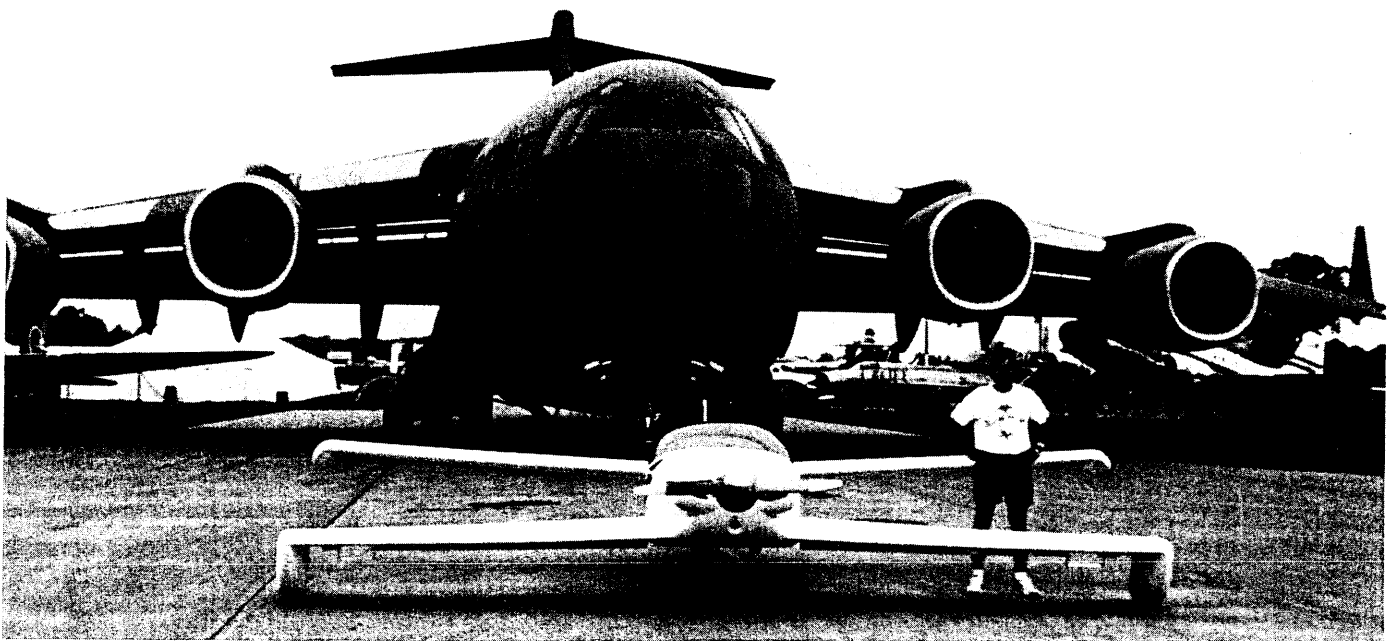


# DRAGONFLY BUILDERS AND FLYERS NEWSLETTER

THE OFFICAL VOICE OF DRAGONFLYERS ALL OVER THE WORLD

VOLUME 57

JANUARY - FEBRUARY 1995



## **RICHARD WERNER OF ST. LOIUS AT OSHKOSH WITH BOTH OF THE AIRPLANES HE HAS BUILT**

Hi Spud, Here is a picture of my Mark I and the C-17 Which I make composite parts for at McDonnell Douglas in St. Louis.

Let Me bring you up-to-date on some of the things I have been working on my Mark I. I finally installed some gap seals in the elevator and aileron fairings. As you know I have Vortex Generators on my canard, I

had to remove them from the canard, the disruption effected the main wing lift, making it stall before the canard on a nose high approach, nothing that a little speed didn't cure (85 mph).

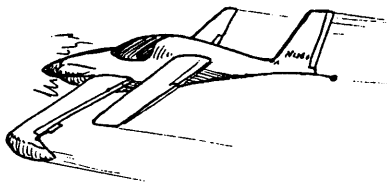
I have found my stall speed and takeoff role greatly effected by the up or down flex of my ailerons. My takeoff role (solo) is as short 400 to 500 feet with them

flexed down, but the stall speed is up around 80 mph. With them flexed up, takeoff role is 1400 to 1500 feet in a three point configuration but the stall is back down to 63 to 65 mph.

An area that might be causing a problem might be an age induced twist in my Mark I canard. My plane has been flying for almost ten years and has been sitting on it's gear for over eleven years. With the weight of the plane and eleven 100+ degree summers in St. Louis (The plane has always been hangared except for a month during the great Midwest flood, seven trips to Oshkosh, one to Sun N' Fun, and one to Ottawa, Kansas) it might be the cause of the one and half degree down canard incidence angle I have measured with my homemade wood jigs. My immediate fix will be to install the aileron Reflexor mod. My permanent fix for this problem and taxing problems in some of our Missouri airports will be to install a Mark II canard. This might happen now that I finished my Masters Degree but not until I finish building the barn for my wife's three, soon to be four jumping horses.

Take care

Richard Werner  
Chesterfield, MO.



## PHOENIX FLY-IN PICNIC

### 1995 Phoenix Dragonfly Club Fly-in Picnic

**Who:** Phoenix Dragonfly Club

**What:** Dragonfly & Q-Bird Fly-in Picnic

**When:** Saturday/Sunday, April 1-2, 1995

**Where:** Glendale Airport

(northwest of metropolitan Phoenix)

**How:** Contact Larry Brown (always friendly and courteous) (602) 897-1034 for more info and reservations.

**Why:** Free picnic lunch, Comraderie, Blue skies, Warm sun, Nice Facilities, Display, Free Shuttle to nearby Hotel/Motels, Un-covered Tie-down: \$3.50, Hangar Available (fee).



