# DUST RAG



THE OFFICIAL JOURNAL OF THE DUSTER SAILPLANE ASSOCIATION

March 1979

# **Editor's Page**



### From the Editors

An article in the December 1978 issue of Soaring gave us all an opportunity to popularize the Duster Sailplane. In the magazine's "S.S.A. in Action" department, John Lee called for the names, addresses and phone numbers of everyone who is presently building, restoring, or owning a homebuilt or vintage sailplane. After replying I was happy to see a picture and paragraph two months later in the February '79 issue of our N12GT. But a newcomer to the sport of soaring might get the impression that Kathy and I owned the only Duster in the country. Please, let's write to John Lee, P. O. Box 66071, Los Angeles, CA 90066, and let the soaring population know that there are many other Dusters around.

That January calendar photograph of a Citabria towing a Blanik in the 1979 SSA Calendar was taken by our own Gilles Boily (Duster #167) of Québèc.

How would you feel if you built a Duster and weren't allowed to fly it? R.C. Dunn of South Australia is in that unpleasant circumstance. Please!- If there is anyone among you Duster owners who has at least 100 hours on his Duster please write to me for some forms to fill out. His local Department of Transportation needs the replies from at least 6 owners or builders before final approval to fly is given.

Aside from a good measure of procrastination, a great deal of the delay in the publishing of this issue was caused by the realization of a long held ambition of mine. In the span of three months I obtained my commercial and instructor glider ratings. Ironically enough, I finished up on the 75th anniversary of powered flight. The day had other memorable qualities. It started out somewhat spring-like and then the winds rapidly increased. By the end of my flight test, it had become such a howler that the tow-plane and 2-33 had to be lashed to the trees and tie-downs because it was unsafe to move them. There they remained for two days before the wind subsided enough to safely return them to the parking area. Each ship also had the protection of a car that served as a wind-break and back-up for their tie-downs.

## ANOTHER DUSTER BITES THE DUST

#57, N12GT will be laid up for some time to come pending completion of some extensive repairs. An accident occurred on the George Washington holiday weekend at the Harriman County airport at North

Adams, Massachusetts.

While working moderate ridge lift in the near zero degree F outside temperature the canopy frosted up continuously. Constant wiping with the backs of my mittens kept my vision clear but I said "enough of this" and decided to put the sailplane away. After returning to the field, several descending circles were made to get low enough to enter the traffic pattern. I flew the downwind and base legs wiping as I made my way. No one else was in the traffic pattern. The runway was clear of aircraft. I turned final only to find myself facing the setting sun. This was trouble enough but I felt that the situation was still in hand. With runway aligned and the confidence that all the numbers were

good, I waited for the touch-down.

Instead came the thrashing of branches followed by a few hard thumps. The setting sun and messy canopy evidently had given me the illusion of having adequate height. The Duster struck the top of a large Maple tree and became inverted. Upside down I plummeted as if in a flat spin 50 feet to the ground. The ship struck the side of the two story frame house as I fell. When the dust settled, I found myself pinned against the hard snow by the forward piece of the fuselage which was connected to the rest of the fuselage only by the rudder cables, stick and dive brake linkage. The right wing splintered off beyond the hardware. The left wing was shattered but still connected. The fuselage was also broken behind the trailing edge of the center section. The tops of the fin and rudder were dented. The ground was strewn with parts of leading edges and smashed ailerons. The wheel was smashed out of the mounting brackets and left the imprint of the brake drum in the shingles. The tow hook was also bent.

With the help of two men who ran to my aid by lifting the edge of the cockpit a little higher, I struggled out and got to my feet. The canopy had also popped and lay crushed underneath the centersection. Many layers of clothing, a parachute, a five-belt harness, a strong roll bar in the turtle deck and an enormous helping of luck saved me from any appreciable injury. The only thing I could detect were two small marks below my knee caps from striking the edge of the instrument panel and a severe throbbing in the wallet.

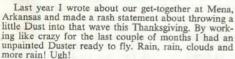
How could this accident have been prevented? A good duct full of fresh air against the inside of the canopy is the answer. Very nice to have in hot weather too. As I inspected the wreckage the next day I was pleased to note that not a single resorcinol glue joint had failed. Even where the skin had left the ribs, the outer layer of the plywood had been sucked away. What do I think of the Duster? I still think it is a great little bird except for a little "fuselage flutter" when flying through Maple branches and I can't wait until she's back in the air again.

