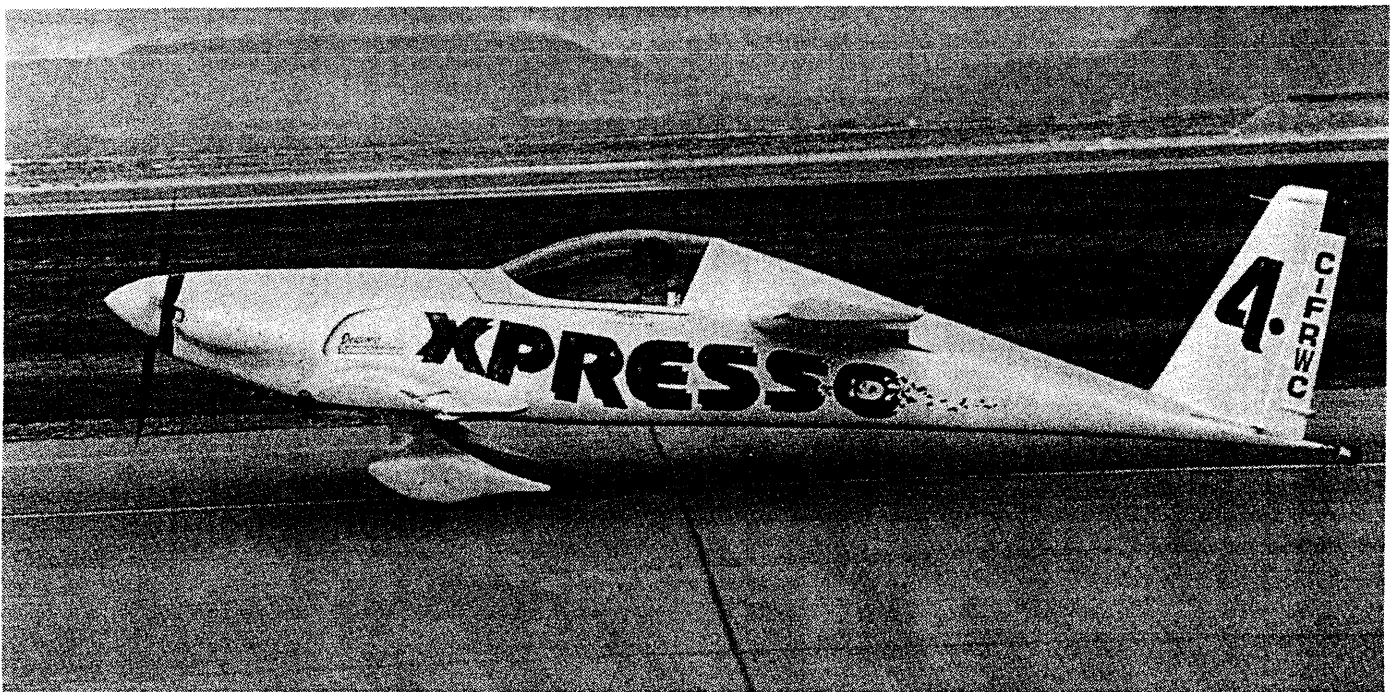


DRAGONFLY BUILDERS AND FLYERS NEWSLETTER

THE OFFICAL VOICE OF DRAGONFLYERS ALL OVER THE WORLD

VOLUME 60

JULY - AUGUST 1995



REG CLARKE OF ALBERTA, CANADA IN HIS TURBOCHARGED DIRECT SUBARU MARK II DRAGONFLY

*The amazing power of an idea.....*in 1992 at Oshkosh's Rocky Rococo's pizza parlor was Reg Clarke & his brother Bud Clarke, Roger Enns, Spud and a few other Dragonfly builders. Of course at these chow meetings there is a tremendous exchange of information, idea's & yes, lots of B.S too! One of the main topics at this particular evening gathering was the future and feasibility of the Subaru water cooled engines. The idea came up that if we can fly a DF on a 1800cc VW direct drive engine, why couldn't we fly a DF on a 1800cc Subaru engine direct drive?????? Then the idea of increasing the horsepower with a turbocharger instead of the use of a reduction came to the table. Well.....Reg Clarke is a quiet man, but don't let that fool you

