

DRAGONFLY BUILDERS AND FLYERS NEWSLETTER

THE OFFICAL VOICE OF DRAGONFLYERS ALL OVER THE WORLD

VOLUME 58

MARCH - APRIL 1995



BRAD HALE OF BUENA PARK, CA. MAKES HIS FIRST FLIGHT IN HIS MARK II DRAGONFLY

Hi Spud,

One of my Dragonfly buddies told me that if I keep flying my new Dragonfly so much (135 hrs. in 4 months!), I could wear it out! Well, maybe I'll slow down a little - but that will have to be later. Right now there are places to go and my wife, Beth, and I are having lots of fun in the DF. We are on Holiday in New Zealand, today flying from the north to the south island,

and we were discussing the two days of flying the weekend before we left (Sometimes Beth "Forces" us to fly both weekend days!) Beth said it was the best DF flying yet, with beautiful snow on the mountains, the lakes nearby and nothing but super smooth "cruising air".

A little about our Mark II Dragonfly N931BE. I made the first flight on September 24, 1994 and now have 135

BUILDERS TIPS

hours (I figure that's not bad for four months!). The first flight went very well. The controls felt good, and the engine ran smooth and cool. Some of the spectators were asking how much fuel I had taken, wondering if I would be landing shortly. I landed after 45 minutes. I felt it was much easier on the actual landing, than handling the high speed taxi runs I had practiced. **Think twice before giving the first flight to one of your pilot friends - it's a great feeling to do it yourself!**

The original weight for N931BE was 679 lbs. (including wheel pants and spinner). I have since replaced the Hapi brakes with Matco's and it's well worth the change. The engine, A Revmaster (with dual mags) has several mods including hydraulic lifters, special cam, larger valves. Gene Evans of Visalia, CA was a great help in rebuilding the engine and we even ran it on the test stand. I'm using the Ellison carb, a Type IV external oil cooler and custom tuned exhaust. The engine and systems have performed flawlessly as of this writing.

The panel includes an I-COM in-panel radio (This is a great unit & takes little space), intercom, transponder, and the basic instruments (VSI, ASI, T&B, ALT, engine gauges, & fuel gauges). Also included is arrow strakes & Nav lights in the wing tips, and cabin heat and ELT. The elevator trim operates via a Mac servo system. The up/down trim switch located adjacent the throttle has been just perfect.

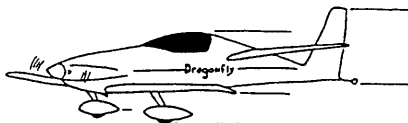
For performance I'm seeing 150 mph IAS at 3400 rpm using a 52/51 Tennessee Prop at 2000 ASL with 2 people on board. As soon as I can stop flying some, I will put some wheel pants on and maybe a new prop and we should be able to 160 mph.

The help from my pilot friends was invaluable! Many of you have heard of the great Chino, California DF group - Troy Burris, Stan Meleski, Jim Mills, Jerry Scott, Bob O'connell, and they have all been just great. And my neighbor and hangar partner Bob Lister helped on the painting and mechanical, too.

For those building - don't delay the finishing of your project - because if you want to fly, you won't be disappointed!! I'm going to try not to "wear out" my DF to soon.

We also had the opportunity to meet with Phil Mattar in Christchurch, New Zealand while we were in New Zealand. He sure has done some very nice work on his project so far. We spent a few hours "Hangar Flying" in his garage. Its always special to meet with another builder and make a new friend in another part of the world.

Brad Hale
Buena Park, CA
(714)523-9197



● *Tips from the Master - Rex Taylor* **Fighting the Sag!**

Hello Spudster, I was reading in the last issue of DBFN (you put together a hell of a newsletter Spud) that Richard Werner of St. Louis was Fighting some Mark I canard sag. We ran into a similar problem with the prototype when it was still a Mark I. After many years it started to show quite a bit of sag (bow) in both sides of the canard. What we did to remove this bow was as follows; We painted the canard with a mix of black poster paint (available from art supply stores) with canned milk. We then slowly allowed the skin temperatures to come up to 165 degrees F. The epoxy just starts to soften at this point. We reverse loaded the canard to remove warpage. This is a **very slow process** and can not be rushed. It did work for the prototype, we gained back 4" of prop clearance. Oh, why the black poster paint and canned milk? The black allowed us to use the sun for solar heating and that mixed with canned milk allowed us to just wash everything off when we where finished with the process.

Another way this could of been done is to build a heat tent. Frame up a simple wood frame and cover it with some type of plastic. You have seen people do something similar to make themselves a paint booth. You can heat this up with numerous type heaters, but caution should be used for proper ventilation.

The key to either one of these procedures is that it must be done **very slowly**, nothing can be rushed. Don't get the temperature up to 200 to 250 dgreees thinking you'll get done faster, **wrong!** You need to completely heat soak the canard all the way thru the entire canard. Bring it up to 165 degrees and hold it there. 165 degrees F must be considered the absolute top temperature any more than this could challenge the blue foam. Rex Taylor

● *Building a Cowling! More from Rex!*

Spud I found a little bit easier way to do a "from scratch" cowling. There are some basics that won't change, but I 'll quickly go over. Wrap the engine with plastic. Attach blue foam to the engine so it can't move. Shape the blue foam to your desired shape (approx.) Now here is where you start gaining. You need to seal the foam and you need a hard surface that can still be sculpture. I mix up 7 parts of microballons to 1 part of Gypsum (hardware stores) and