# Letters to the Editor









On Thanksgiving Day I hitched up and headed South-east for Mena under cloudy skies with a promise that Friday would be a flyable day. Came the dawn-clear sky, calm temperature in the 70's. A lovely late November day. However, a wave flying day it wasn't. Thirty sailplanes from five states gathered for one last fling before Old Man Winter closed everything until next spring. All 30 were in the air at the same time with at least 15 working the same thermal with me.

One 15 minute flight in the late morning and then an hour and 45 minutes in the afternoon to cloud base a number of times in thermal lift.

Come Saturday the rains returned. Ditto Sunday. One flyable day out of seven but that day was one to remember. This winter I should have my bird painted and have a head start on next year's soaring.

My flatbed trailer handles as if it weren't back there.

Robert Warren # 199 Tulsa, O K

Duster # 10 is still coming along fine. Have wings, ailerons, airbrakes ready for close-up inspection. The modified rudder is completed, the horizontal tailplane also and fuselage is under construction at present. No fly date has been fixed. I'm just plodding along and dreaming about getting into the Cu's one summer.

Stuart Rogerson Hamilton, New Zealand.











The total time on my bird is less than 20 hours. I wish I could be more help to Mr. Dunn. But I have only flown it twice since the modification work.

The ship flies fine at all speeds. I have never had any problems with it. But I do believe the modification was a very necessary one.

I'm very lucky to have many fine birds to fly here at the airport so mine won't see much use until summer in Nevada.

We have had some fine flying weather here in December and January. There have been many waves and a few good thermal days. The airport sold their Schweizer 1-35 this week and replaced it with a PIK-20D. I hope to get some cross-country in it.

Bob Wakerley Napa, CA

> I know my idea is almost heresy but I'm tired of being a purist and having to stay in such a limited area. Area is dictated by twelve miles of sugar cane and pineapples. No lift at all til the mountains on the coast which run practically the whole island's length.

> I want to install a small engine. I can be towed over but the getting back is a must as we only have one gliderport. Do you know of any Duster that has taken advantage of the engine mounts which many of us have installed?

> At Oshkosh this year, the hang gliders performed spectacularly on ten or twelve horsepower. Think what a sleek Duster could do with up to 95 pounds of thrust.

I remember talking to Norm Barnhart about his 34 or 37 lbs. at 54 or 57 lbs. engine weight and the performance. The FAA was going to type it a light airplane. I don't want that. I can be towed aloft. Just get me by that no-lift area and I've increased my playground ten fold.

Aloha

Jack Bryce Kailua, Hawaii. Duster # 137 N25601.

# Letters

Thanks for your letter and reminder of winter which was far from my thoughts. Been a boomer of a soaring season here but I have grounded myself pending the completion of my Duster. Got frustrated waiting to fly and felt more could be achieved working on the Duster

at home.

I've taken note of your comments about the tailskid on your Duster. Is the original set-up the best? I thought about using ash laminated and tennis balls as on the Olympia II (British) or fibreglass roving as per Libelle. Latter I believe is impractical. We operate on grass some of which is fairly rough. Be interested in your comments on tailskid designs as that great hunk of steel together with the rudder mod balance weight (2lbs?) sure must drag the C.G. back. Thought some of the ground handling problems might be overcome by using a tricycle landing gear dolly with a stiff direct link to car tow bar. Especially if you could roll it straight into or out of the trailer.

Happy soaring.

J. S. Rogerson Hamilton, NZ

I've been trying since 1975 to get the power pod going for the Duster. As you may remember it was also to be useable as a power plane and was advertised as such.

Every time I write about this I am sent photo copies of a little 594 c.c. engine that is going to be available complete with prop for \$450- or letters telling me what great things are being done along those lines.

I finally decided to sell the Duster and get an Eaglet

kit- at least they have a power plant available.

All of a sudden I get a Newsletter from good ole Jim Maupin- the fellow I purchased plan #45 from and

Hank Thor.

Still no power pod for the Duster but I can now purchase for \$1,995 a Woodstock kit. Get busy and build it and it might fly with the Woodstock power module which sells for only \$600 or more. Needless to say I am a bit discouraged by this. I asked Rod Gage if he could get us the original design of the power pod so that we could use snow mobile engines for power plants. I'm sending you a photo copy of his reply. What I'd like to know is- there are two Dusters here in Kamloops and we would both like to be able to fly them as power planes on occasion. As Rod asks- are we the only two or are there a few more nuts around? Would you please ask the other folks through the Dust Rag and get their feelings on this. A little single seat ship that would cruise at 80 with 60% power sounds pretty nice to me.

