

KiteLines

\$1.50
FALL 1977



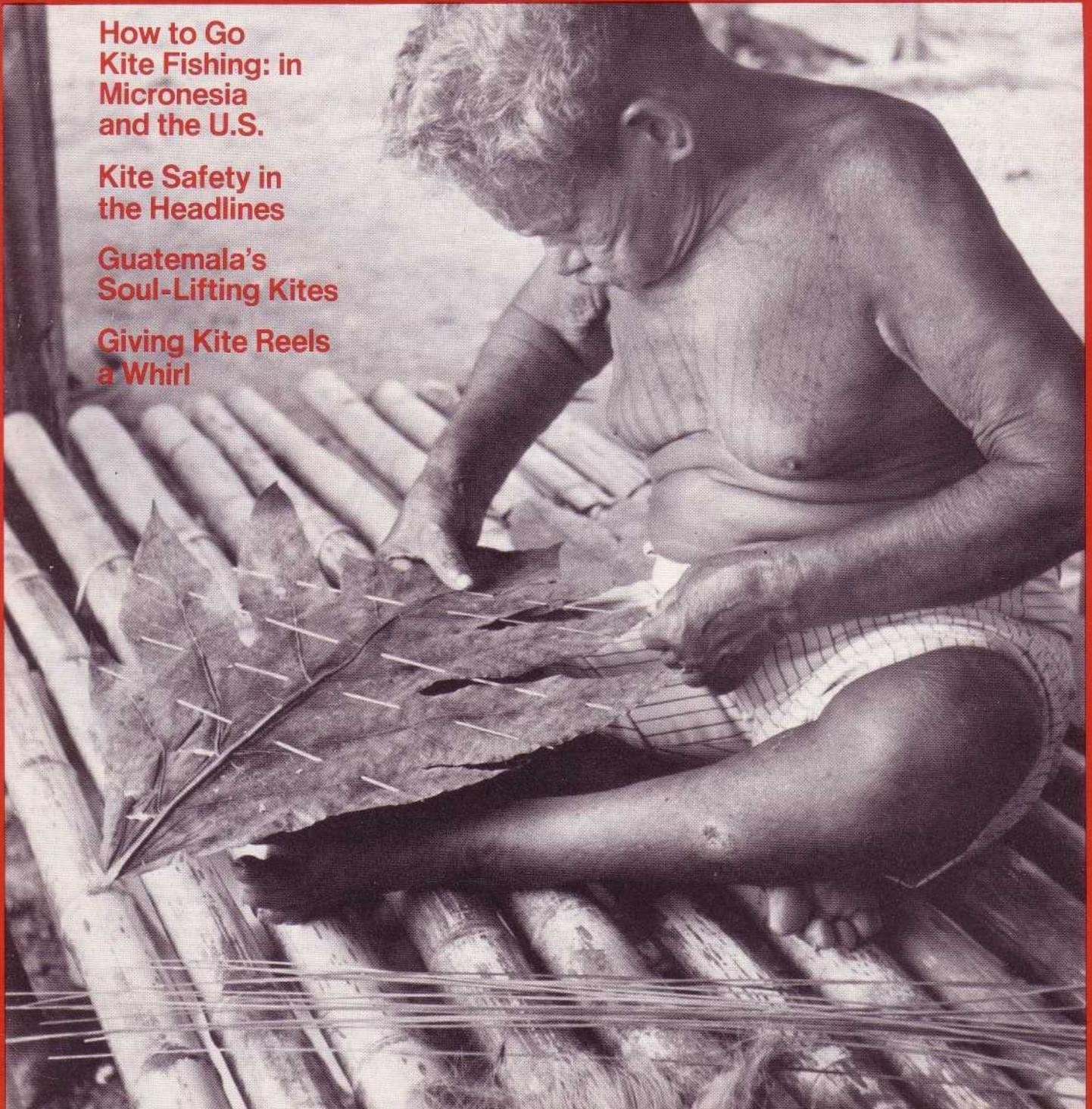
quarterly journal of the American Kitefliers Association

**How to Go
Kite Fishing: in
Micronesia
and the U.S.**

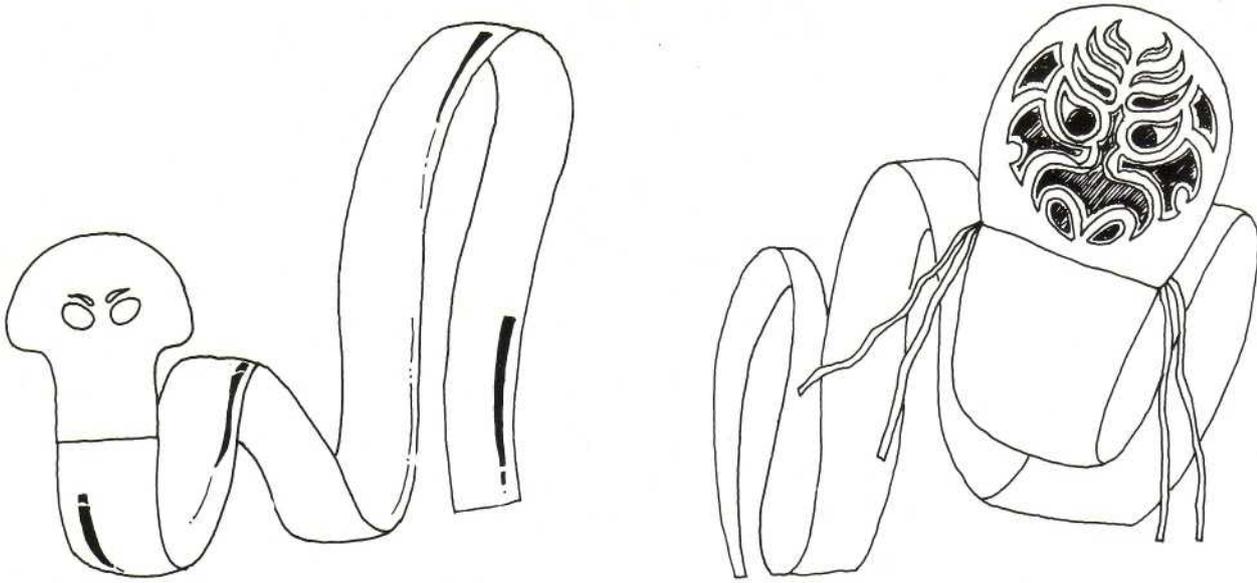
**Kite Safety in
the Headlines**

**Guatemala's
Soul-Lifting Kites**

**Giving Kite Reels
a Whirl**



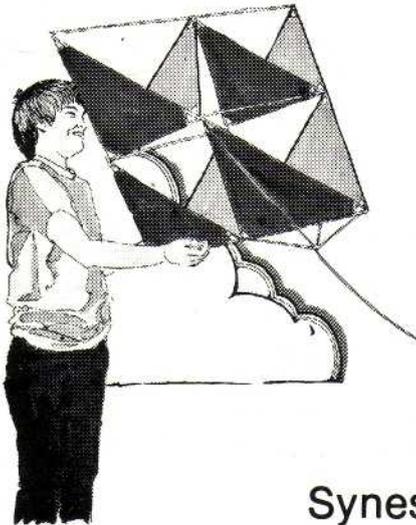
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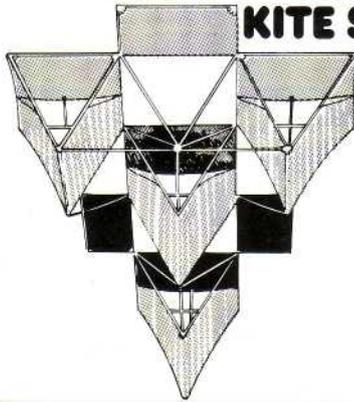
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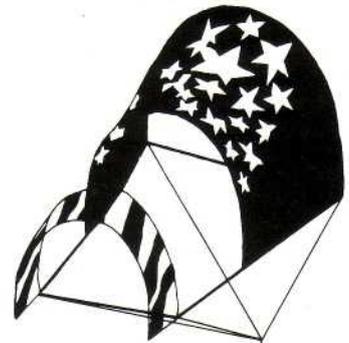
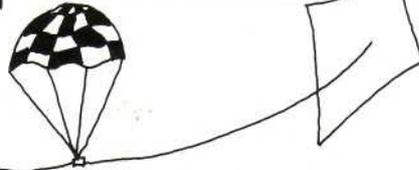
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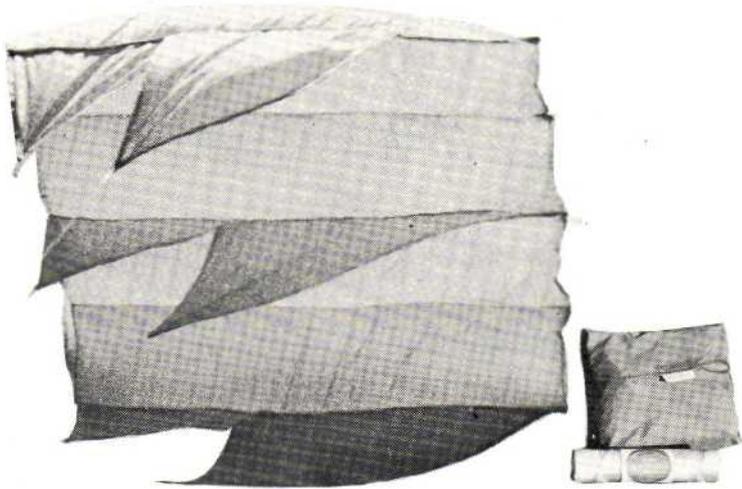
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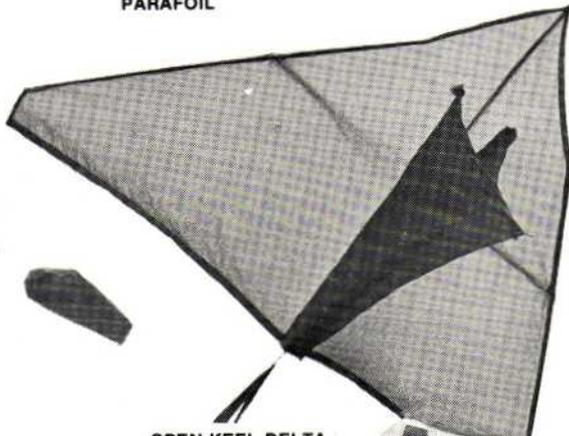
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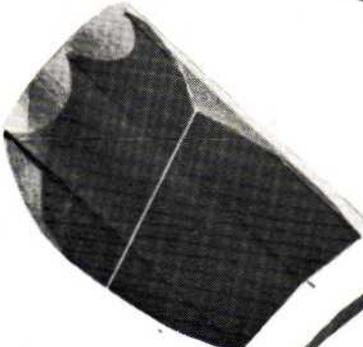
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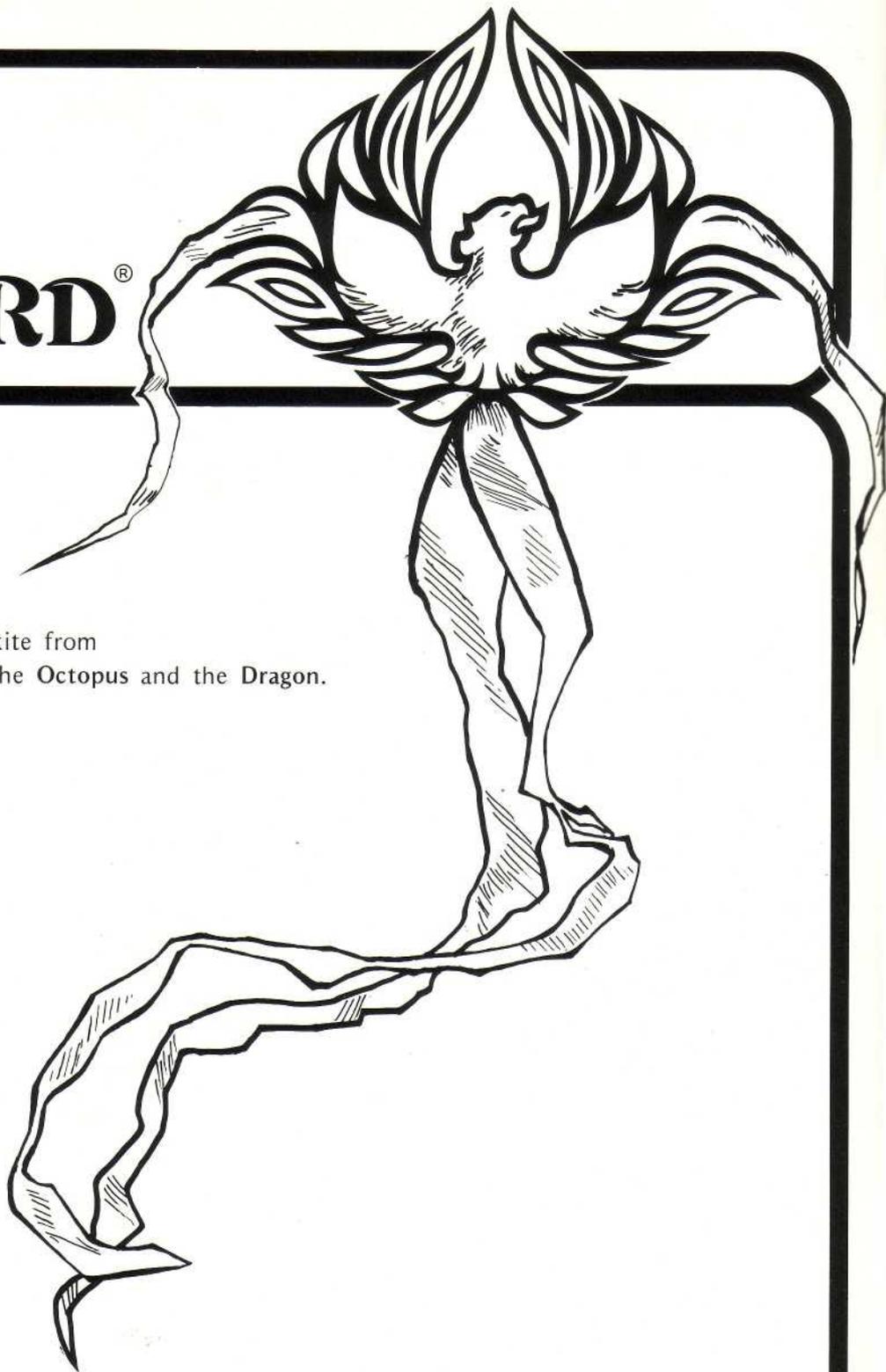
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Publisher-Editor: Valerie Govig

Art Director: Weston Phipps

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Editorial Advisory Panel

William R. Bigge

A. Pete Ianuzzi

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Cover

Patricio Tahemaremacho makes kites in preparation for kite fishing on the small Pacific island of Palau. It is here recently that an environmental controversy has centered. A giant oil supertanker port has been proposed for this remote isle in the Micronesia chain. The proposal has accelerated the desires of the natives for independence from U.S. trust protection, and has created a classic confrontation between conservation and development. Wayne Baldwin, President of the Hawaii chapter of AKA, was in the right place at the right time to see Patricio working in the traditional manner of his ancestors. Except for the striped shorts, the picture could have been taken generations ago. "It was like striking gold to me," Wayne confessed. Photograph by Wayne J. Baldwin.

(Story on page 32.)



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Letter from the Editor

Today I went kiteflying with some of my friends in the Maryland Kite Society. You could say it was like many such days I've experienced, and your assumption would be superficially correct. But on a deeper level it was entirely new and fresh.

First of all, each outing brings out a different assemblage of people, so that the mixture of personalities always creates new sparks of recognition, exchange and discovery. We enjoyed both "new" and "old" people and their "new" and "old" kites.

Second, the flying conditions were not quite the same as on other occasions. The wind and sunshine were just right, but the site was not quite as idyllic as in years past. New construction is cruelly cutting into the open space. There is still plenty of room left for kiteflying, but it is now a more enclosed area and a less majestic vista. It is hardly for kitefliers to say that

this development is wrong, for we are a small group and we visit Harpers Ferry but once a year. The land owner must have had his reasons for permitting the change. But a hill that once saw 188 kites flying on a single line is now being bulldozed into oblivion. We regret the loss, for it can never be restored.

Third, I relearned something very interesting today. Kiting is an individual challenge in relation to construction, but in flying it's usually social. True, one can enjoy it as a solitary sport. Also, the requirement for open space tends to reinforce the individualness and keep fliers separate on the field. But the urge to share and be involved with others in kiting is strong, and overcomes limitations. Kiting is a group sport as well as an individual one, a combination that is rare among human pursuits.

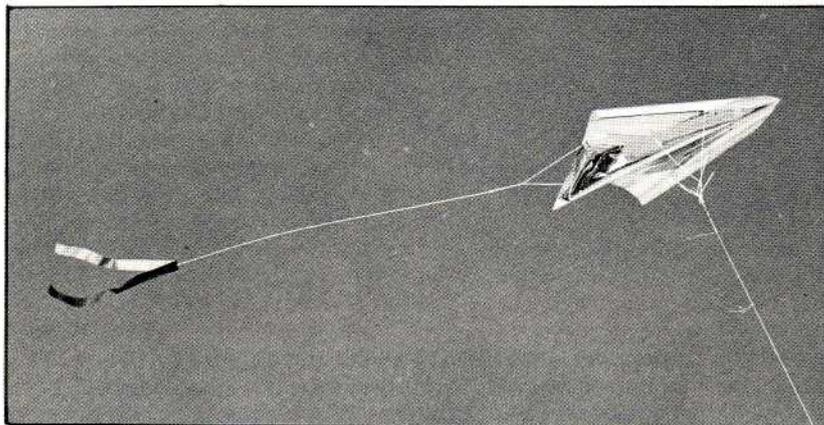
This natural social extension of our sport was in happy evidence at Harpers Ferry. Talk was constant, and very often it referred, quite unconsciously, to "the magazine," apparently not out of any special deference to me as editor, but out of the natural course of interest in kites. A medium of com-

munication has much to do with the enthusiast's ability to call kiting his or her avocation. "The magazine" is woven into the fabric and shape of human lives, the fancies in their brains, the expenditures of their hours, the patterns of their personal relationships.

One of these days, an auditor is going to come look at the magazine's books and pronounce upon their condition from a hardheaded business point of view. As I write this I haven't much notion of what he or she will tell me. That news will be important to have, of course, but whether the outlook is cloudy or sunny, I will find it difficult to adopt so limited a point of view. For me, kiteflying in itself is a rainbow of such incredible, magnetic pleasure that a pot of gold at its end would be irrelevant, redundant, cheapening. Or, to put it another way, kitefliers are among the richest men and women of this world.

Windily yours,

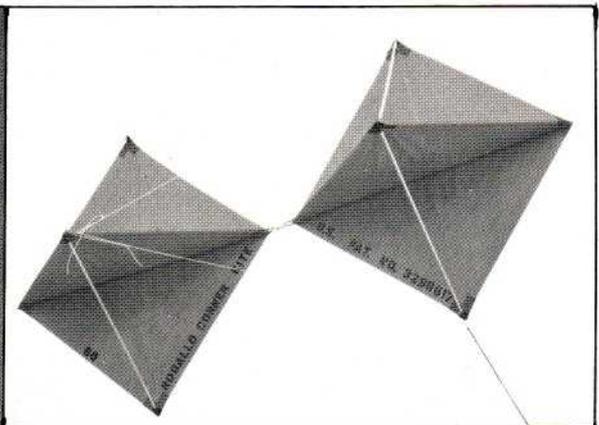
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Letters

DOUBLE-CROSS?

The cover of the Summer 1977 *Kite Lines* shows three Japanese kitelliers pulling the greatest hoax of last year and this year with their claim to the record for *the most kites flown on a single line*.

I SEE TWO LINES! PROTEST!!

Henry H. Boutwell
New Orleans, LA

Henry H. Boutwell has pointed out that the 1585 kites flown by Takeshi Nishibayashi and crew were not flown on one line but on two closely-spaced lines. My immediate reaction is that the pair of lines was handled as a single line on the ground. When I first saw the pictures, it seemed that the two lines tend to keep each kite from lateral looping but tend to increase the risk of accidentally overloading a kite.

Boutwell apparently held the record for about two months but there has not been an agreement as to how many of his kites should be counted — that is, as flying at the same time, not merely launched but sufficiently anchored to continue to fly, and anchored by a single line or by two or more lines acting as a single line. To me, retrieving all kites to be counted is a desirable but not essential means of validating the number.

The question of flying on a single line is a significant idea in kiting. A suggested primordial kite is a leaf in a spider web or suspended by a strand of spider silk. A leaf suspended by two or more strands may show more flying ability than one dangling on one strand. There is a drawing of a fanciful stickless man-lifting kite which depends on having several lines to the ground. The Wright brothers and the Wheat brothers have flown sophisticated airframes as kites by using two lines — these may not be kitable on a single line. A purist might call them quasi-kites. Controllable kites as a rule, however, will fly on a single line or with both lines together in the hand and of the same length — this mode is good for climb.

William R. Bigge
Washington, DC

TAIL TALK DRAGS ON

I was favorably impressed with Pete Ianuzzi's sound comments on tails (Spring 1977 *Kite Lines*). The general discussion on "purpose" of tails seemed to stray a bit in spots. A tail doesn't provide any lift to the kite. The function is exclusively drag. However, we should not overlook the fact that a wide tail, as in the case of the so-called cobra kite, provides significant torque which prevents rolling and sideling. We should bear in mind that

some kinds of tails are just as efficient as lifting devices as the kite, so that stability can be achieved without impairing elevation.

Weight need not be detrimental and can be very beneficial. A properly placed ballast of only 5-7% of the gross weight will have scarcely a discernible effect on minimum launch velocity. Attitude and elevation will be improved in the sense that the acquired stability will permit the optimum bridle connection. Moreover, ballast can sometimes enable more surface to be utilized in providing lift which more than offsets the bit of weight.

Usually, in box kites of cells in tandem, the aft cells are behaving pretty much as rigidly connected drogues rather than tails. That is because we don't design properly or else the desired motif doesn't oblige. The performance of box kites is quite sensitive to both aspect ratio and spacing of cells.

John Loy
Cochin, India

WINGING IT: UPDATE

The story about "Person-Lifting Kites" brought back vivid memories of our own similar activities here in Kitty Hawk beginning about ten years ago and running to about four years ago when I began flying hang gliders at Jockey's Ridge.

We used four different all-flexible wings, each of about 300 square feet of area that we made at home, with some help from a dress manufacturer in Newport News where we then lived. Two of the wings were single-keel designs like the Flexikite and two were twin-keel designs. The materials were two-ounce rip-stop nylon of red, white and blue.

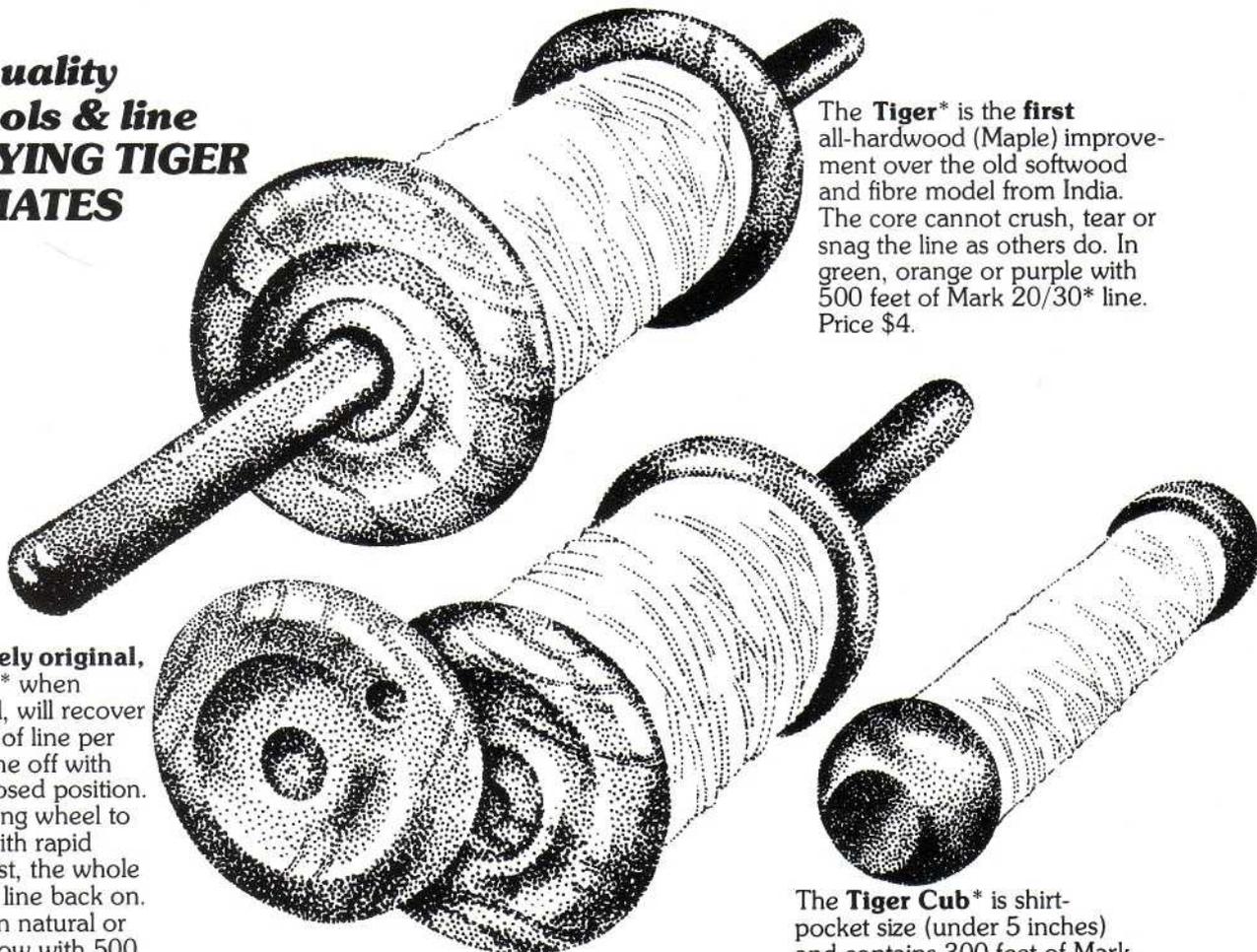
We flew many of our friends and relatives in the sea breeze up to heights of about 50 feet. Our daughter Carol was probably the most frequent flier. I recall taking one of the twin-keel wings to a Maryland Kite Festival where we tried to demonstrate it by flying our grandson Mike Samuels in a rather turbulent condition, nothing like sea breeze.

Although our usual mode of flight was anchored and in the sea breeze, we made some flights by boat tow and some free flights from Jockey's Ridge and other high dunes. The low glide ratio (2 to 3) of these all-flexible wings and the launching problems of a completely flexible wing relative to the now conventional hang gliders, however, were the reasons that we switched over to gliders with aluminum-tube frames for foot launching.

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

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

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FLYING TIGER ASSOCIATES

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taken so long to become popular. Flexi-kites have been built for either one or two lines since 1948 and our children preferred two-line flight. One day about twenty years ago we demonstrated flight into and out of the water with a two-line Flexi-kite at the end of a pier in the James River near our home. Repeatedly we were able to dive the kite into the water, turn it around and "fly" it back to the surface and into the air again. We didn't feel that it was much of an accomplishment, however, because flying fish and water fowl do it all the time. They had flexible folding wings before we did. I guess the only human use for such a capability would be a flying submarine or submersible airplane.

I'll leave you with that thought.

Francis M. Rogallo
Kitty Hawk, NC

PERFECT KITE DEFINED FURTHER

Mel Govig asked the question, "Which is the perfect kite?" (Summer 1977 *Kite Lines*). Thank you for an interesting article, but why no mention of challenge or of pilot adaptability? The article was so smooth that I didn't even feel the wind on me' face!

My wife has the answer to Mel's question. She says the perfect kite is one which doesn't take me out of the house or away from home.

I might add that one of my favorite kites handles like a B17 Flying Fortress.

Clive C.O. Rawlinson,
B.A. (Hon.), D.M.A.
Essex, England

HIGHEROGLYPHICS

They do quite a bit of kiteflying here in Cairo. I have observed as many as ten kites flying in one group in the heart of old Cairo, from the tops of apartment buildings. They are rather colorful kites and most are of the three-stick or star variety.

I have flown a "foil" at the great pyramid a couple of times but really haven't had much time to fly anything else. My wife and I spent the first two weeks of June in Dublin, Ireland, with our son and his wife; his wife Anne is an avid kiteflier. While spending a few days in Western Ireland near Galway, my daughter-in-law and I built a UFO kite and flew it off the famous cliffs of Mohr. Right in the middle of it all a bird watcher came out frothing at the mouth about our scaring the seagulls!

Secret ambition: To fly a kite off the top of the Great Pyramid of Cheops—462 feet high!

Capt. W. R. Langston
Cairo, Egypt

Nuesslein family/kite group scene:

Ground front: Nicole and rotor kite.

Left to right: Gibson Girl box, Larry, Jr., Steiff Roloplan, Larry, Sr., and Anniversary delta.



KITE COLLECTIBLES

I am 43 now and as a child I and my dad used to fly kites quite a bit. Some of the old timers that we have flown and still have are:

1. A six-foot Steiff kite Roloplan (made by the company that makes German stuffed animals) and a smaller version. It is at least 35 years old and one of the best fliers I have.

2. A collapsible Gibson Girl box kite.

3. A Navy Target Kite—flew super in a stiff breeze at the shore.

4. Rotating wing kites made from cardboard that fly like the dickens in good wind. They are my copies from a post-war model with cardboard "pie plates" at each end of the rotating wing.

Currently my son and I fly all these kites plus Indian fighters, Peter Powell stunters, various assorted garbage bag sleds (we have a Zammo sled from England which is a superb flier and has three round vents).

We love it all and even won a prize at the annual Ocean City, NJ, kite contest, 4th of July, 1976. My son won for the smallest, a 2"x2" paper kite with a three-foot tail, and I won with the Anniversary delta towing an American flag. It's all fun and a good pastime to see what something will do up there.

Lawrence A. Nuesslein
Allentown, PA

NON-STOP MOTS

Thank you for the Spring 1977 *Kite Lines*. It's a chair warmer. Mr. Mots, the Kite Flying King of Milwaukee, has greatly enjoyed reading it, and when he left his chair, I'd sneak in and pick up *Kite Lines* and enjoy it greatly. It seems that comfy chair never cools off. Your magazine is great.

We have immensely enjoyed the articles by and about our very good friend, Paul

Edward Garber.

The article "Talking Tails" was interesting to me. Our kites are heavy wind kites and require four tails, each 50 feet long, for ordinary wind about 14 miles per hour. More tails are needed for heavier wind.

Our greatest kiting was in Winnipeg, Manitoba, Canada, in 1967, where we were paid \$40 per day for nine days, for an hour and a half of kiteflying. One day there was barely enough air to breathe, so we couldn't fly our kites. However, we displayed those we had in our station wagon, and we talked kites.

We were packed to leave, and my husband said, "We'll wait a bit. *I smell fresh air*, and maybe we can fly yet today." We didn't wait long. He always said he couldn't smell anything, but he had a good sense of smell that day. About ten minutes later, a whoosshh of fresh air, and a half of one roof came off, tents were being blown down, and Mr. Mots said, "Stay in the car, I'm going to test my kite in a wind like this." He guessed, and put on 12 tails, each 50 feet.

He fed the kite to the wind, did all his acrobatics, and brought the kite down safely to his feet. The man who hired us said, "Now I know you are professional."

Next day we read in the Winnipeg paper: "Wind, 79 miles per hour." Part of a board fence near our exit gate was blowing toward us like a cardboard in a breeze, and the electric sign over the midway was flat in the roadway.

I bet nobody has done more work in the fancy kite tail department over the last years to excell my record. My beautiful kite tails are pinked on both sides and sewed together and some I have even starched and ironed for Special Occasions and Special Customers. My tails have added spectacular beauty to Mots Original Acrobatic Kites. I've called myself Mrs. Kite Tails.