BUILDERS TIPS CONTINUED PAGE 6

HOOP STYLE GEAR

● A closer look

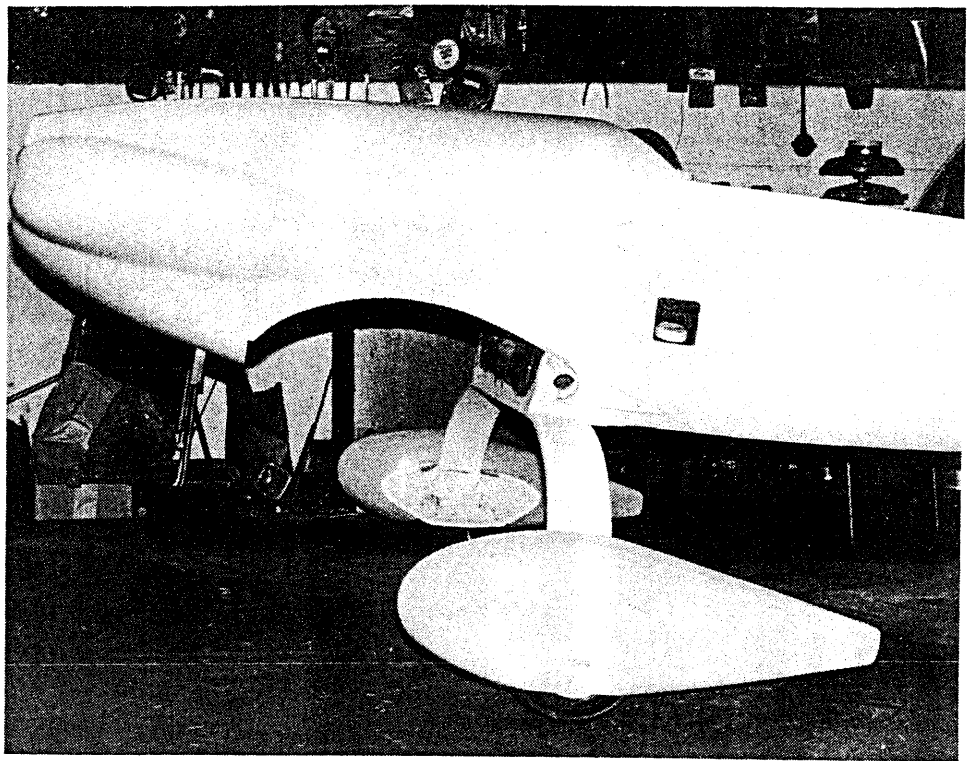
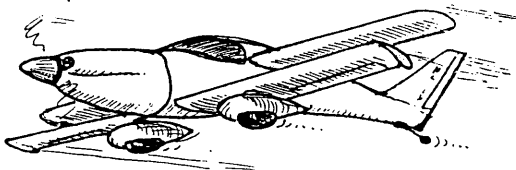
Bob and Ken Stieg of Rockford, Ill sent in this progress photo (These guys have been moving right along on this project!) to bring us up-to-date. The quality of craftsmanship is excellent.

The longer I looked at this photo the more pleasant it became to the eye, it just looks good. I wanted to put this in the newsletter because the photo displays an excellent example of how and where this type style gear is positioned and mounted.

The gear was manufactured and installed exactly according to Gene Divincenzo's of North Lima, Ohio drawings that was in DBFN #43. They have a gear leg mold if anyone is interested.

In Bob's letter it didn't say where or what the wheel pants were for or from. Again the more I looked at the photo the better I liked it, I had to know the scoop. I called Bob Stieg for the info, He wasn't sure what they were designed (I'm betting they're for a T-18!) to fit, but they had purchased them from Ed Sterba, I went.....uh?!?!? I thought he did props? I got on the phone and called Steve-a-reno at Great Plains Aircraft, he usually knows the scoop on Ed Sterba stuff. Well, the way it turns out these are Soneri wheel pants and are sold by Great Plains Aircraft. They sell for \$119.95 a pair. The dimensions are 38" long - 11 1/2" tall - 7" wide. Great Plains Aircraft's number is (402) 493-6507

Spud



95 CALENDAR

*April 9 - 15 1995 - Sun N"
Fun Fly-in, Lakeland, FL*

*June 9,10,11 1995 - Fifth
National Gathering for Ca-
nard Type Airplanes, Okla-
homa City, OK. (this event
is primarily EZ, Cozy type
AC, we are welcome to
attend)*

*July 27 - August , 1995 -
OSHKOSH! EAA National
Convention and Fly-in,
Oshkosh, Wisconsin*

*September 2,3,4 1995 -
Fifth Annual Dragonfly/
Quickie/Q-2/Q-200 Fly-in,
Ottawa, Kansas*

*November 3,4,5 1995 -
Copperstate Regional Fly-
in Phoenix, AZ*

WHO'S ON-LINE

To follow is a list of who I have address's on;

Justin Mace, Tucson, AZ.
"dragonfly764@delphi.com"

Tom Lapointe, Monument, CO.
"TOML170056@aol.com"

Mike Digangi, Carson City, NV
"gangster@hdc.com"

Jon Finley, Helena, MT
"jon@amc.MT.net"

Spud Spornitz, Olathe, Kansas
"DBFNSPUD@aol"

Al Fitzgerald, Red Cloud, NE
alfitz

Ron Triano, So. Lake Tahoe, NV
ronderfly@sierra.net



DRAGONFLY ACCIDENT!

● THE LIFE AND DEATH OF DRAGONFLY N345DH

Hello Spud,

This is a letter I never wanted to write, but I owe it to all the other Dragonflyers out there. This is the story of "The life and death of Dragonfly N345DH". This Dragonfly gave me ten and half years of pure fun, seven years building and three and half years flying. But in a single instant it was trashed and I had two broke legs and a lot of bruised feelings.

