

PINEY MOUNTAIN AIR FORCE

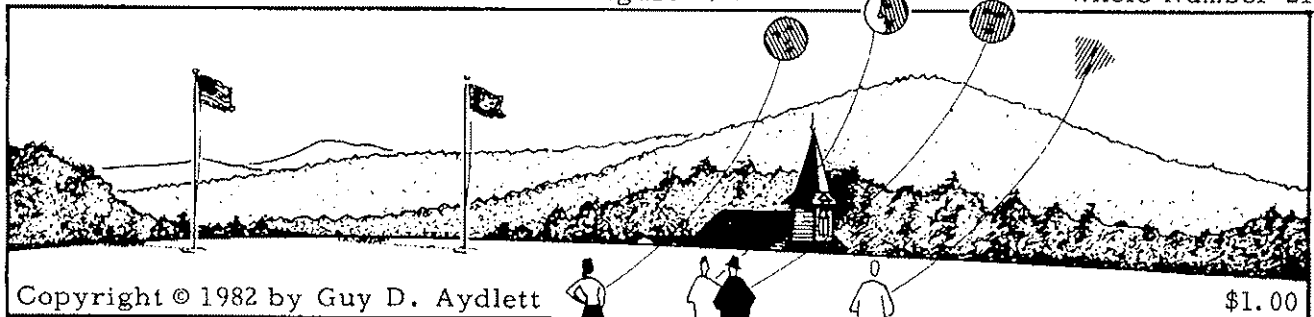
Box 7304, Charlottesville, Virginia 22906-7304

DATA - LETTER

VOLUME II, No. 8

August 1982

Whole Number 21



Dear Kiteflier:

THE GREGORIAN CALENDAR is not due for any imminent overhaul by PMAF folk. Even though the lead sentence on page 2 of *DL #19* made the proclamation that July 4th of 1982 would occur on a Monday, you will undoubtedly have experienced a *Sunday 4th* by the time you read this. We are uncertain whether The Seasons Troll used the 1983 calendar or made the common mistake of assuming the first day in the week is Monday.

Anyway, J. Gruber's *Hagers-Town Town and Country Almanack For The Year Of Our Lord 1982* agrees with Piney Mountain astronomers that Independence Day, the 4th, properly should be on the Sunday that is two days before the full moon. Despite the fact that Gruber's *Almanack* chose to have two new moons with not a trace of an intervening full moon for the month of March in 1981, PMAF believes you can rely on the Gruber Family's prediction that you will be privileged to undertake full-moon flying on August 4th (weather and police permitting).

"ULTRALIGHT AIRPLANES," an article by Michael A. Markowski in *Scientific American* magazine for July, pp. 62-68, gives a short history of the craft; crams all of them into four basic types. Ten versions that are presently commercially available are shown in line drawings on p. 63. Prices are said to range from \$2,800 to \$7,000. Most examples weigh about 200 pounds, have 32 feet of wingspan, cruise at 50 m.p.h.; stall—land—at about 25 m.p.h. FAA regulations probably will hold weights below 220 lbs.

MARGARET GREGER, Richland, Washington: ". . . I do appreciate the *Data-Letter*, mostly because of all those questions it answers that I would never think to ask. . . ."

JERRY HARRIS of Nashville, Tennessee: ". . . Appreciate *DL #14* and Kermud-Jinn. Since my family has promised to stage a kite opera next month [July], I have been concerned about low-wind conditions. Looks like K-J is the answer. . . ."

". . . Elsetimes lately have been spent flying Korean fighter crafted by Windancer R. G. Stubbings. Made of ripstop and bamboo, it, like Ali, floats like a butterfly; stings like a bumble bee! It's more than a match for any Nagasaki Hata or Indian fighter. . . ."

FRIENDS OF ASH LAWN, newsletter of the Central Virginia home of James Monroe, included this bit about its third successful Kite Day: ". . . Local kite-flying enthusiasts were joined by experts from around the state on Kite Day. Guy Aydlett, publisher of the Piney Mountain Air Force '*Data-Letter*,' Verlon Vrana, kite designer from Richmond, and Red Braswell, former president of the American Kitefliers Association, were on hand to share the flights and fun. . . ." [A beautiful setting! —N.]

BELLA FUNDAGRAPH, tattooed danseuse of Piney Mountain: ". . . Have reserved 25 cm² of prime area within which I'll immortalize the raincoat/garment kite contest winner."