## FIRST FLIGHT AND A LESSON'S TOO!

*Now get ready for another hell of a good letter! - Spud*

SIR SPUDSTER:

I see in the Nov/Dec newsletter you are begging (*the word begging may be a bad choice of words, I certainly wouldn't call it that*) for input, so here goes. First I want to thank you and commend you on your magnificent effort. Without your dedication this newsletter would not be in print and much valuable information would go undistributed to the people who need it. I gathered much information from the past newsletters, some of which I incorporated into my Dragonfly. Thanks (*Blush...Thanks!!-Spud*)

I purchased my aircraft from another party in August of 1992. It had flown at one time, but had been grounded for a few years and had passed through several owners. None of the interim owners did anything to it after the original owner sold it. When he sold it he dismantled it totally so there would be no liability issues later. I purchased the aircraft in this condition.

The canard had several cracks in both upper and lower surfaces both left and right of the fuselage about two feet out. The airplane is a Mark I. Before I bought it I determined that the cracks were only filler deep. They did not extend into the glass. I figured I could rebuild the aircraft and build up an engine in about six months.....Wrong!

Two and half years later I finally finished it, or at least made it ready to fly. I don't think you ever finish one! I passed FAA inspection on January 12th. Thanks to my good friend Gary Sheets (*Gary is a Dragonfly builder and pilot from Indiana*) who gave me much valuable advice along the way.

*(Pay attention class, some good info coming your way, plus there will be a test at the end of the hour!! - Spudley)*

Along the way I learned a lot. In 1992 and 1993 I had the fuselage in my garage. I put auto gas in it and pumped it back and forth testing & filtering the fuel system (*Hey gang, flushing & checking fuel flow is a good idea, just make sure you have proper ventilation and that things are grounded properly to eliminate the possibility of a spark*). The aircraft didn't have a header tank so I installed one behind the cockpit bulkhead

## First flight continued

*above the wing. The purpose was to insure I ended up with no forward C.G. problems. I wanted a AFT C.G.*

**Lesson #1** Auto gas, even the top grade of Shell, gradually eats away at fiberglass resin. I ended with a fuel leak in the main tank. (See coment on this subject in *Multicom* - this issue)

Because of the increased distance from the header tank to the carburetor over the old plans location, in a nose up attitude I anticipated I would lose fuel (head) pressure and there fore would need a boost pump between the header and the engine. This turned out to be very correct. There is enough fuel (head) pressure in all attitudes to maintain full engine power except in a nose up attitude. The boost pump elimiantes the problem, works just fine.

One reason it took so long to get the airplane ready is that I had to remove the extensive filler on the canard. In most places it was a quarter of a inch deep or more and was over an eighth of a inch deep over most of the high spots. I could not sand it off because of the danger of damaging the fiberglass. I chipped it off with several screwdrivers by hand (*Wow!*). Removing the old filler, which had cracked in several places, and filling in low spots and preparing for paint took about ten months of spare time of work.

I decided to install the elevator gap seals and I think they help, it seems to have a very low stall speed, although I have nothing to compare with.

**Lesson #2** When working on an aircraft take your estimate of time to complete it and multiply by ten and then multiply by your age and you'll be in the ball park. It seemed to take me forever.

**Lesson #3** Came on the first flight January 17, 1995 (*Hey this is an official first flight! Where's our pictures, weights, engine type, panel goodies, etc.. The subscriber base & I will patiently wait until the next issue for pictures, etc.. Don't forget to send them to Kitplanes & Sport Aviation - Spud*). I had read in chapter fifteen that one should try a few lift offs in ground effect with power off to find out if there are any out of rig conditions before flying. I had made many high speed taxi runs with the tail up and with forward stick to hold it on the runway. Our runway is 3732 feet long so there is room for a short hop, but not a whole lot of excess.

On the fateful day I had made about six high speed runs without incident. I got it up to just over fifty, killed the power and tried pulling it off. It came off right wing

first. The canard got three or four feet off while the left wheel was still on the runway. I tried it again with the same results, except I didn't get it as high.

I taxied back. I was concerned about the wind and didn't really use my brain. The canard rising while the left one remained low didn't enter my mind as a problem. Stupid me. I decided to try and fly. I pulled it off with power on and immediately got a very wild ride!

First, I found it took all the right aileron I could pull and a boot full of rudder to keep it from rolling left. By the time I got it under control I was too high and too far down the runway to land. I had to fly it!!! My subconscious told my right arm that if it took such a heavy amount of force to the right to hold it level, it would take a similar force in pitch to make it climb. So, back came the stick. Airspeed was about eighty. The nose came up rapidly and I pushed the stick forward. It took about three porpoises before I realized this roller-coaster ride was not a good thing.

Here I was, on my first flight, at about eighty to hundred feet above the ground, quickly running out of runway, airspeed climbing, barely able to keep it from rolling over on it's back, and in a pilot induced oscillation in pitch. Real fun! Well, it took about one-tenth of the time to solve the situation that it takes to tell, but I froze the stick and then realized that pitch forces were much lighter than roll forces. Realizing this I had no further problems in pitch. I climbed up to 2500 feet where I tried to level off. As the airspeed started coming up I ran out of aileron authority. I could fly it level and had enough aileron to actually make a right turn at eighty, but at one hundred, full aileron wouldn't hold it. I needed a lot of rudder too. So, I just flew it at eighty. That seemed like a comfortable thing to do at this point and I had been mighty uncomfortable up to now.