Frank is the King of Spring. One day a photographer phoned to talk to Frank, saying, "Let me talk to the Bull of the Woods." I said, "Sir, you have his title wrong. He is Bull of the Winds. Ya can't fly kites in the woods."

Mr. Mots was 87 years young on May first this year, 1977. He lost his hearing last year flying kites at a Summerfest with all that percussion noise. People all over those grounds were thrilled with his acrobatics.

With his loss of hearing, too much of a load is on my shoulders, so it's time to find a buyer. We have developed Mots Original Acrobatic Kites nationally and are proud of what we built up since 1961 when someone told Frank to go fly a kite—

After 2500 years, someone finally invented

KiteWinder

The Chinese invented kites about 2500 years ago. But until now no one came up with a device which made it easy to get a kite up in the air and get it back down quickly and directly.

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Two tension bars in the slot help prevent the line from looping over paddles on to the shaft.

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KiteWinder works equally well for right or left-handed persons.

Win kiteflying contests

Most kiteflying contests are judged on the basis of how far and how fast you can get your kite out. KiteWinder puts your kite into the windstream almost immediately; allows you to let out line as rapidly as the wind will pull it. Enables you to outfly contestants using old-fashioned reels.

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Many kites are lost because they fall some distance away when you have to bring them in slowly. KiteWinder flies the kite in rapidly and almost vertically to your hand. It pays for itself when you save one kite.

A mile of line

You can put almost a mile of line on KiteWinder. Enough to fly your kite out of sight if you wish. Or fly several kites in tandem.

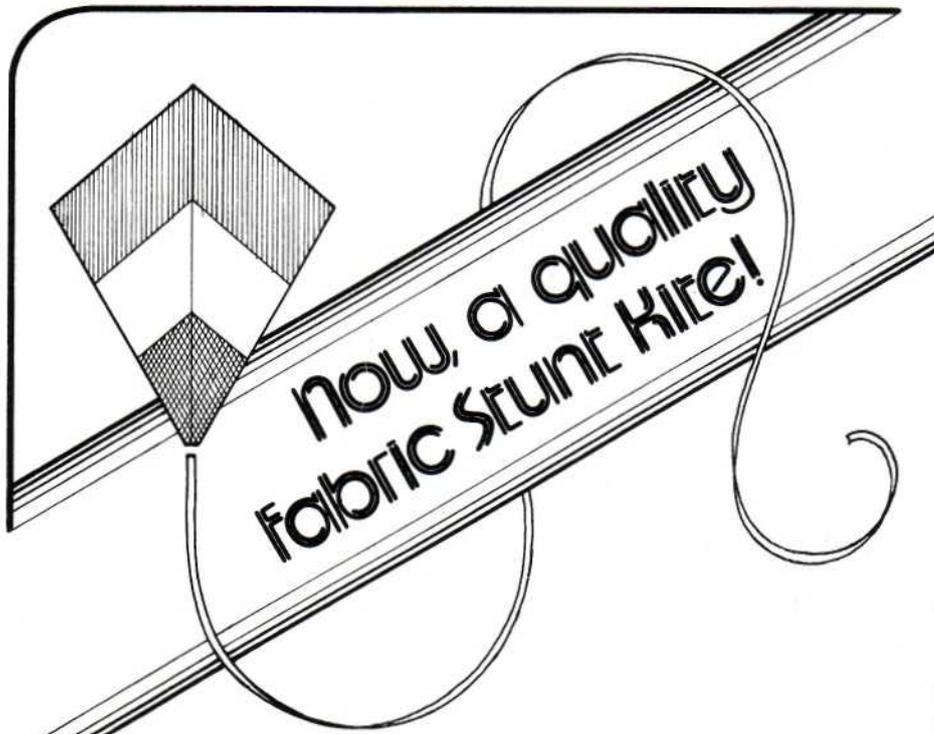


KiteWinder is made of polypropylene reinforced with fiberglass and will withstand great pressure without distortion or buckling.

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Letters

(Continued)

when he was talking insurance. Paul Garber knows the merit of our kites. Wish he could see this House of Kites now.

Mrs. Frank (Elma) Mots
Milwaukee, WI

SURPLUS TARGET KITES REMEMBERED

I was very interested in seeing the article about Paul Garber because he has been a good friend, and my brother and I, through our aeromodeling activities, supplied him with many aircraft models in the early days of the Smithsonian Aviation section. After the War we purchased from the Navy practically the total surplus target kite stock and sold them through our department store. These kites were designed by Paul Garber and I don't think the equal to them has yet to be on the market.

Nathan Polk
Jersey City, NJ

MANY FINS, FEW KITES

You can hardly talk about kiteflying customs in Finland—there are no customs. There are not too many people interested in kites and I have not found any who would take it seriously. For instance, as far as I know, I am probably the only one who makes and flies my own designs. A magazine tried to arrange a kiteflying competition here last winter but only seven people participated! So there is a lot to do...

Olavi Taskinen
Helsinki, Finland

FIGHTER IN MIAMI

Originally I am from India—a kite lover, fighting kites for the last 15 years and trying to promote kite fighting techniques in Miami, FL, for the last year. I would like to know about any groups, clubs or points of contact in the Miami area. I have been interviewed by the *Miami News* and the *Miami Herald* on the subject of kites.

Kindly put me on your list of enthusiastic kite fighters and let me know if something turns up which needs demonstration in Miami.

Mukesh K. Shah
P.O. Box 650582
Miami, FL 33165

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

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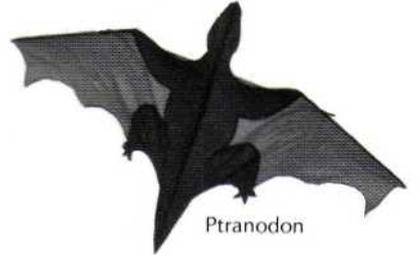
Super Bat

CANADA GOOSE: 70" wingspan, 36" tall. Brown body, black neck, white cheek, brown eyes, white bottom, black legs; with carrying bag. **\$33**

SUPER BAT: 72" wingspan, 45" tall. Black head, red body and white eyes with black eyeballs; with carrying bag **\$35**



Black Bat



Ptranodon

BLACK BAT: 72" wingspan, 43" tall. Solid black with white eyes and black eyeballs; with carrying bag. **\$30**

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SUPER EAGLE: 80" wingspan, 40" tall. Head and tail navy blue, red wings; with carrying bag **\$35**

ARROW DELTA: 82" wingspan, 45" tall. Red and blue; with carrying bag. **\$22**



Arrow Delta

4-Arm Reel

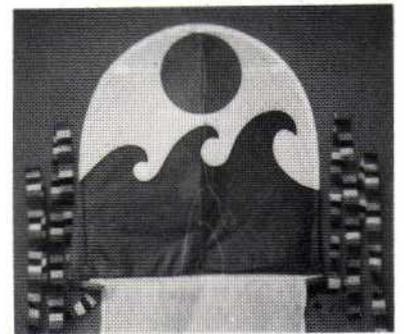
NATIONAL EAGLE: 70" wingspan, 33" tall. White head and tail, body red, black, brown or navy blue: Head and talons painted for realism; with carrying bag **\$35**

SNOW GOOSE: 70" wingspan, 36" tall. White body with black wing tips, red beak, black eyes and red legs; with carrying bag **\$34**



National Eagle

MORNING SUN-RAINBOW: 32' long. White ripstop nylon background with 2-color sewn applique, red sun, blue waves; body in 7 rainbow colors. **\$26**



Morning Sun-Rainbow

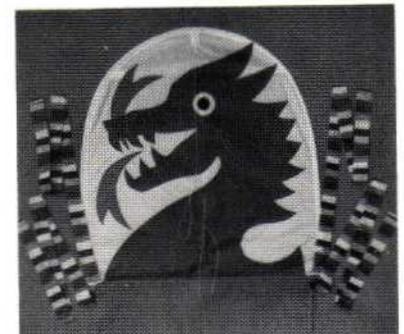
DRAGON RAINBOW: 32' long. Face: white ripstop nylon background with appliqued blue head, red tongues, black eyeball. Body: 7 rainbow colors. **\$26**

4-ARM REEL: With about 800' nylon twine, 40-lb. test, with handy swivel snap **\$30**

2-ARM REEL (not shown): With about 300' nylon twine, 40-lb. test, with handy swivel snap **\$8**



Snow Goose



Dragon Rainbow

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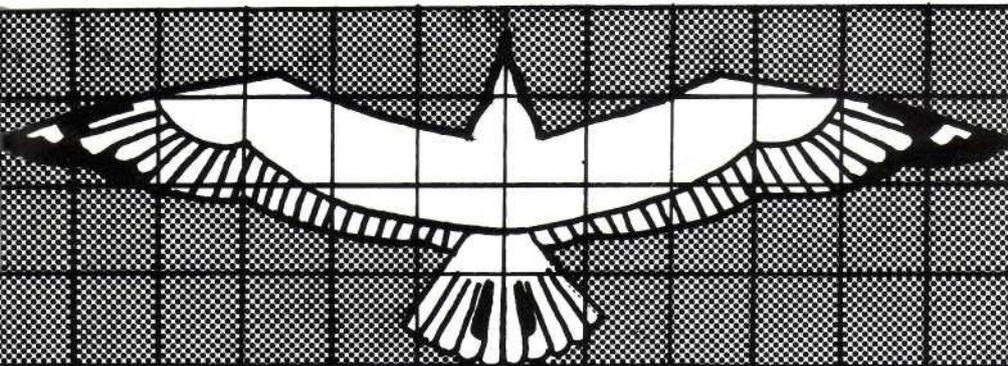
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Design Workshop



GULL DELTA

By John F. Van Gilder
Washington Kitefliers Association

This design was something I clipped from a craft magazine and filed for future reference. Recently I finally found time to make it into a kite.

It scaled out best for the piece of Tyvek® available at five inches to the

square: 17½ inches long with a 58-inch wingspan. The chassis is a delta kite. The bridle point is 5¼ inches directly below a spot 5¼ inches from the nose.

It was a pleasant surprise to me that the kite flew with a slight flapping-of-the-wings motion. In fact, it was a pleasant surprise that the kite flew at all with its great span-to-length ratio. I was sure it would tumble topsy-turvy. ◇



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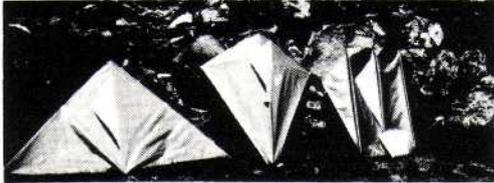
- Tyvek® (types 10 and 16)
- rip-stop nylon (1.2-oz. and 1.5-oz.)
- Mylar® (colors)
- 100% polyester
- Silkspan®
- tissue paper
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- spruce
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Color choices are: White, gold, red, black, green, orange, light blue and dark blue.

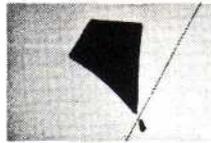
DELTA - 40" x 80"



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

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

DIAMOND - 44" x 51"



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

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

SLED - 40 1/4" x 45"



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

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

POLE REEL

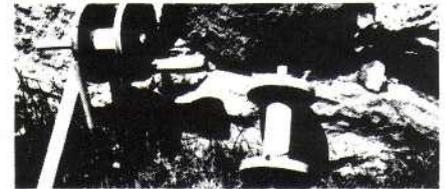
This heavy wood 2" reel has a polyurethane varnish natural finish. The reel itself has a solid wood barrel, a 2 1/4" traverse and a 6" flange. Smooth turning is assured with a spinning hardwood ratchet handle and PVC washers guiding the reel. The line capacity is 1,000 yards of 63 lb. test braided nylon.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

HAND REEL

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

FLYING LINE

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



ORDER FORM

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TAIL-PICKING: GETTING IT UP TO A SCIENCE

By Ed Grauel

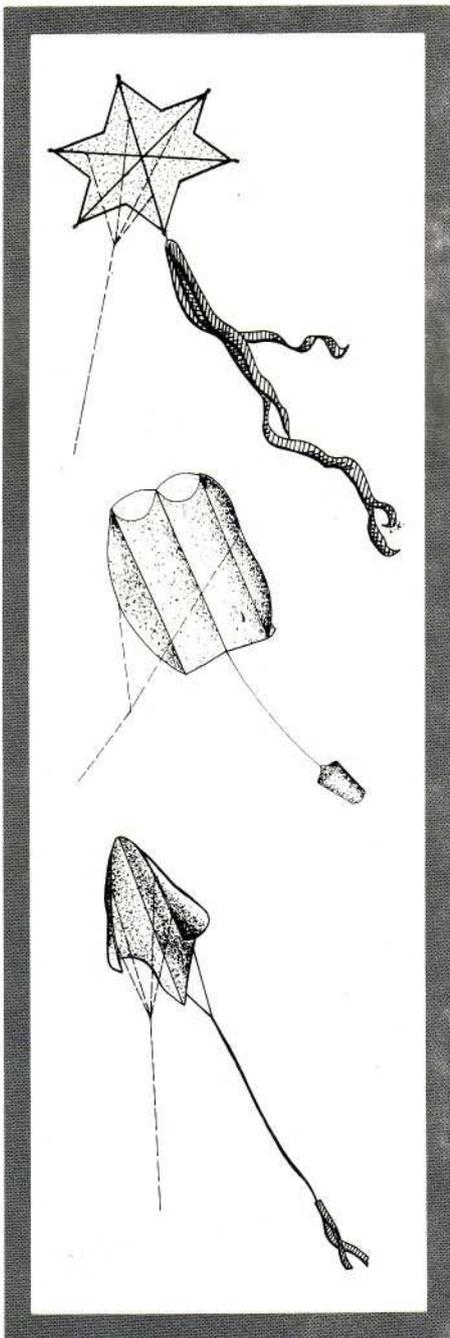
In recent years shortened windsocks, stylishly called drogues, and clustered streamers on a line some distance from the kite, sometimes called "pony tails," have come into more common use along with the old standard streamer tails. I wanted to determine the functional effect of these appendages on various types of kites.

Does a single tail, say two inches wide by ten feet long, have the same effect upon a kite as two tails two inches wide by five feet long, or three two-inch tails, three and one-third feet long? In other words, does the same surface area, in this case 240 square inches, have the same effect upon the flying characteristics of a kite, whether it is in one piece or in several pieces, or is the length of a tail more important than the amount of surface area?

I attempted to resolve this question by constructing three parawing type kites exactly alike, but each with a different one of the three tails as described, then flying the three kites side by side in light, medium and heavy winds. The consensus of three experienced kitefliers observing was that the flying traits of the three kites were exactly the same under all of the wind conditions, indicating that the amount of surface area is the important thing.

For my next tests I selected four types of kites on the basis of dihedral: (1) a flat kite with no dihedral; (2) a bowed kite with positive dihedral; (3) a Bullet kite with a negative dihedral; and (4) a parawing (also called Flexi-kite) with both a positive and a negative dihedral built in.

Now for the tails. I used: four streamers, ranging from one inch wide by six feet long to four inches wide by 15 feet long; four pony tails, ranging from one inch wide by two feet long to three inches wide by three feet long, all in clusters of three



Drawings by Linda Kobitz

streamers with a 36-inch lead; and four drogues, running from five to 14 inches long. For this report, it's simpler to call the four sizes small, standard, medium and large.

Each of the four streamers, four pony tails and four drogues was tested individually on the four kites, and readings were taken of: (1) the minimum amount of wind required to lift each kite and keep it airborne; (2) the maximum amount of wind each kite would take before it tilted badly, power looped, power dived or became uncontrollable; (3) the maximum angle of elevation each kite would reach under normal wind conditions and without the influence of thermals (this

angle of elevation was taken to establish a relative lift-to-drag ratio; the higher the angle the more lift the kite had in relation to the amount of drag); and (4) opinions of the flying stability of the kite in each of the situations described.

I posted the data collected from these tests on 48 cards—one for each of the three types of tails in four sizes for the four types of kites—to permit cross comparisons. Here are some of the results in summary form.

- *What are the basic differences between streamers, pony tails and drogues?* Except for kites with a positive dihedral, which showed little or no difference, drogues created the greatest wind resistance by reducing the angle of elevation, followed by pony tails, then streamers. I conclude that a flier should try a streamer first to achieve stability, then if it isn't enough try a pony tail arrangement and finally a drogue. For attractiveness or non-functional uses, I suggest streamers in preference to pony tails or drogues, as they will add the least amount of drag.

- *Is any tail necessary?* For the flat kite, of course, an appendage of some sort is needed to permit good flight. The bowed kite performed about the same with or without any tail. The Bullet flew about the same in light or medium winds with or without a tail, but definitely flew better in high winds with an appendage. The parawing flew only in light winds without a tail. So, except for kites with built-in positive dihedral, you'll want a tail, at least in higher winds.

- *What effect does a tail have upon the amount of wind needed to lift a kite?* The minimum amount of wind required to lift each type of kite and keep it airborne varied only slightly, regardless of the type or size of tail attached. Flat kites with streamers averaged four and a half miles per hour, but the use of a standard or medium-size drogue took about four miles per hour, while pony tails took five miles per hour—very

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little difference. The bowed kite on average required about six miles per hour, the Bullet about five miles per hour, the parawing about seven miles per hour, all regardless of the type or even size of tail used. It seems that even in light winds use of tails for non-functional purposes won't slow down your kite much.

• *What effect does a tail have upon the maximum wind a kite will take?* Things were quite different at this end of the wind scale. The flat kite would take a substantially higher maximum wind (25 miles per hour) with the medium and large drogues than with either streamers or pony tails (17 and 20 miles per hour). The bowed kite took a higher maximum wind (45 miles per hour) with streamers than with pony tails or drogues (35 miles per hour). The Bullet took the same maximum with the large sizes of either streamers, pony tails or drogues (35 miles per hour). And the parawing had its best maximum with the medium-sized drogue (25 vs. 20 and 22 miles per hour). So, select your tails on the basis of the type of kite being flown.

• *How do tails affect the angle of elevation?* As expected, when the size and weight of the tail increase, the angle of elevation the kite can achieve decreases. The flat kite reached a 67-degree angle, which dropped off to 55 degrees with the larger tails. The Bullet dropped from 65 degrees to 45 degrees, and the parawing from 65 degrees to 40 degrees. Interestingly, though, the bowed kite maintained about a 65-degree angle of elevation with any size of tail.

• *What tails give the highest angle of elevation?* The highest angle was achieved for the flat kite when streamers of the various sizes were used (67 degrees), although the differences weren't great as compared with pony tails and drogues. The bowed kite achieved almost exactly the same angle of elevation (65 degrees) whether streamers, pony tails or drogues were used. The Bullet achieved the same angle (65 degrees) when the small streamer, small pony tail and small drogue were used, and the angle decreased as the larger tails of any type were used. The parawing got its greatest angle of elevation with the small pony tails (65 degrees), but the standard, medium and large pony tails were too heavy to allow the

parawing to rise.

• *What is the best tail for a kite with no dihedral?* While the flat kite, as noted, took a higher maximum wind with drogues than with streamers or pony tails, I considered the flight characteristics unsatisfactory with any size drogue and also with any size pony tail except medium. Therefore, I have some confirmation of what we knew all along, that a suitable size streamer is the best tail for a flat kite, if you want flight stability.

• *What is the best tail for a kite with a positive dihedral?* The bowed kite performed equally well in the air with streamers, pony tails or drogues. But since the kite took a slightly higher maximum wind with streamers, as well as equal elevation, we may conclude that streamers work a little better here also than the other tails.

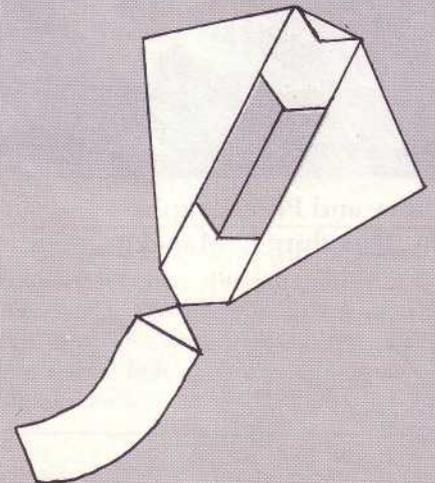
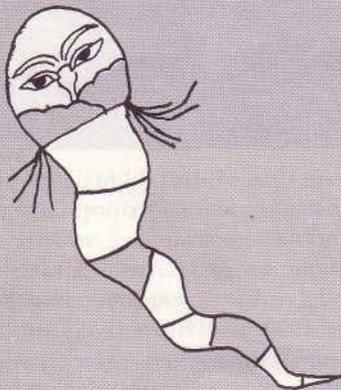
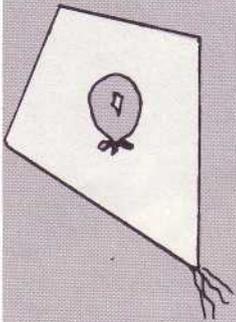
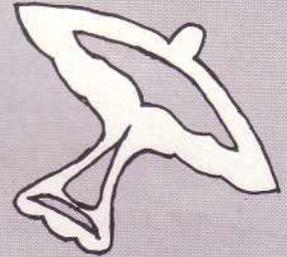
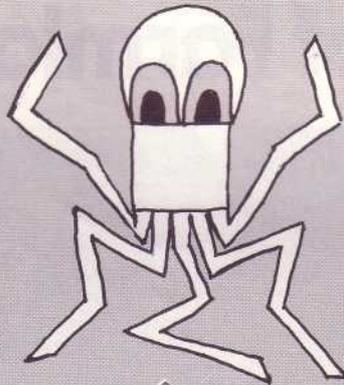
• *What is the best tail for a kite with a negative dihedral?* The Bullet had a small yaw with any size streamer, and with the small and standard sizes of pony tails. Since an equal angle of elevation came with the small-size drogue, we can conclude that a small or standard-size drogue is best for this type of kite, followed by medium and large-size pony tails.

• *What is the best tail for a kite with both a positive end and a negative dihedral?* The parawing is more skittish in the air, but the best stability was achieved with small and standard streamers, small and standard pony tails and a medium drogue. To accept the maximum wind, use of the medium drogue was best, but for the highest angle of elevation, the small pony tail would be the choice for the parawing, again something we've known for a long time.

• *Are there any counter-indications for the use of tails?* Results are not too conclusive, but there is some evidence that if you want stability drogues do not work well on flat kites or parawings, or streamers on the Bullet. No counter-indications were found for bowed kites.

I've determined to my own satisfaction that attaching streamers, pony tails or drogues to a kite may not improve flying characteristics much, but at least tails will do little harm either. Thus the aesthetes in kiting with a taste for tails need not apologize to the aerodynamicists. ◇

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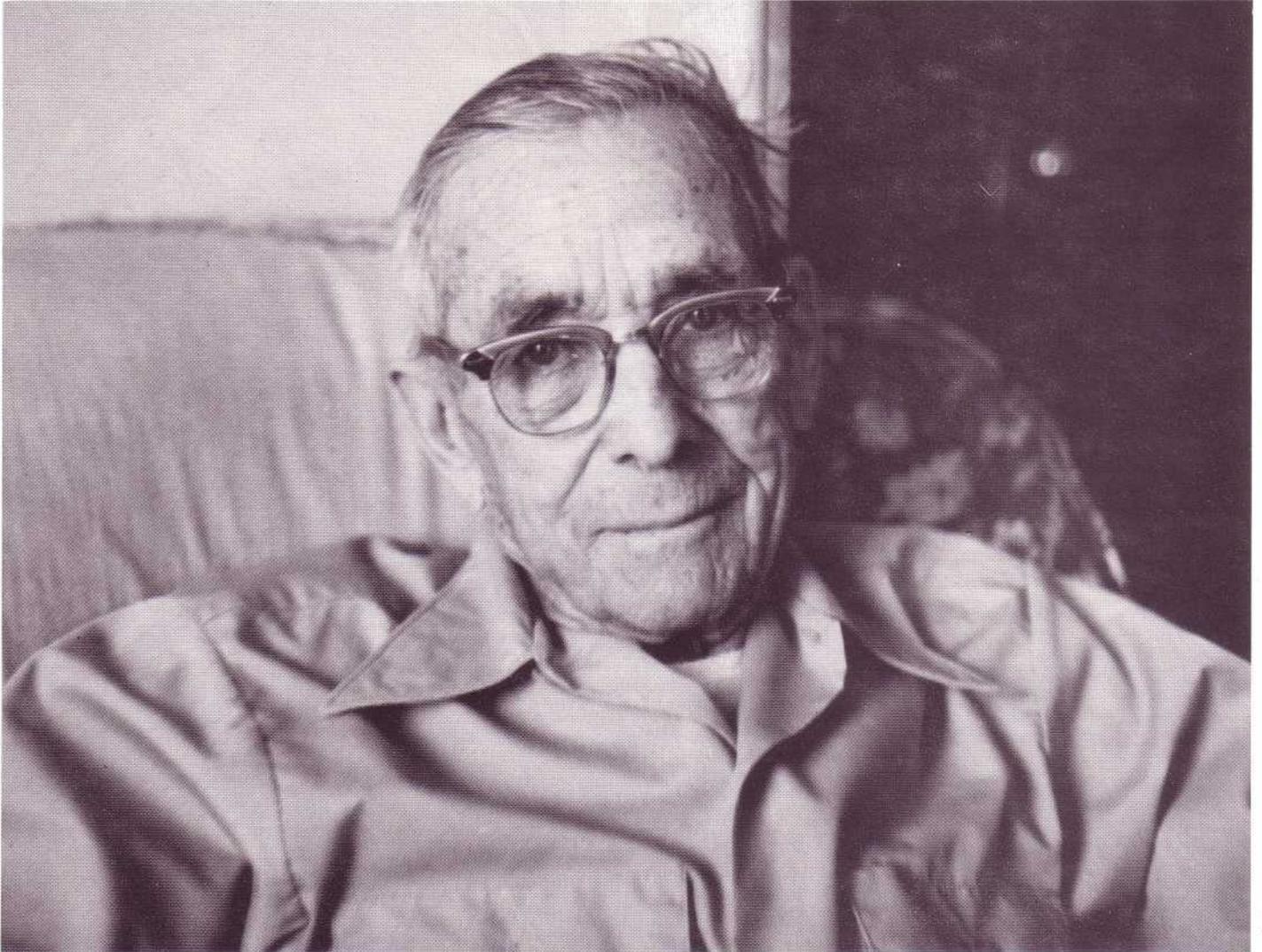
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Profiles...

Ansel Toney, 89, of Farmland



Story and Photographs
by Theodore L. Manekin

In 1894, when Ansel Toney was 6 years old, he and his father built a flat diamond kite on their farm in Preble County, OH. It was Ansel's first kite and the beginning of a lifetime of kite building that has seen the automobile, airplane and men on the moon.

Ansel Toney is probably the most popular man in Farmland, at least

TED MANEKIN is also known as TLM Productions and made the little film "How to Fly a Kite." He is a freelance commercial photographer and was recently elected the Executive Secretary of the Maryland Kite Society.

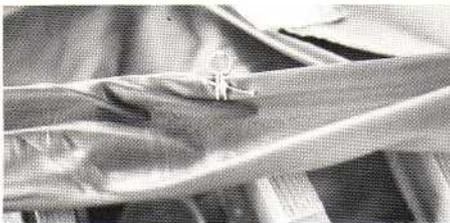
with the children. This central-eastern Indiana town has a population of 1200 and its environs are exactly what its name implies. Ansel and Stella, his wife of 67 years, moved to Farmland in 1920 and have lived in the same house since then. They raised their children there and their "kids have been air-minded and kite-minded all their lives."

Ansel has always been an innovator in farming, approaching it scientifically. He talks of new hybrids, rotation schemes, pesticides and energy conservation. He was the first farmer to introduce soybeans to the area, and the

first to use modern mechanized corn-pickers, tractors, combines and grain dryers. Since he retired, most of that is behind him now and he spends much of his time building kites. As he says, "The earth and the sky—I feel very close to both."

Ansel's first two-sticker soon gave way to an eight-foot three-stick barn door kite flown at night with lanterns on it. He has built Eddys, Parafoils and flat kites. He started building deltas about two years ago when he visited a workshop in Carmel, IN, where two young men were building hang gliders. He bought some Dacron® polyester from them and proceeded to build a kite shaped like their hang gliders. Missing an important detail from the hang gliders, Ansel attached all the sticks at the point rigidly so the kite could not adjust its shape to the wind. The kite consistently crashed and had Ansel stumped; it was not until a neighborhood youngster asked him to fix a purchased delta that he discovered the problem.

The deltas he now builds are not very



unusual, just well made. He does do one thing differently from most people, however. Instead of using curtain hooks to attach the crosspiece, he makes rings out of copper wire, solders them, and ties them to the kite. He then tapers the ends of the crosspiece and they fit into the rings.

Children from all over Farmland come to him to build their kites. He sends them down to "Mrs. Clark at the fabric shop" where the children ask for kite material. For about \$2, they get just enough nylon to make a four-foot delta. Ansel shows them how to cut the fabric and then sews the



material himself on an old treadle sewing machine, the same one he has sewn kites on for 67 years. Once the sticks are inserted and the line attached, the youngsters test-fly their deltas from the town's kiteflying field, Ansel's backyard.

Ansel's largest kite is a 14-foot red nylon delta which he flies on 140-lb. test from a reel bolted on the back of a small electric tractor. He is also building Conyne kites out of Tyvek®. (The first Conyne he ever saw was at the 1904 St. Louis World's Fair.) Having only recently been able to acquire small amounts of Tyvek, Ansel uses nylon for most of his kites. He likes rip-stop nylon the best and would probably build all of his kites with it, except he has had some difficulty getting it.

Perhaps his biggest problem with materials is sticks. Pine and most other woods are difficult and expensive to get in Farmland. Most of the sticks he uses he rips from 1/2 inch fir and pine boards taken from the ceiling of an old building. He also has his eye on a few cherry, hickory and sycamore trees that are on the farm he gave his son, although he is not convinced that he wants to go to the trouble of attacking an entire tree.