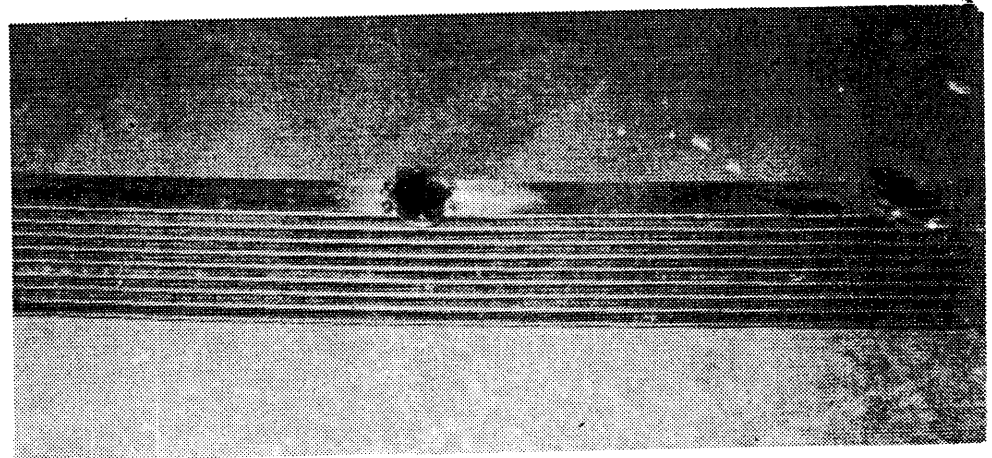
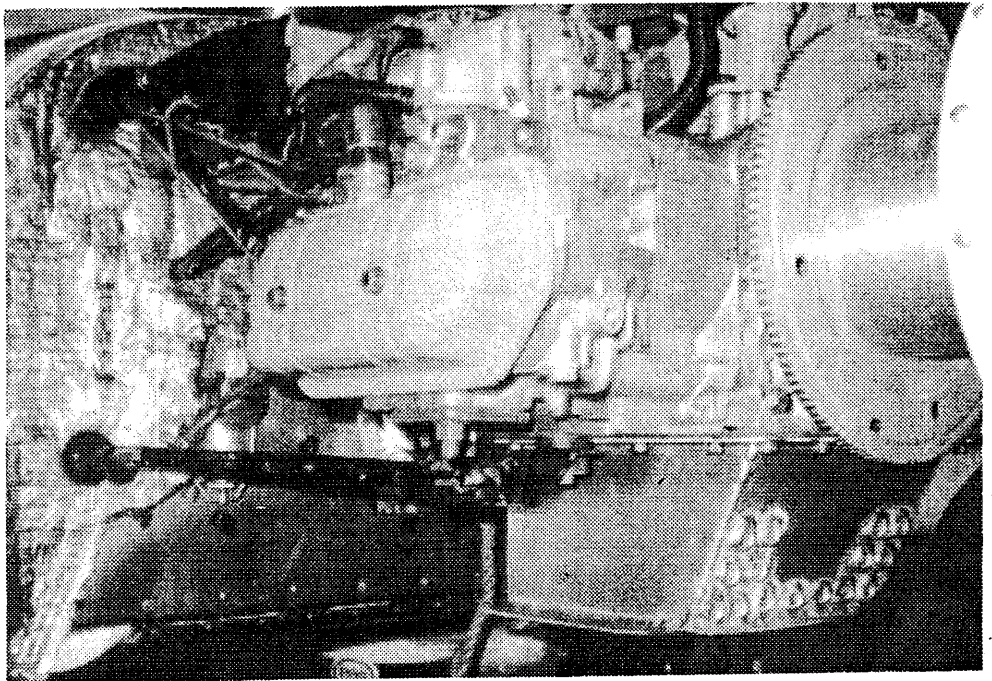
a bit, his mind is going 500 mph when everyone else is flapping their jaw. Reg was the guy that "grabbed that ball and ran with it". Reg flew his Dragonfly home that year from Oshkosh and immediately started going to work on the project. Reg now has 276 hours on his direct drive turbocharged Subaru. To follow is a partial update on his progress to date. -- *Spud*

