

THE DUST RAG



THE OFFICIAL JOURNAL OF THE DUSTER SAILPLANE ASSOCIATION

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George & Kathy Taylor
719 Middle Road
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FROM THE EDITORS...

The happy news with this issue is that Dave Mattis has flown his ship, N12DQ, and it has already been stored away for the winter. We expected this news since last we heard, he was just waiting for the final inspection. This month's centerfold features several photographs of Dave's fine workmanship. Our Duster, N12GT, is also about to be pulled off Brookhaven Airport for the winter. We have a number of minor improvements to make in time for the next season. It was a good season as conditions go for Long Island. Our Duster logged its 100th hour on the 89th flight. Three of the flights over the 8 months of flying were better than 5 hours duration. I made the longest duration (What skill!) and Kathy made the best altitude gain (What luck!).



COVER PHOTO

This month's cover shows a picture of Bob Walter's Duster which was taken at the Baja Soaring Fiesta, Laguna Salada. At his side, holding the canopy is his wife Ching who is also glider-rated. Bob & Ching have taken up sailing and have offered up for sale their Duster. Yours for around \$5,000 is a smooth and airworthy ship, spare canopy, instruments and trailer. Call 516 286-3709.



LETTERS TO THE EDITOR

Dear Kathy & George,

I figured I'd address you, Kathy, first this time because you're cuter than George and can probably thermal better.

N12DQ is back in the barn for the winter after a rather so-so late summer & fall. Have only 12:50 on it owing to a dearth of tows and some really foul soaring conditions despite the beautiful weather we've had. As with everyone else, I have fallen deeply in love with the bird with no faults (other than the elevator trim). I'm debating on whether to buy another torque rod and re-drill for more back trim, or just move the detent plate back.

Winter projects include enlarging the cockpit area. My beautiful hand-rubbed mahogany wingroot cockpit cover has disappeared and the cockpit is moved back $1\frac{1}{4}$ ", and the shoulder room increased by 4". I had some bad moments when I started to hack into all that furniture-finished mahogany, but the extra space will make the members of the Pittsburgh Soaring Club much happier. (The king-sized members anyway.) I have joined the Club, and sold the bird to them. They have a Supercub, two 2-22's and two 1-26's and now what they regard as a high-performance plane. Five of them have flown the Duster, and all were ecstatic, so I suppose it has to be a fine bird.

My second winter project is replacing the Plexiglas in the canopy. It cracked (about $1\frac{1}{2}$ "") on my initial flight during the dive test. I later calculated that with the faulty static port location, I was truing 135mph. Then, last Saturday, a chilly morning, on a slightly bumped landing, a club member's head hit the cold plastic, and the $1\frac{1}{2}$ " grew to 16". We drilled and wired the break, flew it the rest of the day, and called it quits for the winter.

I originally installed the plastic cold as in the instructions. In hindsight, I should have tried to heat it and remove the stress. I didn't. Now I'm trying to determine the best way to get it back together with heat, without getting sags or distortions.

I have fabricated a new dive-brake handle that is flat. It's much prettier, and doesn't take up needed knee room, and still has plenty of clearance on the side.

If you know of anyone who built his own trailer, I'd be interested in getting the design, dimensions, and materials used.

Hope you're still able to fly. After reading about coastal soaring conditions, I'm really jealous. We just don't have much natural help in this area of West Virginia and western Pennsylvania. Aren't many landing areas either, so white-knuckles are what one wears on even limited cross-country attempts. That's for now.

Dave Mattis
Wheeling, WV.



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To All The DUSTRAG Readers:

A very Merry Christmas and a Happy New Year. May the new year see many Duster completions, new building starts and many successful flights.

Duster #287 is coming along fine, right on schedule. I just started on the center wing. From November to April, I am only able to work in my basement where I have only limited room. At least I can work on the center wing, airbrakes, ailerons and do all the cutting of ribs for the wings. The wing assembly has to wait until next summer.

Kits #11 to #14 from the buy-as-you-build program are on their way. So far I always had good service and think that DSK Aircraft is doing a great job considering what a limited market they have to deal with.

The covered fuselage and the sheeted tail sections are standing in the cold garage. I bought all the extra fiber glass parts including the canopy from J. Sinclair. Are they ever beautiful made! The bucket seat is just super. The canopy gives a lot more head room and together with the turtle-back and pointed nose cone, it really makes the ship look sleek.

I am very pleased with the whole package; all as advertised in the Dustrag. John also did an excellent job in crating all those pieces, everything arrived well, here in Winnipeg,

My completion date is still May, 1979. I am looking forward to the day I can visit other Duster builders and flyers here in Canada.

