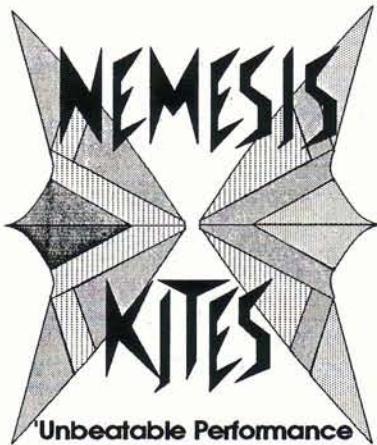
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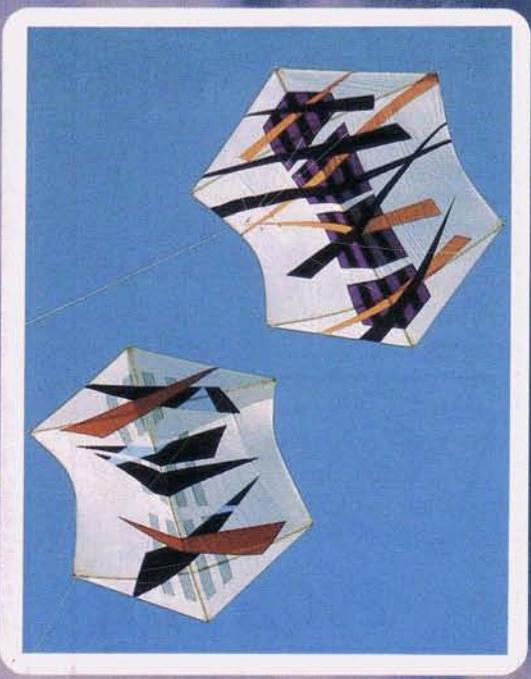
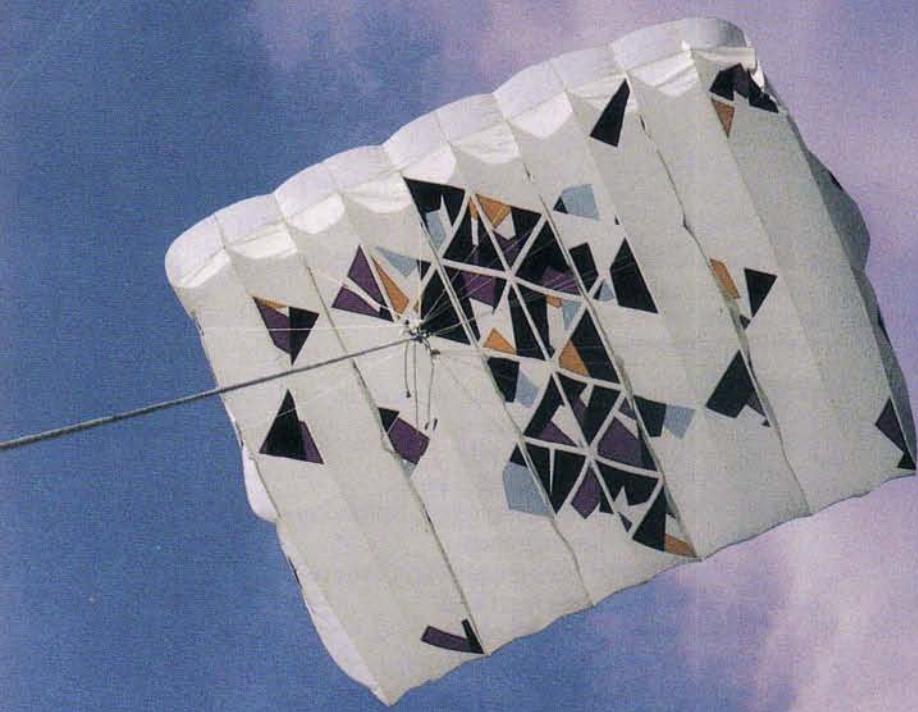
TOP BANNERS

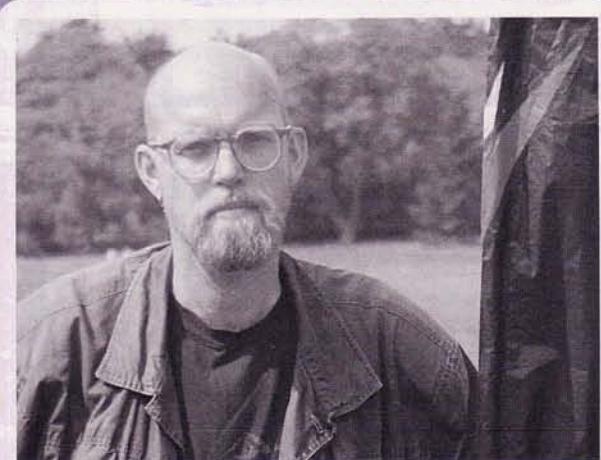
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Jørgen Møller Hansen



Jørgen Møller Hansen

Kitemaker: Jørgen Møller Hansen

Occupation: Graphic designer

Kite experience: 10 years

Inspiration: Mostly from music. It has to be a little wild, let's call it heavy metal jazz. I am inspired by my job, too. And hopefully I bring some inspiration from kiteflying back to my job.

Average amount of time spent making a kite: Unknown

Honors: I don't participate in competitions, because I think it spoils the mood of the event. It's an honor just to be there.