All we are asking is for Hank Thor to send us a rough drawing of the pod showing us how he had planned to mount the engine-angle of thrust and size of prop. We can carry on from there and when we get a couple of them flying well we will send you the drawing free free of charge to print in the Dust Rog.

ings free of charge to print in the Dust Rag.

I feel if you would help us put a little pressure on Hank Thor and Jim Maupin we shall be able to do this without having to build another complete aircraft.

I sure hope you will help us get this problem finished off as it was originally sold as a glider-power-plane and this was the main reason I purchased the plans as I enjoy both powered and soaring flight. I feel that the Duster is a super little ship and I really enjoy flying it. All I want now is the extra power pod as promised.

Don Lurkins Kamloops, B.C. I enjoyed talking with you earlier this week. Sure am glad that you are getting the kinds of flights that you talked about. Maybe we will be as fortunate. As I promised, I'm sending you a copy of the trailer plans. Sometime in the near future Bill or I will get a letter off to you concerning the construction of our Duster. I am sure that you can understand and appreciate our desire to complete the project and get it flying yet this year. We hope we will be able to pass along some of the techniques that we used to solve some of the problems that we came up against.

I have sent the original drawings for the trailer back to Bob so if anyone wants a copy they will have to contact him. For your information we did make one change in the trailer. We didn't like the looks of the axle-wheel assembly so after a little searching we were able to come up with a "Prior" torsion spring axle. Much better suspension. We are well satisfied with it.

Also for your information, we now have our registration number. It is N250BJ. Well, back to the work area. Think UP.

Jim Bomball Decatur, IL.

A letter of mine published in the December 1976 Dust Rag, was somewhat critical of DSK Aircraft. Since then I have been in contact with their new management. They reported that things were in a mess when they took over and they couldn't find anything on me. I sent them copies of all my correspondence with DSK, including shipping documents, etc. They sent me a list to check off what I had received, and when I returned it, they shipped nearly all the parts I was missing. They are very well organized, and their workmanship is absolutely beautiful.

The only part of my kit (the fuselage kit) I am sising now is the wheel. They gave me a choice of the original wheel or a new, improved wheel for a little more money. I chose the new type and sent the addi-

ional money.

Next month it will be six years since I ordered the kit and a year since I sent for the new wheel. This must

be some kind of record.

I don't mean to badmouth anybody. I am grateful to Norm Barnhart and Jim Maupin for starting this thing and to Allen Craft and Rod Gage for taking it over. If any of them saw how little I have built they would wonder what I wanted a wheel for anyway.

As an engineer, I appreciate production and delivery problems, but.... I guess the real cause of the tear stains on this letter is the strong suspicion that people who walk in and buy a kit, leave with a whole kit, including

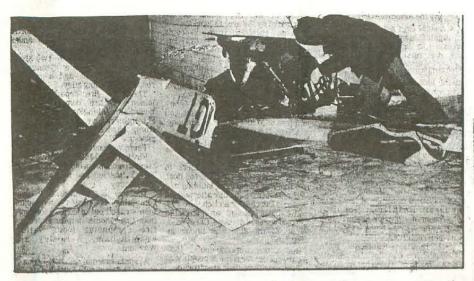
the wheel

My daughter and two sons want me to give up this dangerous sport and join them in skydiving. Maybe I should. I'm getting too old to fly planes anyway.

Martin Schreiber Baton Rouge, LA.

# COVER PHOTO

This splendid specimen of a Duster is the work of Bob Wakerley- N67137. He writes, "My Duster's flying fine after mod.- I've been too busy to fly much. This retirement is hell." Bob is from Napa, California.



DESTROYED—George Taylor, a resident of Bayport, N.Y., checks damage to his homemade alider that crashed Saturday

into the home of Mr. and Mrs. William Boland at 149 Chantilly Ave. Mr. Taylor escaped uninjured. (Transcript-Noves)





# Letters

Honestly- day after day, I am postponing letters to friends and foes (I.R.S.) which should be written a long time ago. Last November, my boss got the crazy idea to start the 6-day- 10 hour overtime business again. That considerably slowed my activity around my bird. But everybody seems to be happy about this silly brilliant idea of his but me. The boss is happy because of the large addition of "dineros" to pay for his twin; the government, because of the additional greenbacks: and last but not least my beloved because of no hammering or grinding noise and no polyester perfume and acrylic paint smell in the bedroom and all over the house. The present bad weather with rains and strong winds accompanied by short daylight hours does not

help either to better the situation.