John Bandorf
Winnipeg, Canada

(See photos on page 9)

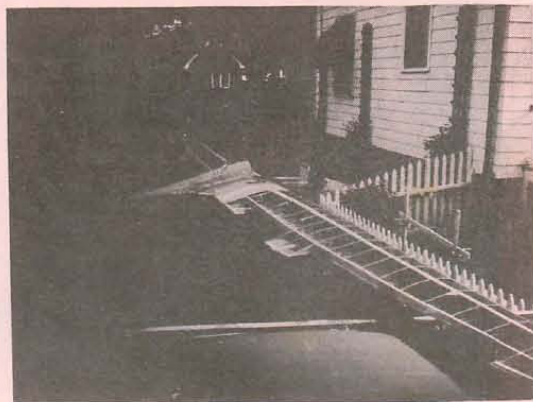
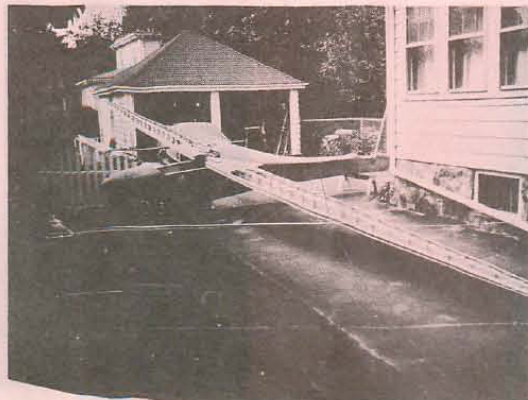
In answer to your kind letter, my interest in soaring dates back to the first time I looked up to a clear Texas sky (where I grew up) and saw a buzzard flying without flapping. The art of soaring took a big leap forward in my life when the 1947 Nationals were held in my home town of Wichita Falls. I was fortunate enough to get a ride in a Pratt-Read at that time, an experience at age 14 that I will always remember. Shortly after that I learned to fly in a J-3. Then in 1954 while an aeronautical engineering student at Texas A & M checked out in a sailplane with the Texas Soaring Assn., being signed off for solo by none other than Dick Johnson. I actually qualified for the Silver C with a 1-35. I did my cross-country and 5 hours in a TG-2 but never sent it in.

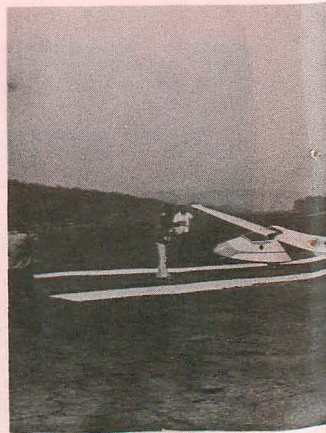
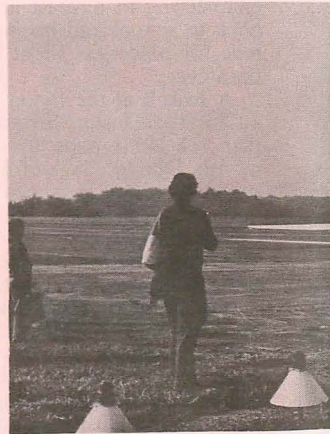
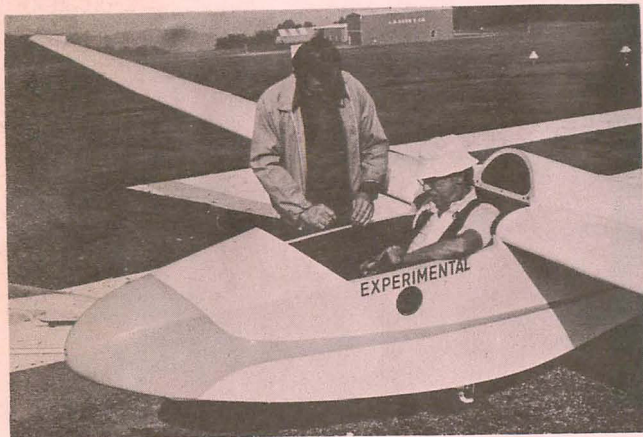
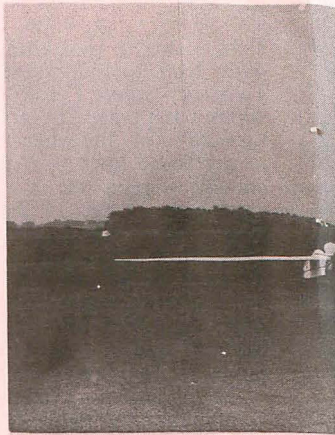
After some very active soaring in 1953- 1958 a combination of marriage, children, graduate school including teaching aircraft design at Texas A & M the only flying done was in powered aircraft. For years I have designed sailplanes, but never found the time & money to start construction. Now after a period of complete inactivity when I traded in my Consulting engineering in aircraft acoustics and vibration to go back to school and become a physician, my long lost love for powerless flight has again surfaced, stronger than ever.