(Page 1 of 4)

(more on p. 4)

FEEDBACK ON EDDY KITES

from P. J. Modjeski and Bruwer van Graan

PINEY MOUNTAIN AIR FORCE is always delighted to hear from readers who offer sincere, constructive criticism or who generously share the benefits of their field experiences with other fliers. The benefits are especially evident in the two accounts, below, that arrived from two ingenious designers who live on widely separated parts of our kitefliers' planet:

DR. P. J. MODJESKI, Richmond, Virginia:
". . . Here is more 'fuzz' regarding the Eddy kite.

"I have seen many references to the Eddy kite and while the plan forms are similar, the spar construction differs. Basically the spar is uniform in width and thickness as described in the book *KITES*; reinforced as in *KITE CRAFT*; or dihedralled with a spreader (source unknown, but I have a sketch I made from a library book on kites).

"I built an Eddy kite. . . after receiving *DATA-LETTER VOL. II, #6*. The kite was built so that the spar could be interchanged. Your suggested formula of 10-10-2-1 was used and three spars were made:"

KITE SPECIFICATIONS

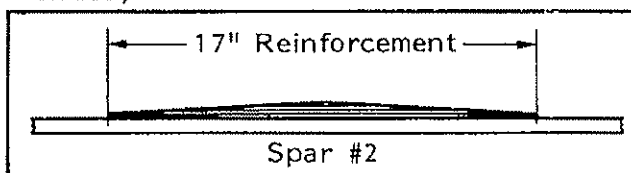
| | |
|--|----------------------|
| Height (or length) | 55" |
| Span | 55" |
| Spar location from apex | 11" |
| Bow of spar | 5½" |
| Longeron (West. red cedar) 1/4 x 1/2 x 56" | |
| Cover | Tyvek® 14 |
| Area | 10.5 ft ² |
| Weight: cover, longeron, bridle. . . | 98.1 g |
| Bridle (top leg 16"; bottom leg 46"). . | 62" |

"Since the spar was removable, I had to deviate from [*PMAF*] specs. and place the top bridle point about 1/2" above the spar."

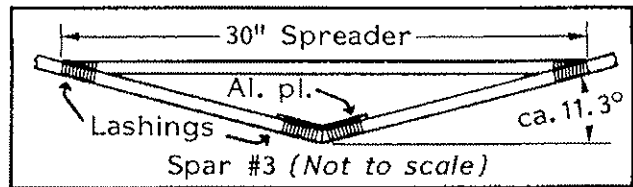
SPAR SPECIFICATIONS

Spar #1— Uniform bow; 1/4 x 7/16 x 56"; Western red cedar; weight, 42.3 grams (This spar was adjusted by sanding to get uniform bow and balance.)

Spar #2— Reinforced center (Modified from Spar #1 by gluing a 1/4 x 7/16 x 17" double tapered reinforcement at its center. Weight, 48.1 grams. When bowed, this spar had a straighter center section and an exaggerated curve at the ends.)



Spar #3— No bow; rigid dihedral angle (Two pieces of 3/16 x 7/16 x 28" poplar were joined to a 0.090 x 7/16 x 4" aluminum plate. The plate was bent to place the spar ends 5½" from a straight line— angle about 11.3°. The spreader is also poplar 1/4 x 5/16 x 30"; total weight, 80.5 grams. This spar was used without a bowstring.)



OBSERVED RESULTS

Kite & Spar #1 (bowed, no reinforcement): "Ground winds variable and gusting 0-10 miles/hour. The kite flew, but had a side to side oscillation which increased in amplitude with increased wind velocity. I found this to be an annoying characteristic."

Kite & Spar #2 (bowed, with reinforcement); "Winds about the same as Day 1. Again, that nasty wobble. The kite reminded me of a fish trying to spit out a lure. . . the flying line took on the character of a long, undulating snake."

Kite & Spar #3 (with fixed dihedral angle): "Three days later: Ground winds 0-15 miles/hour. During a good gust, the kite took off. I payed out about 300 ft of line, stopping at intervals for observation or waiting for another gust. While the kite darted about—being buffeted by changes in wind direction—it was stable. During periods of steady wind, the kite stood still in the sky. I was surprised at the high angle of flight. At times it soared much like a delta at about 80° angle."

