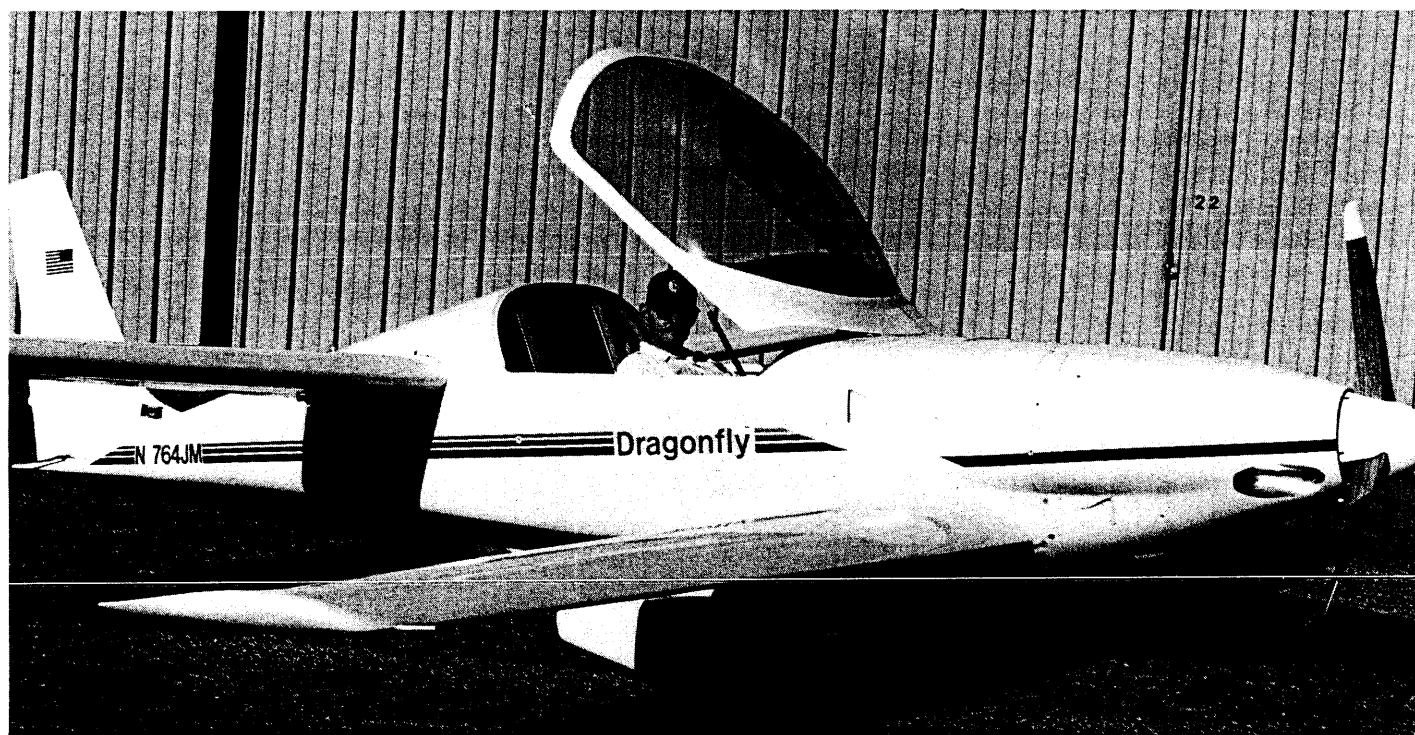


DRAGONFLY BUILDERS AND FLYERS NEWSLETTER

THE OFFICAL VOICE OF DRAGONFLYERS ALL OVER THE WORLD

VOLUME 38

NOVEMBER - DECEMBER 1991



Justin Mace's Subaru powered Dragonfly

Hello Spud

Here are some pictures of my reworked Dragonfly. I still have some work to do but it is back in the air. The engine now has 40 hours run time with 35 of that in the air. I have had a problem with the new engine, I had to change the oil. I know that's not much for some of the VW flyers but I haven't even looked at the engine in 40 hours other than change the oil.

The speed is down somewhat compared to the engine size but I think I know why. The huge belly scoop is

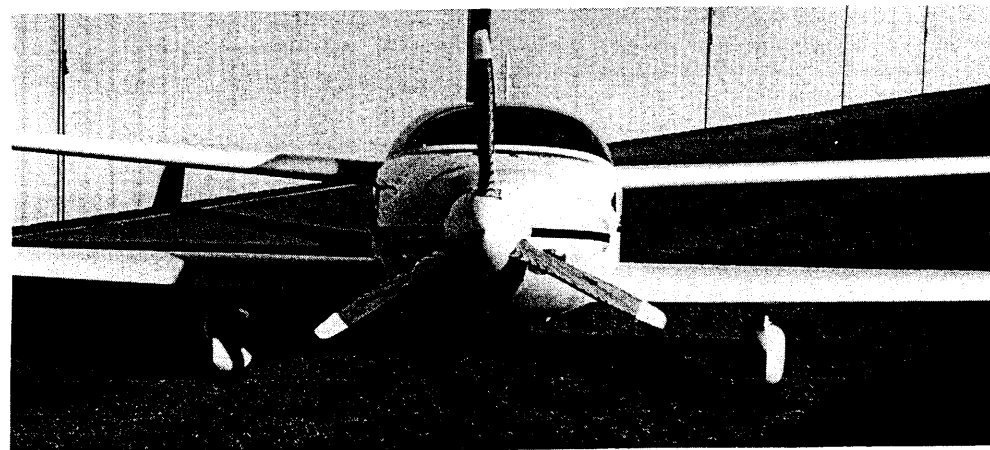
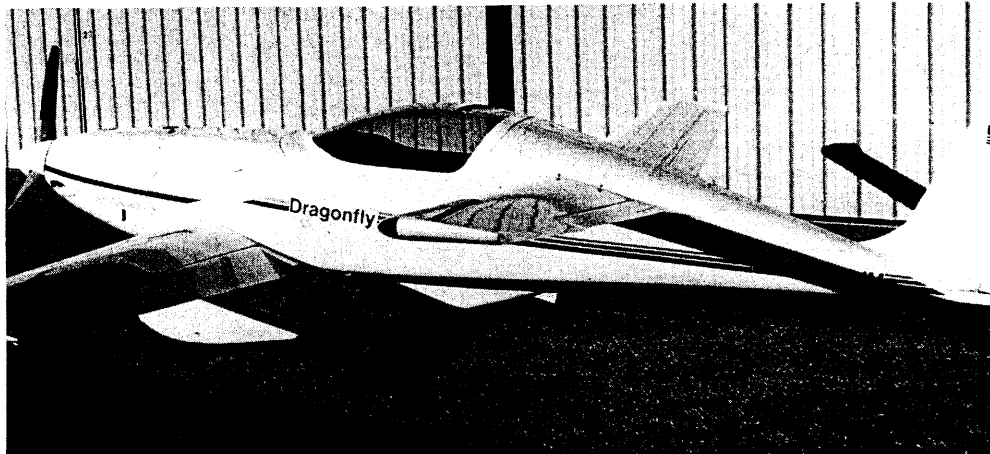
probably just to much drag, but it does work for now. I have plans to move the heat exchanger to the inside behind the wing, with just a small scoop on either side below the wing. That will knock off most of the external drag. That is the plan down the road, for now I am just going to enjoy flying for a while. I guess I will just have to be happy with 160 true cruise, at 23" manifold pressure for a while. Phoenix and Tucson approach radar both have had me at 140 knots.