To start at the beginning, Sunday, September 18th, 1994 at 11:00 hours I took off from Tyler County Texas Airport. This was to test some airflow changes inside the engine compartment to determine the effect on CHT and oil temperature. I also had made a new fuel gauge for the feeder (header) tank. This gauge was similar to one defined in a previous newsletter with a visible float. Several obvious mistakes were made. I took off from an un-attended airport. This was to be a very short, local flight test. My ELT had a brand new battery installed, BUT was at home on the bench, that was my first mistake. During the flight I turned off the fuel pump to the feeder tank so I could observe the visibility of the float in the bright sun light. After running my temperature checks, I headed back to the airport, four miles away, I descended on a long, low approach, that was my second mistake. 2000 feet over the southeast Texas "Big Thicket Country" is not enough altitude. The engine quit, then I made my third and biggest mistake! I let my previous problems cloud my brain, I did not pull my head out in the sunshine soon enough and recognize the float was stuck at the top of the gauge, giving me the indication of a full (header) tank, which in reality it was **bone dry!**

Altitude had slipped away. I finally hit the fuel switch, but it was too late, the tree tops were coming up fast, restarts failed. I then knew that I had to do the impossible, hang this Dragonfly in these eighty foot trees without killing

myself. Then shut down all systems to minimize fire danger. I picked out the thickest and most level part of the tree tops. Just prior to impact, I pulled the nose up to stall attitude, hoping it would slow me down and be able to slide across the tree tops and dissipate more speed. I hit the tree tops at an estimated fifty miles per hour, felt a wap, Then I felt the big WAP! I saw the canopy go off and the canard go vertical. Never have I felt such a jolt.

When the whole mess stopped shaking. I knew my legs were broken but we, My trusty Dragonfly and I, had accomplished the near impossible. **We were sixty foot up in a oak tree**, hanging over a limb no more than four inches in diameter. The engine compartment was on the far side and I was still in the pilots seat on the near side. Across the limb were two battery cables (rear mounted battery) and two rudder cables. Everything seemed to be secure but the size of these tree limb gave me a few gas pains.



I checked my arms, neck, back, knees (which were artificial already) and everything looked OK. All I could say at that moment was "Well, I'll be dammed, We did it"

The greatest concern was my legs, it was obvious that the tibias were broken about mid-point between the knees and ankles. The feet were both laying at ninety degrees to the rest of my legs. It was a bit disconcerting, to say the least, and I knew I

had to jack-leg some splints to prevent further damage. I'm no Mc Guyver, but I did some rapid thinking. The carpet on the shelf behind the seat was pulled out, folded, and wrapped around my left foot and leg. No tying strings were available so I decided to sacrifice my shirt. I ripped it into strips, tied the carpet in place and set the foot in the elevator controls channel. The right leg splint was made from an aluminum scuff plate that I has siliconed to the topside of the canard. I was able to pull it loose, formed it into a trough and work it down to include my foot. With what was left of my shirt, one shoestring, (the other shoe was missing) and a piece of wire, I tied the channel. I then decided to relax and go into shock as any other human would do. I was getting light headed and sweating up a storm so I fixed the cushions in place so I could lie back, pass out and not do any more damage. A cool breeze a

few minutes later snapped me out of the semi-shock. I then tried to communicate with my sister, who lives with me, via TELEPATHY! that didn't work. I tried yelling for help, that didn't work either. I resigned myself to an afternoon communing with nature in the tree tops. All was going fine until a flock of huge Texas size buzzards started circling. I vocalized a bit, telling them to get the hell out of here! I'm not ready for you yet. They left.

After many hours (so it seemed) about dusk, I heard a chopper in the distance in the direction of the airport. I presumed the search had started. A turboprop plane passed directly overhead, turning toward the airport but it was too dark for them to see me. Eventually, all was quiet on the tree-top front, except for the normal night sounds. It was a clear night, full moon, and I watched it go from horizon to horizon, I wasn't a bit sleepy.

Dawn came, I was a bit cold up there but I used the cushion covers and foam inserts, plus a curved piece of fuselage to cover up, not too bad.

At about 8:00 am, I heard the chopper again up toward the airport. Back and forth, back and forth, but not far enough south. Finally it started the cross grid search, it passed close but not close enough. On the reverse track it came through an opening that would make my right wing visible. I was waving the white painted piece of fuselage to provide some motion. The chopper passed alongside, and after I uttered a few expletives, it stopped, turned toward me and moved in close. That had to be one of the finest moments of my young life (this is true, I'm only 75). I could see the face of our big old sheriff in the window and he looked like an angel. He notified the ground rescue team and hovered overhead to give them guidance to my location. They had to trek about three quarters of a mile through the thicket. The sheriff's rescue operation was tremendous. It consisted of two deputy sheriff's, two EMS people, one state trooper, five firemen (with a ladder, rope & pulleys), the local game warden, the hospital med-link chopper (from Beaumont, fifty miles away) and the customs department from Houston who performed the night time search using heat seeking equipment. The civil air patrol out of Houston was also alerted but not required.



The chief deputy climbed the tree at 0900 hours, Monday morning, he bought up water, rope and a snatch block, a second deputy helped get me into the survival jacket (a modified straight jacket, I think!), tied my splints tighter and hoisted me up and out of the cockpit, lowered me through the branches to the terre firma. I was placed into the basket and carried for about one fourth of a mile to the game wardens 4X4, then through more trees, a small stream and up a hill to the waiting med-link chopper. I was immediately flown to Beaumont St Elizabeth hospital where the emergency room was ready for me.

Surgery was performed the next day, rods were pushed down each tibia, from the knee to the ankle, and put in casts for the next six weeks. I was in re-hab for three and half weeks, learning to walk in a walker. I could only bear weight on the right leg. After the casts were removed, strap-on leg stabilizers were required for another six weeks

with weight very slowly and progressively applied to the left foot and leg. Four months were required to start walking without the braces. It is now five months since the accident, my legs are solid, but are still weak. A full recovery is expected. I'll see everyone at the big Labor Day Dragonfly fly-in.

What can I say to try and make something good come from my Dragonfly's death that would help everyone else?

1. I think a standard type gauge should be installed in the feeder (header) tank, such as the Cessna wing tank float/dial gauge, They never fail!
2. Never turn off the fuel pump when making other tests.
3. Rig up a direct fuel line from the main tank to the gascolator, with another fuel pump (elec. or mech.) or a squeeze bulb, that alone would of saved me. DBFN has given of plenty of ideas in this area, I recommend you do something.
4. Don't remove, or deactivate your ELT. I now am a believer!