Favorite flying spots: Denmark's west coast, including Fanø

Philosophy in kitemaking: To create graphics in the sky. The kites have to look airy: white and few colors. The kites have the expression of sounds and rhythm, but it has to be surprising rhythm.

Photographers: Jørgen Møller Hansen, Niels Ole Bak, Paul Morén, Mel Govig and Drachen Design.

SKY GALLERY features several outstanding kites by one maker in each issue of our journal. You are invited to submit photographs of your finest kites. Write for details: *Kite Lines*, P.O. Box 466, Randallstown, MD 21133-0466, USA; fax: 410-922-4262.

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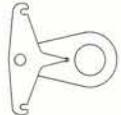
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EMPTY SPACES IN THE SKY

Alex Dunton

Alexander G. Dunton, Jr. died of cancer at the age of 68 on January 30, 1993 at his home in Richmond, Virginia.

He was a recognized wood carver and a great kiteflier, but, for me, Alex was first of all a friend. Everything else seemed to flow from that.

Alex was a respected craftsman and teacher of woodworking for over 30 years. He salvaged wood with interesting markings from demolished sites to make bowls of elegant simplicity. He was awarded by the Virginia Museum of Fine Arts, the American Crafts Council and the Hand Workshop. His work was exhibited at the Smithsonian Institution in Washington, DC and at the North Carolina Museum of Arts in Raleigh. His bowls were included in *Fine Woodworking* magazine's *Design Book I*. Alex was a nominee for a Virginia Living Treasure and to be a National Heritage Fellow.

But in the kite community he was known as an especially talented kitemaker and flier. His kites were always good, but if they weren't quite good enough for him, he would tinker to get them right. He enjoyed the *learning*.

The Dunton Delta-Box became a classic with the James River group, as we called the kitefliers who informally congealed around Alex in the Richmond area. They would fly frequently together and share ideas. Alex had a great sense of design and an accuracy of technique that inspired his friends. But he was completely self-effacing about his abilities. He would work by a method he called TLAR—That Looks About Right. He praised others, never himself.



Kite Society's Retreats—weekends spent making and talking kites at Harpers Ferry, West Virginia, then in Chestertown and Westminster in Maryland. He was a fully involved participant, alert, funny, warm, open, always asking the best questions.

For *Kite Lines* magazine, Alex was often helpful. He knew Japanese even better than my associate Leonard Conover and occasionally he would solve for us a sticky problem in translation. When a new issue was published, he would usually call or write with a comment. He noticed every error, and said so, but never to criticize. Often, when I was preparing articles for *Kite Lines*, I would picture my audience as Alex. I hardly needed anyone else. Alex was perceptive and appreciative, the perfect reader.

In one of his letters, he named many fellow enthusiasts he wanted to thank, calling them "real treasures—ALL (of them)." He ended the letter by saying about the kite community, "It's really more about love than kites. Kites are just a good excuse."

He had it exactly right. —Valerie Govig

A story we all love to recall tells how Alex dominated the Altitude Sprint at the Wright Kite Festival in Kill Devil Hills every summer for six years. The race was won simply by the flier who hauled up the most line in 30 seconds. People started calling the event the Alex Dunton Memorial Altitude Sprint. But in the seventh year, two of the contestants surpassed Alex and beat him—using copies of his kite, made with the gracious assistance of Alex himself.

Alex was a devoted "regular" at the Maryland

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Experienced, objective stunt kiters are invited to join our panel of evaluators for the next Great Kite Lines Stunt Kite Survey.

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We have changed the publication cycle for this survey so that evaluators will not be expected to fly kites for us in the winter! You can report on kites you've been flying in the spring.

Additional changes (including big improvements) will be described in a packet we will send you on request.

We believe this will be the best stunt kite survey ever and *your* reports will help make it so! Write, call or fax us for your packet.

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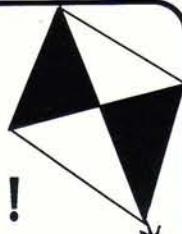
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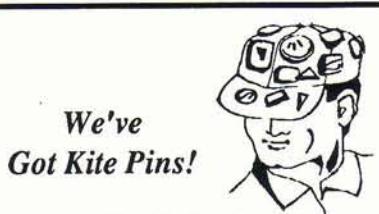
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PARAKITES by Gilbert Totten Woglom, published by G. P. Putnam's Sons, 1896. Contact Pete Iannuzzi, 1908 Old Frederick Road, Catonsville, MD 21228, 410/744-4754.

KITE CLIPPINGS and news articles are always wanted by *Kite Lines*. Surprise rewards! Send your items to: P.O. Box 466, Randallstown, MD 21133-0466 USA.

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MEMORIAL BOOKS: *Kite Lines* offers a program to honor deceased kitefliers through donations of kite books to libraries. Send us (1) your paid order for the book(s), (2) the name and address of the library to receive the gift, and (3) the name of the person in whose memory you are making the gift. *Kite Lines* will send the book with a card naming you as the memorial contributor and the deceased kiteflier you are honoring. (Thanks to Kathy Nixie, kiteflier and librarian, Port Lavaca, Texas, for this idea.)