The photos show my new landing and taxi lights on each side of the lower cowl. They work just super. After I got them installed, I just had to go up after dark and try them

out you know. The lights work just perfect! I seem to make better landings at night for some reasons. I stayed up for a hour and got in six landings. There is no problem with the Subaru engine at night, no auto rough or anything. The alternator is the stock unit so there is no problem with the large electric load. I am now running a Sears-Diehard, utility battery, no problems so far. The battery had to be behind the wing for CG considerations. To help with the weight distribution I used #2 copper wire to the starter and back for ground. Funny how one heavy thing requires another heavy thing to make it operate. Must be Murphy's laws of aeronautics.

I took Lou Ross up to the Copper State Fly-in. Lou is 78 now and seems to be getting along OK. We are still doing tests on the different gear ratios but the 2.17 to 1 seems to be a good compromise between high engine RPM's and low prop speed.

Best Regards



We lost a good one . . .

Chuck Kapian - Waipoie, Mass.

Hi Spudley,

I guess I get the unhappy duty of informing everyone that our number has been diminished by one. John Smart passed away Friday nite, November 1st, from complications from surgery.

I first met John in 1983, via the builders list, when I was contemplating the Dragonfly as a project. John was nothing but help and enthusiasm. A friendship soon developed and we could count on each others help even though 40+ miles separated us.

John was not large in stature, about 5'7" & 135 lbs soaking wet. I used to describe him as one of the "Keebler Elves" who escaped from the cookie factory so he could build a airplane. His level of activity used to amaze me. He roller skated once a week, rode motorcycles, and was an avid skier. Not to shabby for a guy who was about 68 years young. John loved to fly with me or anyone else he could bum a ride with while he was building his Dragonfly.



Everyone that met John seemed to really like him. He never had a problem recruiting help for those large lay-ups. Of course once, I'm sure he'd wished he'd picked a different crew of guys. John would keep a sample cup and check it's curing progress. At one of these layup parties his sample cup was replaced with molasses when his back was turned. Later in the day, he picked up the bogus sample and panic started to spread across his face. One of the culprits took the cup, saying "What's

wrong, John?" He then stuck his finger in the goopy substance and tasted it saying, "This tastes just fine!" John would sort of just smirk when reminded of that episode when recruiting time came around again. John was always getting involved with new builders. Just last month he showed a new builder his project and then took the time to bring him down to my shop to meet me and see my project. I guess he was sort of the Dragonfly patriot of the New England area.

It's now been about 3 weeks since I started this letter and we lost John. A few times I've thought to myself... Let's give John a call & see what he's up to, and then I remember that he's gone. It'll take some time to break that thought process, we were probably in contact at least once a week for 5 years. John may be gone now, But a lot of good memories will remain. He was one of the nicest people that I've ever known and I'll (we'll) miss him -

GIVINS' IGNITION FAILURE

C-GGEM Ignition Failure

On 25 Aug, while flying in a slow descent approximately 1800 ft AGL, I experienced a sudden loss of power. The engine power reduced to a low RPM of approximately 1600-1700 but the engine was running smooth. Emergency checks found nothing, carb heat had no effect and the problem continued. While setting up for a Precautionary landing the engine stopped completely, this was about 1-1.5 minutes following the initial power loss. Yes, the Dragonfly gets very quiet once the engine stops but glides very well.

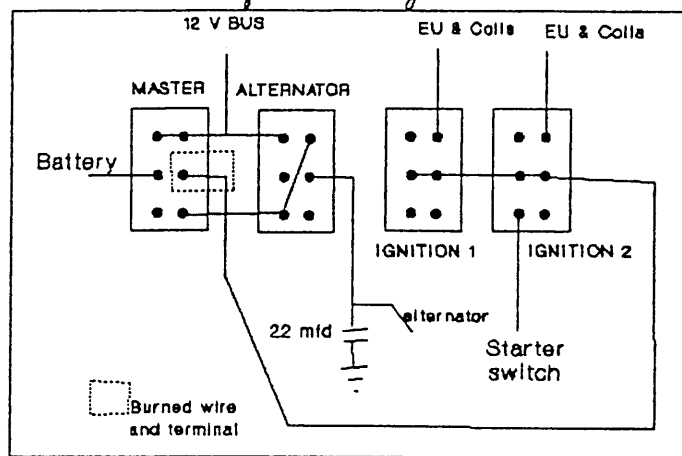
The only clear landing field was not within a safe gliding distance which left option 2, a corn field, as the only survivable option. The remaining fields were either swampy, rocky or too small. After one final attempt to restart the engine I tightened the shoulder harnesses, made one final radio call and then shut off the fuel and all electrical systems. The final approach was flown just above stall and once the aircraft was brushing the corn stalks I continued to raise the aircraft nose in an attempt to "mush" the aircraft into the corn in a tail low attitude. It worked like a charm and the aircraft stopped in approximately 80 feet but facing the direction I approached from.

This was because once the aircraft encountered the corn stalks (the corn was 7 feet high) the aircraft rolled left slightly and when the canard contacted the larger corn stalks the aircraft to yaw to the left approximately 160 degrees and the aircraft landed on the right landing gear and canard tip. The landing gear strut failed due to high side loading and the canard upper spar cap failed in compression. The damage was limited to the canard, the attach points and the landing gear strut. The fuselage received minor damage to the lower cowling from the corn

stalks and the right fuselage side was damaged where the elevator contacted the side.