I had planned to do a lot of things on this first flight, but now they all seemed very unimportant. I just wanted to do only the things necessary to develop enough skill to get it back down on the ground as fast as possible. The view was nice though, even though I was in an uncomfortable situation. I slowed it down to fifty five and it still flew, so I decided to fly final at seventy.

I slowed to seventy, made some turns and descended down to the traffic pattern. It flew the pattern very well and the landing was absolutely perfect. It was so smooth that other than a slight tire squeal there was no initial indication I was on the ground. When I heard the tire squeal I relaxed in a heap. Then I remembered you have to fly a tail dragger all the way to the hangar. After a few little bobbles I got her straightened out and taxied in. Other than the severe left roll rig problem the aircraft

## First flight continued

flew great.

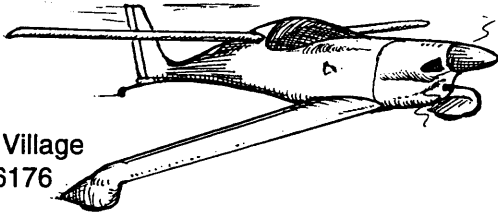
Although I didn't have to clean out my pants, I'll admit that once I got her in the hangar I knelt down and placed my head on the canard and thanked God to be alive. Only God could have saved me from my foolish mistakes (*Yes, God makes an excellent co-pilot*).

The airplane tried it's best to tell me there was an out of rig problem when I hopped it off in ground effect, but I was too stupid to listen. I was very lucky to have survived unscathed.

I have adjusted the left elevator down to try and neutralize the left roll. I think it will be a simple problem to fix and am waiting on good weather to see if my adjustment fixed it. This time I'll listen to everything it tells me while flying in ground effect with power off. I have no desire to have another wrestling match with a wayward Dragonfly.

Sincerely

Von Leach  
509 West Dwain Village  
Shelbyville, IN 46176



*Von, I want to thank you on behalf of all the readers of this article and myself. We learn so much when a fellow Dragonflyer gives us a detailed report such as yours. Sure, it would of been a lot easier to take the Perfect Peter Route, "everything was just perfect", "piece of cake" Etc. Etc.. We commend you on your excellent report for all of us to learn from, but we'll still expect those photos very soon -Spud.*

## **ENGINE SURVEY**

### **Attention people with flying Dragonflies with VW's**

I would like to get a performance history on the people with VW engines. We'll keep it very simple. All I want to know is; last name, state or country, size of engine, total hours on that engine since new or last overhaul, compression ratio if known, (optional) a brief note on any service difficulties. keep it simple, don't type it, just write it on a post card, on the out side of a envelope, an old Xmas card, whatever. Just scribble done the facts and mail, PLEASE!. BUT YA GOTTA MAIL IT OR WE'LL NEVER KNOW THE SCOOP! Super thanks - Spud

## **WHO'S ON-LINE?**

The Information Highway is well on it's way! We now communicate via our computers. A couple of years ago I was a Prodigy user and had listed my "computer address" in the newsletter. We had a few computer conversation with some of the builders, but for the most part not a lot of activity at that time.

Things have changed quite a bit since then. There is Compuserv, America on-line (AOL), Prodigy and now Internet. And now the capability to cross communicate in between networks. Some day maybe the newsletter will even come to you in that mode, but for now it seems like a excellent way to inter-communicate on any kind of DF topic, big or small. Now I be the first one to tell you as of this newsletter that I **do not** have all this sorted out yet, but we gotta start some where. I going to start listing Dragonfly & Q-bird builders/owners/pilots address that are supplied to me to be listed in the newsletter on a on going bases. Tom Lapointe of Monument, Colorado has quite a bit of expertise in this area and he'll be taking us to school in following issues of DBFN.

So of those people that want to inter-communicate with other builders please send in your communication address and I post it here in DBFN.

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

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

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

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

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

Spud Spornitz, Olathe, Kansas  
AOL system "DBFNSPUD@aol"



## **NOTABLE BUILDERS QUOTES**

***"There's quite a few sport (experimental) airplanes out there that are better than the Dragonfly, but the Dragonfly just happens to be the best airplane that I can afford! I love it!"***

## LETTERS AND LETTERS !

### ● Justin Mace Checking in

Dear Spudley:

Thanks again for the excellent newsletter. It was refreshing to read about others flying and working on their DF's. It was also very interesting to read Steve Bennett's comments about Warp Drive's props being involved in two VW crank failures. One could construe that the cause of the failures was indeed the fault of the Warp Drive prop. As you know I also had a VW engine that suffered a broken crank in-flight. WELL, after checking my log book guess how many hours the engine had on it when the crank failed, 164 and that engine never had other than a wood prop on it. I feel that a more likely culprit is an RPM resonance. Rex Taylor told me not to run my big VW at 2800 rpm or I would surely break the crankshaft. I don't think the 1835cc VW have the same crank breakage problem as the larger engines. I know that some of the DF drivers are still using Warp Drive props. I think it may be a VW problem not a prop problem, that's why I am no longer flying behind a VW. I am at 300 hours on the EJ-22 with only oil changes as required maintenance and that includes the two trips to the Kansas equal span bash. *Interesting thoughts Justin. Steve Bennett claims that the biggest crank breaker factor is too high of compression ratio and improper fuel octane. He feels with the higher compression in hi loads, detonation occurs that can not be heard by the pilot. He will not release a engine with a compression ratio over 8 to 1 and the user must use 100 LL aviation fuel. We'll try and take a survey of flying VW engine in the Dragonfly group - Spud*

**Shame, Shame, Spud. (Whoops!)** Page 9 of DBFN #56 lists an elevator torque tube option. Shame and a pox upon you (*are poxes dangerous... just what are poxes, could I possibly be poxed to death!*). You, of all people, allowing this sort of thing to get by your word processor. You must have been hard up for fill in that newsletter. As you may remember there is a MANDATORY plans change involving a welded elevator torque tube assembly. This plans change was given out free gratis to all. (Refer to DBFN #42, page 2 ) *Yup! Justin your right! What I was thinking? This could be used as a removable link to the system, but I see in Gail's drawing that the old style taper pin is shown, this is the original design, but it should not be used. I'll address this in more detail in another part of the newsletter - mud, I mean Spud!*

DBFN #53, page 15 shows a fuel flow indicator. This little goodie saved my tush from a forced landing somewhere in Kansas. The hall effect transistor that I originally used went bad twice. I have redesigned it using Radio Shack burglar alarm magnetic read switch in place of the transistor. It now works well again.