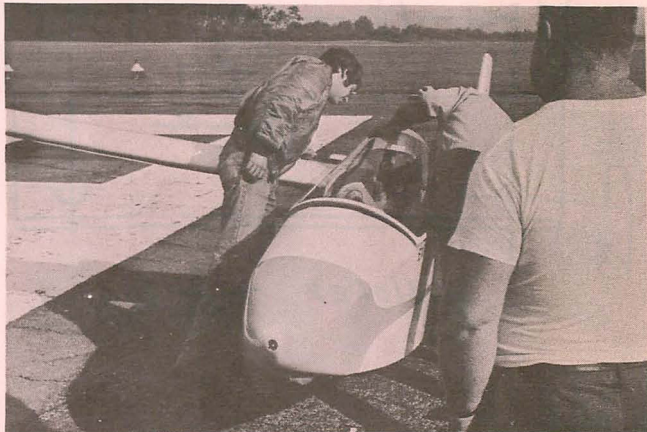
A search of the flying magazines turned up DSK's ad for the Duster. So now having in my possession plan set 341 I hope to start construction within the month. Due to a lack of time I will probably go the kit route. The design appeals to me both performance and construction-wise. Having spent many hours bent over a drawing board trying to come up with a workable combination of the performance-homebuilders trade-off I am very impressed with the drawings.

The Bermuda High Soaring School is located about 50 miles away in Chester, SC. so when the big day comes, a couple of years down the road, I will have some professional help and experience available for final check-out and testing. Thanks again for the back issues of the Dust Rag and I'll keep in touch.

John V. Duncan, M.D.
Spartanburg, SC.