The landing occurred approximately 20 miles from my home airport at approximately 1230 hours. Fortunately, a farm house was nearby and I was able to phone the local police and home. Brenda, my wife, picked me up and contacted the flying club to let them know of the incident. By the time I returned to the flying club several friends were waiting with a trailer to assist in the aircraft recovery. We returned to the aircraft and by 8 PM the aircraft was loaded and back at the airport. The recovery team then proceeded to the nearest bar to replay the details over a

*Wiring as suggested by Manufacturer
Surefire II Ignition*



few cold brews.

Initially, I thought the problem was fuel related due to the loss of power prior to the complete failure of the engine. I first concentrated the investigation on the fuel system and POSA carburettor. A fuel flow check confirmed there was no blockage, there was no water in the fuel and there was nothing wrong with the POSA. The next check was the ignition system. The battery was reconnected and a check of the ignition was conducted. Surprise, no spark and no power to either system. Tracing the wiring back to the cockpit found the cause. A terminal on the master switch which feeds power to both ignitions was burned and the wire melted. The ignition on the engine is the Sure Fire II and was wired as recommended by HAPI. The system works great and with two systems and two coils per system provides good redundancy. Unfortunately the suggested wiring scheme provides for a single point failure of both systems. If you refer to figure 1 the terminal and burned wire are identified.

The cause of the switch failure is unknown. The switch was removed and inspected and it was found to be cracked. Disassembly of the switch showed signs of arcing inside which would have caused the overheating and burning of the wire. It can not be determined if the cracked switch occurred first allowing moisture inside and

then causing the arcing OR if the arcing and overheating caused the crack.

A simple solution to the single point failure is to either use two master switches or feed one ignition directly from the 12 volt bus. The reason for feeding the ignition through the master was to allow the shutting down of the cockpit electrics if required in an emergency while still feeding alternator power to the ignition. I have not decided exactly how I will rewire C-GGEM but both systems will be totally independent and I will retain the capability of isolating the cockpit electrics.

The aircraft is now at home and the rebuilding will commence in the near future. I will be at OSHKOSH next year. If anyone wishes to discuss this accident further please contact me,

Ted Givins

***A LETTER
FROM VIKING***

Spudley and Dragonflyers:

Hello from Big Sky Country !

During this time of transition that Viking has been going through, we are very grateful to Spud, and you, the Dragonfly builders & flyers who have kept life in the Dragonfly. Spud you have been doing a Fantastic job with the newsletter and I strongly encourage that everyone keep contributing their experiences with their Dragonflys to the newsletter.

While writing this I'm looking at DBFN #34 and at the letter from Viking and thinking how long ago that was. How many things have changes since then. Someone once said " The only thing that does not change, is that everything changes." All I can add to that is Amen!

One of our biggest changes is that Rex Taylor is no longer connected with, or involved in the Dragonfly, sport aviation, or homebuilding. Rex is working in an R & D shop doing what he does best. Solving problems and getting the job done. He is Happy again after the changes in the recent past. I want to publicly THANK YOU DAD (Rex to the rest of you) for everything you taught me about aviation and homebuilding.

Another change is the company itself. A change in leadership, change in location, and a change in business philosophy. The leadership is now myself (Patrick Taylor) and my wife Robin. The location is now Helena, Montana. After living here for a while, the saying I have heard has a new meaning " It's not the ends of the earth, but you can see it from here"! After many a hot summer, cool is not bad for a season. Our philosophy is to keep the Dragonfly

alive & well. We will provide support where we can, or direct you to someone else who can help you and/or provide you a quality product at a reasonable cost.

We will be providing technical support by mail only, please! I do work for someone else, like most of you. Getting to many phone call could cause problems. If you have immediate problem you can call me at home in the evening, (406) 227-5575, but please use discretion. When writing please provide a self addressed stamped envelope and leave enough room in your letter for answers.

Viking will still be working closely with our approved vendors to assist them in their stocking of exact specified materials for the Dragonfly.

Our approved vendors are:

Wicks Aircraft Supply - 1-800-221-9425

Alexander Aeroplane Co. - 1-800-824-1930

Aircraft Spruce & Specialty - 1-800-824-1930

The following is a list of what's available from Viking:

Dragonfly info Packs - \$10.00 (includes postage)

Dragonfly back issues - \$35.00 (a must to bring the new builder up to date)

Dragonfly plans - \$259.00 - (\$300.00 outside the US) includes postage

Dragonfly construction video tapes \$89.50 (set of 3 / 6 hours total)

Dragonfly prefab fuselage parts and precut foam cores

Canopies - Mark II Gear leg kits

Tail springs - Cowlings - Some control parts

and: Some replacement spare parts for Hapi engines.

For a complete list of what's available send a self addressed stamped envelope to: Viking, P.O. box 4463, Helena, Montana 59601

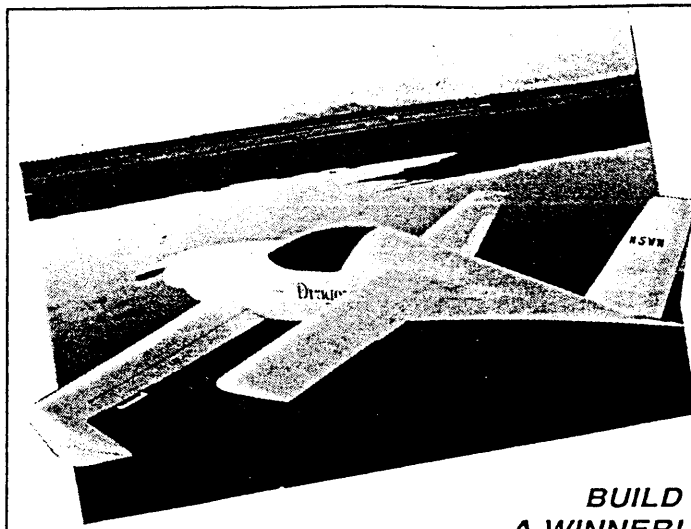
Looking forward to hearing from you !

Patrick and Robin Taylor

PRODIGY USERS

You people out there with computer/modems that are using "Prodigy" services may communicate with DBFN. Our ID # WCBF97A. This would work just great for questions, Input for builers tips and Etc..

DRAGONFLY



**BUILD
A WINNER!**

The "Best New Design of the Year" Oshkosh 1980 is still the best choice for speed, efficiency, economy and comfort in the 90's and beyond.

This roomy 2 place (43" wide) offers the performance most people only dream about.