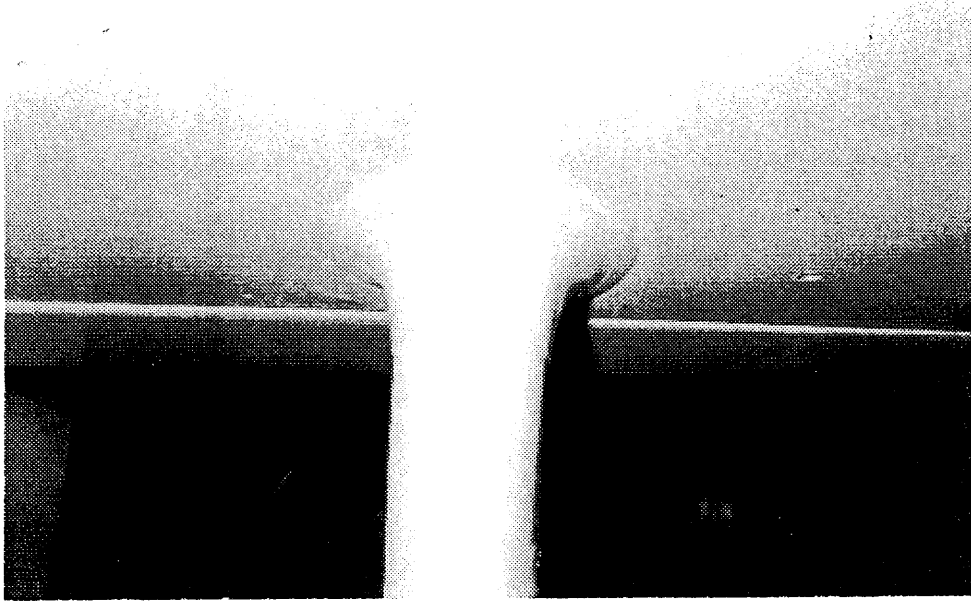
Greetings from the cold northwest of Canada. C-FRWC is back in the air after modifying my 54" Warp Drive propeller blades. I thought it would be a good time to bring everyone up-to-date on my Dragonfly.

I flew to the Copper State Fly-in last November where I won the "The Furthest Distance Flown Award". I flew 1200+ miles, which wasn't in a straight line, but that's another story another day. This was the first good flight with the new propeller mods. It felt as if someone took the governor off the airplane. The airplane now will accelerate to what ever speed you want according to the pitch of propeller and engine rpm's. The cruise speed went up 10 mph, climb improved by 300 feet a minute. Top speed is where it really went up, top speed 220+ mph (buzz job). Gary Hunter is the man with the prop magic. Gary is the crew chief for Pushy Galore. They have held several records with Gary's props. With Gary's props, Pushy Galore has held the 2000 foot record. That is from a dead stop to 2000 foot mark. They held the last record at 1 minute, from a dead stop! Gary's has designed some new blades which he refers to as his "Paddle design". They just beat their old record to 2000 feet by 9 seconds. The record is now 51 seconds to 2000 feet. Gary is prepping some of these theseblades to try on my DF. I'll keep everyone informed on the out come. He charges \$300.00, \$100.00 per blade to do the modification...! What a differance, it was worth every penney I set the same pitch as before with the airplane waterline level - 15 degrees. The engine rpm's went up 200 rpm's - speed and climb performance has also increased.