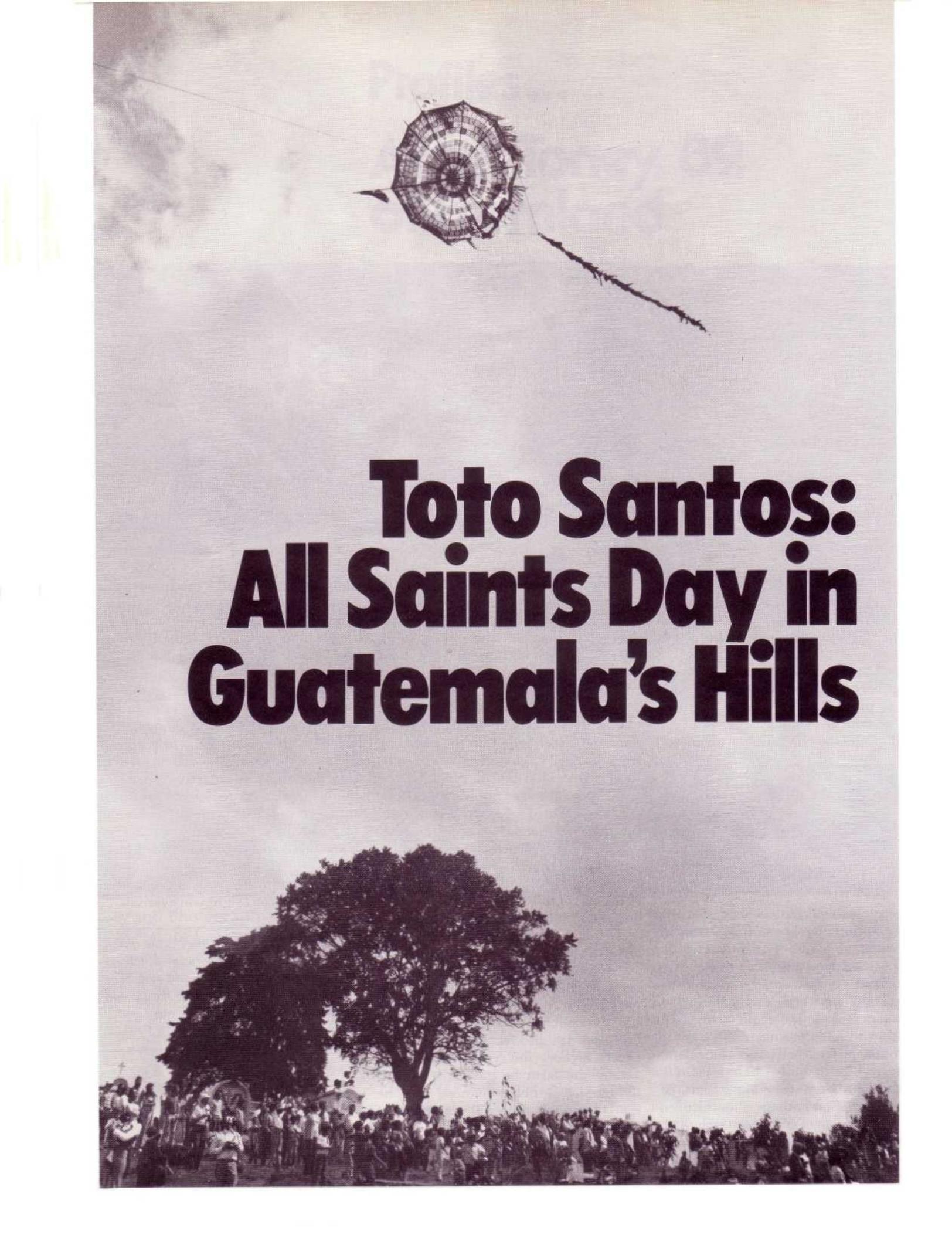
Since an article about him appeared over the Associated Press wire service a few months ago, Ansel has received

about 200 letters and a few phone calls. Some of these people have requested kites which Ansel has gladly built for them after they have sent the fabric and sticks. He estimates that he has built over 300 kites, from 3 foot to 16 foot wingspan, for other people, all for free. He doesn't make kites to sell; he makes them for the enjoyment it brings to other people and himself.

As we sat in Ansel's living room, this incredibly spry, active man suddenly perked up to tell me of something he did last August. He decided to go up in a Parasail, flown 200 feet above his own field. "How did it feel?" I asked.

"Nothing to it. It looks beautiful. The most perfect sight you ever saw."◇

It may be that Ansel Toney is the oldest member of the American Kitefliers Association. Our records do not have this sort of information. We would appreciate hearing from our senior senior members.



Toto Santos: All Saints Day in Guatemala's Hills

Story by
Hall Hammond
Photographs by
Pat Hammond

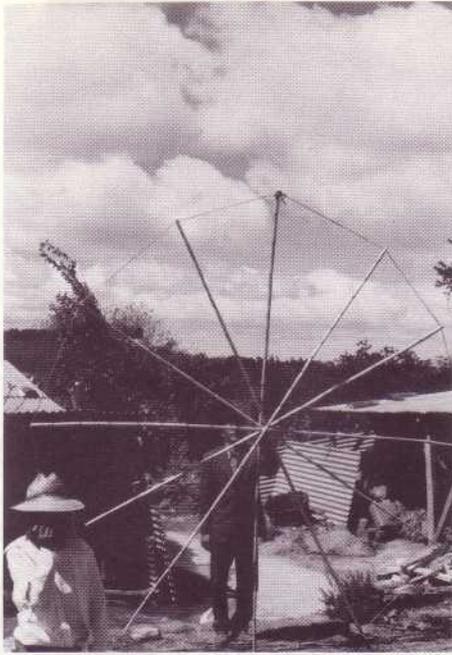
Imagine the spectacle of huge round kites, some 30 feet in diameter, swirling over a colorfully garlanded graveyard near a tiny Indian village. This scene has been repeating itself for generations on the Day of the Dead (November 1) in the central Guatemalan hillside town of Santiago de Secatepequez.

The origins of this traditional event

are unknown but these unique kites are flown from the graves to release the souls of the dead, many of whom have died in the frequent earthquakes in the area. The kites (locally called *barroletas*) are constructed by piecing colored strips of tissue paper in a concentric pattern with many symbols and designs included. The kites vary in size but are all one shape. This work is performed only by males who work for months to prepare for the special day when they place the circular pattern on a crude bamboo frame and add flags, fringe and streamers.

(Continued)

Toto Santos, All Saints Day in Guatemala, where kites made in muddy village gardens rise over hillside graves to assist the souls of the departed. All these round kites are made of multicolor tissue papers and in flight they filter the light as brilliantly as cathedral rose windows. They carry flags on top, fringe all around and long streamer tails below. Senor Ixtol and his family are shown during construction of one of these kites. The tissue covers are burned over the graves after flight, but the cane frames are saved from year to year.



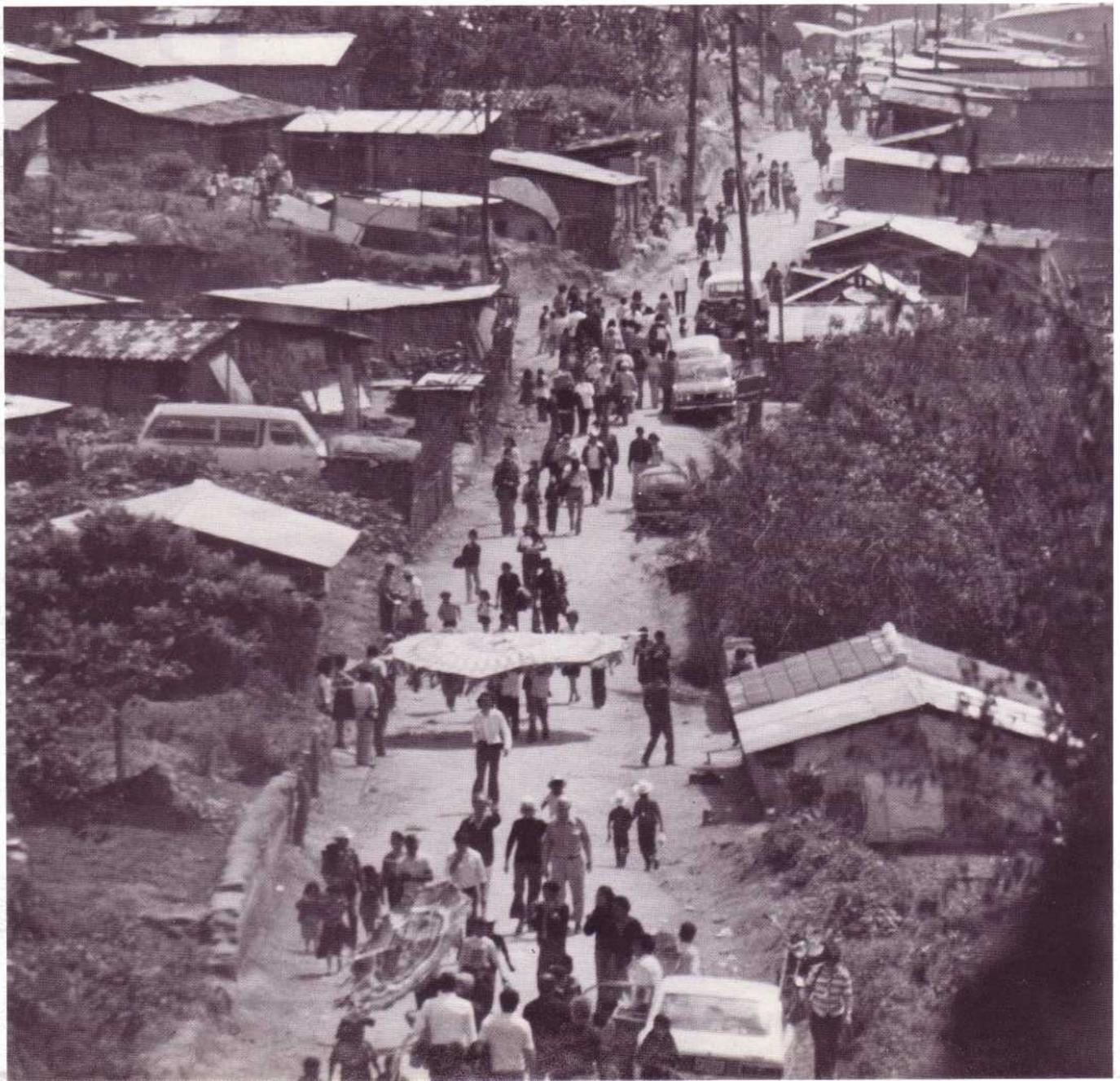
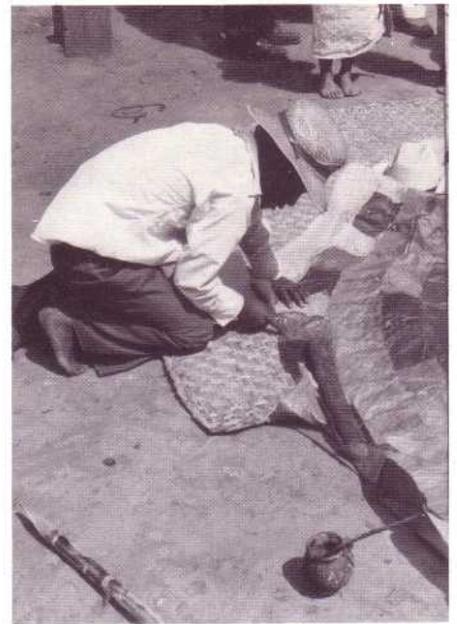
Aerodynamics are of little concern as the natives patiently wait for a strong gust coming up the hillside to carry away their handiwork in a symbolic gesture of recognition for the departed. The kites frequently return to *terra firma* after a brief flight, are quickly repaired, and oddly seem to fly with more stability with the punctures and damages. When each has been damaged beyond repair, its makers rip off the paper skin and set it afire on the grave of the dead loved one.

Bright color dominates the scene at this annual event. Yellow marigolds festoon the graves and the green boughs of fir draped over the tombstones add a fresh scent that erases any morbid thoughts. The traditional costume of the female—a *huipil*, or blouse, woven on the backstrap loom, densely brocaded with riotous geo-

metrical motifs—is richly contrasted with dark blue skirts and bare feet. Blue skies, white clouds and green hillsides provide a perfect backdrop for the multicolored kites, and make for an unforgettable sight.

For those attending the event at Santiago de Secatepequez, by auto it lies one hour west of Guatemala City and 30 minutes north of Antigua just off Highway CA 1 and reachable by good road. Make a visit on October 31 to see the preparations, and the next day allow several hours in the morning and early afternoon to view and enjoy this unique spectacle of kiteflying. ◇

Villagers and visitors bear giant kites up the road to the cemetery in Santiago de Secatepequez, Guatemala. Each shiny roof is a tin replacement for the tile roofs lost in the February 1976 earthquake.



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STORMY'S KITE FISHING SYSTEM...



Kite fishing makes sense. Why isn't it more popular?

By Warren O. (Stormy) Weathers

Kites can provide the boatless fisherman access to waters that have been heretofore available only to boats. Conversely, for boat owners, kites provide a way to fish in areas where it is not safe to take their boats; the kite in effect provides a half-mile long extension to the fishing rod in the boat. Kites can also be used for trolling when engines are stopped, to conserve fuel. In short, kite fishing makes sense.

Why isn't it more popular? Many reasons, but probably the biggest is the memories of kites we flew as kids. Nobody was likely to try fishing with one of those, and if he did, he wouldn't try a second time. Kite fishing with one of the 39¢ kites requires that the kite fisherman be more skilled as a kiteflier than as a fisherman.

But things have changed. Thanks to the improved kites both on the market and out of the home workshop, flying can be done in winds from about six knots to around 36 knots. My own choice is a sled-type kite made from waterproof polyethylene sheeting (trash bag). The kite rolls up neatly for

THE BIGMOUTH & PELICAN™ SLEDS

By W.O. (Stormy) Weathers

MATERIALS

- 1/8" diam. hardwood dowels
- 3/4" masking tape
- 1/2" strapping tape
- Plastic trash bag, size as needed. (For larger kites you can split a bag down one side and across the bottom to get a double-size cover.)

Paul Sroka's laterally vented sled scaled down to two feet vertically, makes a great fishing kite. Never once has a two-foot Sroka shamed itself or embarrassed me by collapsing or diving into the drink.

In kite fishing there are times when a two-foot kite just isn't large enough, so I scaled the Sroka kites up to four feet, and ran head-on into the collapse thing that has plagued the larger sled kites from the beginning. Having been led to believe that vent shape and size would solve the collapse problem, I built a kite on which I could tape panels with various vent shapes and arrangements. After I had tried vents shaped like hearts, diamonds, clubs, spades, the Maltese cross, the swastika and the bar sinister, I concluded that at best vents only cured the symptoms of a basic fault in the sled design.

I discovered that a sled collapses for the same reason that a flag flutters in the wind. In a slightly gusty wind, collapse starts in one of two ways: (1) A fold about two inches wide flutters downward in the middle of the center panel's leading edge. The wind catches this fold, exaggerates it and slams the kite shut. Or: (2) A flutter forms an inward fold on the bridle flap's leading edge. The wind rolls the flap under, and the whole kite rolls up, sometimes so neatly that if you slip a rubber band around it, you are ready to go home.

Fortunately, there is a way to vir-

tually eliminate these two modes of collapse; you merely angle the sticks inwards towards each other from top to bottom. In other words, you give the kite a big mouth.

Angling the sticks this way reduces the chance of the covering material becoming parallel to the wind, a position that causes flutter to develop. The big mouth scoops in enough air to build up a slight pressure inside the kite, which also helps to prevent flutter. As a result, the forms of collapse described are no longer much of a problem.

INSTRUCTIONS

Prepare Cover

Lay the pattern out on paper first, as follows: Fold the paper along the center line, making sure the fold is at right angles to the top (match the folded halves). Draw half your pattern, then draw a pattern inside the first, but 1/4" smaller on all sides. You should now have the half pattern out-

PELICAN™ DIMENSIONS SCALE

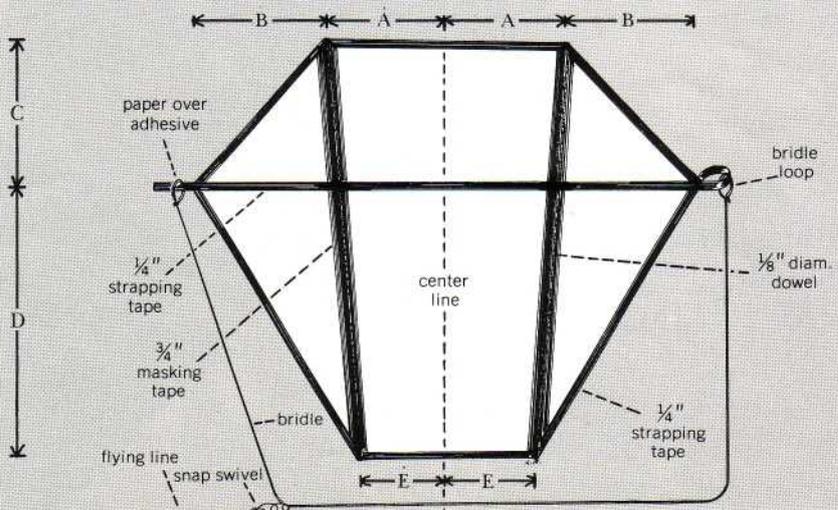
A Pulling Kite - for Kite Fishing

Height	A	B	C	D	E
4 feet	13 1/2	13 1/2	13 1/2	34 1/2	10 1/2
3 feet	10	10	10	26	7 1/2
2 1/2 feet	8 1/2	8 1/2	8 1/2	21 1/2	6 1/2
2 feet	6 3/4	6 3/4	6 3/4	17 1/4	5 1/4
X	.277X	.277X	.277X	.722X	.22X

BIGMOUTH DIMENSIONS SCALE

A Lifting Kite - just for Flying

Height	A	B	C	D	E
4 feet	13 1/2	16	16	32	10 1/2
3 feet	10	12	12	24	8
2 1/2 feet	8 1/2	10	10	20	6 1/2
2 feet	6 3/4	8	8	16	5 1/4
X	.28X	.33X	.33X	.67X	.22X



storage and transportation (I use a plastic golf club tube) and requires no on-site assembly. Furthermore, it is easy and inexpensive to build and a snap to fly.

The fisherman can either use a very small kite and fish with an artificial fly or grasshoppers in season, or use a medium-size kite (about 2½ feet) and troll with Ford Fenders or other rigs of his choice. The basic kite-fishing kit should include one each 2-foot, 2½-foot and 3-foot kites.

The general rule is: use the smallest kite that will do the job. It is no fun to fight both a fish and a big kite in a strong wind. For very strong winds,

lined with two sets of lines ¼" apart. Take scissors and cut out the smaller pattern, both halves at once to insure symmetry. Unfold the pattern and lay it on the covering material (trash bag). Outline the pattern with strapping tape split into ¼" widths. Get the tape as close to the pattern as possible, but avoid sticking it onto the pattern. Lift the pattern off and trim off the excess covering material outside the tape.

Attach Sticks

Lay the dowels on the pattern as shown. Secure them with three or four bits of masking tape to hold them in place, then cover the entire length of the dowels with ¾" masking tape. Carefully put on the crosswise piece of strapping tape, leaving six inches

build one two-foot kite with 3/16-inch dowels. These are a little heavy and tend to be unstable in light winds, but in strong winds they do quite well. When fishing in light breezes use a three- or four-foot kite. As wind picks up, switch to a smaller, heavier kite.

Line used is 30- to 40-pound test monofilament. For true kite fishing, a rod is not used, just a large fishing or kite reel. Of course, I recommend the Weathers Mono-winch No. 6M kite reel, which will hold a mile of 30-pound test line.

There is a problem where the prevailing winds are on-shore. If you plan to fish under these conditions, seek

extra on each side. Cover the excess tape with a 2x1½" piece of paper positioned next to the cover.

Attach Bridle

Take a piece of bridle line four times as long as the kite. Fold a 4" bight and tie an overhand knot in each end so that a loop about 1" long is formed. Slip this loop over the bridle loop tabs, fold the tab at the middle of the 2" piece of paper, and stick the tab to the back side of the kite, forming the bridle loop. Fold the kite along the center line, holding bridle corners aligned face to face, and draw both legs of bridle between thumb and forefinger so that the two legs are evened up. When you are sure the bridle legs are equal, tie an overhand knot about 1" in from the towing point. Use a snap swivel to attach the flying line.

Go Flying

If the kite loops or dives to one side, check the bridle by turning the kite inside out to see if it pulls in the opposite direction. If it does, haul the kite in, and unstick the bridle loop on the side towards which the kite was pulling. Restick the tab so that the loop is about ¼" shorter, and put the kite up again. If you run out of adjustment on one side of the kite, you can lengthen the loop on the other side to achieve the same effect. Repeat until the kite's median position is upright.

Further Experiments

I don't normally vent the Bigmouth, but when I do my preference is for rectangular or parallelogram vents 1/6th the kite height in length and 1/24th in width (a 1:4 ratio). The vents

out jetties, piers, spits and peninsulas. High lakes are another good spot for kite fishing.

On the larger rivers it is sometimes more difficult to kite fish because of odd wind currents and eddies set up by high banks and bordering trees. But it can be done. Use the smallest kite that will work satisfactorily, since smaller kites are less affected by eddies than big kites. When you go fishing on a river, take a selection of kites ranging in size from six inches to three feet in height. A six-inch kite will be hard to find for sale, so inveterate kite buyers may have to capitulate and make their own kite for this. *(System continued)*

start at the sticks at a distance equal to 2/3rds the length of the vent from the bottom of the kite and angling upwards toward the center at about 45 degrees. I've also used paper cups with their bottoms removed taped to the base of each stick as stabilizers. Eight-ounce cups work for four-foot kites.

For a fishing kite, I wanted a lower lift/drag ratio, so I modified my Bigmouth using Paul Sroka's bridle points, which are 5½% lower and 5½% farther out (using the height of the kite as the base of measurement) from the center panel than are the Scott and Allison bridle points. If you need a kite for pulling something, use the dimensions for the Pelican fishing kite.

Both kites fly at elevation angles from about 35 to 55 degrees, though they will occasionally go almost straight overhead. If you want to make the kites fly at a higher angle, take a couple of half-inch tucks in the leading edge of the center panel. Taper the tucks neatly back into a V shape about six inches long, and hold them in place with masking tape. The tucks result in a somewhat airfoil shape and an increase in lift.

As for scaling the kites up or down from the sizes given, I have scaled them up to four feet and down to six inches (using broom straws as sticks, attached with bits of cellophane tape on light plastic, and leaving off the strapping tape—the kites are weight sensitive). Larger Bigmouth kites should behave themselves well, but somewhere around eight feet a third stick should be added down the center line to keep flutter out of the leading edge of the center panel.

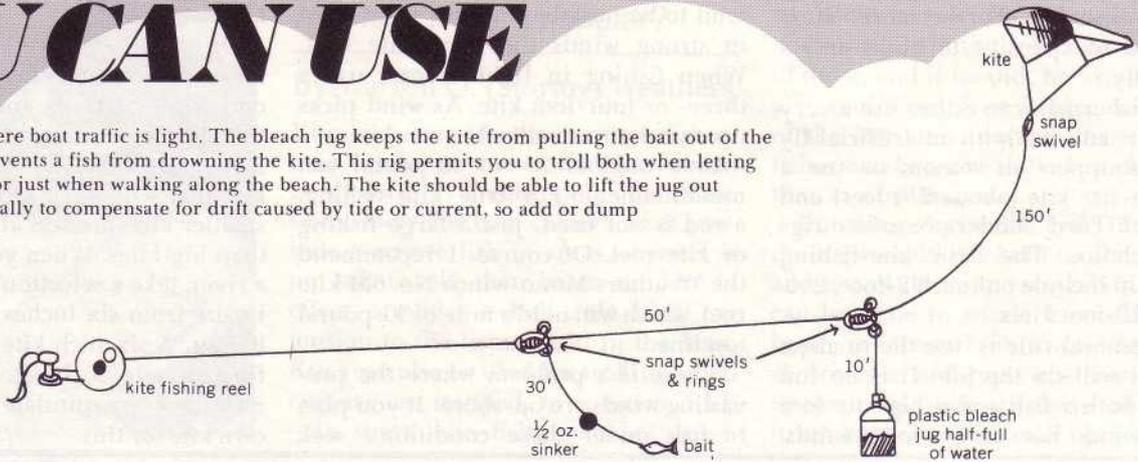


Ward Weathers, 8, and Benjamin Weathers, 5, compare the relative merits of venting and paper-cup stabilizers on a couple of four-foot Bigmouth prototypes. Which kite is flying cross-wind, and why doesn't it collapse as the good book says it will?

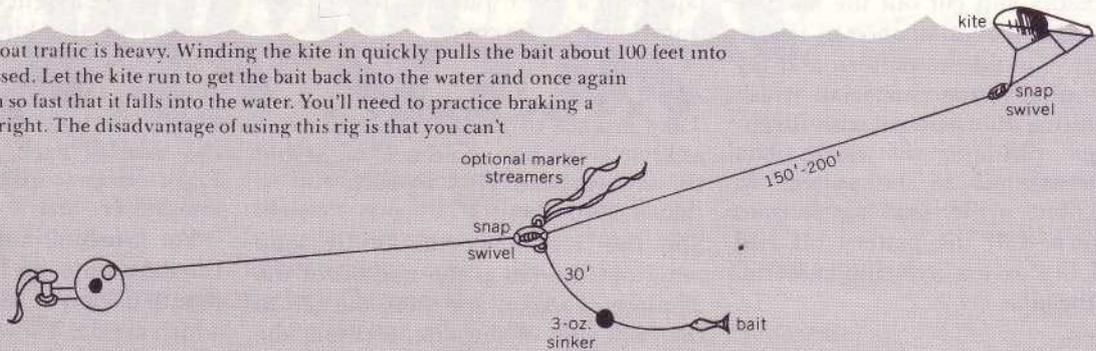
STORMY'S KITE FISHING SYSTEM... (Continued)

SOME RIGS YOU CAN USE

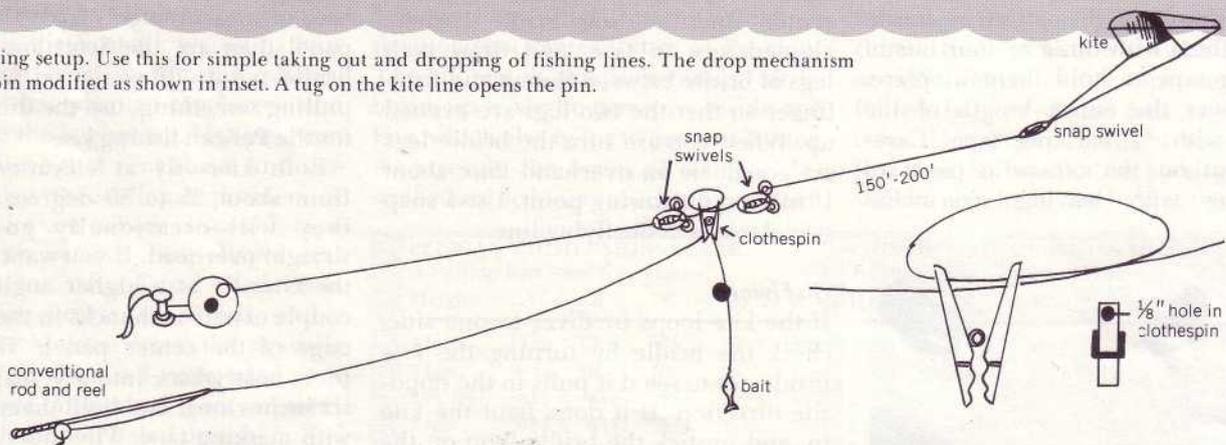
Setup for fishing where boat traffic is light. The bleach jug keeps the kite from pulling the bait out of the water, and it also prevents a fish from drowning the kite. This rig permits you to troll both when letting out and hauling in, or just when walking along the beach. The kite should be able to lift the jug out of the water occasionally to compensate for drift caused by tide or current, so add or dump jug water as needed.



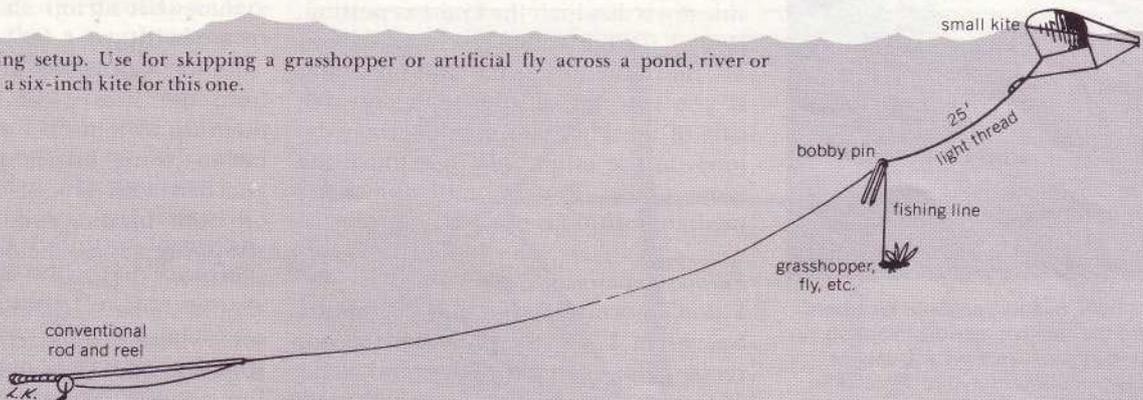
Setup for trolling where boat traffic is heavy. Winding the kite in quickly pulls the bait about 100 feet into the air until a boat has passed. Let the kite run to get the bait back into the water and once again troll. Don't let the kite run so fast that it falls into the water. You'll need to practice braking a bit to make things fly just right. The disadvantage of using this rig is that you can't troll when winding in.



Bottom fishing setup. Use this for simple taking out and dropping of fishing lines. The drop mechanism is a clothespin modified as shown in inset. A tug on the kite line opens the pin.



Fly fishing or popping setup. Use for skipping a grasshopper or artificial fly across a pond, river or mountain lake. Make a six-inch kite for this one.



When the editor of *Kite Lines* received my article on kite fishing, she demanded photographs of fish caught and the fishermen that caught them. I didn't have any. I hadn't caught a fish, and when I tried to buy a fish large enough to take a decent photograph, I found that I couldn't afford one. Have you ever tried to rent a 30-pound salmon long enough to take photographs?

Anyway, the time to deadline was running out. I couldn't wait for the proper conditions at the mouth of the Columbia River; I had to find an ideal kite fishing spot — fast.

Of the several sites recommended by the local fishermen to whom I talked, the most promising seemed to be Fort Casey State Park on Whidbey Island, WA. The way veteran fisherman Tommy Gibbons described the place, tide rips paralleled the beach about 200 yards out, and the wind always blew gently from the beach straight out across the rips. The beach itself was a narrow strip of log-covered sand immediately adjoining a campground. Salmon of various species took turns feeding in the tide rips throughout most of the year. Best of all, Coupeville, a little town about four miles from Fort Casey, consisted of about 90% antique shops to keep a non-fishing, antique-collecting spouse (such as my wife Pat) happy while the fisherman went after his fish.

By dangling the antique angle in front of Pat as bait, the trip was arranged and we took off, arriving in Coupeville about an hour before sunset. Finding lodging was a little difficult, since Whidbey Island seems to be the resort area for most of Seattle and all of Canada. We finally found a room at the Captain Whidbey Inn, a 70-year-old pole-and-plank structure that makes up in character what it lacks in comfort. It is also filled with antiques, which nullified any reservations Pat might have had about the lodgings.

With the night's lodging problem out of the way, we headed for Fort Casey to get the lay of the beach for the next day's fishing. On the way we passed a sign that said "Fresh Smelt," which took care of the bait problem. Then we drove through Coupeville. At the beach we found the tide rips and winds that Tommy had promised me. Would the winds still be favorable the next morning? I crossed my fingers, prayed, tried to remember if my Sioux Indian hunting buddy had ever done a wind dance, took one last look and headed back for the inn.