Now you can join the hundreds of people flying their sleek, slippery two place personal "rocket" that is inexpensive to build and inexpensive to enjoy.

Build from scratch or pre-fab components using a construction manual written for the first-time builder.

Info pack — \$10.00 • Plans — \$259 US, \$300 overseas or send a SASE for all the parts available for the Dragonfly.

Contact •

Patrick Taylor • c/o Viking • P.O. Box 4463
Helena, MT 59601

✓ Speed ✓ Efficiency
✓ Economy ✓ Comfort

HELP!!!!

After the Swarming was over with, I said to myself, "I was so busy doing this or that during the event, I missed a good part of it." Help!!!! I noticed that quite a few people that attended the Swarm had video cameras. I sure would like to get a copy of some of those videos, especially the fly-bys and etc. I sure would appreciate it! - Spudley

DUAL SIDESTICK CONTROL SYSTEM by Darryl Wright

My motivation for designing dual side-sticks was a feeling that one power quadrant on the left side of the plane, and hence out of the reach of the right-seat flyer was unacceptable. Nancy and I wanted to be able to fly equally on our trips without the restriction of "one person having to do all the takeoffs and landings. This new system further had to allow for the use of an aileron reflexer and have the same or less friction, and have fewer parts than a standard system with a reflexer. As if to make it more difficult, it had to use as many of the plans parts as possible, for those who wanted to retrofit the system into partially constructed Dragonflys.

The forward half of the system is virtually identical to the stock system with the modified elevator torque tube, except that the two pushrods which normally run aft to the center stick now run forward to an "idler arm" on the canard. This is constructed from two extra torque control arms, as specified in the elevator mod plans (make 10 total) and a length (about 2-1/2") of 3/4" 4130 tubing. The two phenolic bearing blocks should be outboard of the torque control arms, not inboard as shown on the drawing. The weld should be inboard on the control arms. This idler arm serves another purpose, allowing the elevators to be adjusted separately. Chuck Ufkes informed me of the importance of this as his first flight had a left roll tendency, easily taken out after the first landing. (Fortunately, I presented my drawings to Spud upon first arrival at Ottawa, otherwise few would have believed this system was not a copy of Chuck's.) This forward half consists of two stick assemblies similar to the old right stick. The bellcranks at the aft end point down as does the original, but the new center (rear) torque tube bellcrank is above this tube, hence reversing the direction of motion of the rear torque tube, and eliminating the need for the motion changer.

The forward end of the rear torque tube is mounted in a ball bearing, which is sandwiched between two discs of aluminum. This assembly takes all axial loads and a healthy amount of lateral loads. There is nothing special about the KP-8 bearings used - any bearing with an outer race thickness of 1/2" can be used. Spherical bearings such as the LS-8 could be used, but adjustment for the thickness of the outer race must be made. The ball bearings should not bind nearly as much at the extremes of reflexing as the stock tube with no bearings. Clearance should be about 1/2" all around the rear torque tube as it passes through the wing lift bulkhead. The rear bearing assembly can be either mounted into the lower portion of a modified wing drag bulkhead, or a bearing support can be built and attached to the fuselage floor about 3" aft of the wing drag bulkhead. If the latter method is used, it should be tied in to the aft face of the wing drag bulkhead to transfer aileron loads. Adverse aileron yaw is fairly minimal, but if the aileron bellcranks are mounted down about 10 degrees from perpendicular to the pushrods from CS-3, you will have about 3 to 4 degrees of differential aileron. Disassembly is fairly convoluted, and may involve removal of both bearings and several components of the rear torque tube assembly. The reflexer assembly is as per Newsletter 34 except for the diameter of the hole for the tube itself, and the aluminum rings retaining the bearing assembly. The hole for the tube is bored closer to the puck center, as less travel is needed than originally thought for reflexing.

(SEE DARRYL'S DRAWING ON NEXT PAGE)

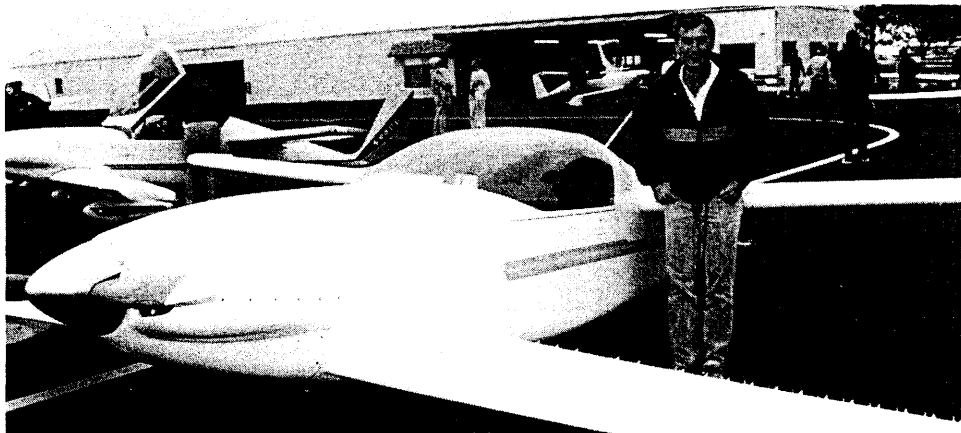
Good job Darryl! You guys also need to know that Darryl has been applying some of his talents in redrawing some of your sketches you have been sending in - Thanks!!!

1991 SWARMING

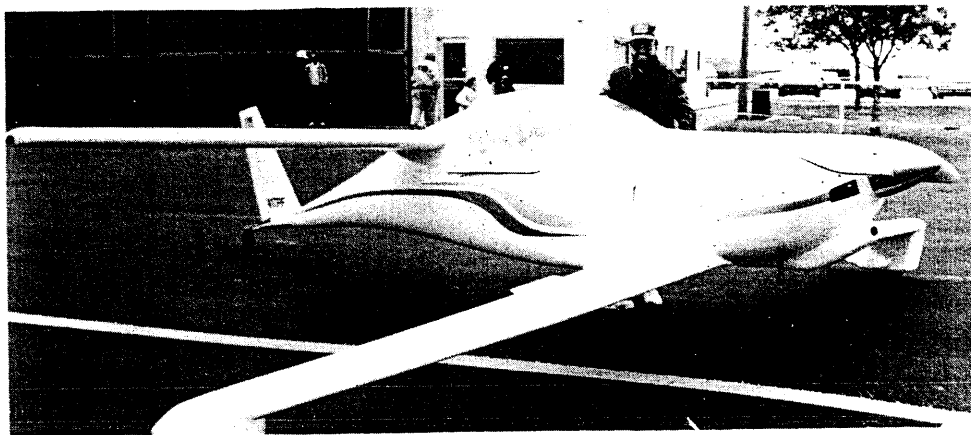
This years Swarming started out Friday morning with the arrival of Rob Kermanj of Boca Raton, Flo. and Chuck Ufkes of Ocala, Flo. in from Florida, they flew up together. We had 6 other Dragonfly's and/or Q-Birds fly in for the event. They were Charlie Harris out of Denver with his Go Fast Q-200, Wayne Ulvestad of Volga, SD in his beautiful Mark I, Chris Barber out of Huntsville, Ala in his Rotax powered Quickie, Steve Larabee from Charleston, Ill. in his steel gear legged Mark II, Paul Fisher out of Taylor Ridge, Ill. in his fantastic looking Q-200, Allen Perkins out of Williamston, Mi. in his Mark II and Doyle in his Tri-Q out of Springfield, Ill.