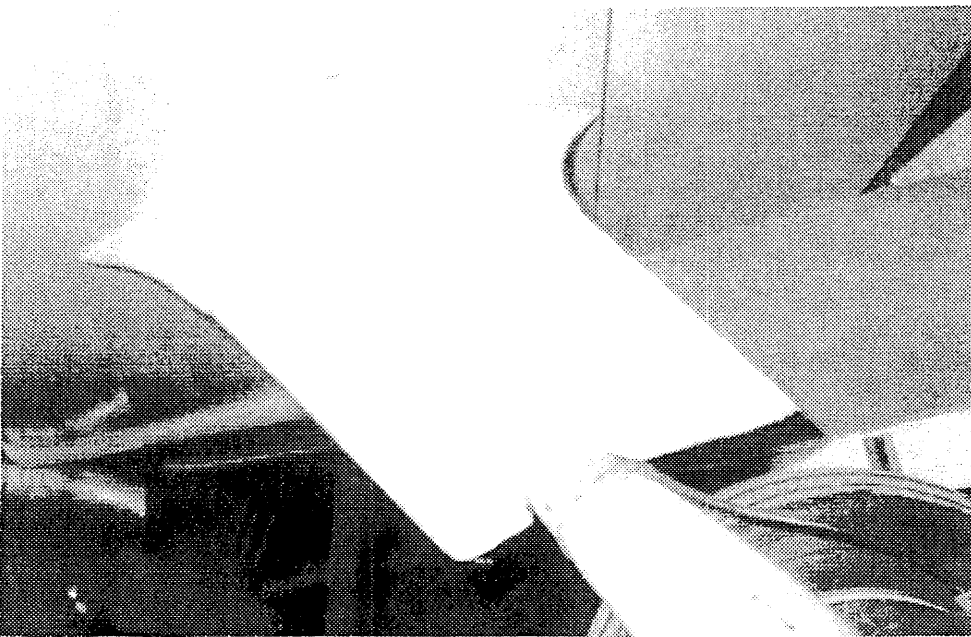
The Subaru is working just great! We have updated it by installing an inter-cooler on the engine and a new custom aluminum radiator. You don't feel anything from the engine, minimum vibration and just a quiet purr. With the turbo-charger it doesn't care what altitude you fly at, It's just as strong at 7500 feet as it is at sea level.

P-51 scoop and the radiator. At this time we (my brother Bud & I) have made a mold for the cooling scoop that incorporates the new custom radiator. We designed the new radiator for a larger horsepower of about 250 hp. The new radiator is 3.5" X 3.5" square X 35" wide. We went a little overboard on this because of possible extended ground



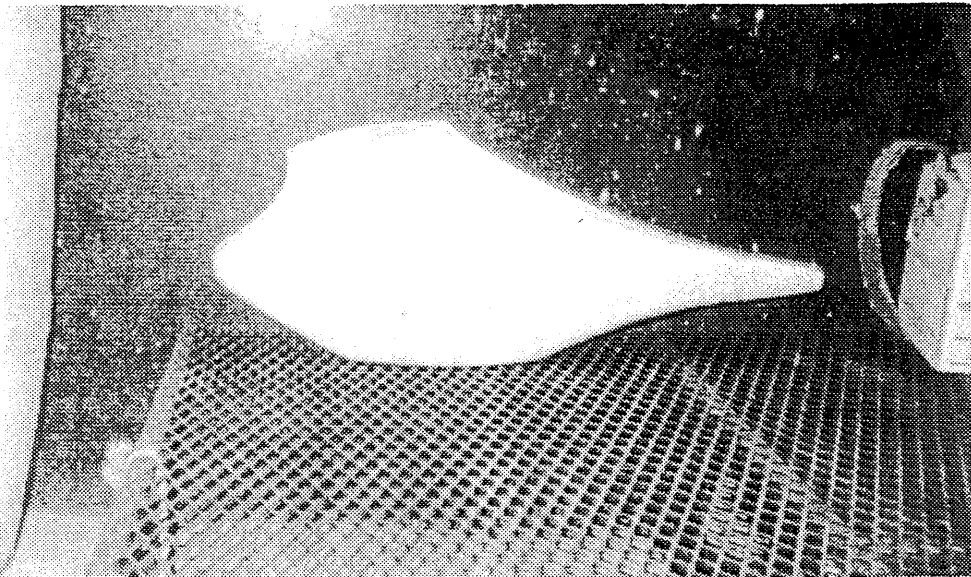


hold time and extended climbouts. I tested this new radiator by climbing at 1500 - 1600 ft a minute while heavily boosting the engine and climbed to 10,000 ft.. The heat gauge climbed to only 210 degrees F and held there. With the old radiator system (behind the engine) I never would of made it to 5000 feet and the temp would of been over 250+++ . This was a good improvement.



Intercooler efficiencies..... I have seen the induction air over 200 degrees F climbing at 12,000+ . The higher you fly the more the turbo works, the more efficient an intercooler is. A rule of thumb is for every 11 degree F reduction by the intercooler there is a 1% increase in power. On an average cruise now at 10,000 ft. the temps are now as low as 125 degrees F. And as we work to improve the airflow to the intercooler I expect that to drop these temps even more. I feel that by intercooler reducing the intake charge has assisted the radiator system cooling also.