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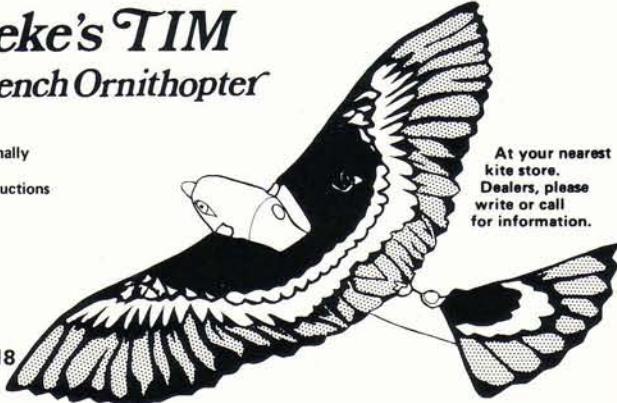


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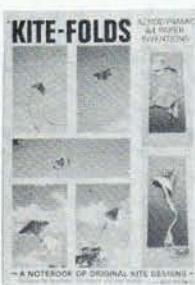
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Kite books often go out of print without warning—if you want any of these, we suggest you snap them up now!

From AUSTRALIA . . .



Make Mine Fly by Helen Bushell. This 1988 edition has a far-ranging collection of tips, techniques, hints and advice (gathered since 1977) for beginners or experts, groups or individuals. Includes charming drawings and plans for the famous patented Trefoil Delta with folded keel, plus several useful paper kites. Softcover, 90 pp., \$12.95



Kite-Folds by Beth Matthews. This improved edition contains plans for 12 small kites, each made from a single sheet of paper, plus the "Skyvelope." Most are easy to make, all are attractive and clever. Clear instructions, lovely color photos. Excellent addendum on kites in education. Softcover, 26 pp., \$9.95

AUSTRALIA continued . . .

Kites for Crowds of Kids by Ed Baxter and Richard Davy. Plans for 11 kites plus accessories. Good advice on workshops. Australian resources. Nice drawings. Softcover, 24 pp., \$3.95



From BERMUDA . . .

Bermuda Kites by Frank Watlington. Plans for five island kites, plus variations and hummers. Traditional methods and materials. Flying tips, nice drawings, a little history. Softcover, 24 pp., \$4.95



From BRAZIL . . .

Arte de Fazer Pipas (*The Art of Kitemaking*) by Silvio Voce, in Portuguese. History plus construction of 13 paper kites, half traditional Brazilian. Color photos, simple drawings. Softcover, 50 pp., \$4.95



From CANADA . . .

Go Fly a Kite: The Kite Builder's Manual by John Boxtel. Novel plans, pleasing drawings, but lacking dimensions. Out-of-date techniques. Softcover, 80 pp., \$12.95



CANADA continued . . .



Kite Crazy (the book) by Carol Thomas. To accompany the Canadian video series, this wire-bound book has plans for Kiskadee, rokkaku, dual- and quad-line deltas. Black-and-white drawings. Softcover, 176 pp., \$29.95

Kite Crazy (the video) by SOMA Film & Video, Canada. Meet famous kiters and learn how to make and fly steerable kites (1-, 2- and 4-line). Beautiful photography, good instructions. VHS format, 102 minutes, \$29.95

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Fishing for Angels: The Magic of Kites by David Evans. A very colorful and pretty book for "readers ages 10 and up." Delightful kite lore and tips, but the three kite plans are best avoided. Unusual bibliography; glossary. Softcover, 63 pp., \$14.95



Chinese Artistic Kites by Ha Kuiming and Ha Yiqi. The celebrated kites of the Ha family of Beijing. Covers history, evolution, structure, decoration, flying. Over 80 kites plus accessories. Luxuriously printed color. Good English translation. Softcover, 160 pp., \$16.95

From ENGLAND . . .

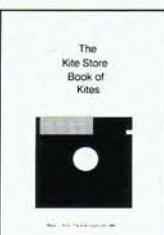
NEW! Kites: A Practical Handbook by Ron Moulton and Pat Lloyd. Lots of good new information in slight disorder from a knowledgeable veteran; excellent plan drawings of 25-plus kites, both classic and modern. Useful section on sport kites contains general theory as well as specific details. Complete and lovable chapter on parachuting teddy bears. Many (outdated) appendices; 16 pages of color photographs. Softcover, 255 pp., \$27.95



Kite Cookery by Don Dunford. Revised edition of 1979 contains plans for four simple kites (box, delta, hexagon and dual-line diamond). Includes Dunford's theories and aerodynamics plus construction methods and technical material. Softcover, 47 pp., \$3.95



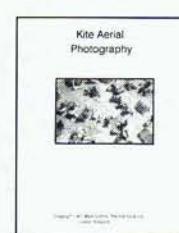
The Kite Store Book of Kites by Mark Cottrell. Not fancy, but a refreshingly honest kite book. Plans for 10 somewhat original and fully tested kites plus the author's philosophy and a 5.25" floppy disk of computer programs (in BASIC) for kiter design assistance. (A magnifying glass may help for reading the small handlettered drawings.) Softcover, 48 pp., \$13.95



ENGLAND continued . . .



NEW! Swept Wing Stunt Kites by Mark Cottrell. Quirky, entertaining writing. Extensive analysis of elements and variants, plus four designs. A real student shares his lore and puts it into context. Homely format, self-published. Softcover, 43 pages, \$10.95



Kite Aerial Photography by Mark Cottrell. How to take aerials, with three kite plans. Good combination of technical data and common sense. System for comparing trade-offs in selecting the elements in your rig. Book and source lists. Self-published, black and white. Softcover, 44 pp., \$10.95

From FRANCE . . .