ADDITIONAL DATA

| | |
|-----------------|--|
| Kite & Spar #1: | 4.95 oz; W/A = 0.47 oz/ft ² |
| Kite & Spar #2: | 5.16 oz; W/A = 0.49 oz/ft ² |
| Kite & Spar #3: | 6.30 Oz; W/A = 0.60 oz/ft ² |

* "Many thanks for the *DATA-LETTER*. It is the best and most enjoyable literature I receive. . . Phil Modjeski." (more on p. 3)

BRUWER VAN GRAAN, South Africa, says: ". . . I have been enjoying your DATA LETTER very much. Besides furthering kiting knowledge, it also improves the command of the English language.

". . . The June DL mentions Eddys; one of my favorites but not easy to make, even if it looks simple. Here are the variables to contend with. . . :

- 1) Width; 2) Length; 3) Position of Spar;
- 4) Bridle position and adjustment; 5) Bow (depth); 6) Type of covering; 7) Pocketing of covering

"Your 10-10-2-1 ratios are what I use as well, having found by trial and error they are best. Once the kite is made, 1, 2, and 3 are fixed; but the rest can be adjusted. More width gives a higher flying angle but stability suffers. More length gives more stability but less lift. If the crossspar is too low down, the kite is unstable and refuses to fly without a tail; too high up prevents recovery from a dive. A bridle too high up results in a spinning kite irrespective of bow. Too low down gives a kite which shakes from side to side but refuses to rise.

"Everyone knows the effect of bowing, so I won't elaborate. The covering I prefer is a light, slightly porous fabric such as uncoated ripstop or even unbleached calico, a bit heavy but the rough surface is good for stability. Plastic and coated ripstop are good for light winds but suffer from instability when the windspeed increases.

"For the spar, I use bamboo which I cut with a power saw equipped with a tungsten blade. The spar is fine tuned with sandpaper to get an even bow and should be relatively stiff. I use 3/16" x 3/4" x 42".

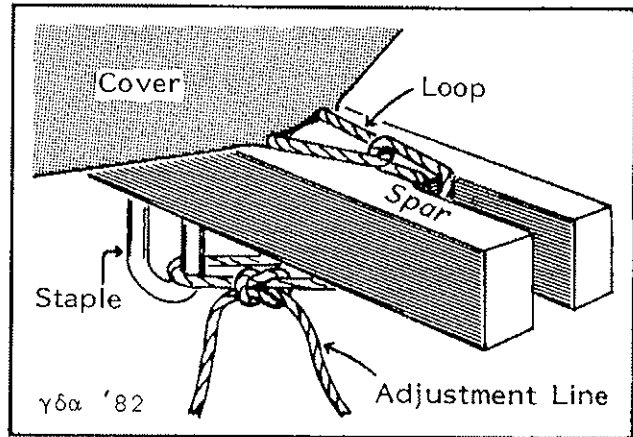
"Where I fly, steady winds are scarce. Mostly the winds gust and my kites have to fly in a wide windspeed range. Despite all the foregoing, I still landed up with a leaner in the stronger winds. This I eventually found to be a slight unevenness in the pocketing of the cover.

"The solution lay in adjusting the cover position on the frame. By making the cover smaller and separate from the frame and tying it to staples at the frame ends, up, down, and sideways adjustments are possible. Sometimes a very small shift is all that is needed to stop the leaning tendency. Each kite can now have more than one cover; one for slow winds, and one for stronger winds. However, there is a limit

to this as eventually the longeron bends or the fabric stretches.

"A properly made Eddy is a very stable, high angle flier. Mine are usually 42" tall and I fly with 35# twisted nylon. . . Eddys do not pull hard but they fight like blazes when nearing the ground. Care has to be taken to prevent them biting the dust.

"I include a sketch of my adjustment technique. . . Bruwer van Graan."



Bruwer van Graan's Adjustment Technique

MUSIC CITY KITE RECORDER

by Jerry Harris, Windance Society

Now, with the Kite Recorder and a portable tape machine, you can actually "capture the wind" and take it with you to foist on others.

Here's what you do: Take an old phonograph cartridge and needle. It need not be new. Solder wires to the prongs on back and run as much microphone cable as you can afford to a phono plug that will fit your tape recorder input.

Once a kite is flying good and steady, set the needle on the kite line. We built a carrier of foamcore, but it was unnecessary. You can usually implant the needle in the line. Keep trying. Turn volume down while experimenting. . . when you make contact, you hear the sound of a 300-foot "crack in the sky"; banshees are dumbstruck; dogs cover their ears. . . .