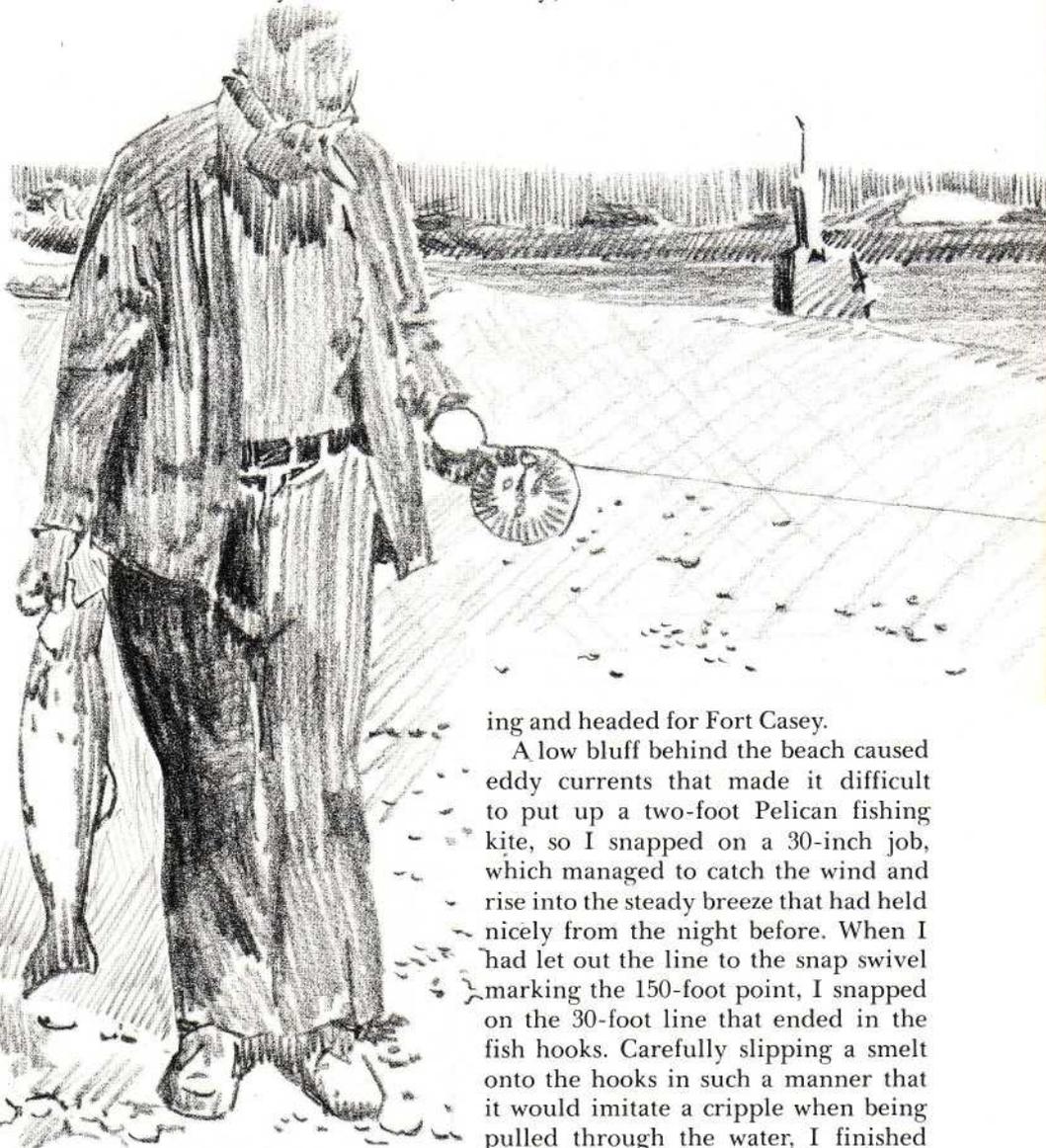
After a nice seafood dinner and a

A Fish cum Kite Story

Live One

ON THE LINE

By Warren O. (Stormy) Weathers



ing and headed for Fort Casey.

A low bluff behind the beach caused eddy currents that made it difficult to put up a two-foot Pelican fishing kite, so I snapped on a 30-inch job, which managed to catch the wind and rise into the steady breeze that had held nicely from the night before. When I had let out the line to the snap swivel marking the 150-foot point, I snapped on the 30-foot line that ended in the fish hooks. Carefully slipping a smelt onto the hooks in such a manner that it would imitate a cripple when being pulled through the water, I finished the job of rigging up.

Things looked good from the start. The wind was just right, and aside from a little too much water in the jug, the rigging looked good. I hauled in, dumped enough water out of the jug to a level where the kite could lift it out of the water once in a while (to correct for drift caused by the tide), then let out enough line to position the bait in the tide rips. I found that by walking along the beach, I could troll the length of the tide rip; by letting line out and taking it in, I could troll back and forth through it. Boat fishing couldn't have been a whit easier. (Continued)

couple of drinks, Pat said, "I'm tired. Wake me for breakfast about 10:30 in the morning." If I got up early, I could get some fishing done before I had to take Pat to breakfast.

At 6 o'clock the next morning, I was pacing up and down the road by the "Fresh Smelt" sign, waiting for evidence that someone in the place was awake. Finally I walked down the driveway, and just as I saw another sign that said "Help yourself and leave money in the box," the owner appeared. I bought a package of smelt, gave the owner a copy of my article on kite fish-



Ed Aungsted stares at the kite reel with which he landed his salmon. He looks as if he still isn't sure he did it. Five hours earlier, he hadn't even heard of kite fishing.

at 3:30 so we could catch the 4:15 Mukilteo ferry back to the mainland. I had just about two hours to get those photographs for *Kite Lines*.

As I was letting out for the second session of kite fishing, Ed Aungsted showed up again. He was a little dubious about the way he was hooking up the reel and kite he had bought and wanted to take another look at the way I rigged things. I showed him the rigging, then let the kite out until the bait was in the tide rip.

Since Ed wasn't a kiteflier and was one of those who had never heard of kite fishing, it occurred to me that here was a good chance to see if a person with Ed's qualifications could handle a kite fishing rig without trouble. Telling Ed that I had to make up another bait line, I handed him the reel and asked him to run things for a bit.

I hadn't been fooling around in the tackle box more than a few minutes when Ed remarked almost casually: "I think I have something on." Focusing my nearsighted eyes on the jug, I saw it suddenly go a few feet against the tide: FISH ON!

At this point I had a decision to make: Should I grab the reel away from this guy who had never even heard of kite fishing until a few hours before? I didn't know Ed, but if anyone tries to take a reel away from me in such a situation, he is going to have a helluva fight on his hands. So, mustering up every bit of generosity I had, I said, "What are you waiting for? Pull 'em in!"

Ed turned out to be a competent fisherman. He sat on a log, braked the side of the spool with his thumb when the fish ran straight out, and let the jug and kite wear the fish down when it ran sideways and straight in. After about 10 minutes, the fish was pooped and Ed brought him in.

I waited at the water's edge, and when the 30-foot section of line that carried the hooks and bait appeared, I took it and carefully slid the nice four- or five-pound salmon up to an Ed who had finally lost his cool. He was shaking and muttering over and over, "I

know I did it, but I just can't believe it. I sat on a log 50 feet from the water and hooked a salmon 1000 feet out."

The minute the fish was in, word went through the campground like a shock wave. You could see heads turn, then bodies start moving toward the beach. The campers had to see for themselves that a couple of idiots had actually caught a fish with a kite. After a suitable amount of crowing, I got out my camera for the long-sought photographs, and Ed got out his movie camera to get proof for the fish story he would be telling when he got back home. By the time we finished the camera work and answering questions from the crowd, it was time for Pat to show up. I stowed away my fishing gear, bid Ed and Margaret goodbye and the great kite fishing expedition was over.

For those of you who live in Washington State, you have been missing a real bet by not kite fishing from Whidbey Island. If the salmon aren't running, you can go for the nice big rock cod and other bottom fish in Deception Pass. Wherever you live, a little scouting and talk with the local people will turn up the best fishing spots. For myself, it's for sure that when the Kings start running I will be back there at Whidbey, and this time I am going to be very stingy with my gear. ◇

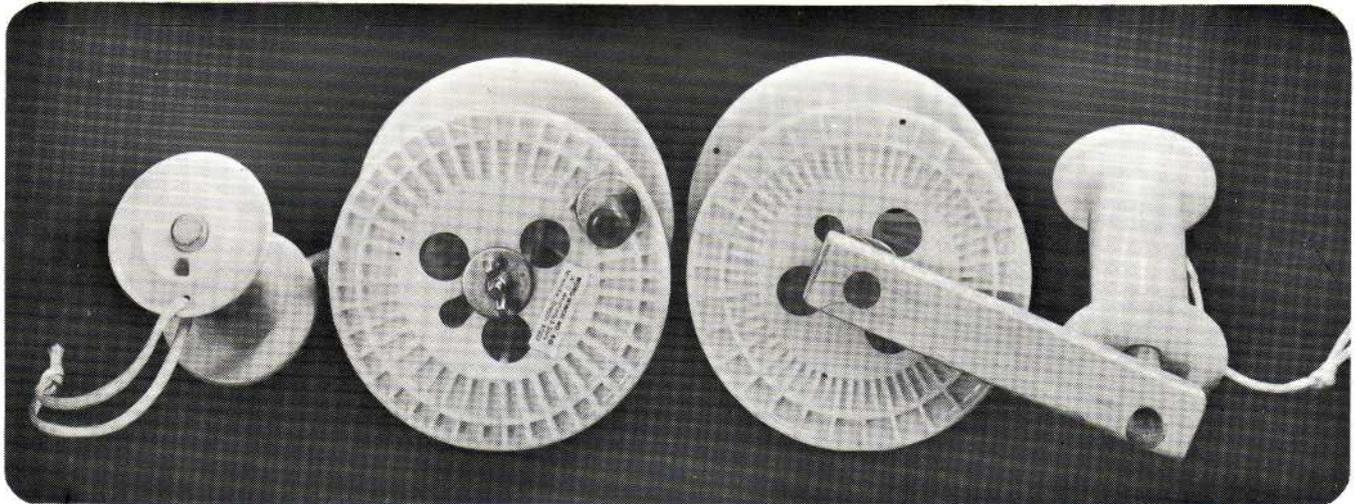


STORMY WEATHERS is a technical writer and kite reel manufacturer who lives in Milwaukie, OR, with his wife Pat and two kiteflying sons, Ward, 8, and Benjamin, 5. Despite phenomenally bad luck in catching fish with kites, he has developed a system that works and has popularized it throughout his state.

SOME REEL ALTERNATIVES

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

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



Mono-winch No. 6D

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

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

Fly-from-the-belt capability.

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

Drag brake that can be held for a light drag or set for full lock. A first in kite reels. **\$16.00**

Mono-winch No. 6M

Similar to No. 6D, but without a drag brake and with a slightly lighter spool weight (see above). Quick spool change feature permits spools to be changed in seconds without tools. Ideal for Kitefishermen. **\$10.50**

Extra spools for No. 6M

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

Spool for light line, order 6ML **\$2.95.**

Sidewinder No. 6

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

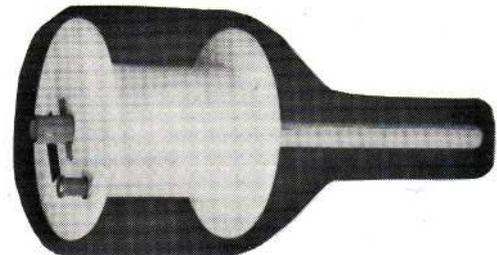
Model No.	Re-wind Speed (MPH)	Mono-Filament Line Capacity (in Miles)				Price
		10 lb	15 lb	25 lb	30 lb	
5	1.5-3	2	1	X	X	\$4.50
6	2-4	3	1.5	X	X	\$6.00
6M	2-4	3	1.5	1	X	\$10.50
6D	2-4	3	1.5	1	3/4	\$16.00

Line not supplied

THE TWINGLE (Not shown)

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

\$10.50



Sidewinder No. 5

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

Note: Mono-winch handgrips are 3.5" between flanges. Extra large hands won't fit unless inner grip flange is cut off.

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**1 BREADFRUIT LEAF
 +6 OR MORE SPIDER WEBS
 +FRONDS OF ONE COCONUT PALM
 +DRIED FIBERS OF COCONUT HUSKS
 +PACIFIC ISLAND NATIVE SKILL
 =20 OR 30 SIX-FOOT NEEDLEFISH
 WITHIN SEVERAL HOURS**



Story and Photographs
 By Wayne J. Baldwin

Patricio Tahemaremacho's fingers deftly interlaced the dry slender ribs of a coconut frond through the flattened breadfruit leaf. I felt as if I were visiting Tobi Island before the days Europeans navigated this exotic and unknown part of the tropical Pacific Ocean.

Patricio was making a breadfruit leaf fishing kite of the type used for centuries to catch needlefish from a canoe along the shores of this small, remote island several hundred miles north of New Guinea.

No one really seems to know exactly how long ago Patricio's ancestors patiently worked on similar kites. There is good reason to believe this unique kite, similar to the one shown in the photographs, was made here for centuries from the natural materials at hand: carefully prepared breadfruit leaves, slender ribs removed from the

fronds of a coconut palm, and strong sennet line made by twisting together the tough individual fibers from dried coconut husks. The fibers were used to tie the slender ribs together where they crisscross to give added strength.



It's an exciting feeling to view with your own eyes an ancient type of fishing kite being constructed by an island craftsman approaching eighty years of age. Patricio was instructed in the art of making these kites and catching needlefish by his father and

grandfather when he was a young boy. He continues to make these kites as he was taught, even though younger fishermen now use plastic materials or purchase commercially made kites.

As interesting as the kite is the peculiar lure used to capture needlefish, a tasty fish that sometimes reaches a length of six feet or more when fully grown. This unusual lure is made from the web of a species of spider found on Tobi Island. Usually six or more spider webs are carefully collected on a slender Y shaped stick, then tied together in several places. The finished lure, resembling a frayed, elongated noose two to three inches in length, is slipped off the Y shaped collecting stick and tied onto the end of the sennet fishing line.

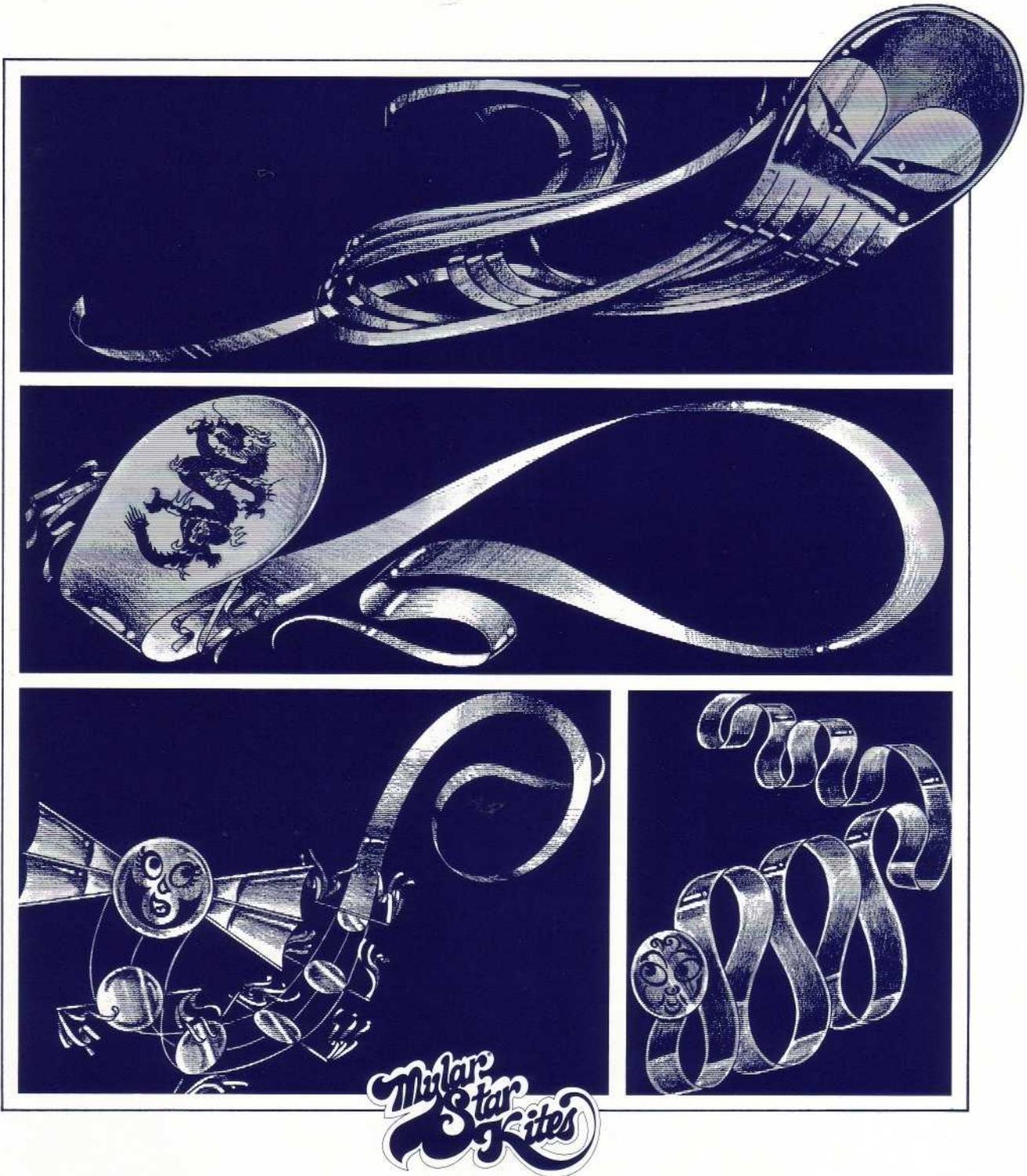
One can close one's eyes and imagine the joy that some long-forgotten Tobi islander felt upon returning to his village with a successful catch of fish captured using his new discovery—a discovery that was to help feed generations of islanders in future years. The spider web lure is particularly effective for catching needlefish, since they have long jaws with large, recurved teeth that easily become firmly entangled in the fine silken strands.

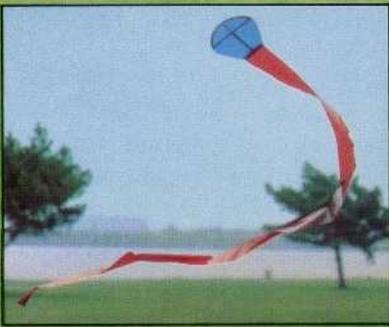
I first met Patricio Tahemaremacho in Koror, Palau, while there on business in late 1976, and through a mutual friend made arrangements to purchase two breadfruit leaf fishing kites. I also hoped to take a series of photographs of their construction. Luckily, I was able to accomplish both, while observing every detail of construction.

The two finished kites were a real bargain; they cost me a new pocket-knife and \$10. Although Patricio did not not speak English, his son Patris, who is equally adept at making these kites, acted as translator and explained exactly how the breadfruit leaf, obtained from Tobi Island, was dried and pressed between two woven mats, the slender ribs were removed from the coconut frond, and the coconut husk fibers were prepared. I watched in admiration as Patricio began making the kite totally by eye, without the aid of a ruler or layout. It took two hours to finish one kite, but this did not include the time required beforehand in preparation of the breadfruit leaf, removing and trimming by hand the slender ribs from coconut fronds, patiently twisting together the sennet fishing line, and making the spider web lure.

Fishing is usually done by a single

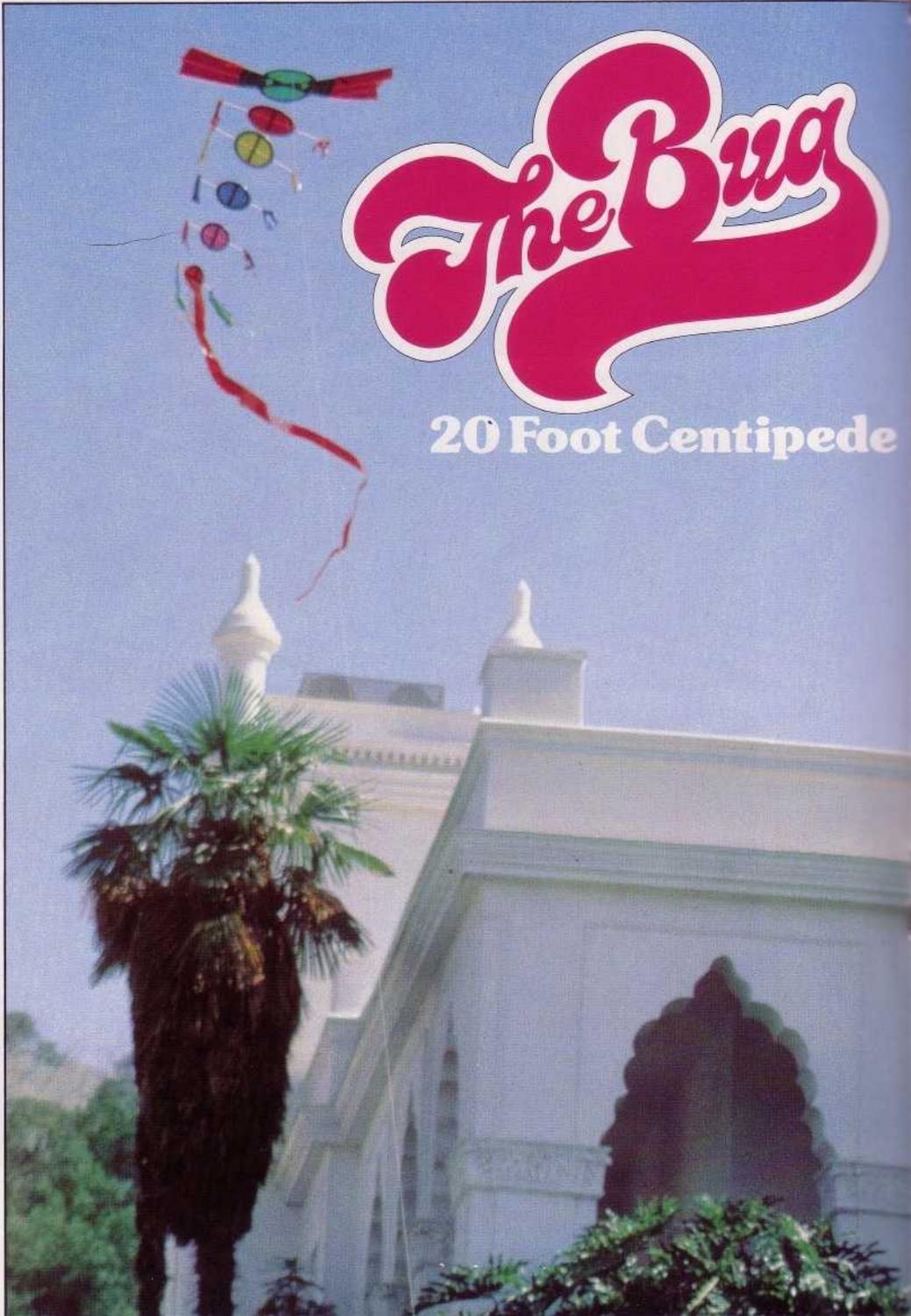
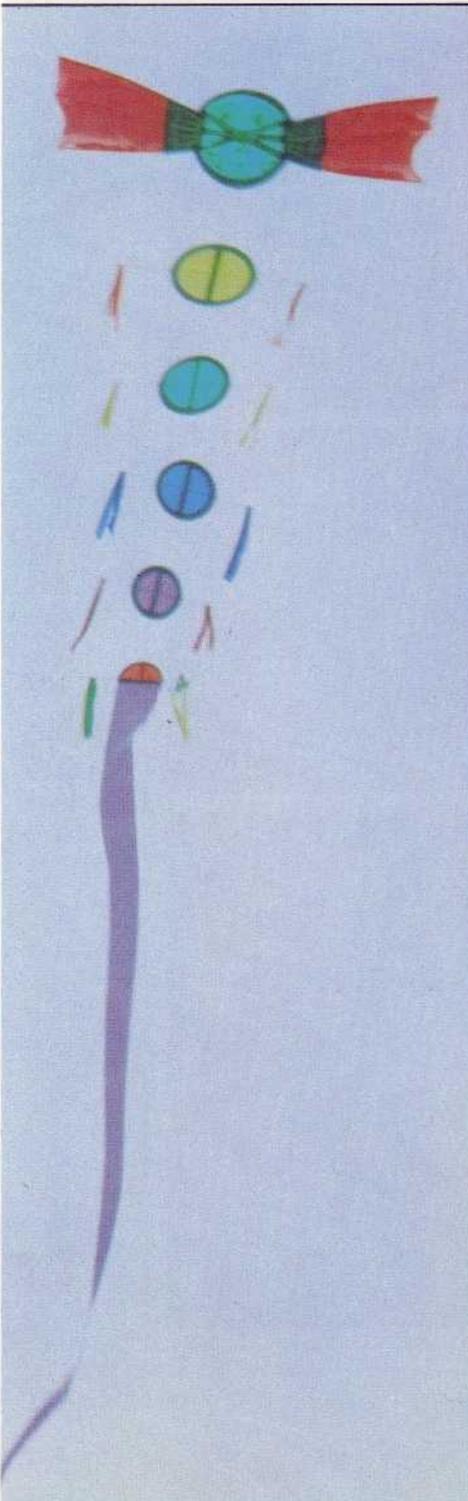
Ride the wind with us.





Silky

The Flying Ribbon



The Bug

20 Foot Centipede

The Bug and Silky will make your sales soar.

The highest flying kites in the skys and on your sales charts this season will be our two new models. Silky "The Flying Ribbon" and The Bug, our 20 foot centipede. Both exclusively designed for us by master kite maker "The Bushman".

Silky is a brand new super Mylar® wiggler. Evolved from past generations of Thai snake kites; with all the inherent charm of its larger Oriental cousin. Silky is packaged in a compact, portable handle bag with flying instructions and shipped in a colorful eye-catching, self-liquidating merchandiser. Let your customers tie one on and get the wind spirit with this great little sky skimmer.

The Bug is the kite we've all been waiting for. With the tremendous growth of kiting worldwide it was natural that a demand by dealers and customers would arise for a better performing, higher quality and more exotic kite. Our 20 foot centipede fills that demand.

Widest range of products and prices.

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Our whirlwind success story is the menacing, multi-tentiled Octopus in 6 foot and 25 foot Giant version. There's a collapsable 4-Wing Box Kite. The highly responsive Fighter Kite. The easy to fly Sled Kite. Plus spools from 15 lb. to 40 lb. test. All our kites are ready to fly and come with complete flying instructions.

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The wide selection and price range means

customers are sure to find something they'll want to take to the sky with.

True state of the art craftsmanship.

To achieve the brilliant transparent colors we use only Mylar® dyed by Martin Processing Company. Their patented process gives the Mylar® its great color without reducing the incredible tensil strength and weatherability. The tough, non-conducting Mylar® film is lighter than the plastic impregnated papers and stronger than the poly-films used by some other makers.

Our designs are extensively flight tested. Materials are cut precisely. And each kite is carefully balanced and hand assembled in the tradition of fine custom made kites.

Mylar Star kites have to pass our zero defects quality control program because our reputation and more important your reputation rides with each one.

The consumer today demands his moneys worth. We are proud to say that the national Canadian Toy Testing Council tested 30 of our kites over a period of 8 weeks and gave us top ratings for design, function, safety, durability, play value and price.

Good service goes with good products.

Since we make all of our own kites we plan the manufacturing carefully. We don't want to get caught with inadequate stock. Superfast one day order turn around is our policy. Promotional services such as premium kites, logo kites, original kite and graphic designs are available. Our newsletter keeps you abreast of current factory and kite developments.

For years we've provided retailers with the highest quality kites available. There are always new designs on our drawing board because when it comes to great Mylar Star Kite ideas the skys the limit.

Join our team to promote the fun, clean, healthy sport of kite flying.



For dealer prices write or call: 3519 Caribeth, Encino, California 91316, (213) 846-2060

Terms: 2/10 EOM, FOB Factory Los Angeles, California



Silky/The Flying Ribbon The 10 foot long Silky will fly in any wind from a whisper to a roar. Our most economical kite. Individually packed in a reusable, handle carrying case. Shipped in a pop-up merchandiser that holds 24 kites but takes up less than ½ a square foot of counter space. Priced remarkably low for a real Mylar® kite it will literally fly out the door. Available in assorted colors. (105)

The Bug/20 Foot Centipede This imaginative creature features multi-colored cells and outriggers arranged in a rainbow spectrum. The cells diminish gradually in size to meet the long solid color tail which ends in a point. Packaged in a richly colored carrying case through which it proudly displays its majestic 4 foot wing span. (104)

Dragons Available in 3 super sizes: 75 foot, 45 foot, and 25 foot. They easily fold up a little bigger than a record album. Their beauty in flight and acrobatic performance makes them best sellers. You can see the Dragon flying from miles away, shimmering in the sunlight, looping and diving. Each has complete flying instructions. New bold, multi-colored carrying case has a snap-lock handle. *75 foot Super Rainbow Dragon, multi-colors (7510-20). 45 foot Rainbow Dragon, multi-colors (4510-20). 45 foot Dragon, assorted colors (4510). 25 foot Rainbow Dragon, multi-colors (2510-20). 25 foot Baby Dragon, assorted colors (2510).*

Octopus A dramatic flyer with its spooky eyes visible in the sky as it shifts to and fro, its many tentacles whistling in the breeze. The best mid-size model for all ages. Packaged in Mylar Star Kite's new multi-color, handle bag it comes with complete flying instructions. Only recently introduced, the economically priced Octopus is setting sales records nationally. *6 foot Octopus, assorted colors (3515). 25 foot Giant Octopus, assorted colors (1515).*

Sled Kite A vented version of the famous "Scott Sled". Packaged in a reusable poly tube. Flies fantastic in thermals. *Ruby red. (1500)*

Mylar Star Fighter Patterned after the Indian Fighter, a famous fighting kite, the Mylar Star fighter is one of the quickest, most responsive kites available. A must for the kite enthusiast. Plastic carrying bag with handle included. (6515)

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Accessories

Spools Imported Indian lacquered spool with 20 lb. test, 500 foot flying line. Or American made wooden spool with 20 lb. test, 500 foot flying line. (1000)

Kite String Pocket size, strong 15 lb. test, 600 foot flying line (46539)

Kite String Pocket size, strong 40 lb. test, 500 foot flying line. (46936)

Silky Flying Thread Pocket size spool of strong thread, 375 foot flying line. (106)

Display Stand Colorful P.O.P. for Mylar Star kites accessories and most other kites.

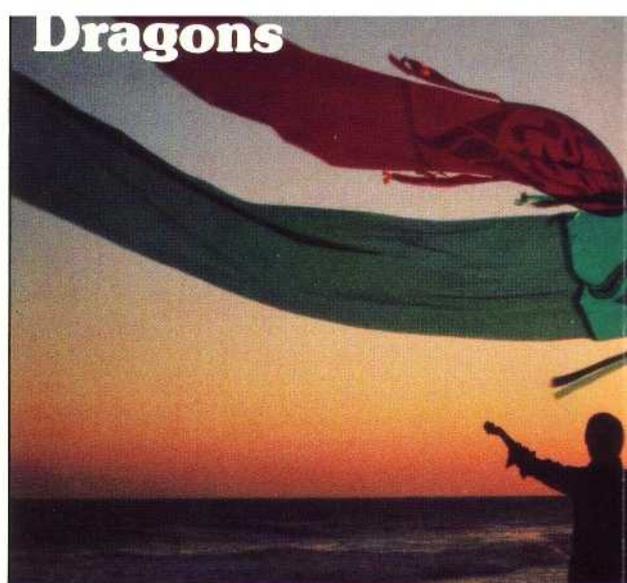
Dealer Window Sticker "Riding The Wind Of Popularity" window sticker with Mylar Star Kite logo in color lets customers know quality Mylar Star Kite products are sold in your store.