Friday afternoon and evening was spent just getting acquainted with each other and checking out all the planes. Late afternoon/early evening was spent giving intro/familiarization rides to the guys. Friday evening 35 of us had dinner at the Western Stockade and lots of hangar flying.

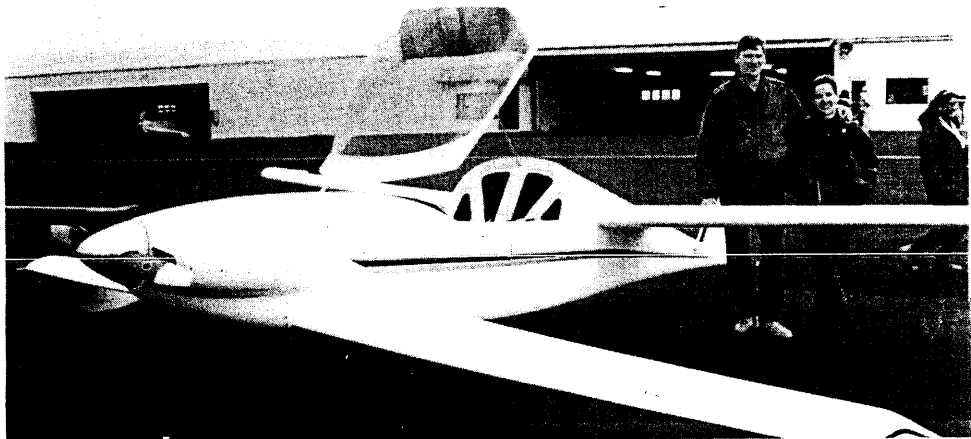
We woke up Saturday morning with lowering ceilings, temperatures in the lower 50's and a forecast for showers on & off for the rest of the weekend. After donuts and coffee the Gang with their Dragonflys, Q-200's started back in giving rides, rides and more rides. A little bit later I finally got the Forums started. This was probably one of the best parts of the Fly-in. We had approx. 75 people in these forums through out the afternoon and was this was a "Major" exchange of information, it was excellent. This was everyone's favorite area, there were several subjects we never got to. A much more structured expanded schedule will be established for next year. After breaking up the forums we headed back out to the flight line for more familiarization rides. During this period the boys got into some formation flybys and made a run south of the airport for some aerial shots. Charlie Harris from Denver with his Q-200 did some performance take off's (I mean hang it on the prop stuff)



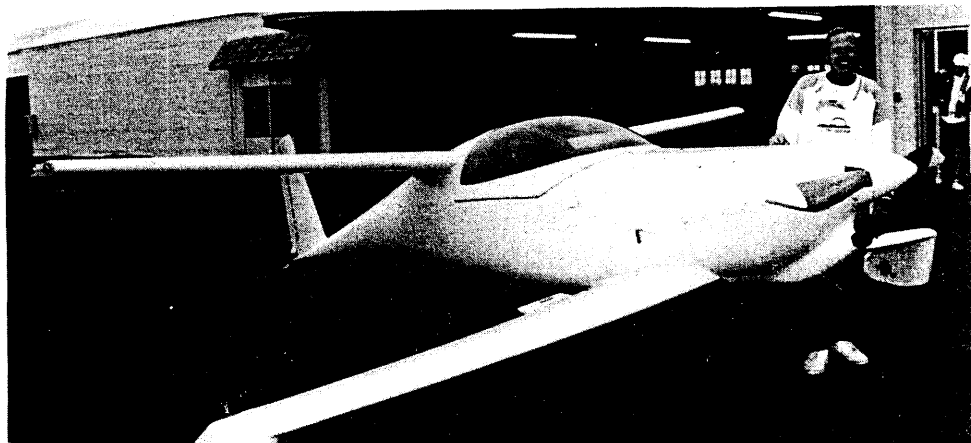
Rob Kermanj of Boca Raton, FL - Mark I



Paul Fisher of Taylor Ridge, Ill - Q-200



Wayne Ulvestad of Volga, SD - Mark I



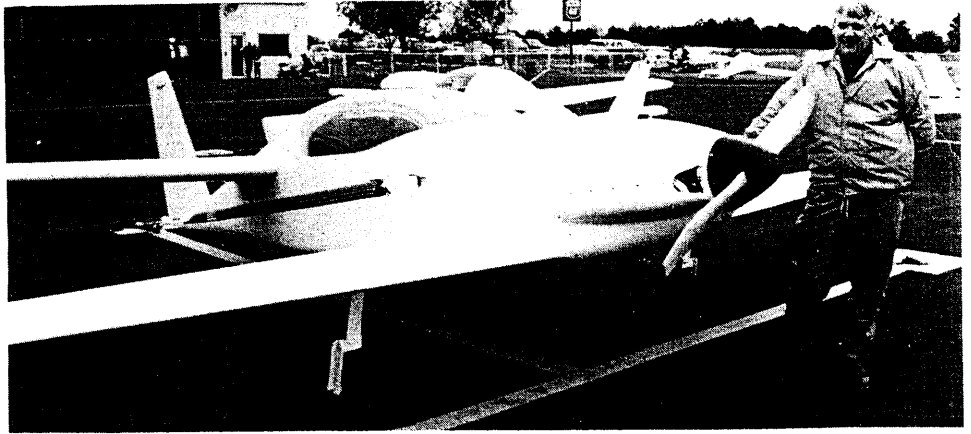
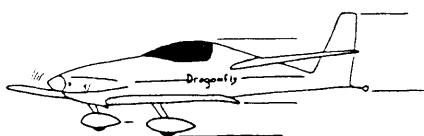
Charlie Harris of Colorado - Q-200

and high speed fly-by's that made us all jealous.