Do not feed this sky signal into your cassette microphone hole; it needs to feed into "PHONO INPUT" or similar hole. Windance Society is not responsible for damage to your equipment or [your] arrest for disturbing the peas [sic!].

[Jerry Harris gives special thanks to "Windance Society Friend Russ Sturgeon, audio technician first class and a grand guy."]

(more from page 1):

WALL E. BEE, Van Diemen's Land: ". . . I wonder if the larger Hornbeam Mark I Alliflex kites should be porous? My 3-foot or larger models in non-porous materials tend to spin in moderate winds of about 20 to 30 knots. My mate, Ken Garou, has urged me to cut a set of Hedda Howell's classic pentaports in all Mark I kites larger than 18" to bring them under control. Is he right?"

[Oh, la, la, and tsk! tsk! It appears that you have not yet read the two-pages-plus Hornbeam letter in DL #3. It tells nearly all anyone should need to know about the folly of deflowering good kites. Just give your kites symmetrical shapes, properly proportioned; make them of strong enough materials to withstand your "moderate" 20 to 30 knot breezes. A stretched kite will be a cranky kite. Verify that your bridle legs are of uniform length; that the canopy is sewn with smooth, unpuckery hems and is without compound curvature when it is laid on a flat surface. In sewn Alliflex kites, shortened leading edge hems will create a pocketing tendency that usually will make the craft exhibit grievous flying qualities.

Please tell Ken Garou that the false gospels of frustrated proctologists have been overturned by the un-holely adherents of Hornbeam; if he flies pentaport kites within a five-mile radius of Piney Mountain, visiting purists may seize him, roll up his kites, and do terrible things to his body. —Beau.]

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ERRATUM: Page 1 in DL #20 mistakenly implied that Tennessee's Windancer Society's "Art on a String, Music on the Wing" festival was sparsely attended. Actually, more than 700 persons attended opening day!

Windancers recorded 13,853 persons who "saw the exhibit, and more than that attended the events outdoors" according to Jerry Harris, president of the Windancers.

△

KITE FESTIVAL—or CONTEST? Windancer Jerry Harris's eloquence on the subject—page 1, DL #20—prompted this interesting observation from a highly respected AKA veteran: ". . . Give me a 'festival' any day. I can still remember, in my younger years, having the feeling as I approached the contest field, 'I'll show them' or 'Just wait until they see this.'

"The adrenalin didn't flow; it squirted!

"Ah, but we mellow with age, don't we? And experience. Yes, we have had some

monumental failures at attracting crowds to contests. We had a huge (by our standards) crowd at our Memorial Day . . . festival this year—a hundred kites at least in the air most of the day.

"One can find an outlet even at a festival for his competitive spirit: Make kites with the thought: 'Wait 'til they see this one.'"

△

BOOTLEG DATA-LETTERS continue to find willing recipients among some fliers in this nation and abroad; but we are pleased to learn that our position paragraph on the subject in DL #18, page 4, encouraged some of the more saintly fliers to abandon free-loading, send checks, and register as bona fide subscribers. Welcome, you latecomers!

Evidently, the counterfeiting rascals neglected to include reasonable facsimiles of our little subscription slips with their sub rosa currencies, because some of the penitents have said they would have subscribed much earlier if subscription information had been regularly included in the main body of DATA-LETTER.

Well, Pilgrims and Philistines, here it is:

REAL DATA-LETTERS, early and often, may be painlessly received by mailing a subscription check to: Guy D. Aydlett, c/o Piney Mountain Air Force, Box 7304, Charlottesville, VA 22906-7304. 12 issues (1 yr.) in U.S.A. or Canada by first class mail: \$8.50; back issues, \$1.00 each, net. Overseas airmail subscriptions are \$12.50; back issues, \$1.50 each, net. (All drafts must be in U.S. Dollars and drawn through a U.S. bank or the P.O.)

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HELEN BUSHELL of East Kew, Australia: ". . . Lagniappe [something extra] is not in my Oxford or my French or German or even my Latin dictionary. I am assuming that it is an American way of spelling long yap [!], but I really need to be erudited.

"Over here, we usually talk 'Strine.' One of us has actually published a dictionary of the stuff; but at \$33 none of us will buy it, so it will probably die the natural. Some of our words are useful for scrabble. . . ."

△

DERREY AIRRE, Naugatuck, Connecticut: ". . . Phoebe B. has moved from Pootatuck to Pawcatuck. She lived there 12 years and moved only because the Poots are intent on repossessing aboriginal Poot kitefly turf."