Gift Box Full color lithographed box with handle for use as a carrying case, mailing box, gift box. Color photos and complete Dragon flying instructions. Size: 20½" x 19½"

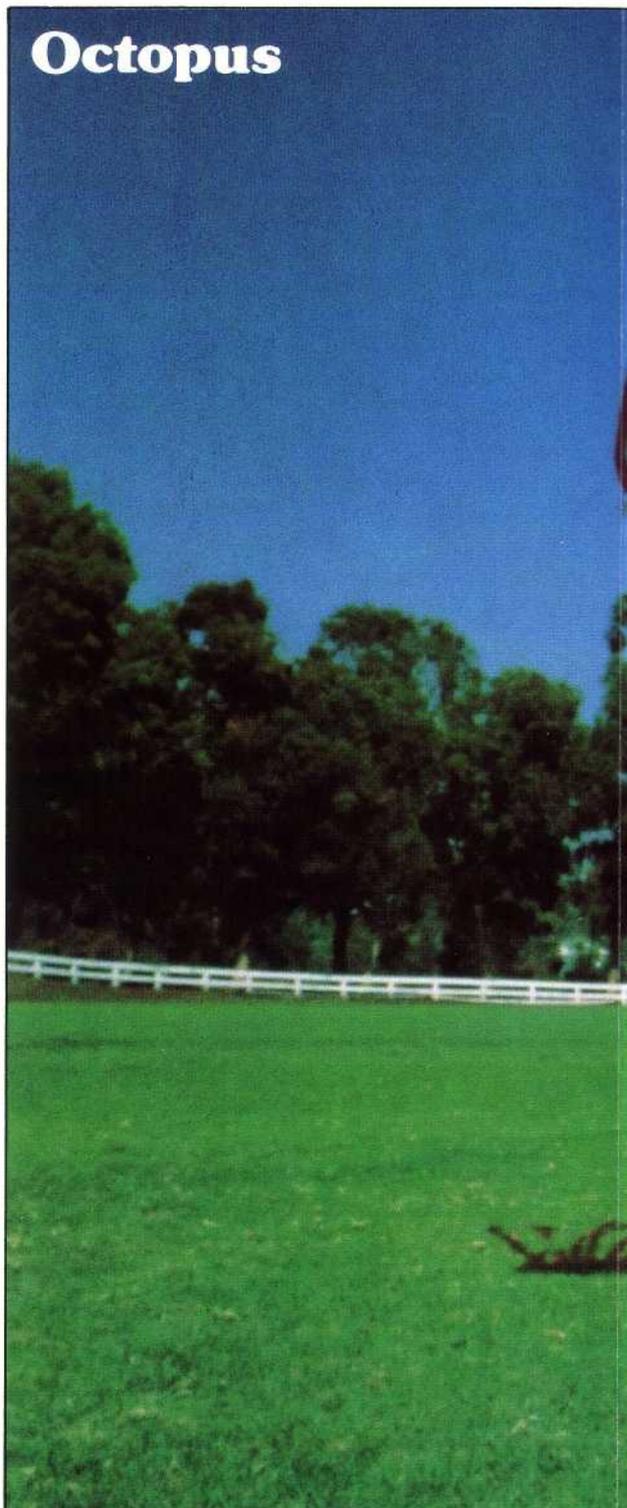
Mylar Colors:

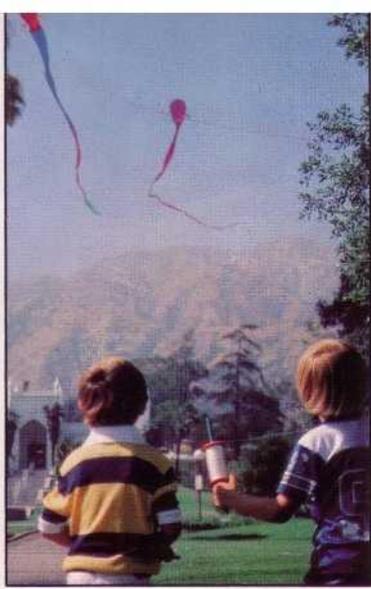
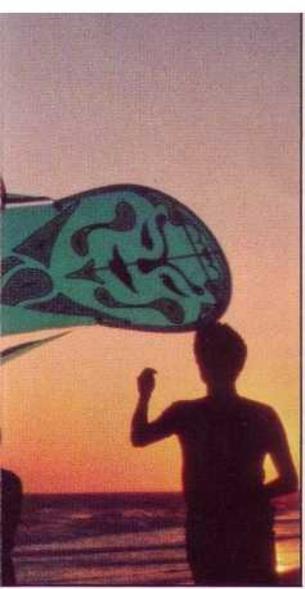
Ruby Red	Fuschia	Plum Purple	Aqua Blue	Emerald Green	Sunshine Yellow
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Dragons



Octopus







Riding the wind of popularity everywhere.

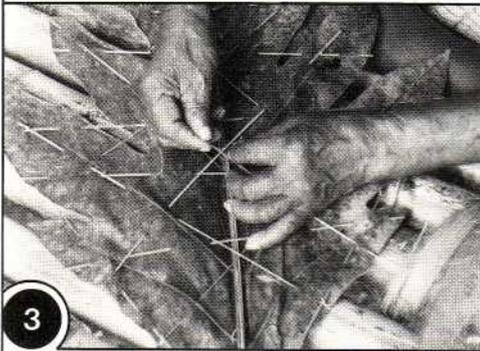
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Display this catalog and hang fully opened kites from ceilings and walls to help customers make their selection. Remember kites make great home decorations as well as being fun to fly.

©Dupont Trademark ©Mylar Star Kites 1977

Produced by Eugene Cheltenham. Photos: Eugene Cheltenham and Dale Fleener.

fisherman from a canoe, but it can also be accomplished while wading along the edge of the coral reefs if the prevailing winds are suitable. According to Patris, a good fisherman can often catch up to twenty or thirty needlefish within several hours.



During fishing the breadfruit leaf kite is flown at different heights depending upon the strength of the wind. In light winds they are flown as low as sixty feet above the water but in strong winds they may be flown as high as three hundred feet. Both light-wind and strong-wind kites are made that have a short adjustable bridle for setting the angle of attack. They can also be made to fly to the left or to the right by trimming or altering the kite on one side. These techniques are quite simple but very effective.

In launching the kite from a canoe, the fishing line, which also acts as the



kite's tail, is let out first, followed by letting out the sennet kite line to keep the kite aloft while closely observing its behavior. Since the breadfruit leaf

will in time become worn or damaged, frequent bridle adjustments are necessary. After letting out the flying line it is either tied onto the canoe or held between the fisherman's teeth, thus allowing him to handle his canoe and line at the same time. The canoe slowly follows the kite while the spider web lure is made to skip and dance along the surface of the water. Apparently the lure resembles a small fish jumping or frantically trying to elude some pursuing predator. This action entices the fast-swimming needlefish to strike the lure. When it does, its large, numerous teeth become securely entangled in the strong spider web filaments. Then the kite with the needlefish firmly "hooked" by the lure is pulled in and the fish removed. The kite is launched again within several minutes to catch another fish.



There is considerable speculation regarding why this method is so successful for capturing these large, timid predators. Modern rod and reel methods are often used with success but their effectiveness does not approach that of the ancient breadfruit leaf kite and spider web lure. Some observers believe that fishing with a kite allowed the fishermen to maneuver the lure close to their timid prey without startling it. Some are convinced that it's strictly the motion of the lure playing upon the surface of the water. Others believe that the fishing kites tended to attract needlefish to the lure because the moving kite looked like some seabird feeding upon small fishes.

Unfortunately, lack of free time prevented me from going fishing with Patricio in his canoe. The centuries-old techniques he used were described to me in considerable detail by Patris, and they closely agree with observations made by other individuals and with reports printed in scientific journals. However, good fortune

placed several clear 35mm color slides in my hands that showed Patricio actually fishing with one of his kites in the Western Caroline Islands. These excellent photographs were kindly made available to me by Dr. Bob Johannes, an associate also interested in kite fishing and fishing lore of the Pacific islanders.

Since these rare and valuable fishing kites may become quite brittle with age or damaged from frequent handling, I donated both, along with the photographs, to the Bernice P. Bishop Museum in Honolulu, HI, so that in the years to come others may enjoy and perhaps study them. ♦

FIGURE 1 Patricio Tahemaremacho of Tobi Island, approaching 80 years, wears hat and shirt in the strong tropical sun while he kite fishes from his canoe. His ancient methods are slowly being replaced by modern kites and plastic materials.

FIGURE 2 A breadfruit tree with the large dark green leaves from which the Tobi Island fishing kite is made. The breadfruit itself is a large oval which resembles bread when cooked, and was the quest of Capt. William Bligh of the H.M.S. Bounty during the voyage that ended in mutiny in 1789.

FIGURE 3 The fishing kite nearing completion, the intricate framework of coconut frond ribs is being tied together with coconut husk fibers. The central spine is made of three ribs that extend beyond the breadfruit leaf to act as part of the tail and also secure the sennet fishing line. A short fore-and-aft bridle will be attached at center. The fishing and flying line are one continuous line that is secured to the bridle in such a manner that it can be quickly adjusted for changing wind conditions.

FIGURE 4 Now ready, the breadfruit leaf fishing kite is shown rigged for fishing. Notice the spider web lure (bottom, attached to the end of the fishing line). The flying line can be seen at the top. The sennet line is of a particular type made by Tobi Islanders and judged to be of the highest quality in the Pacific.

FIGURE 5 A close-up view of the spider web lure. About 2½ inches in length, it resembles an elongated noose of tough silken threads and feels much like wool. The lure is made to play on the surface of the water to entice a hungry needlefish to strike. Once the fish strikes the lure, its large recurved teeth become firmly entangled by the web. The kite and fish are pulled in, the fish untangled from the tough filaments, then the kite is again launched to catch and hold another victim.

By Mel Govig
Assisted by Pete Ianuzzi

A complex of mechanical and human factors comes to bear in selection of kite reels. Pete Ianuzzi recently attempted to spell out some of the qualities that his ideal reel would have. A reel should keep the line from tangling and make retrieval and flying easier, and to achieve this it would have the following characteristics:

1. Each turn of the flier's hand should take in or pay out at least 12 inches of line. More is better.

2. It should be possible to reel in a kite while it is pulling four to eight pounds.

3. It should be possible to reel in the kite without watching the reel.

4. If the line pull becomes more than can be cranked in, it should be possible to take line in by hand and wrap it on the reel.

5. When launching, flying or retrieving, it is sometimes necessary to work the line by hand. It should be possible to drop the reel on the ground and pull line from it without jamming the reel or snarling the line.

6. The reel should be strong enough to wind in monofilament under tension without the pressure breaking the reel.

7. A reel should be easy to use and should put no unusual strains on the arms, wrists or hands.

8. The reel should not be so heavy or complicated that it interferes with the feel of flying the kite.

There are other considerations, of course, such as, a reel should not reduce a flier's mobility on the field, and a reel should store a given quantity of line. Every kiteflier could make his or her own list of preferences.

Several new reels on the market prompted our attention to reels in general for this issue of *Kite Lines*. Here we have tried to compress our standards into a manageable and measurable few. We also found more reels on the market than we could possibly review in this space. In spite of these limitations, we made an effort to cover as many samples as we could while flying an assortment of standard kites in light wind conditions.

KITE REELS

I have found that there are four basic types of kite reel: the bobbin, the hoop, the spool and the true reel (defined as distinct from the general term "reel" commonly applied to all line winders).

The simplest reel to make, and a good one for strong, steady-flying kites, is the bobbin type. A flat winder, akin to the bobbins used in hand weaving, this type is most useful in a standard length (such as 6, 12 or 18 inches) to help in determining altitude. These reels are not usually well suited to letting out line rapidly but can be faster than other reels for retrieval because of the large take-up per turn. They allow a sort of one-man walk-down.

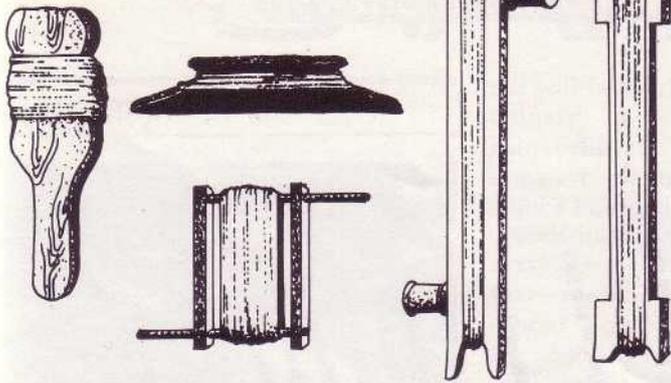
The second type I call the hoop, a simple cylinder of any specific diameter or width. It is characterized by lack of a spindle or axle. Included in this group are the unimproved tin can, the fiberboard tube, the Cuban Yo-Yo and the bicycle rim. Depending on the diameter, these are relatively easy to manage for line retrieval, with one hand winding while the other holds the hoop. Line release with the hoop can be by steady rotation or by fast dump, in spinning reel fashion, when the hoop is turned at right angles to the kite line. A large diameter hoop such as a bicycle rim can be an easy choice with a stout-pulling kite because it combines the familiar hand-

over-hand grip action while gathering the line.

The third type I call the spool, though it is truly a spool and spindle. A wide, small-diameter hoop (spool) with a spindle or axle through it, forming convenient handles on either or both ends, this type is easy for feeding out line. The Indian fighting reel is the classic spool. Your kite can be eased into the air at a speed that lets you feel the pull of the climb. Pointed at the kite, the spool spills line off the end, in the same manner as the hoop. The handle can be stuck in the ground while the flier takes over to bare-hand the line for fighting. However, getting the line back on the reel can be tedious. With a lot of practice, you can learn to spin the line in rapidly, the way the flashy Indians do it, by one of two dazzling methods:

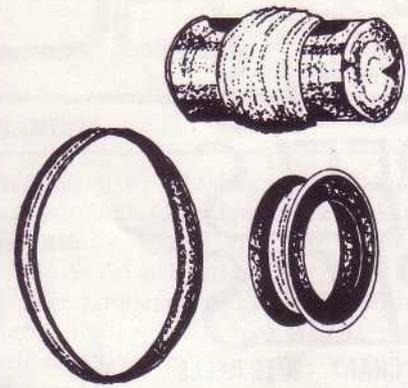
In the first, one end of the spindle rests inside the crook of the left arm while the left hand guides and tenses the line and the right hand twists the other spindle end. In the second, both hands coordinate in an orbital motion to achieve and maintain momentum in the rotating spool. I admit I have struggled to achieve these envied skills, like a little boy trying to whistle, but the knack has evaded me. It should be noted that the Indian fighter spool cannot be wound in effectively with tension on the line.

BOBBIN



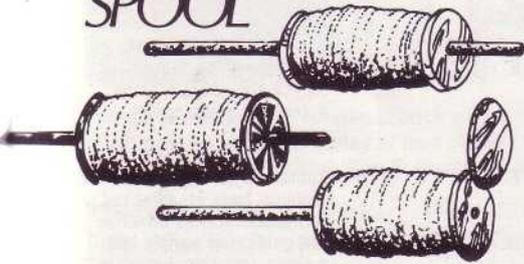
REELS
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HOOP

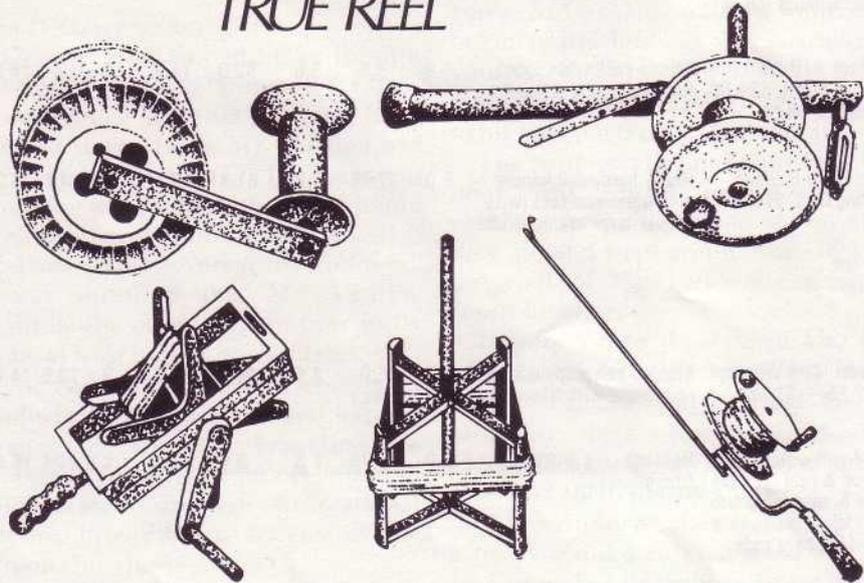


Drawings by Linda Kobitz

SPOOL



TRUE REEL



The fourth type of reel, the true reel, is the spool made to rotate on a fixed spindle or axle. Handles, cranks, gears and extension rods become possible with the free-rolling reel. In using reels, you sacrifice the hand-on-string style necessary to fighter, kite flying for the convenience of mechanical retrieval, the ability to crank in the hard pullers and the extra leverage of a rod extending from your arm. I think a good salt-water casting rig is still the ultimate for both fish and kites. These have right-handed orientation, while all the kite reels we tested are adaptable to either right or left hand. Some may argue for the larger capacity or stronger cranking ability offered by the husky, specialized kite reels. They don't provide much advantage in price.

To explain the chart headings:

Size: We measured usable winding area (inside diameter subtracted from usable outside diameter) and multiplied by the width to get capacity in cubic inches. This is a fairer criterion than feet of line, since we don't know the thickness of the line a flier might choose.

Overall size: The longest and widest dimensions.

Weight: Measured without line.

Cord guide: Furnished on several of the true reels, cord guides at times interfered with the ability to wind

string directly onto the spool by hand, as opposed to cranking or twirling the spool, and in each case was noted. For the really heavy-duty reels this would probably not present a problem.

Brakes or drags were furnished on a few large reels, and were noted. In other cases, the braking action is provided by the flier's grip on the reel.

Winding ease is probably the most subjective of the judgments. We presumed an average to moderate pulling kite, under tension, for the crank models. For the spools, winding under tension is difficult at best, so we had to assume a slack line.

Ground action refers to what the unattended reel does on the ground when you are flying the kites with the string in your hands. Any of you who have been struck by a flying reel will appreciate the importance of this criterion.

Vibration can be critical if you want to let a kite run out fast. Some handles set up an uncontrollable wobble when

the line is running free.

Remarks note the unusual features and in a few cases the "look-out-fors" of each reel.

We were corresponding with Joe Manzi of New York recently about reels, and Joe said: "If the best reel in the world were invented there would still be many who wouldn't use it. I mean not all kites are suited to sophisticated reels . . . My rim reel works okay but I found you have to show some people how to use it and when. Then they see the advantage . . . Personality has a lot to do with reels, too . . . Some just ain't happy unless they have a complicated reel to use, and sometimes I wonder what they are doing. I mean flying a kite or playing around with a reel?"

In short, choice of reel is as much a matter of personal idiosyncrasy as choice of kite itself, but most kitefliers eventually wind up with a way to wind up.

REELS REELS REELS REELS

DATA CHART — KITE REELS

	Materials	Outside dia. (in.)	Inside dia. (in.)	Width (in.)	Volume (cu. in.)	Avg. take-up per turn	Overall size (in.)	Weight (oz.)	Line incl.	Cord guide	Hand wind	Brake	Winding ease	Ground action	Vibration	Remarks
TRUE REELS																
Rayco Reel-E-Z (Bob Ingraham), \$26.75 incl. ship. (also without rod at \$17.50).	Clear acrylic core & end pieces, bronze bushings.	5.5	3.0	1.8	30.0	13.3	6 x 32	4.0	N	Y	Y	N	VG	G	E	Counter-balanced handle, very smooth rolling. Guaranteed 1 yr.
Multi-winch #7D (W.O. Weathers & Sons), \$24.50 (other models, \$4.50-13.50).	Sturdy cast nylon spool, hardwood axle & handles.	5.9	3.5	3.5	62.0	14.7	6 x 10	15.5	N	N	Y	*	G	F	F	Has nylon grip offset to reduce arm strain & crank extension. Spare spools available.
Pole Reel (New England Kitecrafting Co.), \$16.	Heavy hardwood handle with aluminum reel (wire spool), large crank handle.	6.0	2.75	2.75	61.4	13.7	13 x 18	39.0	N	Y	N	Y	G	F	F	Rubber tip on handle base cushions body, steadies rod. Turnbuckle acts as effective line guide. Our sample had a sharp, line-threatening 3/8" of bolt extending into line guide, had to be disassembled & shortened before use.
Kite Winder (Kite Winder, Inc.), \$12.95 + \$1.95 ship.	Molded polypropylene reinforced with fiberglass.	8.0 (sq.)	5.0 (sq.)	2.5	44.8	18.8	9 x 13.5	14.5	N	Y	N	N	VG	F	P	Rugged construction. Special line tensioning guide to reduce loose line problems.
Penn #77 salt water casting rod & reel (various hardware & sporting goods stores), \$10 (other fishing reels \$5-150; boat rods \$5-35).	Bakelite core & frame, fiberglass rod.	2.0	.75	1.3	3.5	11.8 (2.75:1 ratio gears)	4.5 x 24 (small rod)	15.0	N	Y	N	**	VG	VG	VG	
Spin-Winder (Hi-Flier Mfg. Co.), \$1.98.	Molded plastic with wire line winder (like a spinning rod bale). In red.	4.5	2.75	.9	9.0	11.4	6.5 x 11	5.5	N	Y	N	N	G	F	G	Sharp edges on wire may cut kite line. Tendency to tangle.
SPOOLS																
High Roller Kite Spool (High Roller Kite Spool Co.), \$3-5 (depending on whether line incl.)	Molded styrene spool with PVC tube core. In red.	3.1	1.9	3.7	17.3	7.8	3.1 x 12.5	2.5	N	N	Y	N	F	E	VG	A strong Indian fighter reel. Heats hands when fast feeding.
Indian fighter reel (various importers), \$1.50-3 (depending on what line is incl.)	Wooden ends & spindle & bamboo frame core.	3.0	2.0	3.7	17.0	8.0	3 x 12	2.4	N	N	Y	N	F	E	VG	Traditional native colors on spool ends. Core collapses under tension.
Tiger (Flying Tiger Associates), \$4.	Solid rock maple.	2.0	1.0	3.75	9.0	4.7	2 x 12	4.0	Y	N	Y	N	F	E	VG	Almost unbreakable. Hand-turned & finished. Bright colors on ends.
Tiger Tail (Flying Tiger Associates), \$5.	Solid rock maple.	2.0	1.0	3.0	7.2	4.7	2 x 8.5	4.5	Y	N	Y	N	E	G	F	Same as Tiger except one handle is replaced by eccentric disk that winds up 200 feet of line in less than 3 min.
HOOPS																
Cuban Yo-Yo (The Kite Site), \$2.75 + .50 ship.	Bakelite plastic with hand grip & back plate cast in.	6.1	5.0	1.7	10.4	17.3	6.1 x 2	5.5	N	N	Y	N	G	E	E	Originally designed for fishing in the Caribbean. Not as ordinary as it seems.
Coffee can (still at most grocers), volatile prices.	Light gauge steel, painted in various gaudy colors.	4.0	4.0	5.5	28.3	14.1	5.5 x 4	3.5	N	N	Y	N	F	G	G	Some can openers may leave sharp edges.
Code: Y = Yes, N = No																
Ratings: P = Poor, F = Fair, G = Good,																
VG = Very Good, E = Excellent																
		* On D model only														
		** Drag only														

STATESIDE

News From Here and There

CALIFORNIA



Indoor kiteflying as a special branch of the sport gets its annual big play at part of the Fathers Day Kite Festival, San Francisco, CA.

The Fifth Annual Fathers Day Kite Festival in San Francisco's Golden Gate Park took flight on June 19. A preliminary indoor kiteflying event was held in the Hyatt Regency Hotel lobby. It was won this year by Saeed Udin Khan, manager of the Come Fly a Kite shop in Carmel, CA, who kept his Indian paper fighter kite aloft for one hour, 42 minutes, 23 seconds. The feat won him \$350 and a weekend at the Hyatt.

New this year at Golden Gate Park was a team kite fighting event. Northern California and Southern California each fielded an eight-man team. The sport of kite fighting seems to be growing in the U.S., but its potential was clouded on this occasion by a disagreement over rule changes. The official winner was North 5-3, and each man took home \$50.

The largest prize was \$1000, and went to a group from San Diego called Free Form Concrete. They won for the largest kite, a 452-square-foot Levitor-type design. Winner of Most Beautiful Kite was a centipede-style model by Rainbow Kitefliers done in squares and described as delicate and lovely.

Kite Lines received two guesstimates of the attendance at San Francisco—5000 and 1000-2000; in any case it was a good turnout for a cold, gray day. The sponsors, Come Fly a Kite, Inc., Anchor Steam Beer and KFRC Radio, cannot be faulted on financial support; their stated budget was \$25,000.

A second annual Kite Retailers Semi-

nar will be held in San Francisco, CA, January 16-18, 1978, sponsored by Kiteworld, Inc., kite distributor. Sessions are planned to increase the retailer's knowledge of kites and of merchandising them. If you're "in the business," it's a chance to meet others and share ideas. For further information, contact Gordon Teekell at Kiteworld, Inc., 540 De Haro, San Francisco, CA 94107, tel: (415) 863-5815.

CONNECTICUT

John DeGange reports:

Thomas Vasiliou had never flown a kite until he came to Groton, CT, where a program of monthly flies has been in effect since May 8. Mr. Vasiliou had done lots of things in his 102 years, but kiteflying wasn't one of them. He found he enjoyed every minute of it, as well as local newspaper coverage that followed. It was surmised that Mr. Vasiliou might be the oldest person ever to fly a kite, at least in the United States.

The Groton Recreation Department conducts the kite program and has two co-sponsors, the Ben Franklin Kite Shoppe in Mystic and an organization called TRIP (Teenage Recreational Interest Program, an activity of the Groton churches).

Groton's kite flies are conducted at the Cutler School grounds in summer and at Esker Point Beach when the vacation season is over. The flies include contests in various categories and have been very popular.



Lonny Unger, The News, Groton, CT

Thomas Vasiliou, 101, flies a kite in Groton, CT, with Frank Intelisano, proprietor of the Ben Franklin Kite Shoppe.

FLORIDA

Exclusive to Kite Lines from Will Yolen, author of The Complete Book of Kites and Kiteflying and AKA Life Member:

The Sunrise Inn Rooftop Kitefliers of Fort Lauderdale, FL, were getting higher than a kite—a colorful French military kite—in the first organized attempt to set a new world's record for sustained flight which had been set by the late beloved Walter Scott. That record was 168 hours. The Sunrise Inn's coed gang of waiters, waitresses, bellmen and busboys was coached by yours truly. Captain of the team of ten was Chris (Junior) Morling, assistant to his boss Joe Garvin, bell captain.

The team was divided into four six-hour shifts, two people to a team and two fliers swinging. When not on duty, they ate and slept around the clock on the roof of the handsome seashore resort hotel.

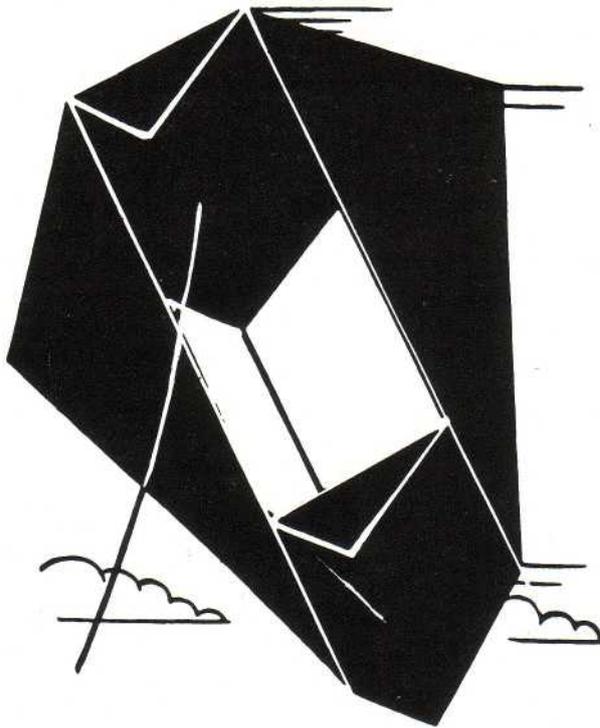
In addition to the French kite (so-called), there were two of Ed Hanrahan's Falcons, which lasted for almost three days, a Rogallo wing, an Al Hartig beauty from Nantucket and a coterie of small plastic kites.

Two rainstorms failed to stop the kites. Nor did a 25-knot wind halt the intrepids. For the rainstorm we had to run up a jury rig, somewhat similar to a jury rig on a sailing vessel in distress. We pinned the kite to the chimney of a nearby building and kept it on a short lead line for the 30-minute and three-hour rainstorms.

The team handled the kite in similar fashion during a windstorm but kept the kite inside a ring of human bodies that deterred the wind from whipping it into total destruction.

The worst phase of the challenge came at dawn of the final day, when there was a three-hour lull early in the morning. I sent out a distress call to the swing people who responded magnificently. Each in turn waved the kite around on a rod and reel and kept the kite aloft by sheer manpower.

Three hours before the 1:30 p.m. tie time, the wind began to pick up again. Store-bought kites, shiny new Gaylas and Hi-Fliers, went up gaily and highly, accompanying the scruffy-looking veteran French military. My Russian kite, that I had flown in Red Square



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The Kite Site



Art students of Mary Frisbee Johnson at Florida State University flew about 30 creations at St. George's Island, on the Gulf, with help from AKAer George Brett.

News From Here & There

(Continued)

last year, made specially for me by Al Hartig, had long since fallen soggy in the rain.

About this time the local and national press began to make inquiries by phone and in person. A notary public, Marie Posses, certified the event. Some civic celebrities, including Sunrise manager Richard Moore, took a bow and champagne was broken out.

The world record was broken by two hours instead of one. The *Miami Herald* had phoned to say that their photographer and reporter would be unable to come at the exact time of the kite descent, and to ask if we would continue to fly until they arrived. Thus history was made, not as scheduled, but with an hour to spare, on May 7, 1977.

Therefore, when the same team assembles next year, it will be prepared to try for the record of seven days, three hours. I will lead them again.

About 50 people, mostly students at Florida State University, went to the beach for a First Annual Kite Fly Spectacular. The competition was planned by the Creative Design and Art Department to show off the kites that were a spring final class project.

MARYLAND

On April 30 the Maryland Kite Society held its Eleventh Annual Maryland Kite Festival on the fine new field in

Baltimore's Inner Harbor. Ample stadium seating brought out the best spectator crowd ever for the event. The site is adjacent to the Maryland Science Center, with which the Society worked in setting up an exhibit of kites of scientific and historic interest. The display is now available for rental by other institutions.

The weather for the festival was sunny and breezy, though not quite windy enough for some kites. Tal Streeter, artist and author of *The Art of the Japanese Kite*, again attended from

New York as a guest of the Society and an honored judge, among others of local distinction.

The format of the day was less ambitious but more relaxed than in years past, and the emphasis was on comprehensive judging of hand-made kites, many of them spectacular.

At the end of the judging, a "duel" between two stunter fliers, Bill Ochse of the Kite Loft in Ocean City, MD, and Paul Ritchey of the Kite Site in Georgetown, DC, drew the crowd's attention. Co-Chairman Rick Kinnaid, at the microphone, gave a spirited blow-by-blow account, describing every move in heroic stanzas. The victor, Ochse, won the custom-printed shirt off the back of the vanquished Ritchey.

MASSACHUSETTS

Special report by Gregory A. and Phyllis E. Apkarian, AKA Life Members:

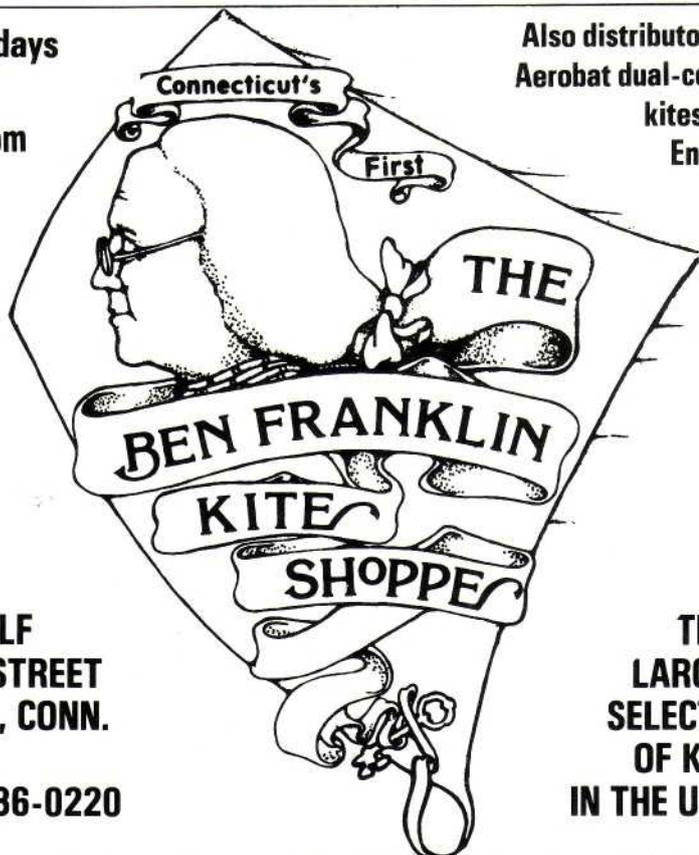
On May 14 the Good Lord must have known the 9th Annual Great Boston Kite Festival was to be held in Franklin Park because the wind was full, steady and definitely strong. Too strong for the Marblehead Kite Company's large

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News From Here & There

(Continued)

delta of 225 square feet, too strong for the hang glider's ride and too strong for the parachutists—but just the right wind strength for kitefliers.