A couple of days ago I tried to paint the rear end (I mean on the glider) but with not much success. There was not much paint on the fin, and my neighbor mumbled something about overspray on his car window. I don't know, people are sometimes so hostile. I gave up and wrapped up my "Preciousness" back in plastic sheets and crawled back to the vicinity of the warm oven. My wife's face radiated happiness and kindness. My marriage became harmonious again, but it is a kind of armistice until.....! I never gave up building my plane. The circumstances named previously and many unforseen events wasted a good year of the building time. Three weeks ago I had the FAA inspector here and got the tail section alteration approved. All my bird needs is a final coat of paint, and the final inspection. Right now I am building the trailer. Besides, I am fabricating a lifting device to enable me to assemble and disassemble the glider without help.

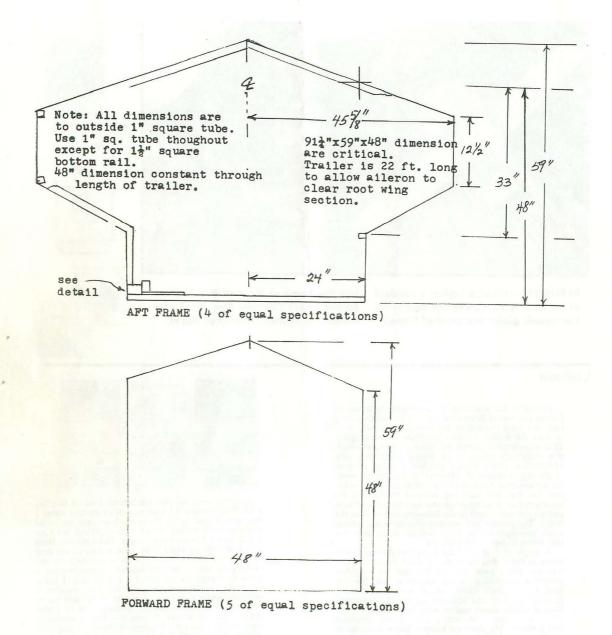


After so many fruitless predictions I would feel like a TV Weatherman if I tried to predict another date. I was sure of loading my flying machine onto the trailer at the end of February or first week of March but I see it will take a few moments longer. Three months from now I am retiring and I hope to have then all the time to fulfill my lifetime dream. In the meantime I am still pushing the rentals over the presently thermalless sky. I guess to change the tail wheel is a good idea. I made the skid according to the drawings and installed a swiveling wheel 2 inches in diameter, to the skid bar to keep the shear forces off the fuselage. The skid also reduces landing shocks. I guess it is less expensive to bend the skid than the fuselage. Naturally, I saw your picture in "Soaring", but I must shamefully confess. I have not registered my ship yet, but I shall in time for the next issue.

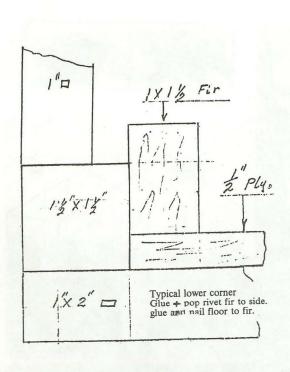
As for the Australian fellow, as much as I would like to help, I do not have 100 hours yet on the Duster-Sorry. Bureaucracy is the everlasting drag on our sport. I was sure glad I received a sign of life from you. I hope that maybe one of these days we will meet. I have some pictures but they are still in the camera.

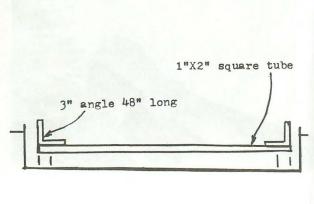
Robert Lutz Encino, CA.