After tucking the birds in for the night we all headed for the banquet. We had 63 attendees for this excellent meal, it turned out better than I expected. After the meal Bud Meyers of Wick's Aircraft had a drawing for several door prizes and 2 gift certificates for products out of their catalog. (Thank's a million to Bud and everyone at Wicks Aircraft, we really do appreciate your interest in our planes). Next on the agenda was our awards presentation. Awards were presented as follows: Best overall Q-bird went to Paul Fisher of Taylor Ridge, Ill. for his Q-200. Chuck Ufkes of Ocala, FL. was awarded Best Interior, Rob Kermanj of Boca Raton, FL. was awarded in two categories, Longest Distance and High Timer. Wayne Ulvestad of Volga, SD. took Best Overall Dragonfly. We then spent the balance of the evening discussing what the group had accomplished over the last year and plans for the up coming year.

Sunday morning came way to fast. There was a few more rides given (I estimate that we gave over 45 rides the weekend) but the weather was getting worse and everyone wanted to get out while the getting was good. We brought things to a close.

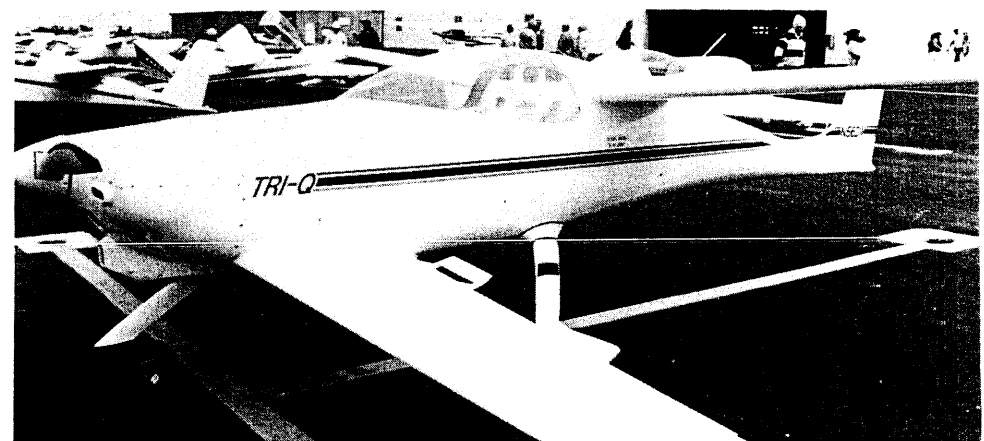
One of the things that I was most pleased with is that for the first time, Dragonfly's, Quickies, Q-2's and Q-200's came together as a group and truly enjoyed each other company. Now I know we have been parking together for years at all the Major events, but this time it seemed different. We had Dragonflyers taking rides Q-200's and the Q-Guys were taking rides in Dragonfly's. We showed and explained the assets & liabilities of each others birds. Jim Masal the Q-Talk editor, publisher & Head Chief of the Q-group was also at the Swarming, We both feel that a combined fly-in next year is in order. Maybe we could call it the "Annual Equal Span Canard Fly-in". I would like everyone's opinion on this very important topic. So what do ya think? MY vote is YES! - Spud



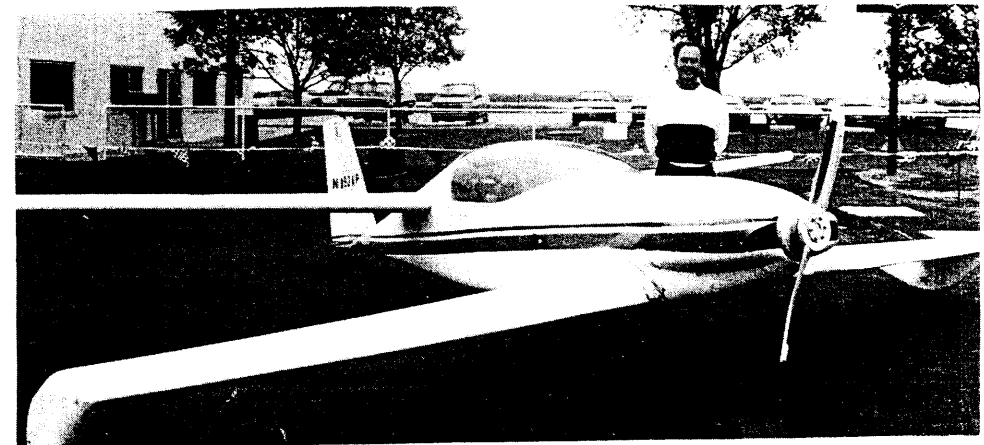
Steve Laribee of Charleston, IL - Mark II



Chuck Ufkes of Ocala, FL - Mark II



Doyle of Springfield, IL - Tri-Q



Allen Perkins of Williamston, MI - Mark I

LETTERS

From Doug Harris of Kemah, Texas - Hello Spud, Thank's for send those back issues of DBFN that I requested earlier. Quite a bit of useful info on those pages. I talked to you the weekend before Kerrville Fly-in and asked about the possibility of seeing a Dragonfly there. Well I am sorry to say the score was Q-2's = 6, Dragonfly's = 0!! What happened!?!?! I was always told the Dragonfly was good at being an efficient cross country airplane. But with numerous Q-2's, EZE's, and RV's at the fly in I was disappointed to see a complete absence of Dragonflies. What gives? I am still at the decision making stage prior to beginning any construction. With such poor showing (and the grand total of 2 Dragonflies at Sun N Fun last year) I am starting to wonder if this is such a good design after all. If all the other Dragonfly owners have found out that their aircraft are poor cross country performers then I don't want to find this out after investing considerable time and money in constructing one myself. I hate to sound so negative but all the air shows that I have attended have never had a good showing of Dragonflies. What say you Dragonflies? Doug Harris P.O. Box 1492 Kemah, Texas 77565 (713) 334-3867

Well Guys ! What do you say, he's Absolutely Correct!