Le Cerf-Volant en Chine (*The Kite in China*) by Dominique Baillon-Lalande, in French. Beautiful photos (half in color) of Chinese kites, elegantly printed. No kite plans, but some construction details. Hardcover, 88 pp., \$48.95 (no airmail shipping)

SPECIAL PURCHASES!



Edo Dako Dai Zenshu (*The Big Complete Book of Edo Kites*) by Masaaki Modegi, in Japanese (and some English). One of the most exquisite works of kite literature yet from Japan. About 140 kites lavishly photographed and catalogued. Excellent construction detail drawings. Rich printing on heavy paper, elegantly bound and boxed. Hardcover, 159 pages, \$159.95 (no airmail shipping)



Pictures for the Sky, by Paul Eubel and Ikuiko Matsumoto, in a new English edition, revised from *Bilder für den Himmel* (*Pictures for the Sky*). Incredibly beautiful full-page color photos of one-of-a-kind kites made for the traveling exhibition. Includes the work of 100 international artists collaborating with 36 Japanese kitemakers. Softcover, 406 pp., \$69.95 (no airmail shipping)

The Kite Lines Bookstore . . . Continued

From GERMANY . . .

Phantastische Drachenwelt: Die Festivals, Die Drachenbauer, Die Modelle (Fantastic Kiteworld: The Festivals, The Kite Builders, The Models) by Wolfgang Schimmel-pennig, in German. Colorful, well produced, a real coffee-table kite book. Has 219 color photos, many drawings and an insert sheet with traceable plans for 4 unusual kites.

Hardcover, 128 pp., \$31.95
(no airmail shipping)



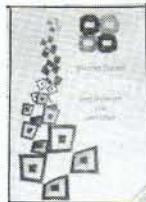
Skywork Experience by Christine Schertel, in German. Excellent, fully detailed plans for stunt kites including the Phantom, Revolution, Hawaiian, Spin-Off, Fire Dart and Sky Dart. No background detail on the sport or credit given to the designers. Attractive paintings instead of photographs. Softcover, 52 pp., \$14.95



Drachen aus aller Welt (Kites from Everywhere) by Werner Backes, in German. Detailed illustrations and clear photographs of a 40-kite international sampler. Plans include the Cloud Seeker, Cody, tetrahedral kite, rhombus and multicell boxes, parafoil, Rolo-plan and rokkaku. Also gives instructions on trains, reels, knots and aerial photography. Softcover, 128 pp., \$16.95



GERMANY continued . . .



Drachen Kombinieren und Verketten (Kite Combinations and Trains) by Werner Backes, in German. Complete collection of sophisticated kite combinations. Good ideas, instructions and details. Clear illustrations and many color photographs throughout. Softcover, 128 pp., \$16.95



NEW! Neue drachen zum Nachbauen (New Kites to Replicate) by Werner Backes, in German. A colorful, compact collection of kites using available materials. Precisely detailed plans for 20 varieties plus accessories. No background or bibliography. Softcover, 128 pp., \$7.95



...und sie Fliegen Heute Noch—Geschichte und Geschichten um den Drachen (. . . and They Still Fly Today—History and Tales about Kites) collected by Hans Snoek, in German. Poems, songs, tales, drawings, photos, plans—valuable scraps from the early days of Western kiting. Attractive black-and-white printing. Hardcover, 156 pp., \$29.95

GERMANY continued . . .

Lenkdrachen Bauen und Fliegen (Making and Flying Stunt Kites) by Wolfgang Schimmel-pennig, in German.

Colorful and fully detailed plans to build eight dual-liners: four diamonds, three deltas and a foil (the Paraflex). Flying tips. Softcover, 64 pp., \$13.95



NEW! Asiatische Drachen (Asian Kites) by Franz Arz, in German. A lovely, colorful book on how to make 22 kites, including 5 fighters, using mostly traditional materials. Ignore the claims to authenticity. Good drawings. Hardcover, 96 pp., \$19.95



From ISRAEL . . .

Afifomania (Kite Mania) by Uri Abeles, in Hebrew. An effort to bring kiting to Israel. Contains about 25 kite plans, ranging from basic to advanced, along with history, materials, accessories and techniques borrowed from familiar sources.

Very attractive color photographs throughout including interesting scenes of kiteflying in Israel. Hardcover, 104 pp., \$19.95



From ITALY . . .



Aquiloni (Kites) by Guido Accascina, in Italian. A mini encyclopedia, accurate and up-to-date. Includes theory, plans, techniques, sources and resources. Small but thick, with 16 color photo pages. Comes with 12 postcards in unusual die-cut box. Pocket-size. Softcover, 256 pp., \$17.95

From JAPAN . . .



Edo Dako (Edo Kites) by Masaaki Modegi, in Japanese with some English. Elegant, full-color pictorial tribute to the author's father and deceased kite master Teizo Hashimoto. Beautiful printing on heavy paper. Hardcover, 78 pp., \$69.95



Bessatsu Bijutsu Techo (Fine Arts Journal), in Japanese. Originally the Winter 1982 issue of a quarterly art journal devoted entirely to kites, now published as a book. Thick and substantial, it features over 300 color photos showing great detail. Also contains drawings and articles by well-known Japanese kite authors. Softcover, 216 pp., \$27.95

JAPAN continued . . .