I also installed an aileron reflexer and an auxiliary fuel tank in the baggage area right behind the passenger upper seat-back bulkhead. This location causes a slight rearward shift in the C.G. . The aileron reflexer easily helped offset this change and has improved my cruise speeds.



A wing and canard low-drag tip modification was the next item that I did. I can not say that this mod helped my speed any (primarily because I did so many changes at the same time). The stall speed is the same but is definitely a softer stall than it was previous to the mod. Also when I was in rough air the tips would do a twisting dance. This has been reduced, very little twisting now, no matter how rough. Each tip was shortened 2" from the trailing edge forward to create a 60 degree angle. The total reduction of the wing and canard is approx. 3 feet.

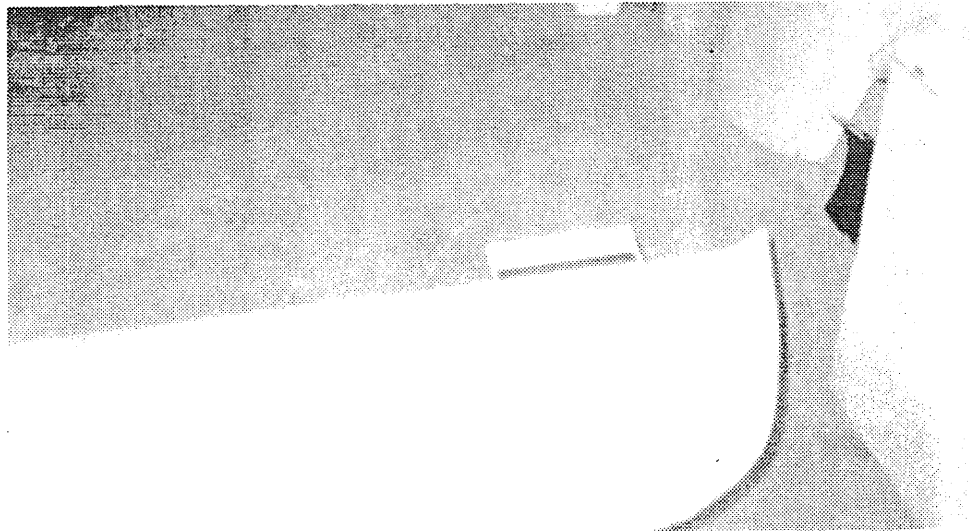
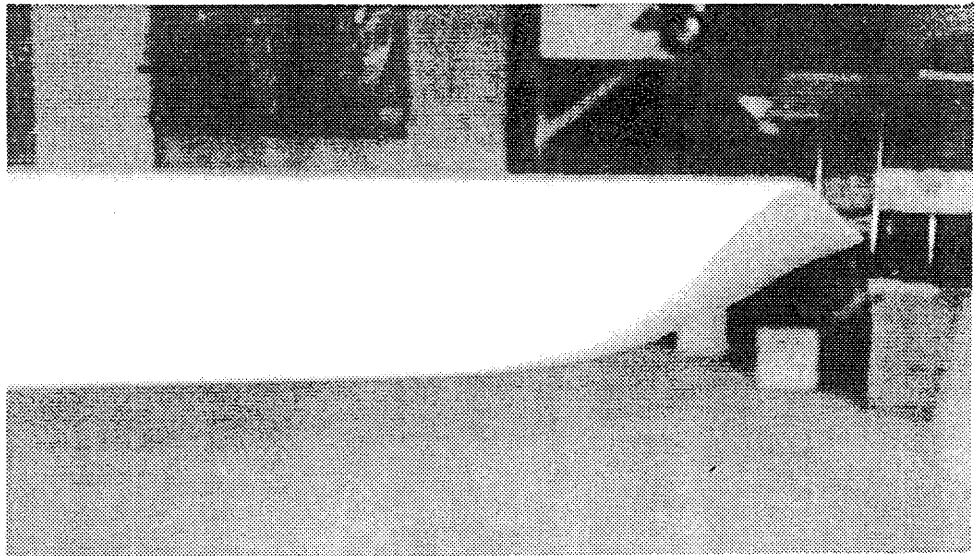
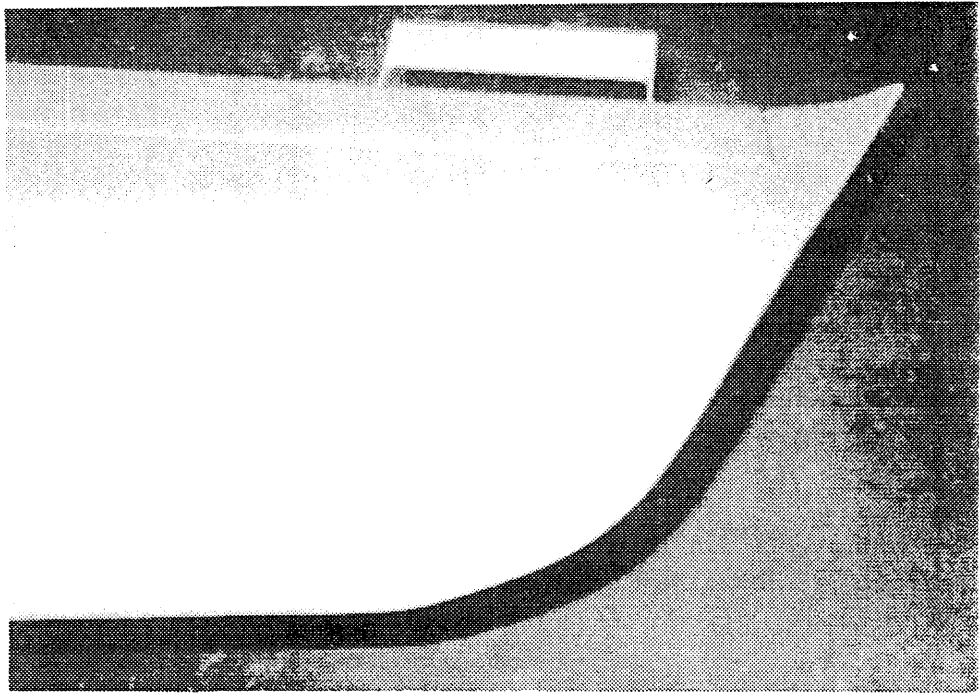
My brother (Bud Clarke) and I made new wheel pants to fit the Lamb tire and the upper leg fairings/leg covers when the canard was upside down. I used the insta-foam you buy at the lumber yards. I carved a rough shape and then used plaster-of-paris to get it nicely shaped