I'm still going to fly a homebuilt again (Hooray for JIM!) but I don't have extra years to build another time consuming

plane. So I'm going to compromise and build a Kolb Fire Star. It won't require years to build and it will make my two boys happier, although I still loved my little Dragonfly.

Well Troops, that's the story, sad but true, and I'm about as happy as a person can be because I'm still alive and plan and will fly again.

Jim Harris
Woodville, Texas



Before going to press I received another short note from Jim: (remember now, Jim is 75 years young! - Spud)

Hello again Spud,

I'm really starting to feel good again. Today, a big Day! I received kit #1 of my Kolb Firestar so I can begin to start building again. The adrenalin is flowing again! So again I'm excited. I get excited over things, airplanes, all women and flying, strange isn't?

Thanks Jim

Ok guys! What have you got accomplished on your DF's in the last month or so.....! Mr. Jim Harris you are an inspiration! -- Spud

water. This should end up giving you a texture about like whipped butter. When this dries on the blue foam you'll have a hard surface that is incredibly easy to sand. You continue the process of sanding - adding - sanding - adding - sanding until you are satisfied with what you want. I then seal this surface with a lacquer sanding sealer (hardware store), apply a good coat of carnuba tree paste wax, apply a PVC (mold release). We shoot for a cowling thickness of 3/32's usually using 4 & 6 oz bi-directional clothes to keep the weaves to a minimum.

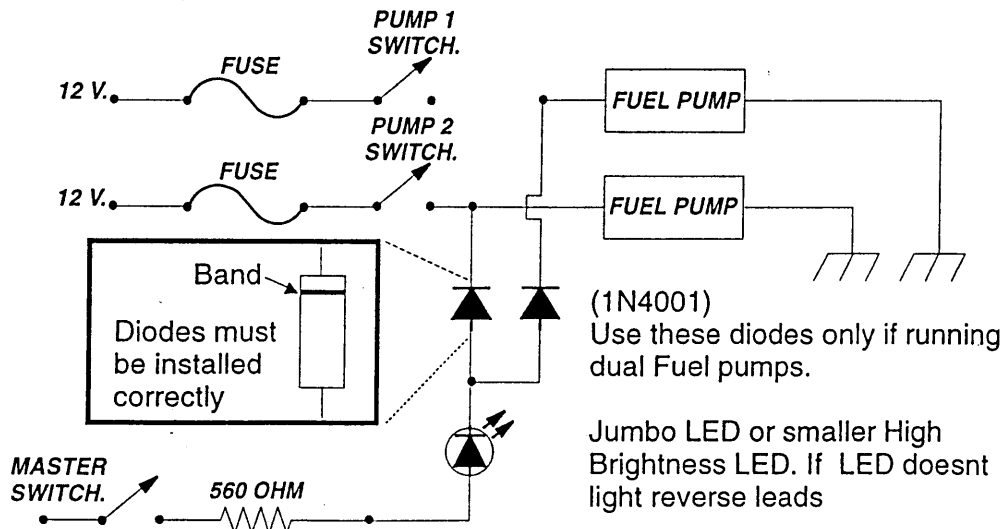
I hope these couple of things help the troops. - Rex Taylor

BUILDER QUOTES

"The Dragonfly, It just happens to be the best damn bang for the Buck!"

FUEL TRANSFER PUMP WARNING LIGHT!

Here's a little circuit that I've had in my plane since shortly after I got it. It gives me a visual reminder if I forget to turn on the fuel transfer pump. It will also light if the fuse blows, the parts are available at Radio Shack.



- (1) LED - Jumbo #276-086 \$5.19
- or
- (1) LED - High Brightness #276-087 \$1.79
- (1) 560 Ohm 1/2 watt resistor #271-020 \$0.39
- (2) 1N4001 Diodes #276-1101 \$0.49

Submitted By:
Mark Snow
Carlsbad, NM

EA-82 SUBARU

Your Spudlyness:

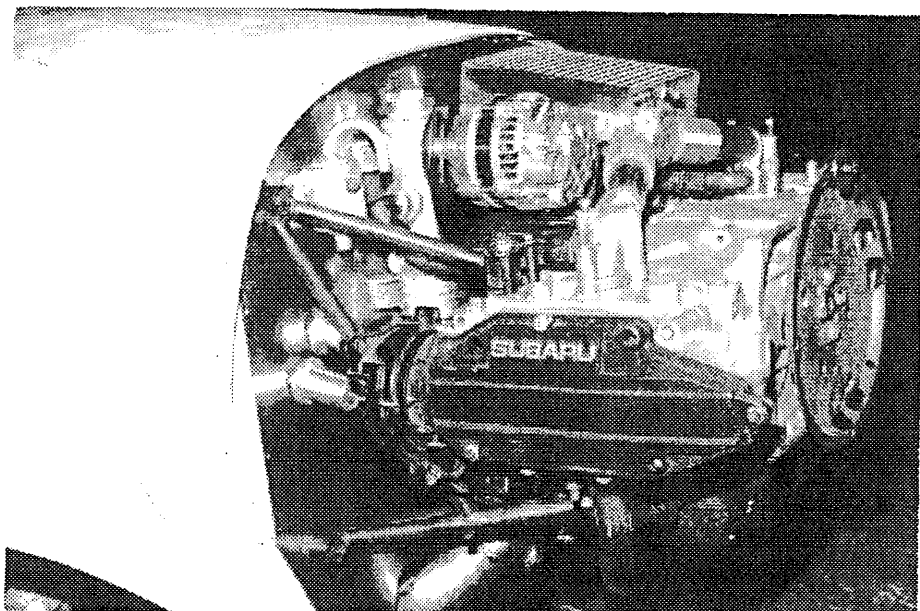
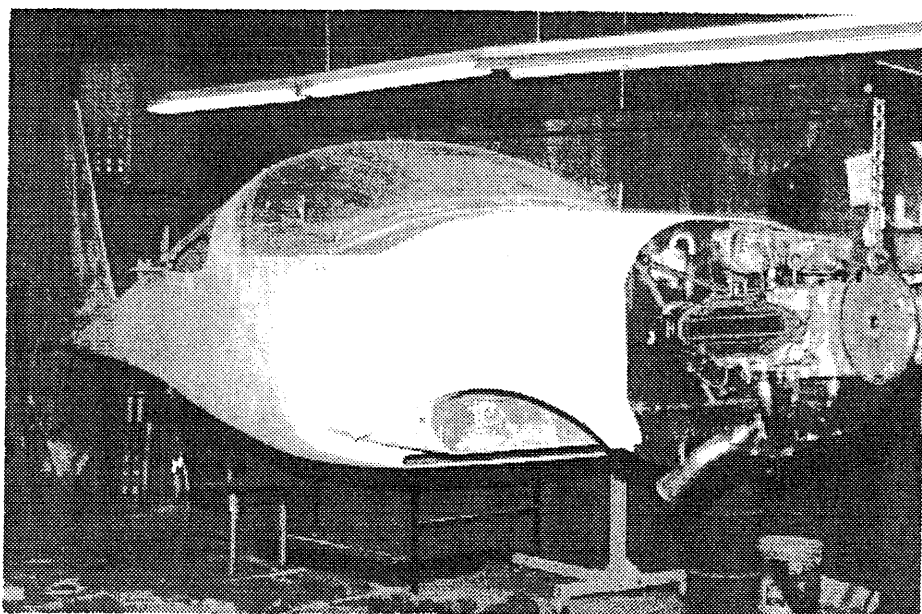
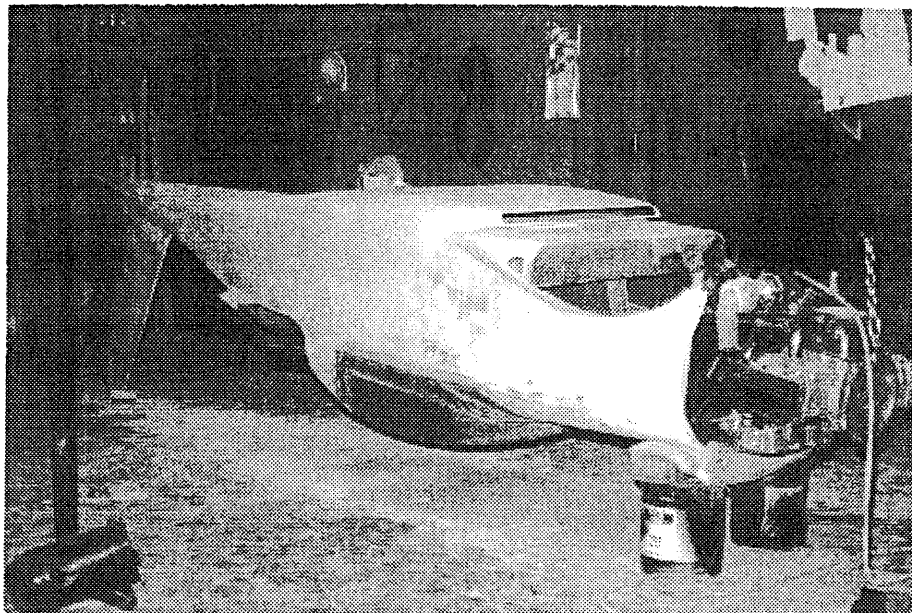
Well.... I've been working & workin and WORK'N, trying to get my Dragonfly in the air before OSHKOSH! As you know, I am installing an EA-82 (EA-82 is the dual overhead version) Suby in my Dragonfly with a few optional goodies, like turbo, intercooler, sequential port fuel injection, crank trigger ignition all controlled by via dual E.C.U's.

This engine did not have any of these options prior to the start of the project. I've spent a great deal of time doing the R & D on every part of the blinking thing, from the motor mount through the cooling system.

There has been quite a bit of discussion around all the sport aviation camps about what these engines weigh, and what is going to work and so on. I did the research on this question for my own edification and thought the builders would like to review this data for potential use in their project;

Actual weights were as follows:

EA-82 engine stripped	128 lbs.
Suby Turbo	10
Airyder header tank	2
Airyder exhaust	4.5
Starter	5
Geo Tracker alt.	8
Airyder alt brkt.	1.5
Motor mount	6.5
Airyder intercooler	6
Airyder intake	1.5
Ignition: coils & wire harness	6
MSD fuel injection including Plumbing, Injectors Airyder throttle body, Airyder air cleaner assembly.	6
Airyder turbo scavenge pump	1.5
Airyder radiator	10
Ross reduction dr.	20
<u>Total dry wt.</u>	<u>215.5</u>
Oil	7
Coolant	12
<u>Total wet weight</u>	<u>235.5</u>



I should get about 135 horsepower out of this engine combination. I also realize I may not get as high as T.B.O. at this kind of power development level. It will be worth the higher maintenance care & cost to put all those RV-4 & 6's, Long-EZ's in my rear view mirror!! At least that's what my recurring dream is all about.

As far as my airframe is concerned, I have mass balanced the elevator and aileron systems, installed the reflexer system, 60 degree low-drag canard/wing tips, fuselage to canard root fairings, Airyder formula one wheel pants and cowling.