Since I've been around the Dragonfly, I have talked to bunch of Dragonflies in regards to cross-country flight, there biggest "Phobia" is in the engine department. They just aren't that comfortable with "getting to far from home" with a VW powered engine. But over the last year, we have see the VW engine vendors build more reliability into their engines (true dual ignition - 1 electronic, 1 magneto, ETC.), We are seeing a very large percentage of builders transportation to the use of water cooled engine, which are heavier but are a much more stable platform. We saw this happen with our brothers and their Q-2's. They took their VW powered engines off and installed Continental O-200's (Next time you look at those Q-2's at a fly in, check a little closer, the majority will be Q-200's) But let's not overly discount the VW engine. I have seen quite a few Limbachs and Great Plains engines that haven't needed any service.

But Doug, we need to keep this engine problem just our little secret. You see Rob Kermanj (Mark I, over 700+ hours) must not know about these engine problems, he keeps flying his Dragonfly back & forth from Boca Raton, Flo. to Los Angles, Cal. Troy Burris & Stan Meleski flew their planes from Chino, Cal. to Oshkosh this summer. And Troy and Stan are planning to fly there DF's from Chino to Lakeland for Sun N' Fun this coming April, about 2600 miles. Chuck Ufkes of Ocala, Flo. has flown his Mark II to Oshkosh twice and to the Swarming this year in Kansas.

Doug, we won't try to kid you. This little airplane has had it's problems. It has gone thru quite a metamorphosis, but piece by piece the airplane has been improved by Rex Taylor and by the Dragonfly group. This plane will never be "Perfect", but we have come a long way! The next upcoming couple of years look very exciting for the Dragonfly. But I guess my good friend Bill Brutsman of Lenexa, Ks. pretty well sums it up. "Spudley, It's just the Best Bang for the Buck". The choice is yours! - Spud.

Gene Evans - Visalia, Ca. Hello Everyone, I'm sorry that I haven't written sooner but I have been working on a couple of neat projects that will work just super with VW A/C engines.

The drop in hydraulic lifters that I developed has had some test time on them and are working VERY WELL. To go along with the lifters, I also developed five camshafts that are designed specifically for the Hyd VW applications. We have been able, because the Hyd. lifters controls the valve train better. We have seen up to a nine horsepower improvements over a sold camshaft. The camshaft that works best in the aircraft (3000 to 3500 RPM range) is Part # 1466. You can get these from C B Performance - Farmersville, Ca. 1-800-274-8337

I'm also presently working on a fuel injection system with variable timing and a knock sensor. Hope to be able to set it up on our DF in the near future. I 'll keep everyone informed on this in a future issue.

In DBFN # 36, someone was having difficulty with their pushrods rubbing on the pushrod tubes. C B performance also has a special push rod tube with, more clearance on the head side to eliminate rubbing.

I'm working on a new engine for our Dragonfly. I had Scat make a special crankshaft with 5/32" radiused fillets on the throws. This is the same radius that Continental uses on their Cranks and should make the VW crank bullet proof. Will send some assembly pictures very shortly.

Gene Evans - Visalia, Ca.

EDITORS CORNER

I want to wish everyone a Very Merry Christmas and Happy New Year.

Although I am not happy with the turn-out of the Swarming (I know weather was a factor) I guess it was a start. I would like to see a lot more effort on everyones part to make these national events, Oshkosh, Sun N'Fun and the Swarmings. You already have the dates for Sun N'Fun & Osh. And I'll try to have the dates set for the Swarm by the next issue. Let's get to these events, especially the Swarm & Osh.

We need to make some changes with the newsletter. We have brought the Dragonfly group closer together, we have put out a good newsletter with a damn good exchange of information, we have forums at Oshkosh & Sun N' Fun, and we have our annual fly in back on track. There's only one slight little problem - Spud got very little done on his plane, this is not good!

Now don't get me wrong, I have no intentions of stopping the newsletter. But I do need to streamline things a little.

I called 7 or 8 people to get their feelings on what they would prefer. The question was; Leave the newsletters coming every two months (6 times a year) with 10 to 12 pages per issue OR Send DBFN quarterly (4 times a year) with 18 to 20 pages per issue. Unanimously everyone preferred 6 times a year at 12 pages. The majority felt it would keep them promptly informed and motivated by getting DBFN every two months. I'm interested in everyone else's input on this matter, please feel free to call or write me. I looked at this issue before going to print, we still have a lot of stuff packed in here for 12 pages! - Spud



BUILDERS TIPS

This new section was suggested by Steve Kemmerly of Penngrove, Ca.. We are going to stick with the name "Builders tips". The idea of this section is for everyone to share their building ideas, techniques even if they are only a one liner, big or small this is the section for that. So lets get those ideas in the mail!

Hi Spud, Since I suggested the "Builders Tips" section for DBFN, guess I better get a few of my bits of wisdom in the mail before press time.

1) Those of you working with Safety-poxy would be doing yourselves a great favor by building a small "oven" for your epoxy and/or epoxy pump. It needn't be anything more elaborate than a plywood box (I used 2" thick foam insulation) large enough to hold the epoxy and trap the heat of a 40 watt light bulb. Be careful if you use a hotter bulb or get the bulb close to the thin plastic "Tupperware" hopper on your epoxy pump. This oven keeps your epoxy at about 90 degrees without having to heat your whole workshop and improves the workability immensely.

2)When hot-wiring your wing and canard cores, cut the center section of both before you cut the outboard sections. Even after "tuning" the hot-wire saw on scraps I still managed to wreck my first wing outboard section. Had I cut the inboard section first(remember they go inside the fuselage so there aren't any airfoil/airflow considerations) it would have not been rejected by my

inspector (me). Also, cut your fin and rudder at the same time as your wing and canard. I threw away my styrene "scraps" not realizing the fin and rudder are cut from them (\$25 oops!)

Maybe these tips will save some builders a little time and/or money. I hope you other builders have some good hints and start contributing them to this new column. I'll be sending some more tips for the next newsletter. - Steve Kemmerly

Early checking of fuel tank - Everyone builds their fuel tank very early in the building stages of their DF and then they "hold their breath" & hope that it doesn't leak. What I did was, after completely installing my tank (about 2 weeks), I filled the tank with AV gas and let it sit for about 3 weeks. The game plan was that if there was a leak, I could simply dig thru the uncovered Clark foam at the leak, make the repair and then replace Clark foam. This would eliminate digging thru the outside layer. Also, I'm going to cycle AVgas thru the tank with a electric fuel pump with a good fuel filter for about 4 or 5 hours, occasionally shaking the fuselage around to slosh the fuel in the tank. There is no way that anyone can get all the sanding dust out of every little crevice. Then change the filters again after taxi testing and before actual flight. - Spud Spornitz