and smooth, but I did find it hard to file down without chipping. I shaped the leg fairing first with the leg and wheel in place. I placed packing tape on the canard surface and wrapped the gear leg so nothing would stick to it. Then I installed the wheel pants and then made fairings the same way. I studied the AR-5 tapes which helped in the design greatly. The wheel pants split down the middle, the leg fairing slides onto the gear leg before leg installation. (After the wheel pant has been installed). The fairings are slid and siliconed into place. We have the mold for these wheel pants. If anyone is interested in a set for their DF please give us a call.

Here's the latest stats on my Dragonfly. It has a total of 462.5 hours. There is 276 hours now on the direct drive turbo-charged Subaru engine. My basic empty now is 835 lbs. Fuel burn is 4.8 gph to as little as 4.5 gph at altitude. It comfortably cruises at 180 mph TAS at 10,000 feet at 36" (3 lbs.of boost) at 3600 rpm with the new prop mod. Climb is 1400 to 1500 fpm at 45" (7.5 lbs. of boost). Cooling temps run from 185 to 210 degrees F depending on boost and/or climb. Again the Subaru is smooth and quiet compared to the VW.

I've been doing quite a bit of formation flying with a couple of buddies, one with a Long-EZ with a Lyc O-235 and the other with a Midget Mustang. The Long-EZ can't stay with me from the moment of brake release. The Mustang hangs in there pretty close until 4000 to 5000 feet and then its all over. The turbo really takes over at 4000 and up. I can fly circles around both of them. Until I started flying with these guys, I had no idea that the performance improvement was so radical. It's kinda fun to be the leader of the pack for once! Score.....Long-EZ's and Midget Mustang's "ZERO" and Dragonfly's "TWO POINTS".