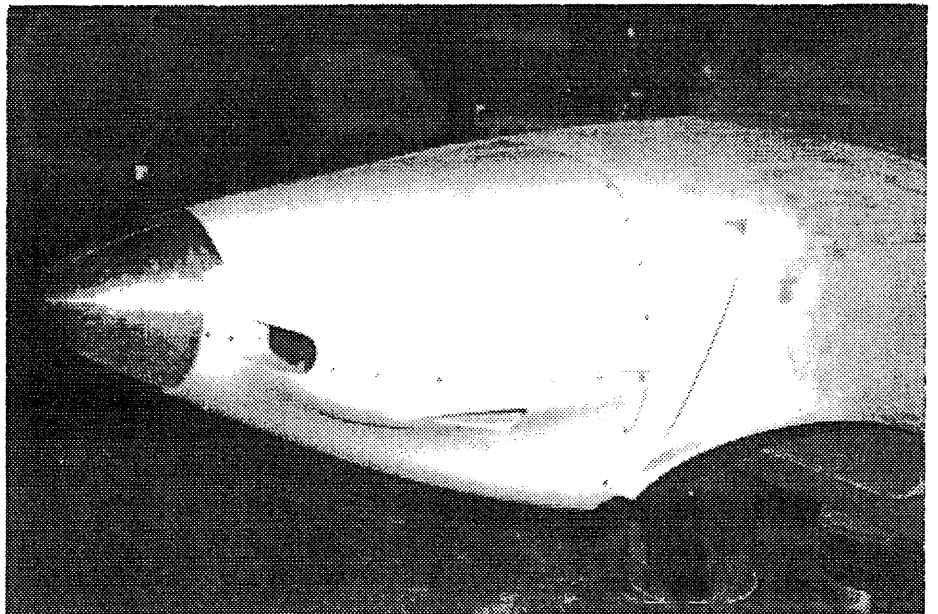
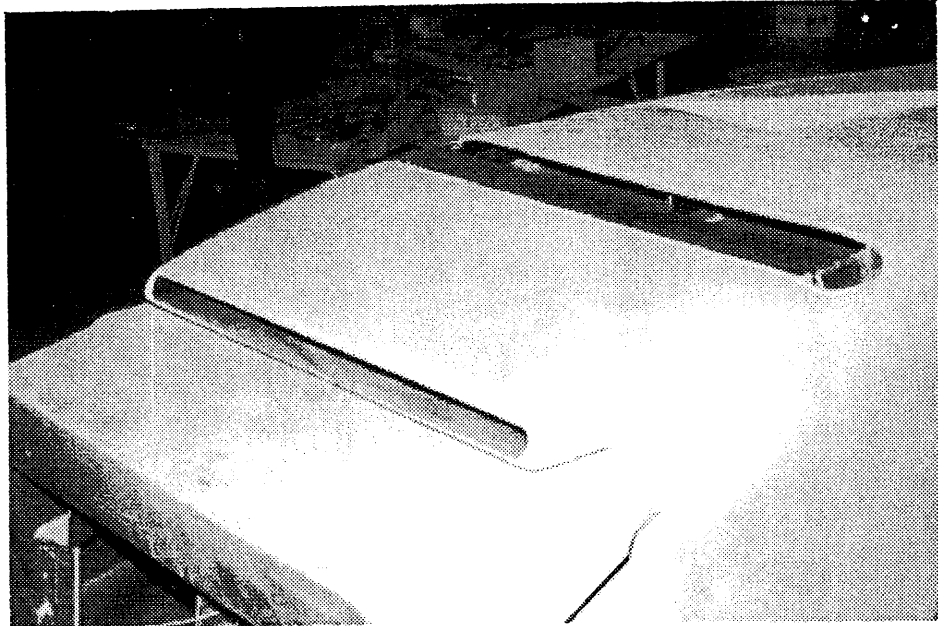
For those that were not aware, Reg (Bud's brother) and myself do have a company called Airyder Inc. We produce and sell information video's, manufacture parts for water cooled auto engine conversions such as custom radiator/cooling systems, fuel injection systems, mounts, brackets and more..... We are in the process of preparing a mail order catalog. When this catalog is done we'll let everyone know right here in DBFN and other Sport aviation periodicals.

We have made molds for our cooling scoop system. We can supply this radiator assembly which is a long and narrow high quality 3 row aluminum. We do the final radiator and intercooler assembly right here in Helena, MT.

I hope this information and photo's clear up some of the questions everyone has had in regards to this engine and it's installation into a Dragonfly

Talk to all of you soon, Over and Out.

Bud Clarke
460 Parriman
Helena, MT 59601
(406) 449-7721



DRAGONFLY GOODIES - T-SHIRTS AND GOLDEN WINGS

Ok gang, here comes summer and it's T-shirt time. The company that does the shirts says that there has been a small increase that he'll have to pass on, a \$1.00 each.

It's also very important that everyone understand that we need to **"Pre-sell" these.** That is we need to know sizes, quantity and the payment needs to be made at time of order. **We will not be running any extra's!** So please don't count on us having any at Oshkosh or at the Ottawa Fly-in. Also everyone needs to get there orders in as soon as possible and don't drag their feet. We had quite a few people that missed out last time because they took their sweet old time. Last time we ran shirts it took 5 to 6 weeks from the time that the newsletter came out and they were delivered.

Here's a picture of what they look like. I surveyed several people and they prefer this design vs coming up with a new design, they said people were very complimentary about the design and the colors. Also last time we offered colors, we are going to simplify things a little bit by staying with white only!. The shirts will be "Fruit of the Loom" 100% preshrunk cotton or equivalent.

Pricing will be as follows; **T-shirts - \$11.00**

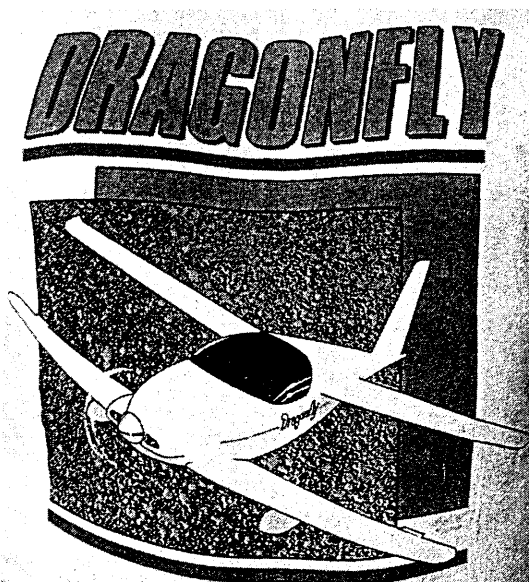
Make checks payable; **Bill Spornitz, Mail to: 1112 Layton Drive, Olathe, Kansas 66061**

Shipping charges will be \$4.00 for the first shirt and \$1.50 for every other shirt after the first one

Canadian charges will be \$5.00 for the first shirt and \$2.00 for every other shirt after the first one.