Linda says she enjoyed the big Kansas get together the year we were there and we would like to make it to the "95" fly-in. We plan to be there.

I now have an "Internet" address. please publish it and ask for others to send in their addresses. mine is dragonfly764@delphi.com. For those on AOL or CompuServ ask them to get the internet access for you so we can all communicate. Its only \$3.00 extra per month.

Thanks again "THE KITCHEN MAGICIAN" Justin Mace

### ● A Cross Country World Tour Extravaganza ! (Well almost!)

Hi Spud,



I enjoyed the 94 Ottawa fly-in as it was well organized, informative and all the great people attending again. I gave quite a few rides in my D-Fly N64TM again and only needed to issue the sick sack twice; Quite warm and bumpy on that Sunday (*Wind was at 20+ knots*) I guess. Or maybe it was the pilot.

A bit about X-country Dragonfly trips. Besides numerous trips around Minnesota and Wisconsin, This D-fly has been from Virginia, Minnesota to Oshkosh 91,92,93 and Ottawa 93; all good trips. In August 1993, I moved from Minnesota to Oregon and a brother and I flew the D-fly via Boseman, Montana -- Rexburg, Idaho -- Caldwell, Idaho -- Redmond, Oregon - Eugene, Oregon with no problems other than a couple of weather delays.

In September 1994 as you know, I flew the D-fly from Creswell, Oregon to Ottawa, Kansas via over the Cascade mountains (7000 feet) -- Caldwell, Idaho (fuel) -- Burley, Idaho (overnight) -- over the Rockies (10,000 feet) - no sweat, nice morning) By Bear Lake, Idaho -- Rawlins, Wyoming (fuel) -- over Cheyenne to Atwood, Kansas (fuel) -- Ottawa, Kansas.

I departed the Fly-in Sunday afternoon and headed south through light rain and continued to flying rain showers all the way to Chanute, Kansas where I spent the night (no problem in rain except a bit tricky on final approach when rainfall is not constant, in & out of showers). Next morning I continued on to Shawnee, Oklahoma (fuel) -- Northwest Regional, Fort Worth

(visited Rick Markle: D-fly builder who attended the Ottawa fly-in) -- Spinks airport, Fort Worth (just for the heck of it) -- Meacham airport, Fort Worth ( three days visiting a lady pilot friend who owns & flies a lot in a Cessna 150 (700 hours in three years); we traded airplane rides; think I'll marry her) From Fort Worth, I continued down to Brownsville, Texas (through and around rain with no problem except tricky approach to Brownville in intermittent rain) -- three days on South Padre (visit a friend and got sunburn) Del Rio, Texas (fuel) -- Los Cruces, New Mexico (fuel and strong crosswind; no sweat) -- Gila Bend, Arizona (overnight) -- Bermuda Dunes, California (fuel) -- Oxnard, California (overnight, visit friend & gave D-fly rides) -- Colusa, California (fuel & nap on lawn) -- Creswell, Oregon and home.

This trip chalked up 43 tachometer time hours and averaged 3.56 gallons per hour of 100LL or auto fuel when available (not much). D-fly N64TM is a Mark II with about 70HP (8:1 compression ratio) of Volkswagen based 2165cc. It cruises at 145 mph (5000 feet & Loran) at about 3000 rpm. I very pleased with my Dragonfly as a Cross country craft, with of course, good weather and spare time being prime factors.

There have been very few problems with this scratch built craft except for landing gear legs and some engine items, but those are resolved and that's another story.

See you later,

Sincerely,

Bill Mason  
Creswell, Oregon



*No Fair!!!! I'm Jealous! I want to go on vacation with you next year! Boy! Ya know what guys! You guys (Spud Tool) that are out there still building their Dragonflies, **someday we can do the same darn thing**, how totally awesome.....Time out, Now for a short intermission, I'll be back later.....I'm heading to the garage for a while to build, cut, massage or epoxy something!!!!!!! - Spud*

## ● Progress Report from Fred Wiebe

The following is a progress report on 561W. It is now Christmas Day. and all through the house it is quiet--no kids in our house anymore. So I am sitting here, contemplating my experiences of 1994.

After coming back from SUN N' FUN, I had a persistent oil leak out of the front seal and other on my Hapi 82 HP and low compression on No # 2 (Only 120 hours on it). So I decided to tear down the engine and found that NO #2 had a deep scratch in the cylinder wall and No #1 bearing was

badly scored.

I sent the split heads to Scat for refurbishing and to grind down the crank. The case went to Great Plains Aircraft for their Force One bearing and seal. However, too much had been taken off by Hapi to adapt to the Force One kit. So a new super case was purchased and machined for my 94mm jugs and stroker crank. A new Teflon forged piston and cylinder cost \$180.00 or a set of four was \$210.00. Two months later, all my parts arrived.