OK guys what have you got for good tip's. Let's get them

MULTICOM

From Joseph Anthony - St Louis, Mo. How about asking the readers if they would like to give out their addresses to other builders, and if ever in the neighborhood (especially in a flying Dragonfly) they could call and maybe show off their ships. I'm also putting the final touch on my dual alternator VW engine. I also built my own dual electronic ignition and wanted the safety of a back up electrical system, if you think this would be of interest to the other builders, I will write it up and submit it. Joseph Anthony, 3546 Bamberger, St. louis, Mo 63116 (314) 776-3901. *You bet we would like to know all about your projects, start writing - Spud*

Spike Gunderson - Kelseyville, Ca. There is one thing about the Dragonfly I don't like. That is the tail wheel. It makes the worst noise during taxing. Sounds like a farm machine instead of a airplane. Is there anyone out there that feels as I do, and has solved this tremendous noise during taxing? I think it would be a good idea to share their thoughts with the subscribers. Also has anyone used the Long-EZ style gear legs on the Dragonfly. - *Yes, Gene Divincenzo of North Lima, Ohio has and will be sending in a article for the next issue of DBFN.*

THE CLASSIFIEDS

For Sale: Firewall forward for Dragonfly, 2167cc VW engine, prop, through and including motor mount, No carb. \$4400.00 invested in 1986 dollars, have receipts. \$3000.00 for everything, firm, not neg. Call Chuck Kaplan - Walpole, Mass. (508) 668-4784

For Sale: Dragonfly project - inside fuselage walls, floor glassed & assembled, fuel tank (20+gallon), firewall, tail spring & bulkheads installed. Vert. stab & inside of turtle decks glassed. Foam for wing & canard, foam for wing cut assbl'd & ready for spar. Meleski wheel pants. Get a head start. First \$1350.00 firm. (913)764-5118 ask for Spud

For Sale: Canard-MKII canard w/ gear legs installed. Fairing & elev. cut but not finished, Save months \$1800. Fuselage-bulkheads, panel & hdr tank inst'd, tapered consoles with stick mixers. Most other metal parts incld. Next step is to glass-\$1800. Wing-glassed both sides, fair craftsmanship-\$500. Everything above for \$3500. Ask for Stan, Days(213)941-9763. Eve(213)402-5023

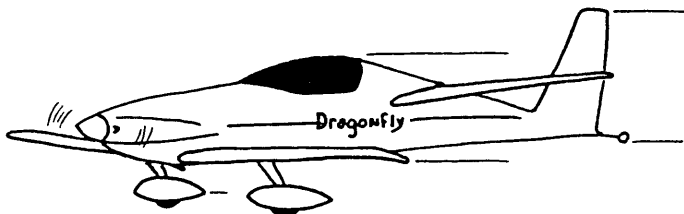
For Sale: Dragonfly MarkII, 125 hrs TT, Hapi 60-2dm/kv. Warnke Prop, Engine & VFR flight instruments, 720 Nav/com, intercom, Oshkosh 1988, Sun & Fun 1989. \$10,500.00 Walter Tripplett - Cordova, SC. (803) 534-3242

For Sale: Dragonfly MarkII, Hapi 62DM engine, Task Kit. Completed and test flown over runway. Landing gear accident, needs some work. 20TT on engine, dual brakes, dual controls, Hapi instrument package, Communication Specailist hand held radio, \$6500.00 John Mortarelli, P.O. Box 497, Dunhamtown Road, Brimfield, MASS. 01010 (413)245-6234

Wanted: Looking for Dragonfly kit that they are parting out or have started in Canada (Must be from Canada). Reg Clarke, 4813 57th ave Wetaskiwin, Alta, T9Q 1B6 Canada

For Sale: Dragonfly project, Task fuselage finished with controls and hardware installed. Canard with Mark I gear w/ hyd brakes. Canopy, engine mount, spinner, Hapi instruments & more. \$1450.00. Rand Mears, RT.1, Box 174-A, Harrisburg, Ark. (501) 578-9142 evenings

For Sale: Dragonfly Mark II, 79% completed, Most major components, complete except finish. 1835cc engine made with Hapi parts, engine/flight instruments, Rosenhan brakes/wheels, 2 sets of original plans, foam hardware for 2nd plane, canopy \$10,000.00/OBO Phx,AZ (602) 892 1427



Subscribers Information Center

Dragonfly Builders & Flyers Newsletter (DBFN) is currently published Bimonthly at a rate of \$3.00 per issue/\$18.00 a year U.S. & Canada, \$29.00 (U.S. funds) per 6 issues to foreign subscribers. Send remittance to: Dragonfly Builders & Flyers Newsletter, 1112 Layton Drive, Olathe, Kansas 66061

Ideas and opinions expressed in DBFN are solely those of the individual submitter, application of these ideas and/or suggestions contained in DFBN are the sole responsibility of the experimental aircraft builder at their own risk, which could result in builder/pilot personal injury or death. DBFN does not imply or suggest in any way their usage.

Letters, Pictures and computer supplied data submitted to DFBN are subject to final screening by DBFN/William "Spud" Spornitz and may be restricted, deleted or revised. Material returned by request only.

Classified advertising (non-commercial) for current subscribers may place an ad of 50 words or less for \$5.00 per issue, with one photo a additional \$8.00. For commercial ads please contact DBFN for pricing. Back issues of "DragonFlyer", "Dragonfiles" & "DBFN" are available at \$3.00 each. If purchasing less than 5 backissues add .25 cents each.

Information may be submitted to DBFN in several modes, written or typed letters by mail, Fax machine - current number is (913) 371-0824, on computer disk 5.25" 360k or 3.5" 720k in a "ASCII" format and may be directly imported from these other word processing programs, WordPerfect 4, WordStar 5, Microsoft Word 4, Word Writer, 1st Word Plus, WordPerfect 5, Quintet, Beyond Word Writer & Word Writer 3. We can also import graphics from Gem Draw, Lotus 1-2-3, Encapsulated Postscript, Tiff, Gem Paint, PC Paintbrush & Splash.

The use of "VW" by DBFN is for the sole purpose of application and description only and is not intended to infer or imply a direct connection between DBFN and Volkswagen.

Anytime evenings or weekends (913) 764-5118

Mailing address: 1112 Layton Drive - Olathe, Kansas 66061



*Wayne Ulvestad's Best Overall Dargonfly
and some of the gang at Ottawa Sunday morning*

DRAGONFLY
BUILDERS & FLYERS
NEWSLETTER

1112 LAYTON DRIVE

OLATHE, KANSAS 66061

FIRST CLASS MAIL