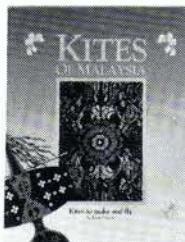
Tezukuri Omoshiro Dako Nyumon (A Primer of Interesting Handmade Kites) by Eiji Ohashi, in Japanese.

Easy-to-make figure and cellular kites plus Ohashi's famous arch train. Color photos, many drawings with full details. Tips about bamboo, painting, hummers and bridling. Softcover, 100 pp., \$21.95



From MALAYSIA . . .

Kites of Malaysia: Kites to make and fly by Wayne Hosking, in English. The only convenient source of plans and construction techniques for 10 varieties of Malaysian *wau*. Great full-page photographs, brief background and reasonable description of methods. Softcover, 39 pp., \$7.95



From The NETHERLANDS . . .

NEW IN ENGLISH! Stunt Kites to Make and Fly by Servaas van der Horst and Nop Velthuizen. Covers all aspects of the sport. Includes detailed, extra-clear plans for 10 different high-tech maneuverable kites, some with novel touches. Excellent quality drawings

and photographs, several in color. Very well organized and printed. Softcover, 96 pp., \$21.95



NETHERLANDS continued . . .



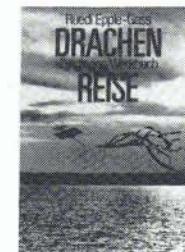
Kleine Papieren Vliegers (Small Paper Kites) by Harm van Veen, in Dutch. An expertly assembled, very original little book. Includes detailed plans for 10 miniature fliers. All feature artful folding and perfect craftsmanship. Construction techniques and materials are described, including splitting bamboo. Shows a tiny reel, tips on line. Color photos. Softcover, 32 pp., \$5.95

From SOUTH AFRICA . . .



Kites: 24 Designs by Izak C. Rust, in English. The first kite book from South Africa. Good scale drawings and color photographs. Includes tips on frames, tails, sails, knots, reels, bridles and flying. ends with a good annotated bibliography. Softcover, 48 pp., \$8.95

From SWITZERLAND . . .



Drachenreise (Kite Journey) by Ruedi Epple-Gass, in German. Interesting black and white book. Countries explored (some visited and others researched) include Turkey, Vietnam, Dominican Republic, and spots in the South Pacific and Latin America plus Europe. Political overtones. Flying tips. Softcover, 125 pp., \$26.95

The Kite Lines Bookstore . . . Continued

The UNITED STATES . . .

The Penguin Book of Kites by David Pelham. Called "The Bible," first published in 1976 and still recommended for all kitefliers. Plans for more than 100 kites plus lots of solidly researched reference data, aerodynamics and history. Color in half the book. Index and bibliography. Softcover, 228 pp., \$12.95



The Stunt Kite Book by Alison Fujino and Benjamin Ruhe. Covers background, personalities and introduction well; treats nuts-and-bolts somewhat sketchily. Many black-and-white photos and drawings and a chart of 80 brands of stunt kites listed by skill level. Softcover, 110 pp., \$8.95



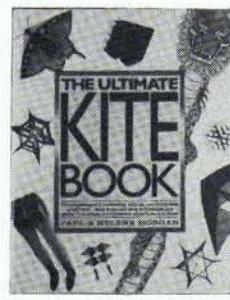
New 4th Edition! Stunt Kites! by David Gomberg. The first book on the subject. Thorough coverage of the basics plus advanced techniques. New maneuvers, tips and information from 20 well-known pilots; lots of safety pointers. "Homemade" publishing, no photographs. Softcover, 88 pp., \$8.95



Art That Flies by Tal Streeter and Pamela Houk. An anthology of unusual kites from the Dayton (Ohio) Art Institute exhibition of 1990, featuring works by artists Curt Asker (Sweden), Jackie Matisse (France) and Tal Streeter (USA). Optical illusions and environmental objects. Interviews, artists' statements and an interesting bibliography. Many handsome photos, some in color. No plans. Softcover, 139 pp., \$12.95

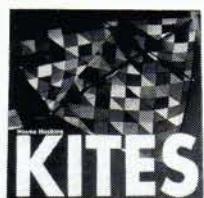


The Art of the Japanese Kite by Tal Streeter. Rare up-close and personal profiles of Japan's master kite artists sensitively interviewed in 1971-72. Includes 130 outstanding photos (52 in color). Rich contemporary history. No kite plans, but a true joy to read and read again. Softcover, 181 pp., \$24.95



The Ultimate Kite Book by Paul and Helene Morgan. If it weren't for the exaggerated title, this would be a pretty good book. It's done with great color and splash to attract newcomers, but lacks depth and identification of kitemakers. Unusually extensive photographs showing flying techniques. Contains about six plans for easy kites, including a Tumbling Star. Hardcover, 122 pp., \$19.95

NEW! Kites by Wayne Hosking. A big 11½" x 11½" coffee table book of beautiful kite photographs, lavishly printed and bound. The text, however, is marred by errors, confusions and lack of identification of kitemakers. Some new research on Asian kites. No plans or technical material. Absurd appendices. But the photos make this book a must-have. Hardcover, 120 pp., \$15.95