Next, I sent crank, polished rods, and set of four new cylinder assemblies out to be balanced. Once ready, I started to reassemble--finding out three important things:

- 1.The super case is not drilled and tapped for an oil temperature sending unit.
- 2.Great Plains does not have the correct height cylinder shims for 94mm cylinders.
3. No oil filter.

As per Great Plains suggestion, I cc'd the heads and found my deck height. Next, I took the oversized cylinder shims and ground each shim specifically for each cylinder to get exactly 8 to 1 compression ratio. This was the time to install my new split-voltage regulator, running my voltage sensing line back to my bus. I tightened up the baffling, put in oil, then primed until I had oil pressure.

I was ready to start the engine. I gave it a shot of primer, pull the prop through, turned on the master, and hit the starter--she came to life and settled to a smooth idle--a real smooth-running engine! After one-half hour taxing time, everything looked good, so I went flying and it ran great! My new regulator was working good, getting 14.7 volts and 17 amps at 3000 rpm's, which was 2 more volts and 10 amps more than I had with the old regulator.

Eight hours later, during shut-down, my left electronic ignition lost no #2 and 4 cylinders. I removed the cowling to find both coils for 2 and 4 were cracking from the core out, and the left side was shorted. While further investigating, the left modules' half was shorted for coil 2 and 4 (Much like Chris Walterson from Ontario--DBFN 55). So, I ordered 4 new coils and 2 new modules, and installed ballast resistors for both left and right systems to cut down on voltage. While hand-cracking, I found the spark was weaker on the right mag and there was none on the left mag. So further digging found a wire solder splice inside the pickup distributor was shorted to the case. That solved, back to starting. Just as I had thought, it was much harder to start due to the weaker spark. Back to the drawing board!

I decided to use a 1980 automotive idea of supplying 12 volts to the coil during the start only. Luckily, my engine ignition switch had a tab that would do just that. With that

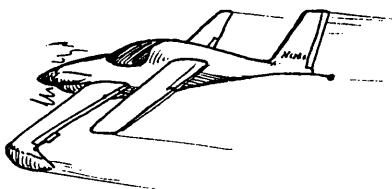
wired in, it now starts on the first blade. It is now November at this point of the story.

So I did my ten-hour first oil change and left Northern Illinois for Florida for Thanksgiving. On the way back, six hours of rain was kind of rough on the leading edge of the prop, but it sure flew just fine. I ran it easy because of the new engine and wrong-pitched prop and still averaged *45 MILES PER GALLON FOR 2000 MILES*. The entire trip only cost me \$80.00 for fuel. Now that's darn economical flying.

With fuel usage like that, I flew up to Kenosha, Wisconsin for the day to see another Dragonfly builder, and before Christmas I flew to Florida again just for the weekend. All I have to do now is take the time to stay on the ground long enough to:

- 1) Permanent install radios.
- 2) Finish the interior.
- 3) Put on the wheel pants.
- 4) Find the correct pitch prop.

Fred Wiebe  
2561 N. 2879th road  
Marseilles, IL 61341  
(815)795-2531



## **IMPORTANT NOTE!**

### ● Elevator Torque Tube Modification Clarification

In the last issue I had installed an article -- drawing option that had been submitted by Gail Stafford of Colorado. I feel that I did not make the article clear and it has areas that are in direct conflict with a earlier "mandatory" plans change. Please allow me to clarify. Please refer to DBFN #56 page 9 and DBFN #42 pages 2, 3, 4 & 5.

Looking at page four of DBFN #42 you can see that the Taylors were so kind as to supply the entire subscriber of DBFN with the drawings of this mandatory elevator torque plans improvement. To this date this is still a mandatory plans change and should be installed in all flying DF's and all DF's currently under construction, PERIOD! The big improvement of this system is elevator torque arms that eliminate any torque tube slippage inside the elevator itself, the reduction of bolted slip joints and of course the heavier wall tubing and retainer system.

Looking at the "modification portion" of the drawing on page 9 of DBFN #56. As you can see the slip joints have been eliminated, but the old style "Taper pin or bolt" is still illustrated, THIS IS NOT ACCEPTABLE! The new style elevator torque arm should have been shown.

The main jest of the mod was to eliminate the three slip joints.

Sorry for the un-clear information. - Spud

## **EDITORS CORNER**

**Newsletter Submissions:** Wow-O-Wow!!!! Holy Molly Rocky! Totally awesome! Did you guys do good or what. I should have said something a long time ago to wake you guys up a little. It's good to know you are paying attention. As you can see from some of the letters and information inside this newsletter a bunch of folks have come through with flying colors. For those folks -- Super atta-boy's & thank you's.

And now for you guys out there that have been sand bagging in regards to sending in your stuff! You know who you are, I know who you are, I know where ya live, you can run but you can't hide. I'll be patiently waiting right here for you to turn in your homework, I mean report. Seriously, we do need to continue the flow info and I know you'll do your best to make some type of contribution - Thanks in advance - Spud.

**Annual Subscription Renewal Consolidation:** Boys guys and girls you've really done good here also. I'd say we have about 85% of the renewals in and hopefully the stragglers should get caught up with this next issue (Hopefully!). So if any of you people fall into the "straggler" category your immediate attention to this would be appreciated. It may not seem like much but this once a year consolidation will really help Spud get more time back in the garage and making more Dragonfly parts. Again thanks in advance - Spud

**Newsletter, Sun N' Fun & Oshkosh Forums and Ottawa Fly-in input.** We would like to hear from you folks out there in regards to what type of info you want to see in the newsletter. What do you want to hear at the Oshkosh and Sun N' Fun forums and what do you want to see and hear at our national Fly-in in Ottawa, Kansas? If we never hear from you, we can't supply it.....help!