Television reported that 30,000 people turned out for the festival with an estimated 6,000 kites including about 100 homemade.

For the serious kiteflier, few kites could compare to the 20-foot Jackson Parafoil kite. Dr. Richard Jackson, a Marblehead, MA, anesthesiologist, was previously recognized for his unique design at the Boston Festival several years ago. This year he enlarged his three-foot original to a 20-foot tall yellow and white rip-stop model flown on 1000-pound test marine line. The Jackson Parafoil kite appears in the sky as a cross between a keeled Scott sled and a parawing, and should not be confused with the Jalbert Parafoil. Registered under Patent #3,697,023, Jackson's three-foot aluminized Mylar versions flew up to 3000 feet while his 20-footer on the marine line snapped at 600 feet after a long flight. Manufactured by Chuck Watts, owner of Wilson-Silsby Marblehead, and engineered by Ernie Scott of Marblehead, the Jackson Parafoil has a definite future.

You can imagine my surprise when awarding a blue ribbon to Ted Kuklinski, PhD candidate from Massachusetts Institute of Technology, to find out that he, too was an AKA Life Member. At long last a fellow enthusiast! Ted is involved in the M.I.T.K.E.L. (the M.I.T. Kite Experimentation Laboratory) and flies in the Cambridge, MA, area—along the Charles River, in Larz Anderson Park and behind the Boston stadium, favorite site of Frisbee fanatics.

Among other recipients of ribbons was Wilfred Moore of Boston, originally from Barbados, with a noisy octagonal kite. The central New England area may be the home of the next active branch of the American Kitefliers Association. With a delightful spot to fly in Worcester, this Life Member is certainly dedicated to the idea.

MICHIGAN

By dint of hard work Pat Gilgallon of the Unique Place kite shop has focused a lot of attention on kiting in the Detroit area. Her major spring effort was

Hundreds of kites fill the airy lobby of the Fisher Building, a grand edifice named in tribute to Detroit's automobile industry.



a kite show in early May in the lobby of the elegant Fisher Building. Billed as the "largest kite display in the world," the hanging of hundreds of kites was accomplished by a portable elevator which enabled workers to reach the high ceilings and attach kites among the balconies and chandeliers.

In the central crossroads of the lobby was Pat's booth, where kites were sold and information given. The resulting publicity hasn't stopped yet, and has encouraged Pat to expand from her original tiny shop to a large kite center, still on Hamilton Row, Birmingham. Her latest letter brought chips of paint and sawdust in the envelope.

NEW JERSEY

The Princeton Battlefield was a peaceful, happy place on May 7 when the local Arts Council sponsored their annual Art People Party, this year devoted to kites.

According to reports, about 200 kites were flown and about 2000 people attended, picnicked and enjoyed music and dancers along with kites.

Most Spectacular Kite was awarded to Lawrence Hasiak with one of his rotor kites; Roger Sherman won for high flying with his yellow snake; the largest kite was a team effort of Philip and Ilse Johnson and Pierre Coutin for an eight-footer in plastic and bamboo; and Most Original was taken by Joe Gladden flying a white silk kite with green tail in simple, sculptured form with two green streamers from head to tail. The atmosphere as described verified the statement of the local Council for Community Services that the day contributed "to the mental health of Princeton by providing op-

portunities for people to experience a joyous sense of belonging to their community."

On the Fourth of July, Ocean City, NJ, invited its summer visitors to its annual kite contest, followed by Dixieland music and fireworks. The two kite shops at the resort fielded their best stunt and fighter kitefliers. The two shops generated an enormous amount of interest in kiting at the beach, where demonstrations were conducted on nearly every flyable day. A manlift was one of the biggest attractions. This pattern of activity was quite the usual thing for many seaside spots in the summer of 1977.

NEW HAMPSHIRE

Last December, Dinesh Bahadur of San Francisco's Come Fly a Kite shop, visited Keene, NH, and set Roosevelt Elementary School agog. He flew a kite in the gymnasium, which started a host of other kite projects. Marie Lambert coordinated activities including writing, drawing, kite making and a parade of kites. The parade included several models that took many hours of work by involved adults.

NEW YORK

James Vullo's latest public relations exposure, in *Buffalo Fan* magazine, August issue, showed him with one of his fine kites in LaSalle Park. Jim is a Professor of Fine Arts at State University College at Buffalo and a dedicated AKAer and Longmeadow (Rochester) Chapter stalwart. His enthusiasm was revealed in this quotation:

"Kiteflying connects you to the earth and to the sky. It's kind of a mixture between aesthetics and science. It makes you look up, think up and feel up."

NORTH CAROLINA

The Galleon Esplanade's Sixth Annual Kite Contest took place in Nags Head, NC, not far from the Wright Brothers Monument at Kitty Hawk. An unpaired record of good kiting weather was maintained for this well-run event.

Valerie and Mel Govig took off a long weekend to attend. Valerie made a yellow rip-stop high-aspect-ratio hexagon with yellow surveyor's tape tails in 1½ hours the morning of the contest and won for Prettiest Kite. Mel

flew 11 little Eddys in train and took a third place prize. Wood Ellis won his first First with a modified Baden-Powell in various colors of pieced rip-stop nylon to depict a galleon warship. Francis (Rog) Rogallo and his family flew three loosely lashed Corner Kites in red, white and blue, an "array for the U.S.A.," and took second place.

Aylene D. Goddard came with a delta wing kite crafted in multicolor fabric to match her attire for the event. Aylene is an AKA Life Member, formerly of Michigan and now a resident of Kill Devil Hills, near Nags Head.

Many other fine friends and fine kites appeared, and a number competed in the Endurance Division. This begins at noon and ends when the wind dies, usually early evening. This year the winds were steady and the kites were up till midnight, when the prizes were split among the weary finalists.



A. Pete Ianuzzi

Big winner Wood Ellis is the center of attention in Nags Head, NC, at the Galleon Kite Contest in July. His modified Baden-Powell was a result of much trial-and-error.



John Blizzard

Long-time AKAer Aylene Goddard first came to the Outer Banks, NC, as a kiteflier from Michigan. She and her husband came back here to retire.

OHIO

Bill Jones reports for the Ohio Society for the Elevation of Kites:

Kiting continues to grow by breezes and blasts with OSEK. We sponsored a number of kite festivals and contests this summer.

July 10 marked the Lake Erie Islands Kite Festival in cooperation with the National Park Service. The site was Perry's International Victory and Peace Memorial, Put-In Bay, OH, on South Bass Island in western Lake Erie. A good number came, many from far away. The Island Kite Shop gave prizes.

Spectators could and did look at the contest from 350 feet up on the Perry Monument. One could watch kites at their own level and sight the fliers along their own kite lines—an unusual perspective.

The Cleveland Games Kiterly was particularly well attended. The sponsors, WJKW-TV, WMMS-FM Radio and the *Plain Dealer* newspaper, donated 1000 paper two-stickers with 250 feet of string and choice of sailcloth or crepe tail. They were gone in an hour. Happily, many of them graced the sky during the kite contest the same day, August 13. Winners in the contest went home happy with a wide variety of prizes ranging from a full-size color TV to records, T-shirts and good kiting equipment and books, the latter courtesy of The Kite Kompany, Chagrin Falls, OH.

Indian-style kite fighting's popularity knows no bounds around here lately. One member, about to be married, has already given his bride-to-be a Vic's fighter, her first kite. Is Ohio the first state with a husband and wife fighting kite team?

TENNESSEE

George P. Turner sends us news:

The Kiwanis Fifth Annual Kite Festival was held on May 7 at Paris, TN, and I was invited to attend and judge again this year, along with my friend Dr. James P. O'Dwyer. The competition was divided into several age groups as well as between home-made and purchased kites.

Unfortunately, the wind was unusually variable, fluctuating abruptly from about 10 miles per hour down to zero. This created a problem for several of the contestants, as the rules required that the kites fly for at least

one minute and be up over 20 feet. Judging was based on how well the participants launched, flew and retrieved their kites.

Tropies were awarded to Joan Williams and Brad Willoughby for being the best overall kite handlers. Many other cash awards were presented.

Our hosts from the Kiwanis Club of Paris were most gracious, and all of the contestants were very cooperative and accepted the judges' decisions without question although in some cases only a hairline difference separated the placements in the ratings.

TEXAS

Richard Robertson of Austin writes that May 8 was celebrated in Austin as National Kite Day by proclamation of Mayor Jeffrey M. Friedman. Ever since the Austin kite festival in Zilker Park in March, Dick has been tirelessly promoting AKA and teaching kiting in his area. He can fill a stage with his large and varied kite collection, and often does so at his lectures.

Spilling over to Rankin, TX, a new interest in kiting there resulted in a Lions Club Kitefly on April 23, organized by Rev. Herb Frederick.

An exhibition of kites by Pat Hammond, titled "More than Meets the Sky," has been on view from August 28 through September 25 at the University of Texas Health Science Center in San Antonio.

Pat has been making and collecting kites for many years, and this exhibition is a culmination of her work. It represents not only an accumulation of examples, but a thorough study of the kite as an enduring spiritual symbol and a challenge to human ingenuity.

Pat's fascination with kites is further documented in a small booklet prepared for visitors to the show (and unfortunately in very limited edition). The pamphlet contains some of her collected researches as well as a witty addendum: "The Book of Common Air, a Highly Irreverent Collection of Kites, together with Kitechism, and Pat Hammond's theory of aerodynamics: Name them, they fly better." Eleven puns fit to make a kite flip are illustrated by the kites, such as Swine Flew (a hog kite) and Of Corset Flies.

The exhibition will be kept intact for possible loan to other cities.

(Continued on page 50)

Right, Flying colors of Peter Travis, Australian kite maker extraordinaire. Scores of hues are combined, some with only subtle differences.

Below, Travis adjusting bridles on one of his 8-to 12-foot diameter cotton poplin kites. Some have as many as 16 bridle legs. Travis brought over 200 pounds of kites to Seattle, eight to fly and three to show on exhibit.



Dave Checkley



Harry Critchfield

By David M. Checkley

Special report to Kite Lines from Dave Checkley:

After three years of planning, the Allied Arts Foundation of Seattle staged their International Exhibition of Flags, Banners and Kites at the Flag Plaza Pavilion at Seattle Center from July 10 to 24.

The 253 entries came from all over the U.S. and 12 foreign countries, including France, Hungary, Belgium, Poland, Australia, Japan, Canada and Sweden. Kites, only recently recognized in Western countries as an art form, were the minority. According to Jack Van Gilder, one of the exhibitors, only about 20 looked as if they would actually fly. A number that their makers chose to call kites were really hanging sculptures.

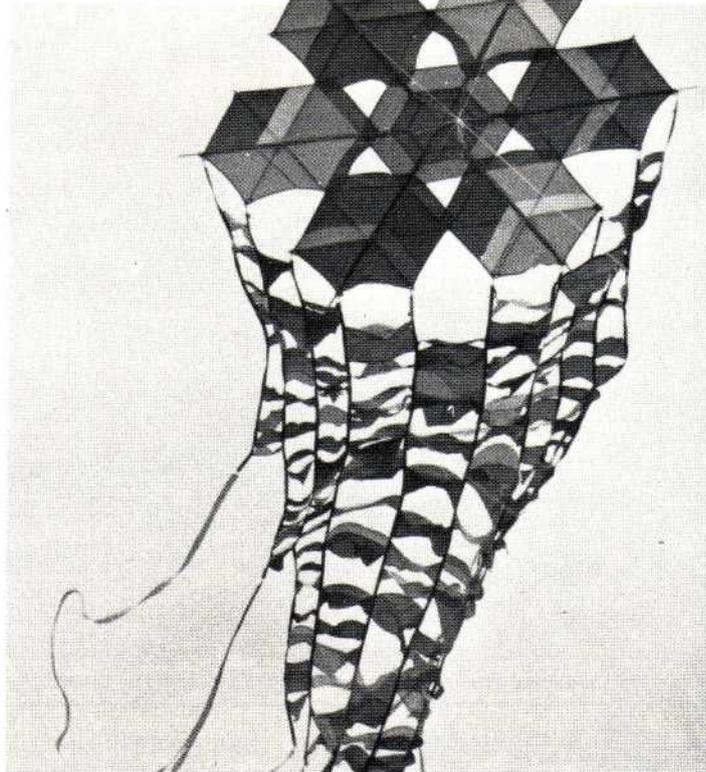
The official list of winners included:

First Place Award to Edward W. Randell, Jr., Long Beach, CA, for *Grommets Chinese kite* (an inventive wall hanging); Second Place Awards to Ahmad Nabi Naimi, Bethesda, MD, for his Afghan kite (a flyable kite), and to Susan Nininger, Seattle, WA, for *A Wearable Kite* (a whimsical sculpture of a human figure outfitted as if for space travel); and Third Place Award to Margaret Little, Philadelphia, PA, for *Rising Sun II* kite (apparently not intended for flying).

Selection of works exhibited and of award winners was made by an independent jury including Eudorah M. Moore, Director, California Design, Pasadena; Paul Chadbourne Mills, Director, Santa Barbara Museum of Art; and Anne Focke, Director, and/or Gallery, Seattle. Unfortunately, there were no kite people on the jury (an unsuccessful attempt was made to get Paul Garber), so some of the awards, notably the first place among the kites, were disappointing to most kitefliers. In spite of this failing, the jury put together an interesting and colorful show.

The stars of the exhibition were Peter Travis's kites from Australia, which arrived too late for the judging. The three kites shown, *Nebulae*, *Diabolo* and *Celebration*, ranged from 8 to 12 feet across, with tail assemblies up to 200 feet long, which were draped the length of the pavilion. Each kite is a work of art, combining both brilliant and subtle colors so that they have maximum effect with the light (or in this case the pavilion lights) shining through the fabric. To give the reader some idea of the size and complexity of Travis's kites, the Australian government recently commissioned one of similar size for \$8000. Travis visited Seattle, and then traveled in Canada, under the auspices of the Australia Council.

Travis is a professional designer and teacher, with a background in textile, fashion and industrial design. He is also a well-known potter and teaches



Above, The largest of the Travis kites, *Centennial*, has pieced multi-color tail stiffened in places horizontally to maintain its shape in the air. **Left,** Flag Plaza Pavilion, Seattle Center, where 17,000 square feet were filled with flags, banners and kites. Several thousand visited daily. **Above left,** Rainbow Kitefliers of Oakland, CA, represented by the Toy brothers, accept a special award in Seattle from Tsutomu Hiroi (center) on behalf of the Japan Kite Association, for their "cooperative spirit" in helping others fly their kites. Trophy was sent by Shingo Modegi, Association President.

a three-year course in color at the Shillito School of Design in Sydney.

Unlike some other kitemakers, Peter Travis is also an accomplished kiteflier. Except for his largest creations, which require a second flier in high winds, he is able to launch and fly his kites alone. They are bridled high so they fly reasonably flat, and because of the long and complex tails they are remarkably stable in flight. His luggage contained a metal spool of 400-pound test braided line, and several rolls of lighter line for the smaller kites.

Other spectacular kites included: two by Heloise Lochman of White Bird Kites, San Francisco, CA—a very long, intricate and beautiful nylon dragon entitled *Om-Swayyambhu*, and a striking Eddy called *Shine On You Crazy Diamond*; four kites by Margaret Greger of Richland, WA (author of *Blown Sky-High*)—beautifully appliqued kites (one of which was purchased by Travis); an interesting sled

by Joan Slattery Newcomb; and three kites by Mel and Valerie Govig (mistakenly credited only to Mel in the program), including the original Maryland Kite Society kite.

For sheer size and aerodynamic quality, top mention should go to David Farris of Vancouver, B.C., Canada, who exhibited three huge nylon box kites, one almost 20 feet wide with an aluminum frame. Other notable exhibitors included Tom Van Sant of Los Angeles, CA, with a single section of his oval Trampoline kite with an open keel and drogue, and Jacqueline Monnier of Paris, who was the principal exhibitor at the Festival d'Automne à Paris kite exhibit in 1976.

Japan was ably represented by a huge Daruma Edo kite by Katsuhisa Ota of Tokyo; a pair of Iwai character kites by K. Takahashi of Shimane-ken; two kites by Semmatsu Iwase of Anjo-shi; a Tongari kite by Matsutaro Yanase of Yokosuka (near Hamamatsu); two kites by Teizo Hashimoto; and miniature kites entered by Kenji

Hoffman of Tokyo and Shin Nishimura of Osaka.

Nishimura's kites were exhibited in Paris last year and are from the collection of Professor Tsutomu Hiroi, who was in Seattle for the kite show and the Seafair/Port of Seattle kite fly. Hiroi brought a 30-foot long, 8-foot diameter plastic carp kite of his own design, decorated by his students at Tokyo University. It flew beautifully at Elliott Bay Park. Hiroi left Seattle to officiate at an exhibition of Japanese kites at the Provincial Museum of Alberta in Edmonton.

The best pieces exhibited in the show, as selected by the jury, are illustrated in a beautiful full-color 53-page catalog/1978 engagement calendar. Copies of this calendar are available at \$8 each including postage and handling from Flags, Banners and Kites, Allied Arts of Seattle, 107 South Main Street, Seattle, WA 98104.



Dave Checkley

Seattle's Kingdome halftime show of super-light kites flown by the Washington Kitefliers

News From Here & There

(Continued from page 47)

WASHINGTON

News from the Washington Kitefliers Association, by John F. Van Gilder:

April 30 at Seward Park in Seattle we enjoyed a little gem of a kite festival. The day was lovely, the breeze just right and the atmosphere relaxing. The Japanese Consul-General to Seattle contributed a nice trophy, won by Bill Lee, President of WKA, with a winged box kite.

May 21 and 22 on Seattle's waterfront, the WKA provided an umbrella of kites at the dedication of the city's new aquarium. Van Gilder sent a movie camera up with his 100-kite delta train, at the 70-kite mark. The crowd waved as the camera ground on for three minutes. The film turned out well, too.

The next weekend, at the dedication of a new Seattle park, WKA members did the same thing, provided an umbrella of kites. It was heard later that some of the politicians didn't hear much of the speeches; they were watching the kites overhead.

On the evening of June 29, 26 members of the WKA, on a week's notice, flew 25 kites and five delta trains of 10 kites each at Seattle's indoor stadium, the Kingdome (in King county). It was during the halftime of a professional soccer game and about 20,000 people

were in attendance.

Sighs and gasps were heard when the first group of five kites went up around the perimeter of the field—Eddy kites. All kites were of tissue paper material, super light weight. Next came five of Bill Lee's winged box kites; then five cobras built by Bill, John Dusenberry and Jack Van Gilder; then five sleds; and finally five large tissue deltas. The young people carrying them were able to pull them around at normal walking speed. Some of those with the cobras had to jog. Betty Davisson and Tom Sisson also contributed beautiful deltas. Last to be displayed were five trains of tissue deltas, 10 to the train. Gasps were heard when Bruce Kimball hung a delta on a loudspeaker cable 100 feet in the air—and then applause when he expertly extricated himself. While all the deltas and trains were moving around the field, Ken Conrad, partner in the Great Winds kite shop, joined Carl Brewer and others in a fighter kite demonstration in the center of the field.

Bill Hull of Great Winds, having once been a professional radio announcer, did a polished job of describing all the kites as they were launched and retrieved. WKA left the field with applause ringing! (Incidentally, their club, the Seattle Sounders, lost the game to the Dallas Tornados.)

Next morning, while at work at Boeing, where he is a technical writer, Bill Lee was approached by one of his supervisors and told of the beautiful halftime kite show during

the pro soccer game the night before. "And do you know," continued the supervisor, "there was a guy down there who sure looked like you!"

Another halftime kite show has been requested for a televised pro basketball game on March 26, 1978.

The July 4th holiday found several members of WKA hard at work helping over 1500 kids assemble free kites at the Heritage Festival in Marymoor Park, near Seattle. The county purchased the little sled kites from The Kite Factory, and WKA volunteers, headed by Dave Checkley, earned a \$90 honorarium for their club treasury.

The WKA also continues its weekly Sunday afternoon flies at various points around Seattle.

Peripheral to the Flags, Banners and Kites Exhibition (*see page 48*) were an opening day fly and festivities on Seattle's waterfront. July 16 was spent in demonstration and practice and July 17 was reserved for competitive events.

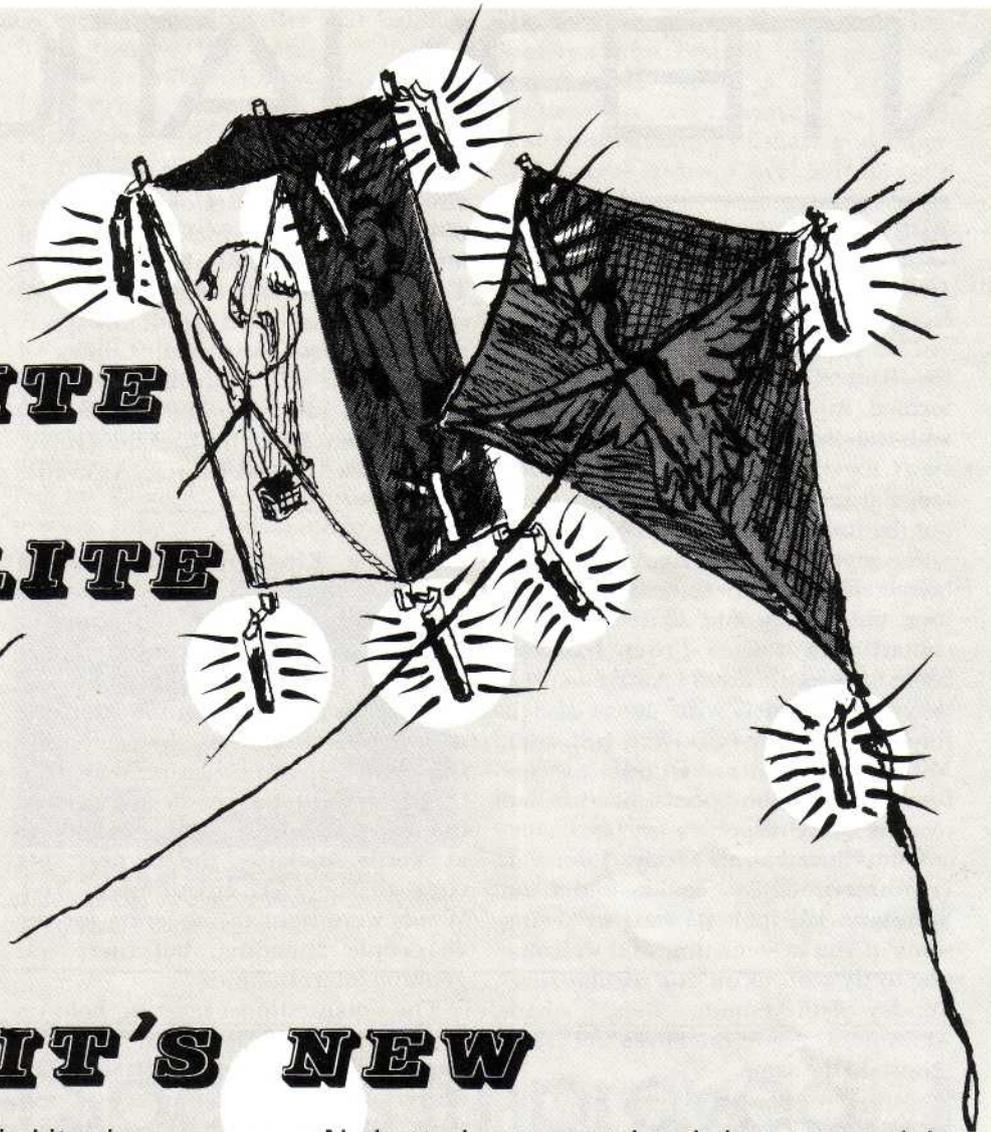
In the Long Line event, Stephen D'Oyley won for letting out the most line in two minutes at the flattest possible angle. Highest Angle of Flight was a tie between Jack Van Gilder flying a Tony Toledo Filipino fighter kite, and Carl Brewer with a balsam-and-tissue airplane-type kite. Most Beautiful was won by J.C. Young with a 60-disc Chinese centipede. The Kite-Boat Race was won by Bob McCort.

Professor Tsutomu Hiroi and Peter Travis, both house guests of the Dave Checkleys, served as judges. They also demonstrated their kites several times.

There wasn't much time to rest before the Seafair/Port of Seattle Kite Contest was held on July 30. It was a fine day and a well-attended event. To note some of the more important entries: in the Most Beautiful event were Jack Van Gilder's Chinese butterfly in rip-stop nylon, and Coe Axt's long-tailed applied hexagon. The Longest Tail event brought out bags full of tails that unfolded, accordion-like, as the kites rose. David Lee and his sister Linda crossed line and tail so that one kite became tailless and the other flew two tails. "Tail transference," they called it. Largest Kite went to Van Gilder's 21-foot delta, challenged by a Parafoil flown by Charles Locklin, who came from Austin, TX, to participate.

(*News from Here & There continues*)

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AUSTRALIA

Helen Bushell reports from the Melbourne area for the Australian Kite Association:

This is to officially inform you that the Australian Kite Association was formed in Melbourne in May 1977, with the object of bringing kite enthusiasts together and promoting knowledge of and interest in kiting throughout Australia.

As several of our members have belonged to your association for a long time, we would like to keep in contact with you. A group has also been formed in South Australia, and they are affiliated with us, as also is the National Gallery Society. Its leader, Mr. Paton Forster, is one of our directors, and the Society has handed over its kiting responsibility to us.

Our Chairman is Tony Johnston, Treasurer is Cathy Tonkin and I am Secretary. We look forward to seeing some of you at some time and welcome you to fly with us on our regular first-Sunday-of-the-month flies, where we hope to enjoy ourselves and help others do the same.

In addition to the above announcement, Helen has sent us some enthusiastic letters. She and her son Alan make and sell Australian-design kites, in particular the Evolution Trefoil, their own patented design. Helen has



Trefoil kites by Helen Bushell on exhibit in the lobby of the Y.W.C.A. in May in Melbourne, Australia.

also printed a booklet of her theories of kiteflying, which includes a pattern for making her Australian Long-Tail Trefoil. We found the work both charming and hard to follow—terminology was undefined. Copies of "Make Mine Fly" may be purchased for \$2 U.S. plus shipping (\$2 airmail) from Helen Bushell, 10 Elm Grove, North Kew, 3102 Victoria, Australia.

From the Kitefliers Association of South Australia, R.E. Ted Padman corresponds frequently and sends us their newsletter. The association has the good fortune of being sponsored by a television station in the Adelaide area, which advertises their monthly flies and helps in other ways as well.

On July 10 the Association's first field day was held in the Parklands at North Adelaide, the highest spot close to the city, according to Ted. Winds were light to moderate for the 48 people attending, but there was genuine interest shown.

The organizational meeting held on June 23 drew 25 people to Fullerton Park, Fullerton, South Australia. The officers of the association are: President, Bob Hains; Vice-President, Graham Blackey; Secretary-Treasurer, Ian Perrin; Editor-Publicity Chairman, Jan Hosking; Children's Advisor, Ray Blucher; Resources Advisor, Wayne Hosking; Official Photographer, Richard Grabb.

Bob Hains is admired in his area for the expertly detailed kites he sews on an old treadle machine. He has made a Cody war box kite, a Flare, a Marconi-jib kite and a Jalbert Parafoil.

The group plans to fly kite trains in country areas, where they hope to have the cooperation of the Department of Air Transport for special occasions in lifting the kite altitude limit of 300 feet.

Ted reports good flying with many of his own kites, including a Chinese butterfly with six long tails, the frame made of basket cane and $\frac{3}{16}$ " dowel. He went flying with Ray Blucher in June and observed Ray's success with his red rip-stop nylon compound bat kite, one of several Blucher kites that Ted describes as exquisite.

CANADA

John F. Van Gilder reporting from Seattle describes the Great Pacific Rim Kite Festival:

The first weekend in April, several Washington Kitefliers Association members drove their kite-packed cars to Vancouver, B.C., Canada (110 miles) for a kite contest. Everything clicked in Vancouver—weather, publicity and interest. The judges and officials were inundated with people. Bob McCort said that WKA members had never seen as many kites in the air in one spot in their lives. They came back with their share of prizes also.

Everyone had to tell about the most unusual kite up there—a cotton sports shirt, undershorts and a pair of pantyhose were strung together—and they flew! Jack Kelly was responsible for that one. Also noted were the huge box kites of many strange configurations. "Of course," we sniff, "anything would have flown in that steady 15 miles-per-hour wind"—except for tissue-paper delta trains. John Dusenberry didn't dare even attempt his 40-kite train.

David Pinner writes about his favorite kite stunt:

I take my Skycat stunter from 200 feet and dive it straight into a lake.



Rising from a dip on a hot summer's day is the stunter kite piloted by David Pinner of Vancouver, B.C., Canada.

This never fails to bring hoots from other kitefliers who assume that I have lost control of my kite, not to mention my senses. Then by increasing the tension on the lines, I bring the nose of the kite out of the water until the wind catches it and then the entire kite rises with water streaming from its back! I like to call this my amphibious kite trick, and as far as I know it is still a unique maneuver in this area.

Ed. Note: Unique (like beautiful and perhaps a list of other words it would be interesting to compile) is in the eye of the beholder. See the letter from Francis Rogallo on page 10 of this issue. Also, we will bet a British pound on a U.S. dollar that somebody is doing this in England.

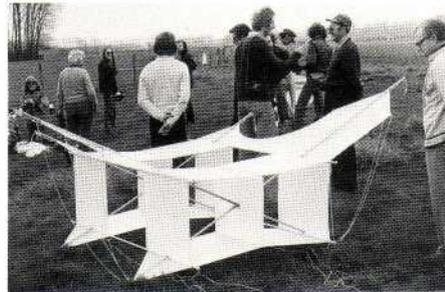
ENGLAND

A wave of kite excitement has hit England since the first big event of spring, the May Day National Kite Rally of the British Kite Flyers Association at Old Warden airfield, Buckinghamshire. Described by globe-trotting AKAer Bruwer Van Graan as "a real knockout," it was only the first in a

series of kiting activities that Britains have organized this year.

The second major event was the First British Kite Championships at Parliament Hill Fields, London, on May 29. For starters, it included David Turner's man-lifting effort on Cody kites, and Flexifoils flown 12-in-line.

Ripples afterward were many. The Haringey Sports Council's Festival of Sport, which included kiteflying, was held on June 18. Two flies were staged by the new Blackheath Kite Association on June 9 and June 12 at Blackheath. Two more events were organized by the Essex Kite Group, led by Clive C. O. Rawlinson; one was on June 27 and another on July



National Rally at Old Warden draws a Cody war kite. At right is Bruwer Van Graan, recognizable in his cap.

3. The new Norfolk Kite Flying Society's Kite Festival took place on July 31 in Norfolk.

Kite Lines has received extensive first-hand accounts of these and other kite events from Clive Rawlinson's generous pen, as well as reports by Bruwer Van Graan and photos by Ron Moulton, Founder of the British Kite Flyers Association. A special story on kiting in England's Jubilee Year will appear in our next issue.

JAPAN

Jack Van Gilder reports:

Dave Checkley and John Dusenberry returned from their two-week tour of Japan's kite festivals in May with many pictures, both slides and movies. John showed films of a 50-foot delta, and reported mind-boggling kites in Tokyo—1600 kites flipping nonchalantly out of 250-kite containers into the 25-mile-per-hour wind. Nothing John had with him would fly in that wind, but the Japanese fliers seemed to be used to it. It rained two of the three days at Hamamatsu but the festival was successful anyway.