Fighter Kites by Philippe Gallot. Plans for 29 kites, plus tips on flying, tools, materials, games and accessories. Illustrations are large and clear. Instructions are adequate, but measurements converted from metric may total incorrectly. Softcover, 96 pp., \$12.95



The Fighter Kite Book! by David Gomberg. A goodly amount of information, mostly correct, about fighter kite flying. Though flat in appearance and tone, it's a useful starting source. Contains plans for a basic fighter. Beware drawings of bridles. Softcover, 74 pp., \$8.95



Kites for Everyone by Margaret Greger. Many good kite plans, variations and accessories, plus knowledgeable tips and techniques for beginner, expert or classroom. Second edition. Softcover, 136 pp., \$12.95

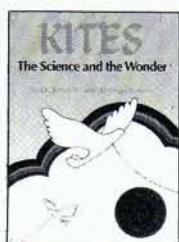
More Kites for Everyone by Margaret Greger. Some old kites, some new kites, plus tips and techniques based on years of experience. Plans for 17 kites from simple to complex. Softcover, 59 pp., \$9.95



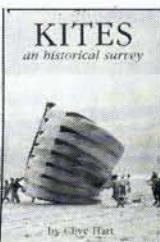
One-Hour Kites by Jim Rowlands. Same as British *Kites to Make and Fly*. Standard kites for beginners, plus a few new ones, but directions are skimpy. Literature and supplier lists. Softcover, 95 pp., \$12.95

The Big Book of Kites by Jim Rowlands. Same as British *Making and Flying Modern Kites*. Uneven instructions and drawings for 36 kites. Includes a book list. Softcover, 127 pp., \$12.95

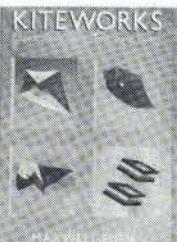
Kites: The Science and the Wonder by Toshio Ito and Hirotugu Komura. Full of aerodynamics, formulas and observations—the first effort since Marvin to be scientific about kites. Diagrams for the "original" butterfly kite. First published in Japanese (1979), the English translation (1983) is not smooth. Softcover, 160 pp., \$11.95



Kites: An Historical Survey by Clive Hart. Revised, second edition (1982). Invaluable reference work with many black-and-white illustrations and photographs. Fascinating, readable, in-depth research in early kiting. The most extensive kite bibliography in print. No plans. Hardcover, 210 pp., \$31.95
Softcover, 210 pp., \$14.95



Kiteworks by Maxwell Eden. Revised second edition contains 50 kite plans from respected designers. Up-to-date on materials. Detailed drawings plus tips, techniques, accessories, history and (un)related stories. Colorful paintings and a few photos. Unclear in places. Softcover, 287 pp., \$14.95



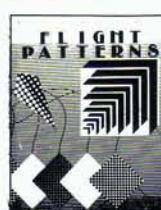
25 Kites that Fly by Leslie Hunt. Reprint of 1929 original. Contains good old plans for kites not seen much anymore (shield, yacht, elephant, etc.) using orange crate sticks and flour-and-water paste. Historical data, photos, details. Hunt was a kitemaker for the U.S. Weather Bureau. Softcover, 110 pp., \$2.95



Make Your Own Kite (new kites) by John W. Jordan. Plans for nine kites using unusual materials such as plastic foam and computer cards. Clear instructions and amusing reading from a genuine enthusiast ("You will never find an unhappy person at the end of a kite string"). Supplies limited. Softcover, 90 pp., \$6.95

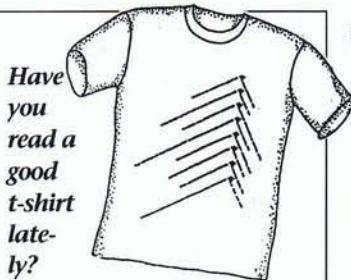


Super Kites III by Neil Thorburn. Contains many good designs and tested, creative construction techniques using mostly plastic bags and wooden dowels. Includes new plans for the T-Bird-2, T-Bird-3 and Bristol boxes. Nice color photographs brighten this "completely handmade" book. Softcover, 123 pp., \$8.95



Flight Patterns by Leland Toy, 2nd edition. Solid fundamental tips and easy plans for eight kites from the recently deceased kiter. Plans include a rotor made of foam meat trays and a Mylar fighter, plus fighting strategies. Unpretentious, free of errors and user-friendly. Softcover, 36 pp., \$6.95

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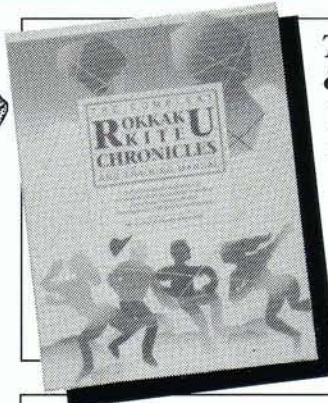
Here it is, the entire, coveted collection, all 36 back issues of *Kite Lines*, over the past 16 years, in a neat compact library on microfiche.

Whenever our original paper copies sell out, a microfiche version is offered immediately, so a serious kiter need never miss an issue entirely. And new enthusiasts can do a crash course in kiting with this treasure chest of information!



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The complete set of *Kite Tales* (the original AKA newsletter) on microfiche—more than 1,600 pages—all 40 issues from October 1964 to November 1976. Here are 12 years of plans, profiles, commentary, news and resource material available nowhere else. A must for researchers, collectors or libraries.