## **SPUD THE DRAGONFLYER**



## MULTICOM

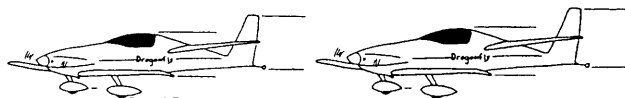
**No Phone - No Address**, Hey Spud! Most people probably have it, but I didn't see Steve Bennett's of Great Plains Aircraft address or phone number anywhere in DBFN #56. I had to do a little digging to find it! (I was just testing all you guys to see if you would notice that! How come I don't think they're going to buy this.....) Here's Steve's info; Steve Bennett, Great Plains Aircraft Supply, P.O. Box 545, Boys Town, NE 68010 (Suburb of Omaha, NE) Phone (402)493-6507 FAX (402)333-7750

**Checking in with the Home Office**, (A collection of short of one or two liners from the troops!) Hi Spud, Thanks for the great hospitality and excellent organization that went into the 94 fly-in at Ottawa. The presentations, meals, fly-by's, air-to-air work were all perfect. I had a good trip back to Canada once I got through some heavy rain about 50 miles west of Ottawa. I landed in Billings, Montana just after dark. Monday was such a great day I decided to take a little detour before heading back to Calgary. I flew over Yellowstone Park and did some sight-seeing while I laughed at all the cars, motorhomes and holiday trailers crawling along the packed highways. Overall, my round trip took 18 hours and my average ground speed was about 167 mph due to some headwinds. By the way - my fly past on departure you requested was at 220 mph indicated.....just performing a little flutter testing at red line. Thanks is again due to you for another year of dedicated publishing. All the best in the new year, Kimbull McAndrew, Q-235, Alberta, Canada \* Hi Spud, I just received my flight permit for C-FEXC and hope to have it airborne this spring. I enjoy DBFN very much - keep up the good work, Charles Watson, Ontario, Canada. \* I have been taxiing around my rotary powered tri-gear, those go-cart brakes are not good enough, they gotta go. The rotary fires up every time with the 60,000 volt coils I installed, no matter how cold it is, thing are progressing nicely, Van Foster, California. \* I have watched my Q-2/Dragonfly fly-in 94 video about four times, just can't get enough. I hope there will be one next year also. I would like to hear all the questions that the builders were answering during the forums next year. I would also like more shots taken of everyone's engine compartment and their cockpits. Over all the tapes are great and yes I would even buy another set, if mine were lost or damaged. I am at about 50% complete on my Mark III Dragonfly. I'll send in some pictures in the future. Best of everything to you, and thanks for such a great newsletter. Frank Tomko, California. \* Having attended an Alexander's construc-

tion workshop last fall at Oswego, NY. It is in my opinion very worthwhile and I thought you might want to put this info in a future newsletter (I'll try and get the schedule - Spud). It will probably save builders enough time through preventing mistakes to pay for the course. Plus the safety pointers, and pitfalls to avoid; especially for the first time composite builder are invaluable, Pat McGinty, Pennsylvania. \* Hi Spud, My wild Quickie is for sale (see classified's), It's time to finish the Dragonfly, Chris Barber - Alabama. \* I've sold my Dragonfly project and I'm currently working on a RV-6, There is no doubt that this airplane is going to be a lot more expensive airplane to build and operate. I'm also very shocked and going through some major withdrawal pains, I miss the group, I miss the plane and I miss everything else. I miss the fraternity of the Dragonfly, I didn't realize what we had going until I had removed myself from the group. Sign me back for the newsletter and I hope everyone doesn't mind this Dragonfly in disguise, Chuck Kaplan - MA. \* All is back to normal now, DF is flying good and now has 178 hours. needs a few minor adjustments which I'll do now that is back in Silver City. Keep up the good work on the newsletter. RE: Al Luckey's comments on landings - suggest one land like a sailplane - very gentle flare to just level then hold and let settle with full forward stick on touchdown. Len Griffin - NM. \* I'm really happy with my Dragonfly, well over 200 hours, 2110cc VW, 52X48 prop, 180 mph max. at 3600 rpm, 160 mph cruise at 3200 rpm, 4 GPH fuel burn on my trouble free VW - Larry Brown, Chandler, AZ

**Auto fuel in a Dragonfly ?** In this issue there is a first flight report from Von Leach of Indiana. In his detailed report he mentions of having an auto fuel - epoxy break down. Claims that it had caused a leak in his main tank. I know Justin Mace has over 300 hours on his Subaru Legacy conversion and to the best of my knowledge he has been burning non-achol auto fuel for the entire 300 hours. And I don't remember him mentioning any kind of a problem. So for the groups edification, Justin can you give us a report on your auto fuel history and if there is any one else using auto fuel in their Dragonfly or any other composite aircraft that has had Hexcel Safety-poxy used in the construction of the fuel tank please report in - Spudley

**Newsletter Back Issues** - There seems to be some confusion about back issues. I have had quite a few people call on the assumption that we no longer can supply back issues - Wrong! We have all the back issues available for immediate shipment. They are all \$3.00 each.





# 500 HOURS IN A DRAGONFLY & OTHER MIRACLES!

Hi Spud!

We've gone over the 500 hour mark and we thought a little history update was in order on our Dragonfly N69DF after six and half years of flying.