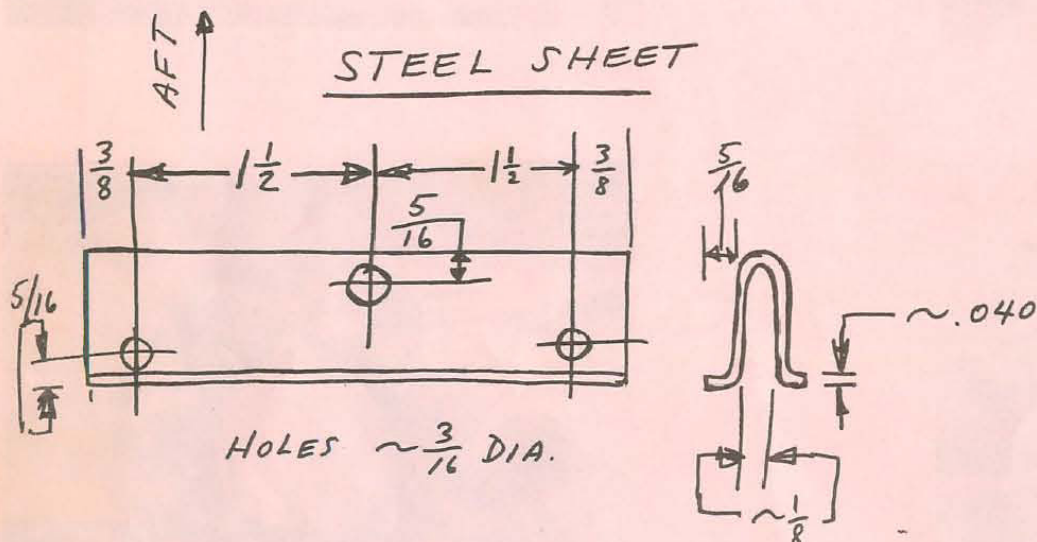






BUILDING TIPS

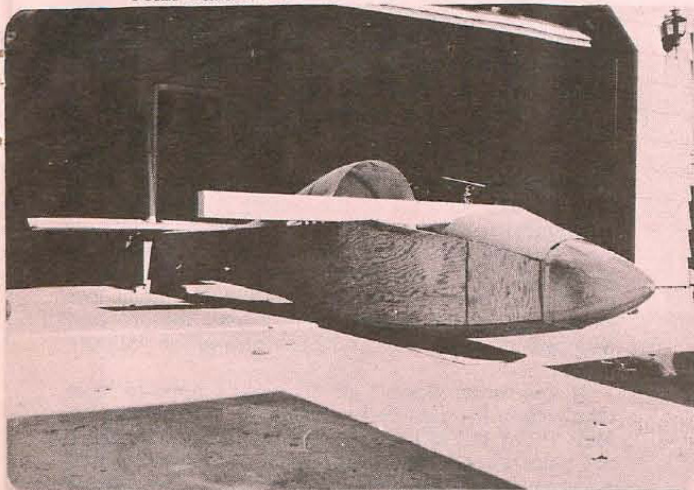
Some additional comfort was gained in our ship by the addition of the shoulder harness spreader assembly shown in the included diagram. The attachment point on the rear bulkhead seemed to be too close to the back of the neck of the pilot to allow sufficient spreading or separation of the belts to fit around the neck without that choking feeling. I have two extra brackets that I am willing to donate to the Duster cause. Anyone who would like to have a free one please write to me and ask for one.



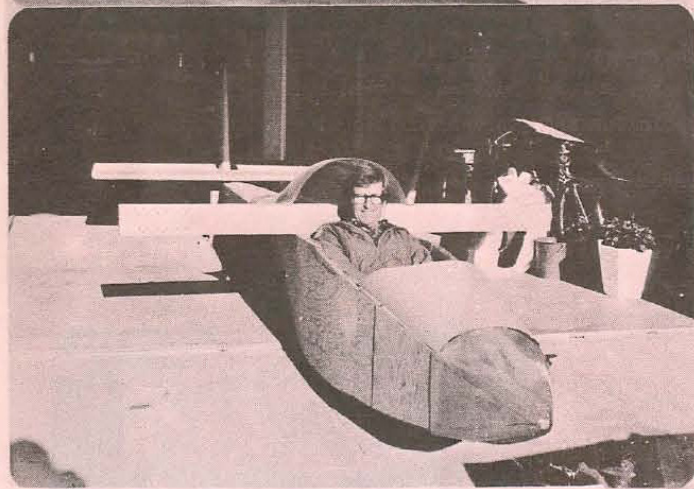
I discovered with the arrival of the cooler weather that canopy frosting can be a troublesome problem. Even at perfectly comfortable cockpit temperatures, frost will form on the upper interior surface of the plastic from front to back. In my personal experience with the problem, my first impression was the vision blockage was condensed water from my breath but soon discovered that I couldn't brush it away with my glove. Each time I climbed to over 4,000 ft. AGL, the frost re-appeared. The danger here, other than a chance of a mid-air collision, is that you can't exactly tell how close to cloud-base you are if you can't see upwards. The Duster is clearly in need of some sort of ducted air system. A retractable air scoop near the front edge of the canopy rim would do much for fall and winter vision and summer pilot comfort. Something to think about if you're at that stage of construction.

Ready for some more 20-20 hindsight? That access hole in the left side of the fuselage skin. Make it large enough to accommodate *your* arm while wearing your winter coat. You have to make the hole large enough to reach in to set the canopy latch when you park your ship for the night. Otherwise you will have to take off your coat in order to do it. The other problem is that the shaft on the canopy latch is too short to be closed easily. It's a simple matter to pull the ring to unlatch the canopy in order to exit but try to put some muscle behind it if you are already reaching as far as you can. This may seem like no problem if you have long arms but the smaller pilot (Kathy) will always need assistance in closing the canopy especially if it has weather stripping to be compressed. A longer shaft should pose no safety problem since the ring end is neither sharp or too close to the pilot's face.

John Bandorf's Duster #287.

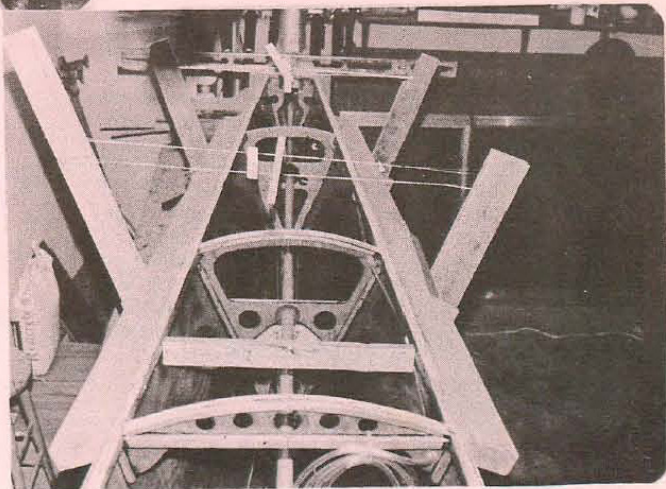


John Sinclair's fibreglass parts.



Trying it out for size.