Overseas is expensive! They will be about \$9.00 or more. If more I'll write you back

Please write out your order on a pieces of paper, quantity, sizes and shipping charges. Yes you may order Dragonfly wings with your T-shirt order. - Spud



Now you can show "your colors" all the time, no matter what your wearing, or what the season. We have had 100 of these wings "custom" made with the Dragonfly - Q-200 as the center emblem. Jim Masal took 50 for the Quickie group and I took 50 for the us, the Dragonfly group. **I have them now in stock!**

The Dragonfly wings are doubled stick pin clasped, they measure 2 1/2" wide, simulated gold plated, the Dragonfly is white on medium blue background. The thing that is so nice about these wings is their versatility, you can wear them on a baseball cap like what is shown, T-shirt's, dress shirts, jackets or whatever. And when you discard the piece of clothing you'll still have the wings, they'll last forever.

The price is right up there, but running such a small batch of a 100 is the big problem. And I wasn't going to order more than 50! So when these are gone, they are **gone - gone.** We won't be redoing these like we do occasionally with the T-shirts.

Here's how to order. The Dragonfly Wings are \$15.00 each. Shipping for 1 through 3 is \$1.50 and 4 and up is \$2.50.

Make your checks payable: **Bill Spornitz, Mail To: 1112 Layton Drive, Olathe, Kansas 66061**

And yes, you can combine your DF wings orders with T-shirts.

Also would everyone let me know if there is a good interest in Dragonfly baseball caps and/or Dragonfly brass belt buckles. - Spud

MULTICOM

● Auto fuel in Dragonflys

Dear Mr. Spornitz:

In response to your request for information about my luck with auto fuel eating or otherwise destroying my fuel tank. I have had no indications that my fuel tank has had any kind of degradation due to the fuel. Spud, as you know I have been using auto fuel exclusively for about three years. In the metropolitan area of Phoenix and Tucson we are required by the E.P.A. to use oxygenated fuels during October through March time frame. By oxygenated, I mean either alcohol or M.T.B.E. is added to the fuel at rate of ten to fifteen percent.

I too had a concern about the effects of the oxygenated fuels on the resin used in the fuel tank construction. Therefore I set aside a quart of auto fuel containing the oxygenation element of choice at that date. In the quart of fuel I placed a typical piece of lay-up made with Safety Poxy and RA-7725. I have changed the fuel in the jar every year, just to get fresh alcohol or M.T.B.E. in contact with the lay-up. I have seen absolutely no degradation of the lay-up as of this writing. I have kept a similar piece along side of the jar for comparison.

This is not to say that my fuel tank is not being harmed by auto fuel. All I am saying is that I haven't been able to detect any damage. Keep up the good work:

Justin Mace "*The Kitchen Magician*" Tucson, AZ

Dear Spud:

I feel funny writing about my experiences with my Dragonfly since it has been almost two years since I last flew my Dragonfly which I sold to a gentleman in Oklahoma (I am a X Dragonflyer and a new RV-6 owner but, **I will always be a Dragonflyer at heart and pocketbook**).

I have continued my subscription to the Dragonfly newsletter even though I am a RV-6 owner. There isn't one issue that goes by that I don't find something useful and/or applicable to owning and flying my RV. I read in the last issue that you were looking for responses to Dragonfly's that had used auto fuel in their fuel tanks. So here is my response.

I exclusively used auto fuel during the nearly 1000 hours of flying time that I had on my Dragonfly. I used Amoco Ultimate, the gold colored pump, exclusively. I never experienced vapor lock, epoxy breakdown or any other fuel related difficulty. My hangar partner had been using the

same fuel for about five years when I started using it in my Dragonfly. I wonder if the other gentleman's problem mentioned in the earlier newsletter is related with the new fuel blends in the northern part of the U.S.?

Sincerely, Rob Kermanj -- Boca Raton, FL.

● On-line message direct to the DBFN

Subject: Incidence tool

Date: 95-03-21 19:38:29 EST

From: rondefly@sierra.net (Ron Triano)

To: dbfnspud@aol.com

Hi Spud: I came up with a real neat Incidence tool, It has to points that go at front and rear of any water or level line and is attached to an aluminum angle that you may put any kind of level, laser or incidence meter on. I didn't care for the wood block per the plans, this you may put anywhere on the wing and use any time there after to check any wing or canard, I'll send a plans of it soon as I can for the next newsletter, and I think I will send it to Sport aviation also. Thanks -- Ron Triano (916) 541 8180

Everyone should note: The above message was sent to me via "America On Line" network services. I was able to import it directly into the newsletter without re-typing one letter. I like that! Everyone should continue sending in their Network numbers so we can continue to accrual everyone numbers. And now we have another way to transmit your letters and information. - Spud

This brings up a good question. Does anyone know where the original Viking incidence jigs are. I get requests for those things monthly. The Taylor's have lost track of them and are not sure if they ever received them back for sure. If anyone knows, please contact Spud.