(News from Here & There continues)

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The Firebird
WindForm™ Adaptable
Kite - shown in flight.** Look at these features:

- **GREAT WIND RANGE:** Our exclusive WindForm™ adaptable design provides unusual versatility in a big, active kite. Interchangeable cross spars adapt the center sail panel configuration to suit either light or heavy winds.
- **DOUBLE-KEEL GUIDED:** A big double-keel and unique venting make the Firebird unusually responsive and stable to shifting winds . . . greatly reducing power diving and darting.
- **TOUGH, BUT BEAUTIFUL:** DuPont's top grade, tear-resistant #1058 Tyvek covering; beautifully lithographed in brilliant, fluorescent red (waterproof) original design.
- **TOP QUALITY:** Extruded plastic and metal fasteners, #1 Spruce vertical struts and selected Birch horizontal spars.
- **BIG:** Over 10 sq. ft. of Tyvek covering — 35" high, 39" wide, and 17" deep (keel tips to back sail panel).
- **EASY TO FLY:** Anyone can launch this kite easily in almost any wind. But it's not for toddlers. In 15 to 20 m.p.h. winds the action necessitates 25 to 30-pound test line.
- **SIMPLE ASSEMBLY:** Just attach a loop bridle to eyelets and insert cross spar. Rolls up for carrying.

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News From Here & There (Continued)

MALTA

A. Dermenia-Gay, Secretary of the Malta Kitefliers Group, writes:

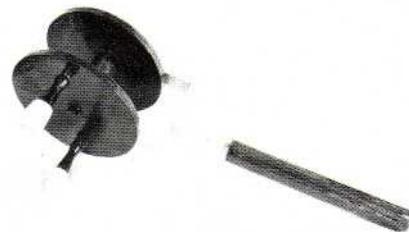
In addition to being a member of AKA, I am also a member of the British Kite Flyers Association and founder of the Malta Kitefliers Group. To date the group is small and I find it rather hard to get adults to admit they enjoy kiteflying.

On May 15, 1977, the first National Kiteflying Competition was held in Malta G.C. It was organized by the Malta Kitefliers Group to celebrate the International Kite Festival Day [sic]. This is the first time any kiteflying competition has been held here on such a scale. I hope this will mark the revival of kiting here in Malta.

NETHERLANDS

Rento Brattinga sends this account from Amsterdam:

There was something in the air just outside Amsterdam's new Biljmermeer
(Continued on page 63)



A.N. EASY REEL!

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KITE SAFETY IN THE HEADLINES: **THE SYCAMORE FIRE**

On July 26, 1977, at 7:27 or 7:28 p.m., a fire broke out in the rugged foothills of Santa Barbara, CA, which destroyed at least 234 homes, many of them luxurious, and damaged many others. The total estimate of loss ran to a quarter of a billion dollars.

Amazingly, no lives were lost. But the emotional damage over lost possessions, pets and the memories of a lifetime, was beyond calculation. Officially named the Sycamore Fire, it was the worst of several fires that besieged tinder-dry California in this period.

For kitefliers it was particularly agonizing because it was started by a kite.

Surely every reader of this magazine shared a personal sense of shock and regret on learning that a kite could have brought such terrible tragedy to others. From such stern lessons we hope to learn how to accept and promote responsibility in kiting.

Kite Lines talked to Bob Krauch of Southern California Edison Co., who said that a large box kite flown on 1/8-inch nylon line pulled two high tension

wires together. They fused and sent hot metal to the ground, where the fire started. The kite and string were not conductive, but caused the two lines to cross in conditions of extreme heat, dryness and wind.

Henry H. Howard, AKA Life Member of Solvang, CA, 35 miles from Santa Barbara, wrote:

"I am happy to tell you that so far as I have been able to determine nobody wants to lynch the kiteflier, who has been identified as a local man, a carpenter, who had worked on several

of the homes destroyed. Whether he will escape persecution, if not prosecution, is anybody's guess. The whole country here is dry as tinder and just about anything, including a hobnailed boot sole twisting on a bit of dry grass, could have set it off.

"Nevertheless, the story is before us once again—don't, don't, please don't fly a kite in such a manner as to allow the line to foul power lines."

Newspapers reported that the kite-flier was a man in his 20's and a resident of the immediate area. According to District Attorney Stanley Roden, winds "well in excess" of 20 knots wrested the 8x10-inch kite spool from the hands of the flier and carried it to a point where it wrapped itself around a cable television line directly below the tension wires between two standard poles. Later investigation showed the first reports to be incorrect. It was a telephone cable just below the power lines, which then arced and sent the shower of sparks to the ground.

"The force of the wind," Roden said, "continued to drive the kite forward so that the 16,000-volt line directly above ...arced with the adjacent tension wire. "At this point," he said [independent] "witnesses have confirmed that either a shower of sparks or the arc itself actually caused the brush below to ignite."

According to Thomas Hunt, the DA's senior criminal investigator, the

man flying the kite was one of the persons who immediately tried to put out the fire.

The flier was taken into custody, but not arrested, was questioned extensively, and was shown to be truthful by a lie detector test. A statement released by Roden on the flier's behalf was printed and broadcast nationwide:

"Investigation has shown that a kite being flown by me became detached and came into contact with high tension wires. Somehow this contact resulted in the ignition of dry weeds and brush beneath the wires.

"I am deeply shocked and saddened by the great loss and suffering which has resulted from the fire. I shall also always regret the part, however innocent, I have had in this tragic matter."

Later, reporters found and broadcast further information about the kiteflier, which distressed his attorney, who feared vindictive behavior might be unleashed against his client. The kiteflier, Scott Sheldon, 23, was flying a home-built 3x4-foot green and yellow box kite, described as hour-glass shaped, with which he had hoped to set an altitude record one day. Parents, friends and employers described him as a sensitive young man who likes to fly kites and gliders. After the investigation, he went home to his parents in Oregon to take refuge from the trauma and try to come to terms with his part in it. V.G.

AKA TO FORM KITE SAFETY COUNCIL

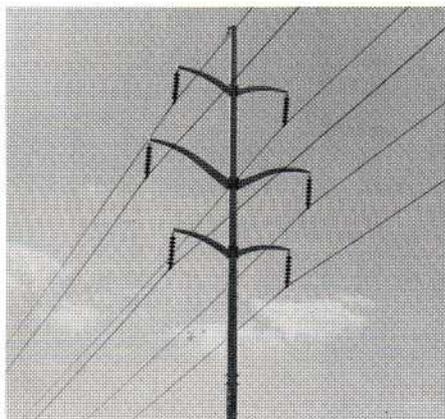
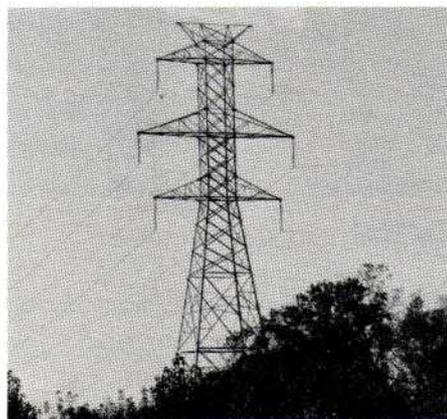
Although Scott Sheldon is not a member of AKA, there are implications for all of us in his accidental starting of the Sycamore Fire with a kite.

Past editorials have been written in *Kite Tales* (predecessor of *Kite Lines*) promoting kite safety, but AKA has neither set standards for kite manufacture nor a flying code. This is a shortcoming we hope to remedy with all possible speed.

We have appointed Paul Edward Garber, Historian Emeritus of the Smithsonian's National Air and Space Museum, Washington, DC, and John V. Hastings, businessman of Ardmore, PA, as Co-Chairmen Pro Tem of a Kite Safety Council for the American Kitefliers Association. A first meeting will be held in early November in the Museum's Conference Room. As we go to press, a date and possible members are being considered.

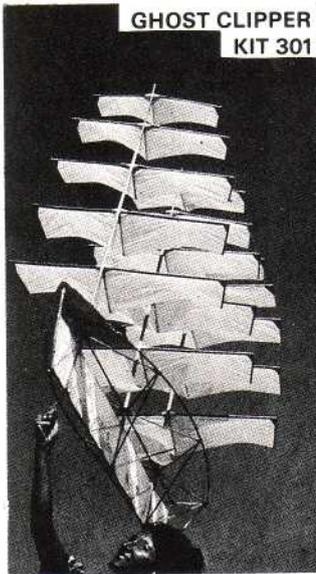
Paul Garber has told us that he would like to see the final codes stand as a product of the suggestions of all kitefliers. How can we do the best possible job on this important matter? Are there steps we could take to prevent such tragic occurrences as the Sycamore Fire and its long aftermath of hurt? We have learned that Scott Sheldon is now one of several defendants, including Southern California Edison Co. and General Telephone Co. of CA, named in a class action suit for an unspecified amount of damages. The time and money we spend and raise now to build a public education campaign on kite safety will be worth a great deal in prevention potential for the future.

Please write with your suggestions to the following, sending copies to all three: Paul Edward Garber, Room 3200, National Air and Space Museum, Smithsonian Institution, Washington, DC 20560; John V. Hastings, III, 220 Glenn Road, Ardmore, PA 19003; American Kitefliers Association, 7106 Campfield Road, Baltimore, MD 21207. If you are short of time, use the telephone: Garber, (202) 381-5791; Hastings, (215) 649-1261; AKA (301) 484-6287.



Shown are two prevalent types of electric transmission ("high tension") line towers, which should always be avoided by kitefliers. Much more common, especially in urban areas, are distribution lines. These are usually insulated, and 99 times out of 100 will not conduct electricity down a kite line. But it's that 100th time, when, for example, the insulation is worn out, that we have to worry about. Telephone and television lines are normally non-conductive. But the only safe policy is to avoid *all* overhead wires, to assume all of them present a hazard for kiteflying. It is not enough that you merely fly a distance away from such wires. You should fly in such a manner that no matter in what direction the wind may shift, your kite and kite line will neither touch the wire nor land on it if your flying line should break.

Readers concerned with the kite safety problem will want to study the excerpts from the transcript of the hearing of Mylar Star Kites before the Consumer Product Safety Commission, beginning on page 62 of this issue.



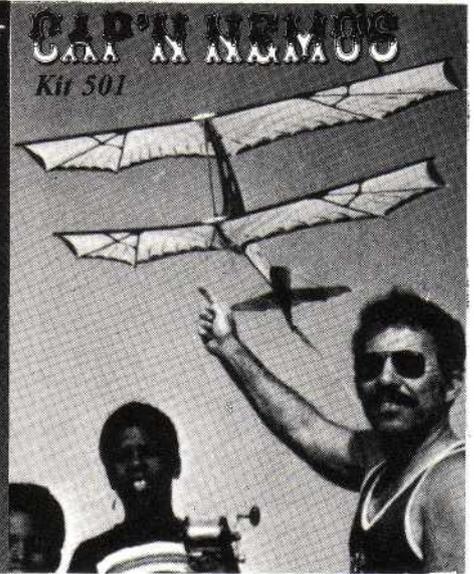
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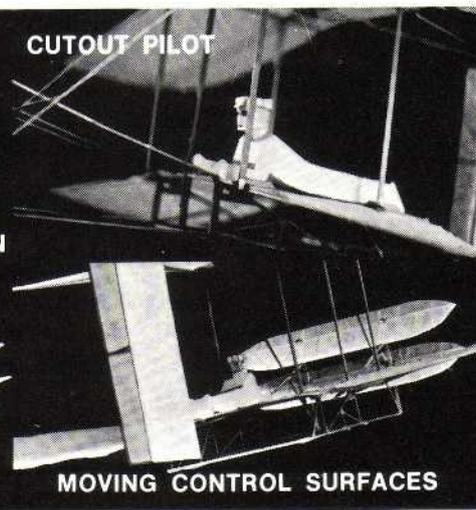


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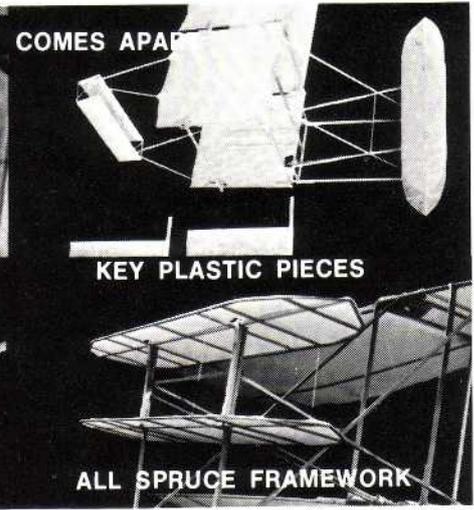
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occurred on April 16th of this year in Los Angeles . . . I think that what that incident demonstrates is that if the child had been flying an aluminized kite, the power lines would have fallen on him and he would have been killed. He would have been killed in any case.

Second, Mr. Alonso has stated that he wishes the Commission to do more than make a finding with respect to his aluminized kites. He wants standards set for kites in general.

This, however, is not a proceeding to set standards for kites. This is a proceeding under Section 15 of the Consumer Product Safety Act to determine whether specific kites, the aluminized kites that respondent manufactured, present a substantial product hazard . . .

In 20th Century society, the kiteflier is exposed to a source of electricity in even the best of weather. Overhead electrical power lines carrying as much as 12,000 volts of electricity are found in most residential areas. Indeed, several sets of power lines are attached parallel to each other on poles. Kites frequently become entangled in power lines, and the record in this case shows that when an aluminized kite contacts overhead power lines, a lethal shock hazard exists.

There are several ways in which an aluminized kite that comes in contact with power lines can present a hazard. First, there is a line-to-ground hazard. If a kite with a long tail gets caught in an energized power line, a person who grabs the tail of the kite, for example a child attempting to retrieve it, as that child attempted to retrieve his kite on April 16th, will complete an electrical circuit to the ground. This circuit will carry a lethal dose of electricity through his body.

Second, there is a line-to-line hazard. If an aluminized kite comes into contact with a pair of power lines, an arc carrying sufficient current to break through the lines and cause them to fall will result, can result.

Third, if the top level high voltage power lines fall onto the lower level lines rather than falling onto the ground, a high voltage power surge can be transmitted into residences creating a risk of fire as well as shock to inhabitants.

Thus aluminized kites present a hazard not only to kitefliers, but also to passers-by and even to stay-at-homes.

The record in this proceeding demonstrates that the types of hazards I have outlined can and do occur in real life. In early April, 1975, at Herman Street in San Francisco, an aluminized kite caused power lines to fall on a car, resulting in damage to both the vehicle and the tires. The car was retrieved from the fallen power lines by utility company repairmen. Fortunately, no one was injured.

On April 15th, 1975, at Jackson and Broderick Streets, also in San Francisco, an aluminum kite got away from its owner, lodged in the power lines, and caused a power surge to houses in the neighborhood. The surge had repercussions in at least three houses. It caused a fuse box to explode and burn, an overhead chandelier to shatter, and a refrigerator compressor to break. Again, fortunately, no one was injured, but the possibilities for injury are obvious . . .

Respondent has correctly pointed out that the arc in the tests self-extinguished without causing the lines to break. He argues that

this proves that the kites are not hazardous, but the test did show that the kite conducted an enormous amount of electricity, and breakage is possible, as testified to at the hearing by both John Thurber, Commission staff engineer, and Professor Charles Delziel, Professor Emeritus of electrical engineering at the University of California at Berkeley. . . . More importantly, the fact that aluminum kites have caused power lines to break and fall was established at the hearing by utility company foreman Ira Bray and by consumer witness Jeanne Sullivan, and indeed the fact that the power lines did not break in the test does not prove that they would not do so in real life. The power lines in the test were six feet apart. Power lines in San Francisco are a minimum of 11 and a half inches apart, as John Thurber stated at the hearing. An even hotter arc, one more likely to break the power lines, would have resulted if the lines in the test had been closer together as they are in real life.

This brief summary of the record demonstrates the product defect which the staff believes and the presiding officer properly found to present a substantial product hazard. Aluminized kites are highly conductive of electricity. Their electrical conductivity is a



I completely agree that there needs to be a uniform requirement on kites.

property which presents an unreasonable risk of serious injury, lethal shock to the public. This risk of injury is patently unnecessary in a recreational novelty item such as a kite. No such risk is presented by conventional paper kites or by non-aluminized polyester film kites in their originally manufactured state.

Respondent's argument that conventional kites also are hazardous if flown with wet tails or with metallized strings injects a new issue which is irrelevant to this proceeding. We agree that the situations hypothesized by respondent also are dangerous, but the hazards presented by such misused kites result from alterations performed by the kiteflier using products which are fit for their originally intended purpose.

In contrast, the defect in respondent's aluminized kites is manufactured into the product by respondent himself. The product defect that we have described, that is, the electrical conductivity of the kites, presents a risk of injury that is substantial as that term is defined in Section 15 of the Consumer Product Safety Act.

The statute states that a substantial product hazard may be shown in a variety of ways: first, by the pattern of the defect; second, by the number of defective products distributed in commerce; third, by the severity of the risk;

or fourth, otherwise. If a product meets any one of these statutory criteria, that is enough to establish a substantial product hazard. Aluminized kites fit into all four categories . . . The evidence compels the conclusion that the kites present a substantial product hazard and we urge the Commission to so find . . .

At the hearing, testimony from Pacific Gas and Electric Company, Ira Bray, established that PG&E's parallel high voltage lines are a minimum of 11 and a half inches apart, and that an aluminized kite whose dimensions exceed 11 and a half inches presents a line-to-line hazard because it can fuse two lines and initiate an arc and cause the lines to fall.

On the basis of Mr. Bray's testimony, the staff moved to amend the notice of enforcement to include the allegation that respondent's tailless winged box kites approximately 36 inches by 28 inches, and tailless diamond fighter kites, approximately 25 inches by 31 inches, also present a substantial product hazard . . .

Although respondent did not object at the hearing to the amendment, he has argued in his brief that it is unfair to require him to recall tailless box and fighter kites when other companies concerned, agreements have been ordered to recall only their dragon kites with tails. He argues essentially that the order issued against him should coincide with those against the consenting respondents, but a consent order does not have the precedent value of a litigated case, and the relief accorded to the public in a consent order cannot limit the relief to be accorded by an order issued after a matter has been tried. Respondent rejected the opportunity to sign an identical consent agreement, and choose instead to undergo the hazards of a hearing. He therefore should not now be heard to complain that the hearing in which he alone participated led to an inequitable result . . .

Section 15C empowers the Commission to order notification to individual members of the public through the mails and to the general public through the print and broadcast media. In this case, general as well as individual notice is necessary . . . to inform kitefliers to stop using the kites because they are dangerous, but the hazard presented by aluminized kites is so substantial that notice to the public in general and to Mylar Star kitefliers in particular is not sufficient to eliminate the danger . . . The most certain way to remove the danger is to recall the kites. We believe that the public interest requires recall and that recall must include provision for the return of the kites as well as their replacement . . .

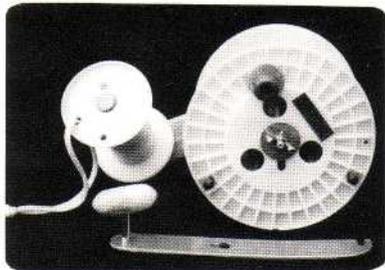
Commissioner Kushner: Does enforcement counsel, is enforcement counsel able to distinguish the degree of hazard or degree of risk associated with aluminized kites having long tails and those that don't have long tails?

Ms. Rubenstein: Well, there is one distinction. The kites with the long tails present an extra hazard. It is only kites with the long tails that present the hazard of dangling from the line to the ground. The kites without tails don't present that one.

Commissioner Kushner: Do I infer then that you regard the kites having long tails as presenting a greater degree of risk than those without the tails?

Ms. Rubenstein: Well, yes, in the sense that risk can occur more than one way, but I regard the kites without tails as presenting a great degree of risk also.

Commissioner Kushner: I am not sure whether



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to Frank Alonso Sr. for his great
efforts during the past two years,
effectively representing Mylar Star
Kites before the United States
Consumer Product Safety
Commission.

Frank Alonso
delivered our defense and message
through intercontinental phone
conferences, statements, briefs,
before an administrative law judge
in a San Francisco hearing, ultimately
making a personal presentation
before the members of the
U.S.C.P.S.C. in Washington D.C.

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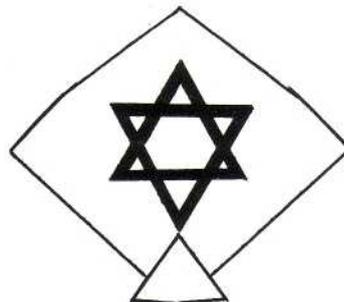
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or not it is appropriate for me to ask this next question, but it is a very important one. What are enforcement counsel's intentions with respect to aluminum kites without tails that are manufactured by other parties?

Ms. Rubenstein: Well, we would recommend further action by the Commission, and we have not brought this to your attention during the on-going time of this proceeding . . .

Mr. Alonso: Enforcement counsel asserts that the kite brought the lines down. She has asserted that. I wrote it down four times here. There isn't a single bit of test data that says that these kites brought those lines down. In fact, there is a test that the Government ran that shows that the kites did not bring the lines down, and I keep getting most irritated that people with good sense look at evidence and say, hey, it didn't happen, but if you did this and that, which would be very easy to prove . . . They didn't do it, but we still assert that the kite brought the line down (but the kite survived the test) . . . that it didn't survive. Nonsense. Just utter nonsense . . .

Now you issue this press release. Is it not a cruel hoax? Is it really not a cruel hoax? The public reads this. Bad kites are now banned. What do you know. Kids, go do whatever you want to do with kites. The bad ones are gone. You don't have to worry about them. Is that not a cruel hoax? . . . You know, safety is a probability problem. It is not a black and white problem, and it is a problem of a system. Now if you want to make kites safe, you do something about making kites safe and about teaching people how to handle them.

You ban a kite that is already on the market, that is being built by cottage industries, you ban it, you give it the necessary publicity, well, I think you hoax the public.

Now stop and think of why I am here. The reason I am here is because I think there is a problem, and it is a problem that calls for a solution. The local utilities are trying to do something. The local playgrounds are trying to do something . . . and I want to repeat again that an assertion has been made over and over again that the kites in San Francisco caused those two lines to fail, yet the tests that the Government ran could not duplicate that situation.

Now she mentioned that patterns are one of the criteria by which you judge something. Isn't it interesting that never before, and there is thousands, not only my son's kites, but there are lots of other manufacturers at that time, there were lots of those being used in lots of parts throughout the country—isn't it interesting that prior to these two events, not a single event of this nature had occurred across the country, and subsequent to those events, when there were still lots of kites being flown, have not occurred, and I want to reiterate the fact that this kite in many regards, particularly the small ones, are safer than non-conductive kites. They act like a fuse. They are made out of two-millionth of an inch thick aluminum—very, very small. Doesn't take much energy to vaporize them, and consequently the probability of the kite causing a fatal arc is virtually zero.

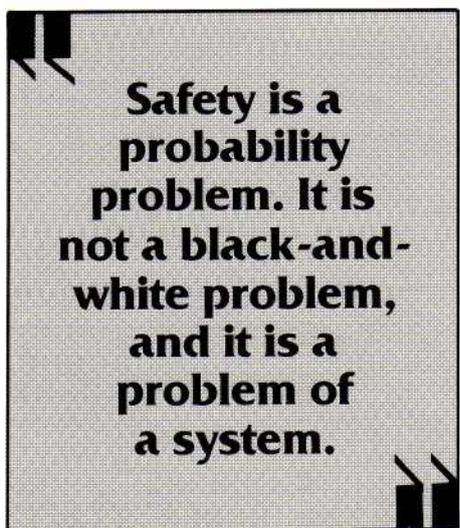
In San Francisco, no one saw the kites hit the lines. The reason that the kites are considered to have caused it is by inference. A lady saw the kites flying in the vicinity the day before. After the events, after the one event,

then she found the kite. It was wrinkled and scorched, but the tests that the Government ran proved that the kite self-destructs.

Commissioner Pittle: Mr. Alonso, I understand you are not an attorney, and I am not an attorney either, and I have understood you very well, not that I didn't understand enforcement counsel, but I would like to thank you for taking the time and the hard work that you have put forth to protect your own rights, as well as to provide a fairly broad perspective on this.

I completely agree with you on the point that you made earlier, and you just reiterated, and I think that there needs to be a uniform requirement on kites, and not so much that only your company or two other companies cannot sell that kite while other companies have yet to be caught or to be discovered, and that they are allowed to sell them. I think that is a very excellent point and a very fair one . . . but in the few hearings that I have been in of this type, it is the first time I have seen one conducted by a non-attorney. I must say that you make that side inspection very well represented.

Commissioner Kushner: There is one question I would like to put to Mr. Alonso. You have likened the behavior of the small kite, alum-



inized kite, to that of a fuse . . . the implication being that since the fuse is a safety device in house wiring circuits, that in one way or another the small kite when it functions as a fuse is functioning as a safety device in a set of real-world circumstances, but I guess I don't understand in what respect it is functioning as a safety device except insofar as it is being vaporized and disappearing, but is it causing things to be safer in the sense that there is no longer any kite for the child to try to climb up and recover?

Mr. Alonso: That is precisely the point. In the incident that I have, the Fire Department's report there, the child, first of all, the normal reaction to anybody that has flown kites, the moment you see it tangled is to pull on the string because you create your own wind, but it does get entangled, in which case in this particular case it was a 13-year-old boy who went climbing up the pole. He obviously didn't know what he was doing. He fell on the wires and became electrocuted.

Had that kite been aluminized, or you might think of this as a criteria, that any small kite having a small pattern, perhaps film, maybe half an inch wide, that would do this for him, of aluminized film, maybe half an inch wide, if it does fall on these wires, boom, it is gone.

The child has not got a reason to go climb. . . .

Commissioner Pittle: Well, in that same light then, suppose that the kite landed on the power line, but it did not fall across two lines of different potential and just landed on one and the child climbed up and grabbed ahold of the kite to pull it down. Would he not, and let's say he was near the ground strap, would he not be connected through the kite to the high voltage line?

Mr. Alonso: If the kite were in that position, in the position you describe, a tug on the line would lift it right off.

Commissioner Pittle: Unless the string might break, but there is that possibility?

Mr. Alonso: Nothing is for sure.

Commissioner Pittle: The aluminized kite, even being a small one, could still present a risk if it were sitting catty-wampus on an angle and a child climbed up and had his knee touching the ground strap?

Mr. Alonso: It is possible. The best of fuses don't always save a house from burning down. . . .

Chairman Byington: How do you deal with . . . questions relating to the dragon tail kite?

Mr. Alonso: Well, had they flown one of these kites, they would see that the possibility—I don't have enough time to write enough zeros to have the probability of this kite go through these two wires and stay there, and the kid does exactly what he shouldn't do, which is to drop the line and go run and go climb and grab it by the tail. This is conceivable, but the probability is virtually zero. It doesn't take—these kites are very, very light, so the line to ground, it is virtually impossible.

The kite is sitting there like this, and just a couple of feet here, and then that tail is draped down to the ground. That means that a single tug of the line would dislodge it immediately, or force it against the other line where you get line to line contact, but to just sit there—the kite has been flying. Otherwise it would not be in this position, and to fly the kite, you need some place, a wind for that particular kite, some place between four to six knots, and that is a fair breeze, and in the presence of the slightest breeze, this kite, the mass of this kite is so slight and the area so big, even a matter of one or two miles per hour would move it.

There is a probability of my taking a step there and winding up down in China, but it is awfully small. It is just extremely small. I can't imagine, especially if you have flown a kite and you say the string breaks, well, kites fly on drag and consequently when the kite is let loose from the string, and one can do this, one doesn't have to break the string. You just let go of the string and the kite just floats down, stretched full length. It doesn't go down head first. It just floats.

We have lots of kite festivities here by the Washington Monument. Did I answer your question, sir?

Chairman Byington: Yes. Are there any other questions by a member of the Commission? (No response.) Okay, Mr. Alonso, we thank you very much for taking the time to come down here and to discuss this with us, and we thank enforcement counsel as well, and this hearing of the Commission is adjourned.

(Whereupon, at 3:27 p.m., the hearing was adjourned.)

The transcript above was slightly abridged for space. However, readers wishing a photocopy of the full original 41-page document may order it for \$26.85 from Acme Reporting Co., 1411 K Street, N.W., Washington, DC 20005.

Addendum

Notice of enforcement is dismissed.

Just before going to press, *Kite Lines* learned that a letter from the Secretary of the Commission was sent to Francis Alonso, Sr., dated September 16, 1977, stating that it was ordered that the notice of enforcement issued in this proceeding was dismissed.

The reasoning behind this action (or inaction) was that the case should properly have been decided under the Federal Hazardous Substances Act rather than the C.P.S.C. because the F.H.S.A. regulates toys and the kite was finally judged a toy, over which the C.P.S.C. has no jurisdiction. Changes in the laws and in Commission members over the two-year interim starting May 1975, caused the real issues to be ignored and the case to be resolved on an extraneous, jurisdictional point.

The consequences are: (1) kite manufacturers do not have a final decision to guide them even on this one product, aluminized long-tailed kites; (2) later action may be initiated against aluminized kites, with or without size restrictions, under a number of existing statutes or new ones yet to be created or

avored; and finally (3) the Alonsos and Mylar Star Kites are now free of all the requirements of the original consent agreements that bound four others to recall and replace or refund all their hazardous kites.

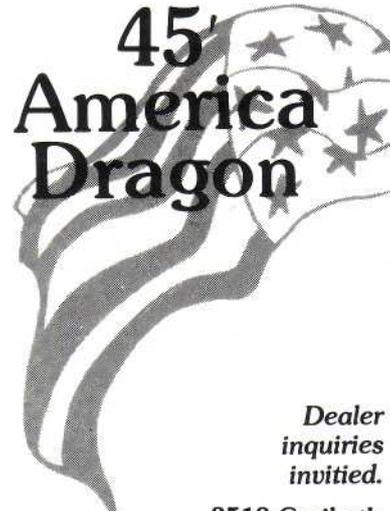
In addition, it is the opinion of the editor that the evidence against aluminized kites of whatever dimensions is still insufficient to draw up binding orders. Kite safety is a complicated subject, the sort for which piecemeal approaches are always frustrating.

In this instance it's hard to decide whether to weep, giggle, boo or applaud. The strings of legality and bureaucracy have tangled the parties as thoroughly as monofilament strewn on a kite field. Whatever your opinion of the result, you can probably agree that it occurred for the wrong reason. ◇

WEEKLY NEWS FOR YOU: MANNED GIANT KITING
 ...is fun to study, see, model, and do. Just to know what is happening in the sciences and arts of manned giant kiting and hang gliding can enhance your enjoyment of sport unmanned kiting. I've been an AKA member for some 8 years and now have a position at HANG GLIDER WEEKLY as an editor. I know you will enjoy getting weekly illustrated news that technically, visually, and dream-wise can relate to your kite hobby, even if you do not intend to soar up there yourself; hang glider fliers, though, range in age from 12 to 74 years.
 We have two books most of you will want. KITING is a 100 page illustrated book on manned giant kiting and kite-launched manned delta kites; it is the only work of its kind. HANG GLIDING, a 200 page illustrated book is packed; the entire sport is surveyed; its appendix holds a comprehensive directory of commercial concerns; don't miss it. **Save: Fellow AKA member can deduct \$1 off the price of each book. Just mention AKA; thank you.
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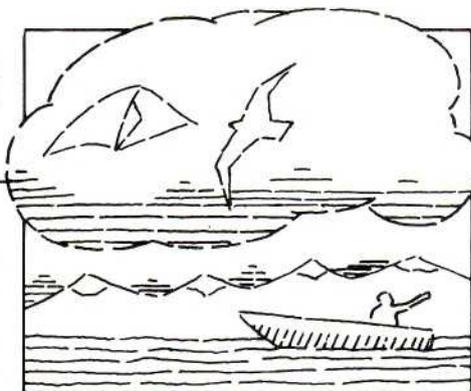
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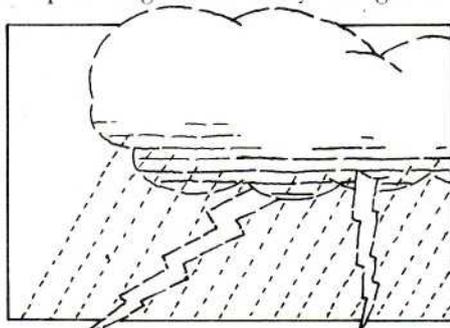


The Old Pro

By Bob Ingraham
Founder, American Kitefliers Association

If you had been flying with the Old Pro these past months, you wouldn't have done much flying or learned much. Due to circumstances beyond my control, my flying has been limited mostly to testing and dreaming about it.