Since the longitudinal members were somehow not quite straight, I made up this jig to have everything line up before gluing on the top sheet.



It is a while since I put a pen to paper. My Duster #237 is at a standstill due to not enough hours in the day. I feel I'll have to cut back on the work load if I'm going to fly the machine before I retire.

The fuselage is ready for skinning. All spars are made & a lot of the metal work is done. Ribs are all cut and ready. The stabilizer & elevators are all cut out and ready for gluing. With summer & daylight savings I hope to make some more progress.

I find that odd parts & fittings that were prohibitive to buy here were purchased at a reasonable price from DSK.

I believe that one of the Dusters in South Australia is nearing completion.

Our soaring season is just starting here. (This letter was written in October...Ed.) Last summer I got my Gold height 11850 feet in thermal flying a Palatus B4. Still have to do the 300 Km for Gold badge. Weather at our last summer camp was very windy and although I had 3 attempts on the 300 Km I was unable to get away from the field.

I enjoy the "Dust Rag" and its information material that you put into it.

Ellis Gibbons
Parramatta, Australia.

As of July 29, 1977, Don Libke (my partner) and I purchased the kit and plan #97 from Johann G. Kuhn. Johann also gave us all the back issues of the Dust Rag. We don't know how much Johann has told you of the status of Duster #97 but to bring you up to date, all the structures except ailerons and dive brakes are complete. The fuselage has been signed off. The remaining work to be completed is to install all controls, skin the wings & tail feathers, finish & paint. We may be overly optimistic, but we hope to have the ship ready for flying in late spring of '78.

Don and I took inventory of all the parts and thoroughly inspected the ship and except for some wood parts (which we have already ordered from DSK) find that the ship is fairly well complete so we don't expect any hangups because of parts shortage. We might add that Johann did an exceptionally fine job of construction, being a model maker for GM Tech Center qualifies him as a first class "Wood Butcher". Neither Don or I have any qualms about the work he has completed up to this point. Needless to say, Don and I are quite anxious to get cracking on this project. After a full week of inventory, plan study, planning, ordering material, we are ready starting today to make chips and dust. We will keep you posted on our progress from time to time.

Gustav Wiklund
Redford, Mich.

A bit of news from Michigan about Duster #269. The summer has been busy what with power flying and all. Last summer Barb and I took up power and I got my license in February. Since that time I have logged over 50 hours in a Cessna 172 flying to Iowa, Detroit and other exotic places.

Unfortunately I have done little on the Duster. I have the fuselage nearly finished (excluding the canopy). All controls are installed and lined up. The wing attachment hardware proved to be a bit more than I could handle with the factory made spars and attachment hardware. I could get 3 of the 4 to line up OK, but the 4th defied me mightily. I wound up making the hardware from scratch with an over-all expense of about \$120.00 not counting the money lost from DSK on the original issue. I have the problem whipped- or so it seems and I can now go on with the wings.

If this winter doesn't get too cold I hope to have them ready for closure by spring. If that happens it may fly by fall of next year- I hope. I find that there are times when I can't drag myself to the work bench and glue on another piece- and there are times when I can't keep myself away from the darn thing- so far it sits idle with little progress.

Albert B. Truesdell
Stevensville, MI



JJ Glider Repair

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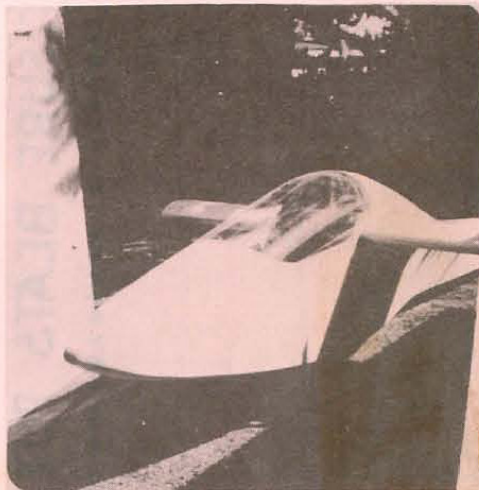
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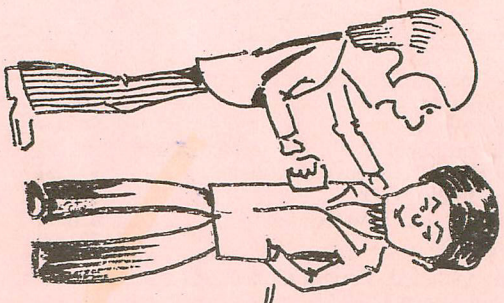
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Volume 5 Number 3

DECEMBER 1977

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