THE CLASSIFIEDS

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Wanted: Looking for damaged Dragonfly (ei: broke MK1 canard) or abandoned project that was mostly finished. Prefer without engine, instruments or avionics but would entertain any combination. Must be very economically priced. Spud (913) 764-5118

For Sale: SUBARU ENGINES, 1 - 1985 EA82 Turbo engine, COMPLETE with EFI, computer, wiring harnesses, turbo, belt drive accessories (alt, AC, starter, etc.), 5 Subaru repair manuals for car & engine. This engine came from a test vehicle and has approx. 10,000 miles. The turbo is water cooled for extra reliability. VERY clean! \$1,400.00 for all. Also a non-turbo EA82 engine, TBI injected. Car ran, but engine may have gotten weather in it. Will need to be overhauled. Make offer. Cheap! Bob Stieg (815) 397-1533 days, (815) 234-2283 eves.

Wanted: Your extra materials, looking for carbon fiber, bi or uni cloth, blue foam, cowlings, canopies, etc. Spud (913) 764-5118

For Sale: Mark II Gear Legs. Never used. Two plies of cloth on them. \$200.00 or Best offer Rod Nelson (605) 333-0793

Wanted: Looking for canopy, prefer light smoked. Carl Webster P.O. Box 781, Dover, Ark. (501) 331-4275

For Sale: Quickie Supreme! Single seat Quickie, 176TT airframe, New Prop & 583 Rotax engine. Outstanding performance & flying qualities. \$5495.00 including some spare engine parts & a fresh annual. Reason for sale....it's time to finish the Dragonfly. Chris Barber, 437 Will Raby Road, Toney, Al 35773 (205)852-8764 (2nd year Ottawa attendee's should remember this one as Captain Nitro's ship-Spud)

For Sale: VW 1935 engine, all new hyd. lifters, split (Scat) heads, Hapi acc. case & flywheel with built-in alt., prop hub installed, dual electronic ignition, Zenith carb & extra misc. parts, never been run. Might separate. Engine dis-assembled for your inspection. Can be assembled. Bob Stieg (815) 397-1533 days, (815)234-2283 eves.

For Sale: New Continental engine mounting hardware kit - \$243.00 value sell for \$175.00, New EFS-3 Ellison fuel injection \$1100.00 will sell for \$975.00. EL Reno style oil filter adapter - \$100.00. Full set of three Viking Dragonfly construction videos - \$45.00. Chuck (508) 668-4784 days, (508) 668-5285 eve. EST

For sale: Dragonfly Mark I project, inside glassed & bulkheads installed, Mark I canard & wing basically done but not weave filled (no control surfaces), no canopy, hapi brakes ass. \$1500.00 (816) 356-7195

For Sale: Seven hours Dragonfly/Q-2/Q-200 1994 Fly-in Video \$21.45 including postage (\$29.95 overseas) Work-

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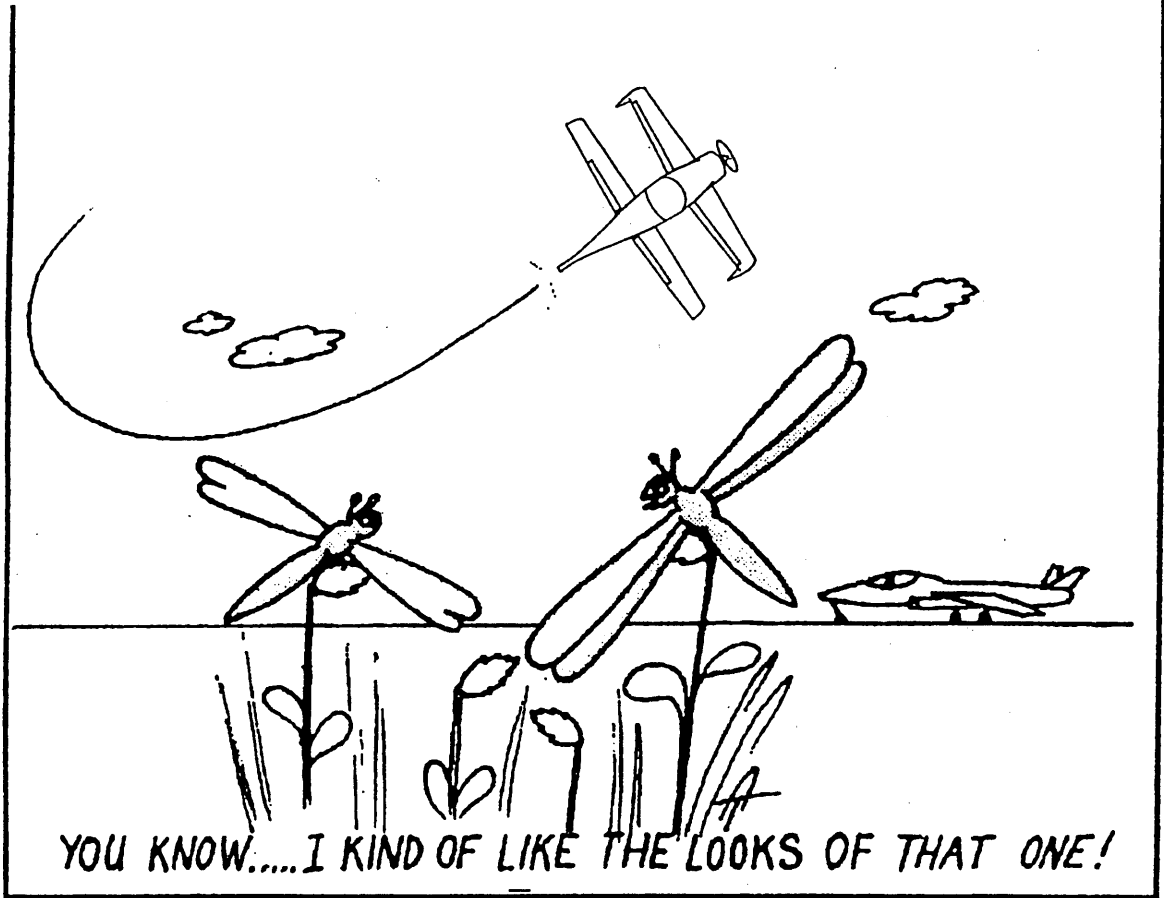
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