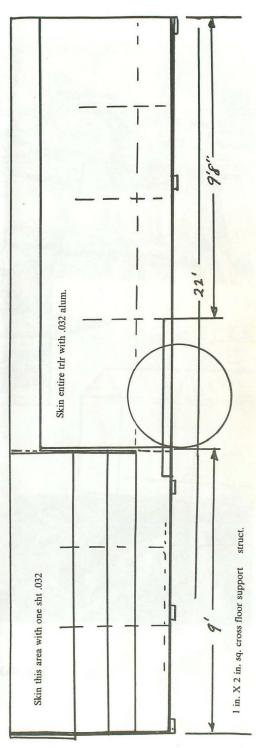
Continued on Page 11

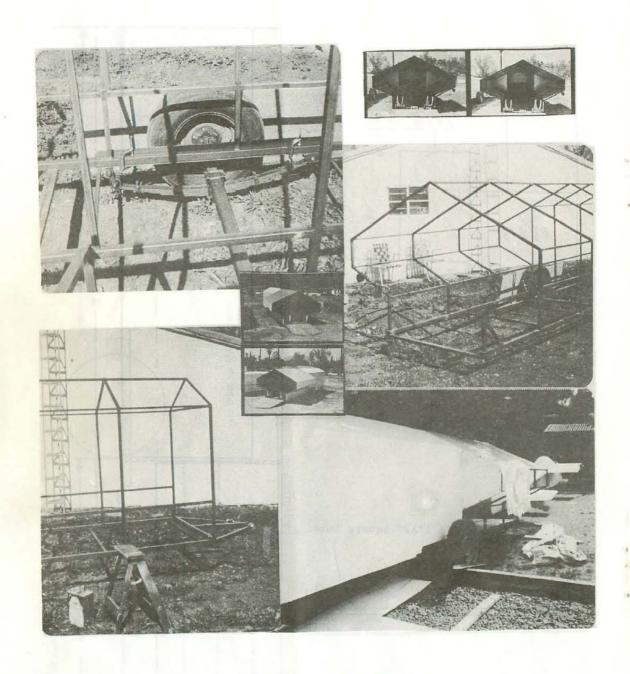


Many thanks to Bob Wakerley for submitting these trailer plans. They are for your personal use and may not be used for trailer manufacture.

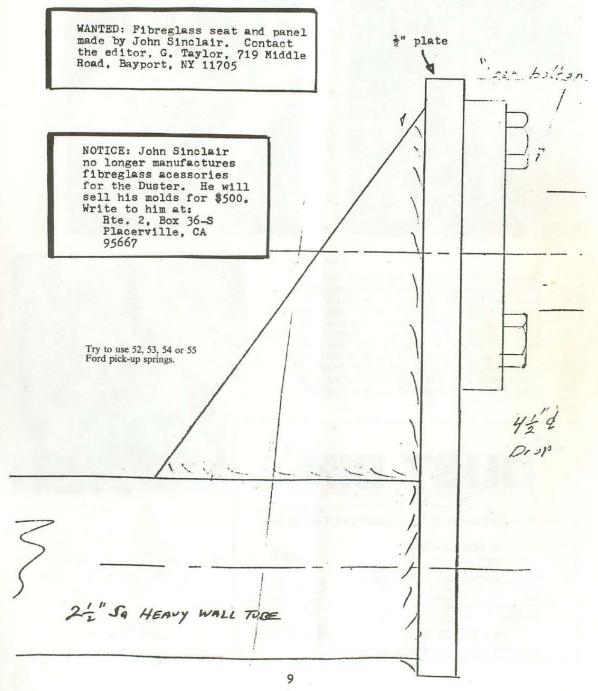








Bob Wakerly's Trailer







These pictures show my total energy probe installation and radio antenna (the latter made from directions in a SOARING article) and the foam ribs I added. I used 2-pound foam--pretty light stuff, but seems ok when supported on both sides. I'm us ing the oxygen bottle as ballast. I have a Sinclair seat and panel and the tank runs into the lower box part of the panel and goes thru the seat 4"...Hal Porter



# DUST BIN

DUSTER TRAILER

# ★ FEATURES ★

- 2 LARGE PRINTS 48" x 30"
- · TILT-TONGUE LEAVE TRAILER HOOKED UP
- · OVERALL LENGTH 22 ft. 3 in. STORE IN GARAGE
- · DETAILS AND FITTINGS SHOWN FULL SIZE
- · SOFT COVER CANVAS SNAP-ON TYPE
- · USE AS A BASE FOR ENCLOSED TRAILER
- · MATERIAL LIST FOR ALL STEEL

PLANS \$20.00 (Includes postage - USA

HAL PORTER · 5451 LEIGH AVE., SAN JOSE, CA 95124



Send stamped selfaddressed envelope and receive free catalog sheet with sample prints.