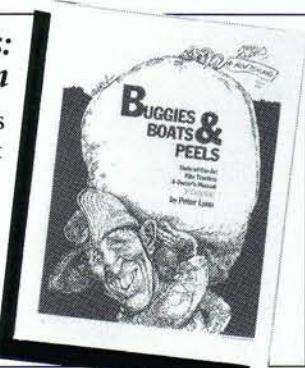


The Compleat Rokkaku Kite Chronicles & Training Manual

Everything about the kite community's romance with the rokkaku since 1983—together in one place—reprinted from past issues of *Kite Lines*. Plans, too, namely the Sanjo Rokkaku by Mel Govig, distributed at the beginning of the rokkaku challenges, describing how to make this traditional kite in nylon or Tyvek. Includes dimensions and complete detail drawings for an inexpensive, easy-to-make 6-foot, challenge-size kite. Softcover, 20 pages, \$6.95 plus \$1.00 shipping

NEW! Buggies, Boats & Peels: State of the Art Kite Traction by Peter Lynn

The Buggymaster tells you how to get started in the new sports of kite boggling and kitesailing. History, theory, how to start boggling, how to "reach" (travel upwind) for maximum speed, how and when to turn, racing tactics, kite selection, buggy maintenance and more. Boat traction is treated with similar thoroughness. Complete data on the Peter Lynn Peel. A barrage of information on equipment and techniques. New second edition, softcover, 12 pages, \$6.95 plus \$1.00 shipping



Kite Festivals! by Valerie Govig. Thorough guidance in festival organizing, standards, scheduling, location, budgets, formats (competitive vs. noncompetitive), judging, field events and awards. Includes "Figure Kiting" by Red Braswell, \$3.00 ppd.



Hundreds of Sleds, Hundreds of Smiles by Shirley B. Osborne and Mel Govig. Groups of 500 kids are no problem if you use this article's success formula. How to make sled kites indoors or out, plus how to get the most educational value from it, \$1.00 ppd.

ARE YOU MISSING SOMETHING?

Back issues of *Kite Lines* offer a wealth of information and ideas: plans, tips, techniques (for both single- and multi-line fliers), personalities, world records, festivals, reviews—an essential history of today's kiting, saturated with inspiring stories and designs.

No wonder back issues of *Kite Lines* are avidly collected by so many enthusiasts. You can start now with the 11 issues available in original paper form. \$4.00 each plus shipping, while supplies last.

SUMMER-FALL 1987 (Vol. 6, No. 4)

Kites of Buriram (Thailand); Flying in Baja; Sher-Bird; Sisson Sled; Cutting Boron; Dyeing Ripstop with Kool-Aid.

SUMMER 1989 (Vol. 7, No. 3)

India's Annual Frenzy; Stunt Kite Survey; Kite Capitals of the World; Fabulous Bali; Flying Wedge; Ohashi's Arch Train.

WINTER 1989-90 (Vol. 7, No. 4)

China seen by Tal Streeter and Skye Morrison; How to Dye Ripstop; Origins of the Delta; Modifying a Parachute for Kiting; How to Stunt a Flow Form.

SUMMER 1990 (Vol. 8, No. 1)

New Zealand's Festival; Parachute Stunter plans; Flag and Banner Hookups; Peter Lynn on Future Tech; One Sky Over Berlin; Washington (England); Bobby Stanfield.

WINTER 1990-91 (Vol. 8, No. 2)

Spectacular Europe: Dieppe, Montpellier, Bristol and Berlin; Butterfly kite plans; Stunt Kite Survey; D'Alto's Whitehead replica; setting Largest Eddy record.

SPRING 1991 (Vol. 8, No. 3)

Whistling Kites of Nantong (China) by Tal Streeter; Gomberg on Kite Pin Collecting; Angle Estimating; the Wind Shot stunter plans; new Longest Kite record.

SUMMER-FALL 1991 (Vol. 8, No. 4)

Pierre Fabre in Japan; Rick Kinnaird on Rokkaku Fighting; Great Events in France & England; Kocher's Obtuse Tetra plans; Huntington Beach scandal; Peter Malinski.

WINTER 1991-92 (Vol. 9, No. 1)

Stunting Surprises in Italy & Poland; Gubbio (Italy): A Town Going Ga-Ga; Tucker's Painless Parafoil plans; How to Paint Ripstop; AKA Convention; Failed Largest Box, Successful Largest Rokkaku; Roberto Guidori.

SPRING-SUMMER 1992 (Vol. 9, No. 2)

Ingenious André Cassagnes by Pierre Fabre; World Class Biennial in Thailand and the Natural Fibers Festival; Flying Two Miles Above Christmas Island; 3rd annual Stunter Survey; Valentine Kite plans; George Peters.

FALL 1992 (Vol. 9, No. 3)

Europe's riches: Castiglione del Lago, Le Touquet, Barcelona and Ostia; the Arch Ribbon by Étienne Veyres; Kites Over Niagara Falls; Breaking Free From Tangles; Ianuzzi's Featherlight plans; Kim Petersen.

WINTER 1992-93 (Vol. 9, No. 4)

Hamamatsu by George Peters; Kite Power by Nop Velthuizen, with kite traction chronology; Fighters Front & Center by Mel Govig; Dieppe's VIIth Biennial; the GX-3 stunter by Graves & Atkins; Ron & Sandra Gibian.