**Specifications:** Mark I with 60HP VW engine.

**Modifications & other Bright Ideas:** Larger tires on for more ground clearance. During the first few flights I lost sparrow strainers, broke the tailwheel tiller rod on landing, and ground looped it. Now why would anyone without nerve take this thing up?! Had valve stem problems, replaced the radio, installed a different fuel gauge, ground a few propellers (this is always a heart stopper), replaced wheels and brakes, added lights for night flying, replaced heads, changed incidence on canard, and added vortex generators (thanks Rob!). If this sound like a lot of work--it was, **but it was all worth it!**

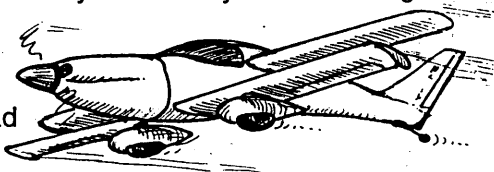
**Fruits & other bizarre rewards:** Early morning and late evening flights, giving rides and seeing the excitement in others, spending time with my father, winter flying in cold crisp air, going to airshows and winning trophies--Showing it off, **LANDINGS!!!!**, flying to the Dragonfly Swarming (Not driving to it!), and best of all just flying my airplane.

After 500 hours of flying the plane that's about all I do, fly it, besides normal maintenance and planning where I'm going next with it.

Hope to see everyone at this years Swarming!

Sincerely,

Wayne Ulvestad  
Volga, SD



P.S. - Editorial comments provided by his wife!

**And now a word from our sponsor** (Wayne's Wife)

Hi Spud!

As you can see Wayne has made some changes to the Dragonfly. Now let's hear it for the wives!!! **YEAH!!**

Many, Many years ago in a far off memory, I recall someone mentioning the possibility of building and air-plane after **HE** got his private pilots license. Little old me-not knowing what was involved said "**Sure let's do it**". Following six years of hard labor--seeing my husband only on visitation days (that is if I would go to the shop where the PLANE was) the DRAGONFLY was ready to fly.

The next adventures on the agenda were the taxis up and down the runway and the first takeoff & landing. I will never forget the first takeoff--mostly because I didn't even know that he was going to be taking off!! Luckily, he came back in one piece. Needless to say my confidence in his flying abilities grew by leaps and bounds!! I was so impressed!!

From this point on whenever Wayne had extra time--even a half hour, he could be found at the airport. Be it, flying, cleaning, changing, showing it off, etc. I always know where to find him.

As you can see from this letter there was a small mention of a few broken propellers. Well I happened to be in the plane for one of these adventures. A few hints--don't grab anything, don't scream, and don't wet your pants--**KEEP PRAYING!!** I mentioned upon landing after the go around that I thought the engine sounded kind of different--that was only the understatement of the year!

If your husband plans on flying any distances without a navigator (this is you of course) or a lot of instruments--**GET THAT MAN A GPS!** It saves a lot of wear and tear on the nerves while you're patiently waiting for him to return.

For any of you women whose husbands are still in the process of building, be reassured--there is an end--I think?

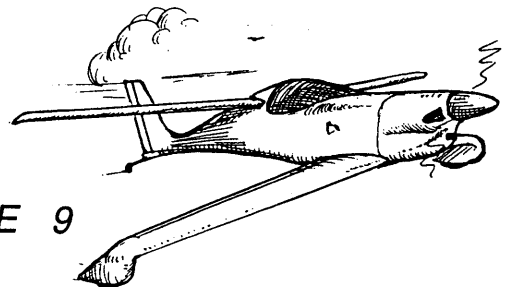
As you can tell **MOST** of this is just in fun--**HEED THESE WARNINGS!!**

**THE SURGEON GENERAL WARNS THAT BEING THE WIFE OF A DRAGONFLY BUILDER CAN BE HAZARDOUS TO YOUR HEALTH!**

Sincerely,

Deb Ulvestad-Wife

Sasha Ulvestad-Daughter (Who by the way is the one that made all grammatical and punctuation corrections.)



## 1995 CALENDAR

April 1,2 1995 - Phoenix Dragonfly Club's Annual Dragonfly & Q-bird Fly-in Picnic, Glendale, AZ. Contact Larry Brown (602) 897-1034

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

June 9,10,11 1995 - Fifth National Gathering for Canard Type Airplanes, Oklahoma City, Oklahoma ( 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

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## We need some Help.....

Hi Spud, I need some help over here in Australia. I followed up with Gene Divincenzo about his "Bow Style" gear for the Dragonfly. I need to get 5 or 6 builders statements regarding safe operation history.

This is virtually necessary so we can get approval to install the bow style gear gear on Dragonflies here in Australia.

We need to know max. all up weight of aircraft, how many landings on the new gear, noting if some have been heavy. How many hours of operation on the new gear. Any major deviations from Gene's original drawings and installation.

Spud has a full one page questionnaire if there is anyone out that just would like to just fill in the blanks. Call or write and he'll send you a copy. Or you may choose to write the report in your own words. After completion, forward your information to Spud In Kansas. He will then forward everyone's response to me here in Australia to save everyone postage. I would like to thank everyone who assists with this project.

Yours Faithfully, Bruce Mc Callum

Edillilie, So Australia

Hey Guys, Please respond fast. I was to put this in DBFN# 55!!!!!!  
Spudley

## THE CLASSIFIEDS

**Great Plains Aircraft Supply** - Quality Aircraft Parts, Excellent Service & Support at Reasonable Prices Since 1982 - We have a full line of assembled and tested VW based aircraft engines, short or long block component packages - assembled or in kit form. We have individual components, quite a few replacement parts for Hapi engines, props and many accessories. 64 page catalog and technical manual still only \$3.00!! send for yours today. Our business hours are Monday through Friday 8:00 AM to 6:00 PM and Saturdays 8:00 AM till NOON Great Plains Aircraft Supply P.O. Box 545 Boys Town, NE 68010 Phone (402)493-6507 Fax (402)333-7750

**Wanted:** Looking for construction materials, carbon fiber, 10 oz. & 6oz Bi-directional, blue foam, canopy, Spud (913)764-5118 after 7:00 PM CST