My brother Bud who also is building a Dragonfly and is installing a more aggressive engine combination. Bud's using a EA82 Subaru (overhead cam version). It will be fuel injected, intercooled turbo-charger, with a 2.17 to 1 Ross reduction. I also will be installing this fuel injection on my engine also. Bud should be flying in 6 to 9 months. It will be very interesting to compare performance, but we both expect



Bud's to be a real pocket rocket.

We can supply the P-51 scoops, radiators, wheel pants, cowlings for the Subaru or VW's engines, header tanks, aluminum oil pans with cooling tubes, crank to prop hub extensions and of courses the direct or reduced drive turbo'd Subaru's at any stage. Also we still have the video's available on the Subaru mod's and installation.

Here's is the pricing on the items that we supply the homebuilders. And some of the items are specifically for the Dragonfly. We have two video's available: #1. Build your Subaru to "0" time, balance and blueprinting...\$49.95 #2.Engine mods & installation firewall forward...\$49.95. Both tapes for \$89.95. Add \$6.00 for postage. Subaru direct drive prop extension-\$375.00, EA-81 engines starting at \$3900.00.

Also for the Dragonfly - Wheel pants (small) \$150.00, Subaru cowling (4.5" longer) -\$495.00, Body cooling scoop (P-51 style)-\$495.00 Radiator-call for pricing.

Order by sending a check or M.O. (U.S. Funds) to the

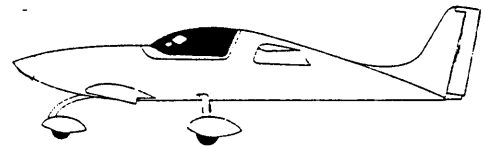
below address.

I'll be flying to Oshkosh this year and I look forward to seeing all of my Dragonfly friends, See you there.

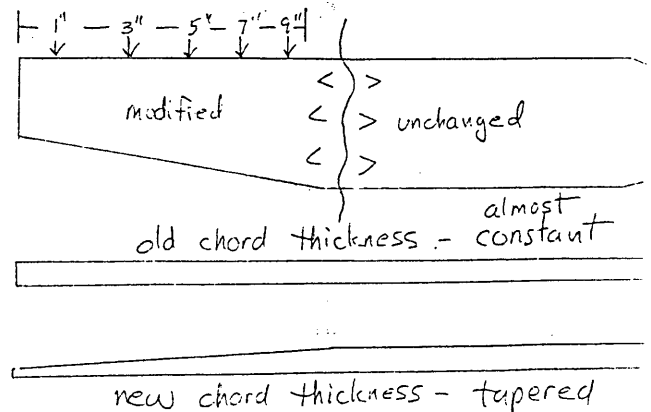
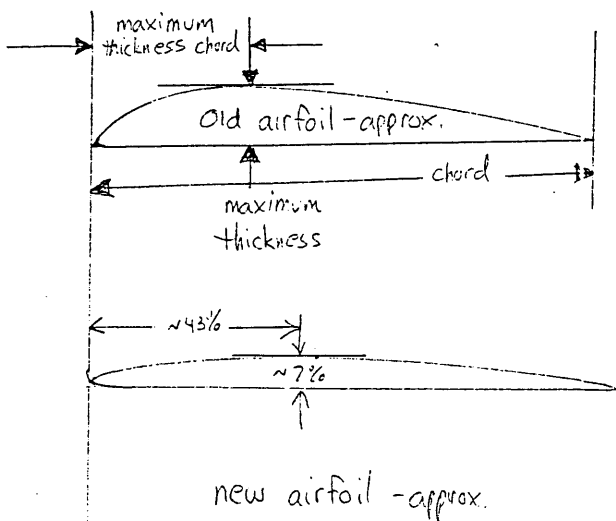
Spud keep up the excellent work. We appreciate the work you do for all of us with the Dragonfly Newsletter. It's because of your efforts is why we are seeing such a dramatic comeback of the Dragonfly.

Spud, I'll write in more details in the future.