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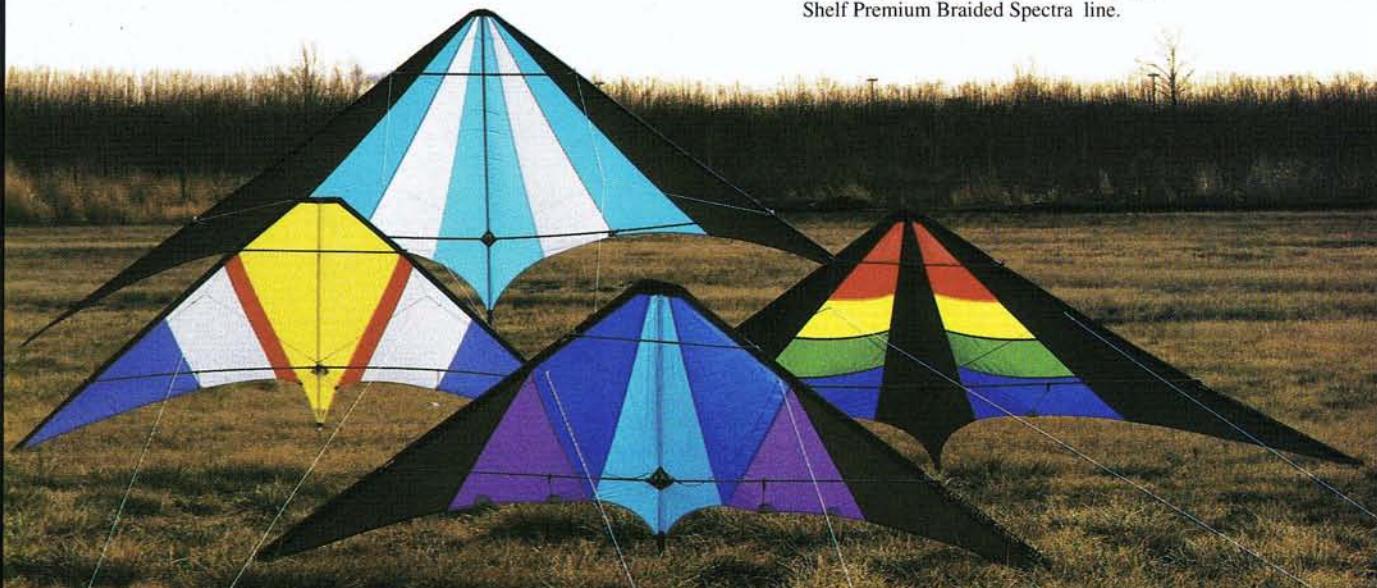
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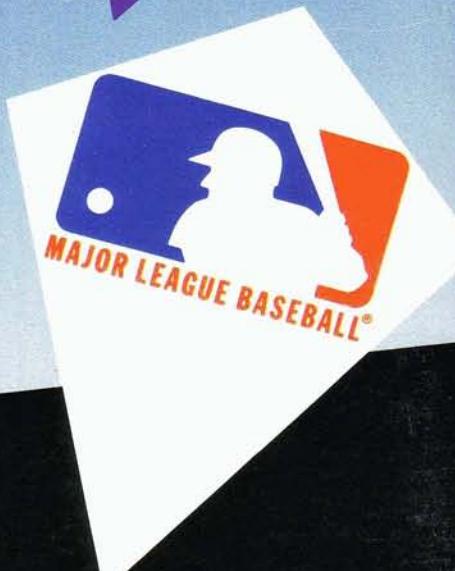
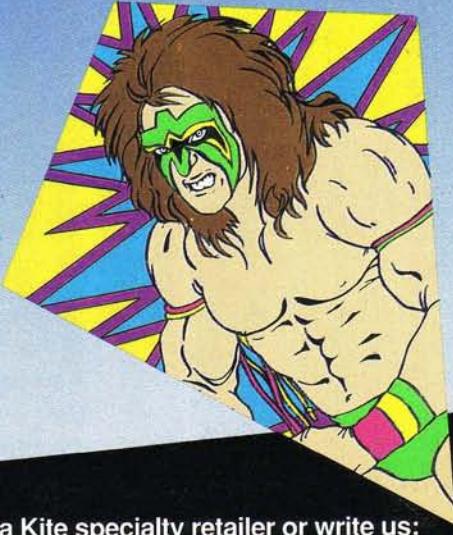
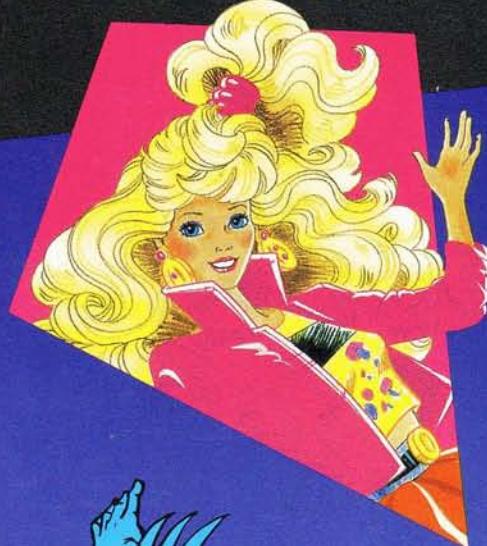
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