One of the reasons during the mid-summer months was the constant threat of thunderstorms which I as a kite-flier fear more than any other weather condition. This isn't fear for the kite in the air but for the flier far out in the open and a likely target for lightning. Remember that hazard when you are tempted to go out and fly though the



storm seems far away. Storms often move in fast.

One of the few flights I made was interesting. Having made a delta of black nylon taffeta, I took it along on a short stay at Hawley Lake in northern Arizona. The elevation there is 8500 feet above sea level. On the lightest of winds (about two to three miles per hour), I sent the delta out about 800 feet and about 200 feet in the air, over the lake. When the wind dropped off, the delta began a long glide toward me with no stall dives, just a long slow glide. I kept the slack line up but did no pulling and the kite came in to land just in front of me on the grass.

I was delighted with the performance but could assign no reason for it, since the kite was identical in configuration with all others I've made. The only thing I can believe is that the material, which is more porous than most nylon, might have been a stabilizing factor. I built another kite which performed the same way. Other deltas will glide toward you when the wind stops, but the glide is usually a series of stall dives.

While at the lake, I determined to try flying from a boat. There wasn't

enough wind to launch without rowing, so I had the job of getting the kite in the air and rowing the boat at the same time. At a very slow rowing speed, the delta lifted nicely and flight was sustained at a wind speed of about four or five miles per hour. Then the fun began.

Out of nowhere came a big falcon to challenge my black kite's right to fly over his lake. He made some swift passes very close to the kite and was joined by about 50 small sharp-winged birds which I assumed to be insect-catchers. For about five minutes we had an aerial dog fight going on overhead which everyone around the lake watched with interest.

Since I couldn't row the boat to keep the kite flying and handle the kite line at the same time, I didn't stir the kite. I am certain that if I had the kite would have turned on the birds, showed some fight and created some additional excitement. My conditions dictated my limits.

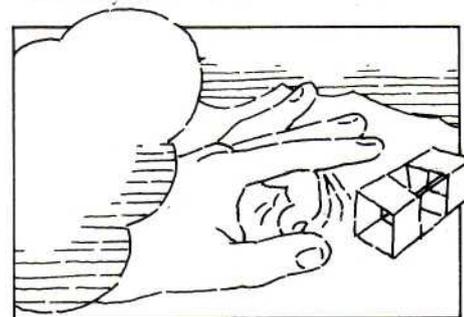
One of the most perplexing problems in making determinations regarding a kite's ability is the variables. Regardless of the wind velocity when you launch a kite, there will be variations for almost every foot of rise as the craft climbs to the limit of its lift capacity. In a recent friendly argument, a friend insisted that if you wish to determine how much weight a kite will lift, all you have to do is add weight until the kite can no longer rise with it.

Offhand this would seem simple enough, but anyone with kiteflying experience knows that the differences between winds at ground level and several hundred feet in the air can be considerable. Those with calculating ability and engineering knowledge can arrive at certain determinations, but at best the results remain general and not specific.

It is the real-world factor and the ever-changing configuration of most kites while undergoing confrontation

with variable winds that have made some kites abandon a kite as worthless when under different wind conditions it might prove to be a worthy craft.

Kite performance cannot be based on wind velocity alone. There are other factors we seldom consider. Air temperature is one. I find that cold air supports flight better than warm air. Elevation above sea level can have a slight but positive effect. An anemometer is conclusive in only one respect. It establishes the required ground level velocity required to loft a kite. It does nothing to determine what the wind may be 200 or more feet above.



Humidity is also a factor. It affects the kite's composite parts, making fabrics heavier or lighter, spars more susceptible to warping and kite lines heavier or lighter, depending on the percentage of moisture content of the air in which you fly. Air at high elevations has a lower density, but the range of humidity variation is as great as elsewhere.

There is no doubt that kite performance is puzzling at times. One cannot help but wonder way a favorite craft will fly on a five mile-per-hour wind at one time, serenely and well, and at another time in a slightly better wind, appear sluggish.

Unless you are an old fussbudget, be happy if your kite flies at a reasonable angle most of the time. Avail yourself of different types of kites, each of which has its own advantage under certain atmospheric conditions. And don't forget that various line weights can add or detract from performance. The kite that flew so well on a 30-pound test line in yesterday's eight mile-per-hour wind—and won't today—might surprise you if you cut the line weight and give it a chance to contend with lesser winds. ◇

News From Here & There

(Continued)

housing development and it wasn't just rain. Although gray clouds hovered threateningly in the background, hundreds of kite enthusiasts happily tangled lines together in what looked like the dawn of a new phase in kite-flying.

The third midzomervliegerfeest (midsummer kite festival) was organized by the Amsterdams Ballon Gezelschap (Amsterdam Balloon Company), promoters of "soft aviation" who had spent the previous day erecting large tents, stands, wind socks and what-have-you to accommodate the bands and theater groups.

People like myself, who had wandered into last year's festival unprepared and were thus forced to be helpless witnesses, were back this year armed with Cody war kites, Parafoils (including a man-lifter on which somebody had spent 300 hours of sewing), deltas and every other conceivable kite. Cameras were sent up and down lines and pay-loads were dropped at certain points.

A group of people from the English

Kite Shop Ltd. struggled with six stubborn Cody war kites, each standing approximately three meters high and lofted on a 12-mil.-thick nylon cable. Tom Van Sant, the American artist who had a current exhibit in Amsterdam's Stedelijk Museum, was flying his huge centipede.

Size, though, was not the only goal; many people had spent a lot of attention on detail and new design. There was, for instance, a man flying—what else in Holland—a kite in the shape of a windmill with turning sails.

The festival was also a source of information for those who had been attracted to all those kites and were as unprepared as I had been last year. Addresses were exchanged and advice was given as to where certain materials could be acquired. A translation of David Pelham's *The Penguin Book of Kites* was available in most book shops as of three weeks before and its influence on the festival was apparent, judging by the designs. Hard-to-get materials such as rip-stop spinnaker nylon are now easier to find. Tal Streeter's book *The Art of the Japanese Kite* is suddenly a household word among kitefliers. Also the attention

that kites are getting by means of exhibits such as Tom Van Sant's are signs that interest in kiting is back for Dutchmen, too.

Even though the rain did finally extinguish the goings-on at the festival (save for a few die-hards), it is certain everybody will be back next year and will bring their friends. If the population of the most densely populated country in the world decides to go fly a kite, things might just get out of hand.

NEW ZEALAND

The Waikato Kitefliers Club in Hamilton continued to be active, judging by its newsletter, which is also called "Kite Lines" (a coincidence; selection of the name was independent in both cases).

At the Waikato Campus Kite Day on July 31, rain interrupted the activities, but a little paper tumblebug kite flew "through rain and all and it never sank, water and all," according to the newsletter.

Plans are underway for more kite festivals, and the New Zealand kite market is growing. ◇

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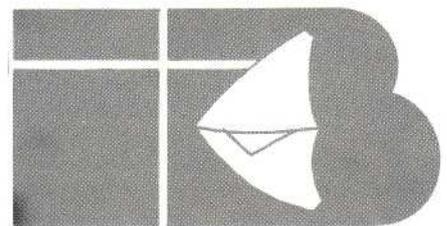
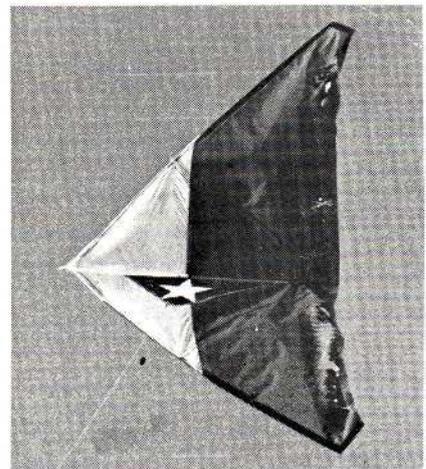


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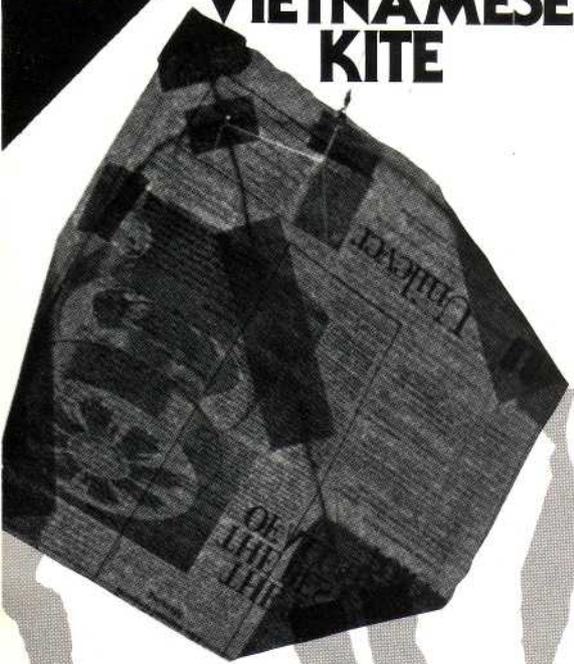


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THE VIETNAMESE KITE



By Margaret Greger

I first met the Vietnamese kite in a sixth grade class when I was showing the children how to make the Siamese snake kite. After things were well under way, Leroy, recently arrived from Vietnam, came up with a piece of bamboo reed in his hand. "Can I show you the kite we make in Vietnam?" he asked.

I learned about a new kite that day, a little jewel among kites, easy, inexpensive, fun to fly. Children can have a party making these kites around the table from an assortment of materials.

Leroy made his kite of newspaper, squaring it with a diagonal fold, eyeballing rather than measuring. Precise proportions are not critical (though symmetry is). Instead of newspaper, your covering can be art tissue, cellophane, Mylar™ or clear roaster wrap (such as Reveal) which can be colored with marking pens. Or you can use pre-decorated covering of paper towels, large paper napkins or lightweight printed wrapping papers. One happy class made kites from ironed-out Chinese newspapers which came as packing in an order of kites.

The best technique for decorating a clear kite is to draw the design on white paper, lay the kite on top of it, fill in the colored areas and then do the black outlines. The basic kite shape suggests a

fish, a moth, a bird, a bug; inspiration and variety come naturally.

Tail streamers add beauty and movement plus stability. They can be placed according to the character of the kite (fish or fowl?), the basic rule being balance—the same for each side. The arrangement shown is four strips of crepe paper, each measuring one inch wide and four feet long. Tails could also be of colored cellophane, scrap Mylar, plastic wrap or paper, even newspaper, for the completely recycled kite.

MATERIALS for one Vietnamese Kite

- 12" square of covering material (see article for choices)
- Matchstick bamboo reed (selected from window blind)
- ½"-wide cellophane tape for Mylar or cellophane kite; or rubber cement or paste for paper version
- 22" piece of lightweight string for bridle
- Tail streamers (see story for choices)

TOOLS

Scissors, pencil, ruler and nail or needle for punch

INSTRUCTIONS for plastic version

1. Fold and crease the kite cover as shown. (Measurements are approximate; variations fly well.)
2. Measure matchstick reed to fit the center crease from tip to folded base line. Tape this reed to the kite to form a spine, covering the reed completely. Bring the bottom flap up over the reed and tape the edges down. Fold the corners of the tape to the outside nose as reinforcement.
3. Measure a reed for the arch. Be sure this is a strong reed with a good symmetrical curve.
4. Tape the arch reed in place at the tips and the intersection with the spine. Cover the reed with tape in 2"-3" segments.
5. Fold side flaps over the reed and tape them down.
6. Turn the kite over.
7. Poke holes for the bridle close to the reed. Tie the bridle string as shown, over the intersection of the reeds and over the spine 2" up from the base of the kite. Set the bridle by tying a loop. To find the correct angle, hold the kite by its string over your table. The spine of the kite should hang nose upward at about a 15-degree angle from the horizontal.

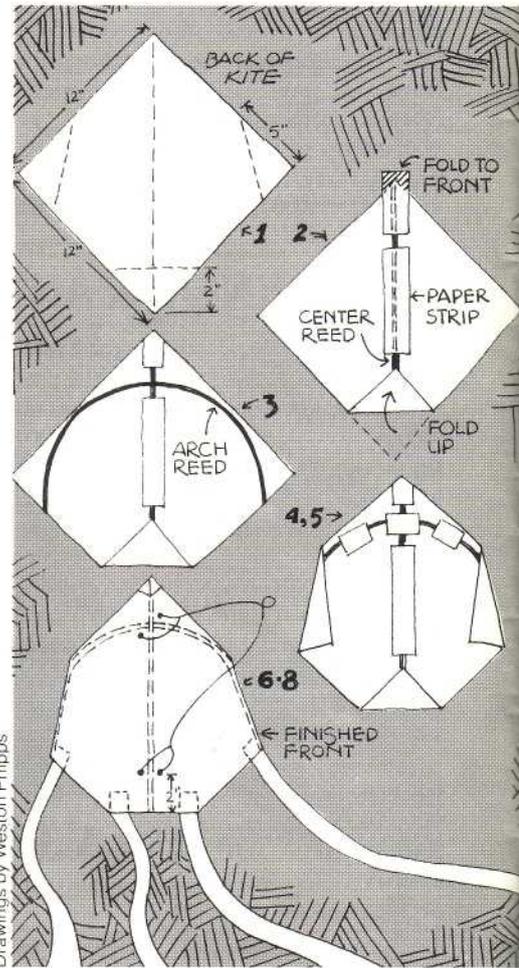
8. Add tails, as described in story, keeping them balanced on each side. (Keep some extra tail on hand for when you go flying.)

INSTRUCTIONS for paper version

All the steps are essentially the same as for the plastic kite except that you may substitute glued paper strips for tape. (See drawings.) This method will give you a more classic version of the Vietnamese kite. The side corner flaps can be glued down directly without added strips. (The easy way is to glue one side first without trying to hold the arch in place, then glue the other side.)

FLY!

The Vietnamese Kite does best in light to medium winds. If your kite dives or spins on the end of the line, add more tail—and enjoy!



MARGARET GREGER is a teacher, kitemaker and kite author in Richland, WA. Her kite teaching experiences resulted in a book, *Blown Sky High*, ©1977 Margaret Greger, from which the Vietnamese Kite design was excerpted by permission.

Classifieds

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

WANTED

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

GOING OUT OF BUSINESS? Close outs? Discontinued models? We buy them (kites and accessories). Ben Franklin Kite Shoppe, One-Half Pearl St., Mystic, CT 06355.

ANNOUNCEMENTS

WINNERS of the 1977 Kites Kites Kites Spring Kite Contest are: Ted Norton, Santa Ana, CA; Carl Wilson, Whittier, CA; Mary Mishort, Albany, CA; Hank Szerlag, Grosse, Pt. Woods, MI; and Robert Kimmel, College Park, MD. Thanks to all who participated.

FOR SALE - KITES

NEW MODELS: The New England Kitecrafting Co. announces the availability of 3 new kites all made from 1.5-oz. rip-stop nylon: (1) a giant delta with 9' wingspan and fiberglass spars, \$30; (2) a 40" French military with keel, \$20; (3) a 36" French military with bridle, \$18. See our full-page ad on page 16 for construction details and for information on ordering.

KREZY KITES: Professionally hand-crafted ready-to-fly Indian fighters. **PLASTIC:** large size, \$4.50 ea.; **PAPER:** assorted solid colors, \$2.50 ea.; **PATTERNS,** \$3 ea.; **GLASS-COATED** cutting string w/spool, 1500 ft., \$9.50 ea.; plus shipping charges. Order from: Mukesh Optical, Box 650582, Miami, FL 33165. Florida residents add 4% sales tax.

FOR SALE - MISCELLANEOUS

FILM: "How to Fly a Kite," 3-min. black/white 16mm sound movie in "silent" style. Lightly educational, definitely delightful. Prints \$25. TLM Productions, 8 Charles Plaza, #1807, Baltimore, MD 21201, (301) 332-1619.

"BLOWN SKY-HIGH"—the kitemaker's manual. How to build 14 paper, plastic and fabric kites. Simple methods, generously illustrated. For individual and classroom use. \$4 + 50¢ mailing. Margaret Greger, 1425 Marshall, Richland, WA 99352.

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

SHOP FOR SALE: Windy City Kite Works. First and largest kite store in midwest. Excellent opportunity. Call (312) 348-1630.

ALUMINUM SPAR material, ¼" diam. up to 84" long. Specify length. 55¢/foot + \$1.50 shipping. Quantity prices available. Lawrence W. Hasiak, 26 Walton Dr., New Hope, PA 18938.

CLOSE OUT on *Kite Craft* books. Only \$4.30 each while they last. Send check or m.o. to Bob Ingraham, 315 N. Bayard St., Silver City, NM 88061.

KITE TALES BACK ISSUES: Last left are Vol. 8 No. 4; Vol. 9 Nos. 1, 2 and 4; Vol. 10 Nos. 2 and 3. Only 3 copies left of Vol. 9 No. 4. Send \$2 each to Bob Ingraham, 315 N. Bayard St., Silver City, NM 88061.

SHOP FOR SALE: Well-established kite store in Virginia Beach. Does business 10 mos. of year. Call (804) 422-5483.

SLIDE SHOWS: Two educational 80-slide shows, "All Manner of Kites" (about 14 min. on history and varieties) and "How to Go Fly a Kite" (about 9 min. on flying techniques, contests), with synchronized tape cassettes. Write for order form to Maryland Kite Society, P.O. Box 10467, Baltimore, MD 21209, or call (301) 332-1619.

RETAILERS LISTING

Above & Beyond, 1510-G Walnut Square, Berkeley, CA 94709.

Ben Franklin Kite Shoppe, One-Half Pearl St., Mystic, CT 06355.

Fish Creek Kite Co., RR 1, Box 205, Hwy. 42, Fish Creek, WI 54212.

Heavenly Body Kites, 409 Green St., Key West, FL 33040.

High as a Kite, 131 Water St., Vancouver, B.C., Canada V6B 4M3. Mail order catalog available.

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

The Kite Loft in 3 locations in the kite capital of the world—Ocean City, MD: 2nd St., Shantytown, Village of Fenwick.

The Kite Store, Carol Hamilton, 973 Grand Ave., Pacific Beach, CA 92109.

Marblehead Kite Co., 1 Water St., Marblehead, MA 01945.

Riverwind Kite Works, 612 N. 2nd St., Laclede Landing, St. Louis, MO 63102, (314) 421-0299.

WestSport & Game—over 40 styles of kites—Westport, MA, (617) 636-8755.

Wind Play, 212 N.W. Couch, Portland, OR 97209.

WHOLESALE, MANUFACTURERS AND MAIL ORDER BUSINESSES

Airplane Kite Co., 1705 W. Alameda, Roswell, NM 88201, (505) 622-7529.

Ben Franklin Kite Shoppe, One-Half Pearl St., Mystic, CT 06355.

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

Explorers, 21 W. Michelorena St., Santa Barbara, CA 93101, imported kites, wholesale only.

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

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

Kite & Gift, Inc., 333 Jefferson #7, Fisherman's Wharf, San Francisco, CA 94133, (415) 885-5785.

Marblehead Kite Co., P.O. Box 961 A, Marblehead, MA 01945, dealer inquiries as well as individual mail order.

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

Sky Scrapers (at the Platte), 2563 15th St., Denver, CO 80211, (303) 433-9518. For that Rocky Mountain flavor, wholesale-retail.

Ultra-Kite, 904 Century Bldg., Pittsburgh, PA 15222.



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September October

8

William M. Allison files first sled-type kite patent, 1950.

9

Festival of Ascending on High, traditional day in China for flying kites to send away bad luck and sickness for the year.

18

Grape Pickers Kite Fly, non-competitive, at Wil-Ho Lake, Geneva, OH. Sponsor and contact: Ohio Society for the Elevation of Kites (c/o Tom Rask, Pres.), 2687 E. 128th St., Cleveland, OH 44120, tel: (216) 791-6563.

21

First photograph by kite of New York City taken by G. T. Woglom and George E. Henshaw, 1895.

25

Bikes, Kites and Bluegrass, a day in Rockford Park, Wilmington, DE. Sponsor: Delaware Kite Club. Contact: Floyd S. Cornelison, Jr., M.D., Suite 14, Professional Bldg., Augustine Cut-Off, Wilmington, DE 19803, tel: (302) 654-8351.

Kitemaking Made Simple Workshop, University Heights, OH, Public Library. Sponsor and contact: Ohio Society for the Elevation of Kites (c/o Tom Rask, Pres.), 2687 E. 128th St., Cleveland, OH 44120, tel: (216) 791-6563.

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

2

Will Yolen is arrested for advertising Lindsay for Mayor by kite in Central Park, New York City, 1963. (Later the ban was repealed.)

Fall Fly and Meeting, Maryland Kite Society, Burtonsville Recreation Center, Burtonsville, MD. Contact: Maryland Kite Society, P. O. Box 10467, Baltimore, MD 21209, tel: (301) 332-1619.

8

First Annual Yachats Kite Festival, on the beach in Yachats, OR. Sponsored by the Yachats Chamber of Commerce. Contact: Mike and Susan Stone, P.O. Box 522, Yachats, OR.

9

Autumn British Kite Flying Association Festival, Old Warden Aerodrome, Bedfordshire, England. Sponsor and contact: British Kite Flying Association (c/o Ron Moulton), P. O. Box 35 Bridge St., Hemel Hempstead, Herts HP1 1EE, England, tel: 0442-42501.

10

Robert H. Battersby files first keeled kite patent, 1901.

12

Edwin L. Grauel files Bullet Kite patent, 1971.

16

Shoot the Breeze Benefit, fundraising party for the Ohio Society for the Elevation of Kites, Chagrin Falls, OH. Contact: Tom Donelan, 1313 Winston Rd., South Euclid, OH, 44121, tel: (216) 381-0043.

22

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

23

5th Annual Windsor Hills Neighbors Fall Kite Fly, Crimea area, Leakin Park, Baltimore, MD. Sponsor and contact: Windsor Hills Neighbors, Inc. (c/o Bruce L. Godfrey), 4202 Prince George Road, Baltimore, MD 21216, tel: (301) 542-7562.

24

Birthday of the American Kitefliers Association, the date the first journal was mailed to the original nine members.

30

Chesapeake Appreciation Days, non-competitive kiteflying, Sandy Point State Park, near Annapolis, MD. Sponsor: Chesapeake Appreciation, Inc. Contact: Maryland Kite Society, P. O. Box 10467, Baltimore, MD 21209, tel: (301) 332-1619.

November

1

Toto Santos, All Saints Day, Santiago de Secatepequez, Guatemala, traditional kiteflying over hillside graves to assist the souls of the dead.

5

Manlift and Fun Fly by the Maryland Kite Society, Harford Mall, Baltimore, MD. Sponsor: Hochschild/Kohn department store. Contact: Maryland Kite Society, P. O. Box 10467, Baltimore, MD 21209, tel: (301) 332-1619.

12

Lawrence Hargrave, inventor of the box kite, lifts himself by a train of four kites, New South Wales, 1894.

15

Deadline, 1896, for Boston Aeronautical Society's \$100 Chanute Prize, won by Prof. Charles F. Marvin (1850-1943) for his paper "The Mechanics and Equilibrium of Kites."

20

Turkey Time Fly, non-competitive, Orange Schools Playing Field, Orange Village, OH. Sponsor and contact: Ohio Society for the Elevation of Kites (c/o Tom Rask, Pres.), 2687 E. 128th St., Cleveland, OH 44120, tel: (216) 791-6563.

23

Francis and Gertrude Rogallo file first non-rigid kite patent, 1948.

25

Floyd S. Cornelison, Jr., M.D., files circular kite patent, 1974.

December

6

Alexander Graham Bell flies Army Lt. Thomas E. Selfridge from the *Cygnets*, his gigantic 3393-cell tetrahedral kite, on Baddeck Bay, Nova Scotia, 1907.

12

Guglielmo Marconi made his first wireless trans-atlantic reception from Poldhu, Cornwall, England, to St. Johns, Newfoundland, using an aerial suspended by a kite, 1901.



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Starting with the next issue of *Kite Lines* (Winter 1977) we will be printing in *full color*. This exciting opportunity was made possible by a new advertiser willing to go for the extra cost. We hope other advertisers will join in now too. And of course this is good news for our contributors. Since we think of all our members as potential contributors at one time or another, all of you who take color transparencies (35mm or larger) will have a chance to show them along with your black-and-white photographs (still our basic staple). We return photos if requested, of course. If you've been thinking of writing for *Kite Lines*, please do; this is your magazine, and you have nothing to lose but your obscurity.

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The C.P.S.C. vs. the Aluminized Dragon

EXCERPTS FROM THE TRANSCRIPT OF THE HEARING OF
MYLAR STAR KITES BEFORE THE CONSUMER PRODUCT
SAFETY COMMISSION

How can you discuss the behavior of a kite without having flown it?

June 15, 1977, Washington, DC. Docket No. 75-16:

Chairman Byington: If we may proceed, we are here this afternoon for the oral argument . . . requested by the respondent and ordered by the Commission on May 3, 1977. It is part of the appeal process from an initial decision by Administrative Law Judge Paul N. Pfeiffer filed on June 21, 1976.

Judge Pfeiffer found that kites made from aluminized mylar contain a substantial product hazard within the meaning of Section 15 of the CPSA, and that the public interest requires the respondent to warn the public of the hazard and either repair or replace or refund the purchase price of such kites as the respondent sold.

Mr. Alonso: My name is Frank Alonso. I happen to be the father of Francis Alonso, and I live at the address, the Encino address that you have . . . I want to go over a bit of the testing that was performed. The kite was draped over some power lines, I don't remember, five or six feet apart. Several thousand volts were switched on to the line. The kite vaporized in a matter of milliseconds, and an ionized path was formed. There was an arc that remained for nine tenths of a second.

The kites in question that the events that occurred in San Francisco, the considerations that led the staff to assume that the two events had been caused by the kites were because a lady, Jeanne Sullivan, saw a metallized kite flying in the vicinity of the area where the events occurred, and after the events occurred, she wandered around and found the remains of the kite, in a police car as I remember, she inquired about it, and said this is what caused it.

Now the tests that were performed by the Government at the San Ramon facility of Pacific Gas and Electric demonstrated clearly that the kite under those circumstances self-destructs. The portion of the kite that was between the wires vaporized immediately. The balance of the kite caught fire and it burned itself out on the ground.

It seems to me—and the wires, the arc, there was a trace taken of the arc. It contained 100 amps. The circuit breakers were set at 200. The event did not cause the circuit breakers to recognize the fact that in effect a short had been created across the line. The current was too low for the circuit breakers to acknowledge it. Consequently, they did not trip, but the kite completely destroyed itself.

Now one looks at a kite sitting on the ground. In the words of the witness, it was wrinkled and scorched. Wrinkled—any kite that gets wrinkled because of the movement in the air, and what scorched meant I have no idea except that in the test it indeed did completely self-destruct.

Now the question immediately arose, well, the lines were too far apart and consequently

had they been closer together, the arc would have been much hotter and would have cut through the wires.

Well, all of this is purely qualitative. There is no analysis, no tests, purely qualitative and hypothetical. Had the people that ran the test at the time in San Ramon, California, considered that it was important to run this test with wires much closer together (I think the minimum distance is 17 and a half inches for that particular voltage), a few manhours and a few dollars, and a few dollars of material would have permitted the test to be run . . .

Now in the discussion, and I believe I explained it to some detail in one of the briefs, the kite operated in the fashion that the Government operated it is obviously, is obviously a fuse, a plain, old, everyday fuse. If you put it across high power, lots of current goes through. The thickness of the aluminum is in the millionths, two millionths. It acts immediately like a fuse and vaporizes, and that is not bad. That is not bad. That is a good attribute.

We had in Los Angeles very recently a very tragic event. If you will give me a second, here it is. On the 16th of April, this year, at 7:08 in the afternoon in a suburb of Los Angeles called North Ridge on the corner of Van Alden and Parthenia, a little boy, age 13 I think it is, age 13, was flying a non-metallized kite in this general vicinity. The kite got entangled in the power lines. The child climbed the power line, fell on the wires, and electrocuted himself . . .

Had that little boy been flying an aluminized kite, he would still be alive today because that kite would have vaporized. They would have seen an arc . . . The kite would have disappeared, and that boy would be alive today.

Now the argument that this kite, especially the long-tailed kites, are dangerous, and that is because if you can imagine two wires going this way, that the kite will come and drape itself over one wire, the hot wire, not a neutral wire, and then the child in his anxiety to retrieve the kite, would run and grab it and be electrocuted—I had a lot of trouble explaining this was not possible, and in reading the material getting ready for this trip, a statement that the Judge made tipped me off to something that I hadn't recognized. He said, "I would be afraid to fly the kite." . . . The kite was tested at San Ramon. The measurements were made. All kinds of things were done, with the exception of one. It never occurred to anybody to go fly the kite, so how can you discuss, how can you discuss the behavior of a kite without having flown it?

. . . Now at the beginning of the hearing . . . I pointed out that the simplest thing for me to do, for my son to have done, was simply to sign the consent agreement—would have been very cheap—and that would have been the

end of it, but in this country there are today manufactured 50 to 60 million kites, and as far as I can tell there is no design criteria, and somebody told me, I think it was a judge, that I was asking the Government to tell me how to design kites.

I have been designing aircraft for 36 years. I don't need the Government to tell me how to design kites, but there should be a design criteria . . . It says what to design to. Such things don't exist.

. . . I talked to a Mr. Glenn, head of the Safety Department of the Los Angeles Water and Power, to see how many (kite) incidents they had, and in June of '76 they had reported incidents—we don't know how many were not reported—but at least 100 incidents that month, and in that month they had three to four power outages. These were not aluminized kites.

This is a people problem. I am very familiar with aircraft, so I will quote some statistics from there. In the neighborhood of 80, 85 percent of aircraft accidents are not caused by defective material. They are caused by personal error, either air crew or ground crew. The biggest problem in aircraft safety is not designing the aircraft. It is in teaching both the air crew and especially the ground crew what to do.

It is a people problem, and I proposed that the Commission give me tangible encouragement. How the staff twisted the words tangible encouragement into I want money beats the hell out of me, but that they did. All I want in the form of tangible encouragement is a letter from the Commission that says that you see that this is a fruitful thing and you encourage us to set up a committee of people in the kite business to enhance the safety of the operation of the kites.

. . . Now safety campaigns, and I have seen many of them, usually failed . . . because they have no guts . . . They say don't. They never talk about the consequences . . . There is no reason not to tell a child that if you do this you are going to get electrocuted. There is no reason not to . . . You have got to look at the total system, and people are part of the system. Environment is part of the system. This is what I have in mind . . .

Ms. Rubenstein: Chairman Byington, members of the Commission, I am Enid Rubenstein, staff counsel in this matter. With me at counsel's table is Catherine Cook, who is my co-counsel in this proceeding.

Two hundred years ago, Benjamin Franklin used a kite with a small metal key attached to it to prove that lightning conducts electricity. He was lucky to survive that experiment.

Respondent Francis Alonso, Jr., manufactured and distributed thousands of large kites, some with tails 45 feet long, coated with aluminum, one of the most conductive metals known to man.

Before Benjamin Franklin's experiment is accidentally repeated, with less fortunate results, we urge the Commission to find respondent's aluminized kites present a substantial product hazard and to order their recall . . .

My argument will cover three major points. First, that a substantial product hazard does exist; second, the scope of the hazard, that is, it is present in all aluminized kites, both those with tails and those without tails; and third, the appropriate remedy . . .

First, Mr. Alonso referred to an incident that

(Continued on page 58)

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