**For Sale:** Quickie Supreme! Single seat Quickie, 176TT airframe, New Prop & 583 Rotax engine.

**CLASSIFIEDS CONTINUED NEXT PAGE**

## CLASSIFIED'S CONTINUED

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 remeber this one as Captain Nitro's ship-Spud)

**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

**Free Jigs:** I have the forward and rear turtledeck jig/molds forever whom wants to pick them-up free. I got them from Paul Zimmerman on the condition that I would pass them on. David Morris - Garland, Texas (Dallas/FT. Worth area) (214) 414-7006

**For Sale:** BRS-4-XP1 Internally stowed ballistic chute. Designed to be installed in a Dragonfly. All fittings, drawings and excellent photos are included. weighs 24 lbs. \$1600.00 Nelson (603)482-3800

**Wanted:** Looking for pair of outboard wheel fairings for a Mark I. Prefer disk brake conversion. Also looking for wheels, brakes, canopy and carbon fiber kit for Mark I. Would also be interested in an entire Mark I canard assembly at any level of construction. Ask for Mark Carroll (502)759-4740

**For Sale:** Posa carb with mixture control \$75.00. Mark (502) 759-4740

**For Sale:** Warp Drive 3 blade propeller, 52" diameter with constant speed blade platform, HP hub with standard VW pattern, CCW rotation, with spinner, back plates and spacers \$600.00, \$500.00 without spinner. Wayne - Home (605) 627-5365 work (605)627-9291

**Wanted:** Engine cowling needed for Dragonfly. Any reasonable stage accepted. Looking also for complete tailwheel assembly. Hans Graesser, Markstr. 56, D-71364 Winnenden, Germany. Phone +49 7195 6 38 57 8:00 PM CET Fax +49 7195 81 80 anytime

**For Sale:** Seven hour Dragonfly/Q-2/Q-200 1994 Fly-in Video \$21.45 including postage (\$29.95 overseas) Workshops, Owner interviews, Aerial fly-bys, Awards banquet. FRIENDLY VIDEOS, P.O. Box 11929, Prescott, AZ 86304 MC & Visa accepted (602) 778-6988

**For Sale:** Dragonfly elevator, aileron and rudder hinges cut from .100 4130 steel. Precision cut (Very Nice!) to

1/32 in. by computerized plasma cutter. Complete set, regular price \$120.00, Introductory price \$100.00 Call George (504)758-7540

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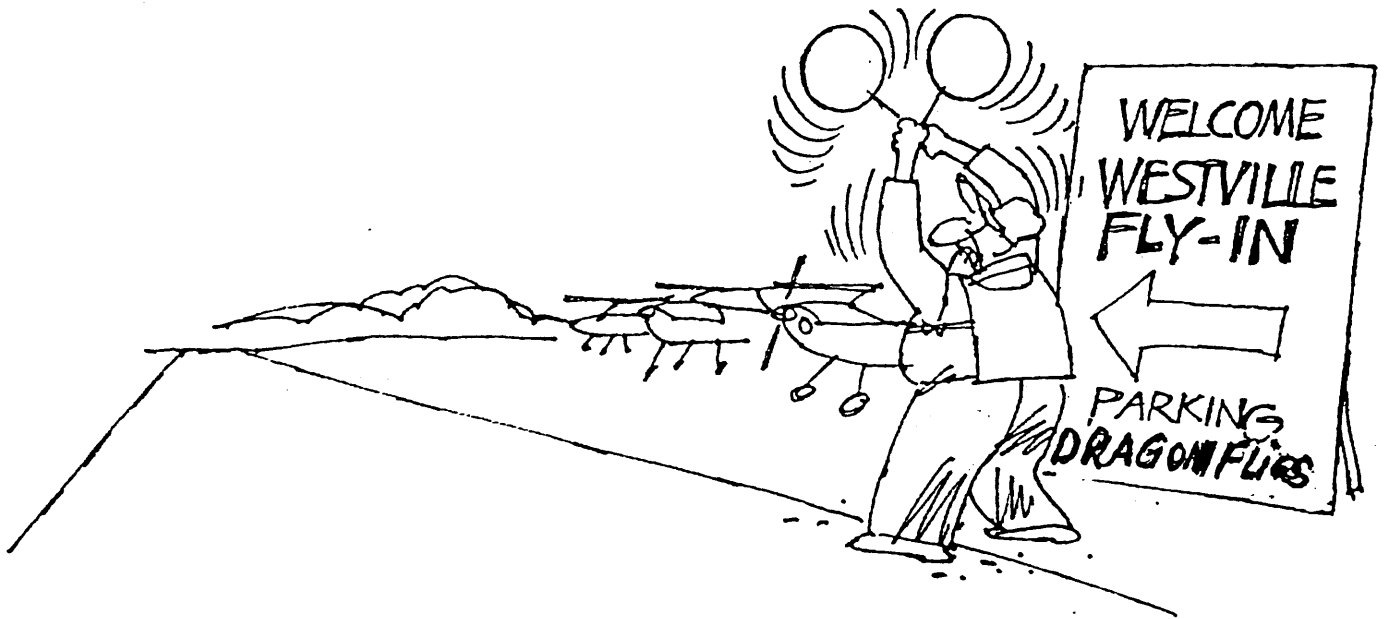
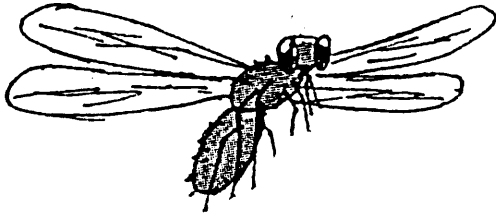
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