The designer accepts no responsibility or liability for this design or your trailer.



# Letters

Thank you for your nice comments about my pictures that were selected for the SSA 1979 calendar. You asked how I proceeded, well it was quite easy. When I read in the soaring magazine that George Uveges needed pictures I simply sent 3 pictures. About a month later I received a note telling me that I had two pictures selected. The first one (January) I took from the back seat of my friends Blanik. The second one (the centerfold) is our club 2-33. I took that picture with a 135 mm telephoto lens. This makes it quite

impressive looking.

Now a word about my Duster, which is not completed yet. I had a big problem with my wings. They were severely twisted because when I glued on the top skin, to make sure that I got the best leveling and alignment, the wings were resting on 4 pieces of wood installed across my work bench. Then to hold the wing on this setup I used pieces of rubber band which introduced twisting and bending. I was quite disappointed when I realized my mistake. To solve the problem I had to remove the top skin so the wing structure became flexible again and start skinning again. I think I will be able to fly it this summer. For the last two years I didn't work very hard on the construction especially after I found my mistake. This problem didn't prevent me from flying the club ships a lot.

I am a member of Le Club de Vol à Voile de Ouébèc since 1973 where I learned to fly. Since then I accumulated 600 hours in gliders and 150 hours of power flying which is mostly in towing sailplanes. I also have my instructor rating and last summer I completed my gold badge with a diamond out-and-return with the Club's Pilatus B4. I belong to a very good club (75 members, 14 gliders, Blaniks(4), 2-33, 1-26, Ka-6(2), B4, Cirrus, HP-14, Lark, and 2 tow planes- L-19 and a Citabria.) Also during the fall we have a wave camp about 60 miles N-E of Québèc, where I made several unforgetable wave and ridge flights. During the summer we operate at St. Raymond (40 miles N-W of Québèc). The land belongs to the club and it is a 4000ft. grass strip and has a nice wooded area which is used for camping. So if you have the opportunity to drive around here you are welcome to visit the nice area of French Québèc.

Au revoir et bon vols

Gilles Boily Québèc City, P.Q.

# FPL-16A EPOXY GLUE

FPL-16A glue has excellent gap-filling properties and requires very little clamping pressure. It has superior strength, is water proof and chemically inert. It has a long shelf and pot life, is easy to apply and gives good coverage. One gallon will cover about 140 sq. feet of surface area.

Gallon \$32 shipping weight 14 lbs. Quart \$12 shipping weight 5 lbs.

# VOLAN LIGHTWEIGHT GLASS FABRIC

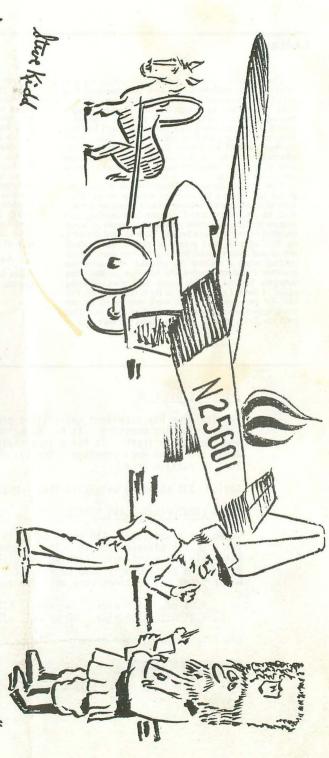
Volan has a special finish which makes it exceptionally compatible for use with polyester resin. It has good strength properties and extremely rapid wet-out. Lightweight glass fabric and polyester resin is a particularly good covering for all-wood aircraft. It is water proof and weathers very well for out door storage.

1.01 oz. 38" wide 50 yards \$75 1.45 oz. 38" wide 50 yards \$75

Glass fabic is shipped prepaid. Please add UPS charges for FPL-16A glue.

# 4: 10-4: 3

3058 Bernina Drive, Salt Lake City, Utah 84118



# I WAS WAY OFF COURSE, BUT IT'S A DISTANCE RECORD FOR DUSTERS

The Dust Rag 719 Middle Road Bayport, N. Y. 11705

Volume 7, Number 1

March 1979