Reg Clarke
Air Ryder Manufacturing
Box 6896
Wetaskiwin, Alberta T9A - 2G5
Canada
(403) 352-5001



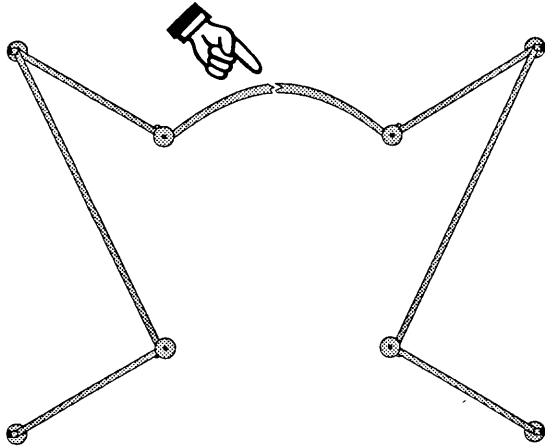
	Blade A					Blade B					Blade C				
Before	Chord Station (inches from tip)					Chord Station (inches from tip)					Chord Station (inches from tip)				
	1	3	5	7	9	1	3	5	7	9	1	3	5	7	9
Chord	2.105	2.43	2.73	3.0625	3.3625	2.095	2.4	2.6875	3.025	3.35	2.1	2.425	2.725	3.05	3.375
Maximum Thickness	0.3	0.35	0.4	0.425	0.43	0.2875	0.35	0.39	0.425	0.4375	0.29	0.3675	0.4	0.425	0.4375
% of Chord	14.25178	14.40329	14.65201	13.87755	12.788	13.72315	14.58333	14.51163	14.04959	13.0597	13.80952	15.15464	14.6789	13.93443	12.96296
Maxium Thickness Chord	0.725	0.775	0.85	1.025	1.125	0.7	0.825	0.9	1	1.125	0.65	0.75	0.85	1	1.125
% of Chord	34.44181	31.893	31.13553	33.46939	33.45725	33.41289	34.375	33.48837	33.05785	33.58209	30.95238	30.92784	31.19266	32.78689	33.33333
After															
Maximum Thickness	0.145	0.225	0.3	0.38	0.43	0.145	0.22	0.3	0.375	0.425	0.145	0.22	0.3	0.375	0.43
% of Chord	6.888361	9.259259	10.98901	12.40816	12.788	6.921241	9.166667	11.16279	12.39669	12.68657	6.904762	9.072165	11.00917	12.29508	12.74074
Maxium Thickness Chord	0.9	1	1.025	1.125	1.175	0.9	0.975	1	1.1	1.175	0.9	0.93	0.975	1.125	1.15
% of Chord	42.75534	41.15226	37.54579	36.73469	34.9424	42.95943	40.625	37.2093	36.36364	35.07463	42.85714	38.35052	35.77982	36.88525	34.07407



ENGINE MOUNT FRACTURE!

Hello Spud

I discovered a crack in my engine mount today and I thought you might want to put a note in the newsletter so that other Dragonflyers can check theirs.



I have about 250 hours on my Dragonfly with a Hapi 602DM engine and what they call the new style Hapi engine-Dragonfly mount. The top cross member was cracked right through. I think I have been flying it that way for a while but I didn't notice the break as I had some wire bundles tie wrapped to the mount at that point.

Peter Judd
3061 E. Kent Ave
Vancouver, BC
Canada

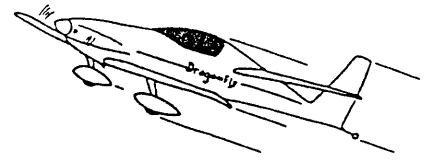
I only know of one other fracture of a motor mount on a Dragonfly and that has been long enough ago that I don't remember where or who's plane it was. The fracture that Peter had here is of course no way as critical as a crack would be if a crack would form on one of the four support arms of the mount coming from the firewall. I know the Long-EZ guys keep a pretty close eye on theirs also. I surveyed about six other DF builders that are flying. None of them were aware of any kind of problem, but all admitted to not really looking.

A periodical check can be made everytime you have the cowling off. Grab the engine assembly and heavily load it up, down, left & right. Don't be too bashful here, you'd much rather have it give now than in the air. A more proper inspection should be made a minimum of once a year during your annual. Your biggest enemy here is rust! Keep it clean and painted. - Spud

LETTERS AND LETTERS

Subject: First ride

June 10, 1995



Dear Spud,

Just got back from my first Dragonfly ride. We arove 16 hours and 750 miles round trip to the Porterville, Calif. airshow to get a 20 minute ride with Guy Evans in their beautiful Dragonfly. It was well worth the trip! Ron Triano from South Lake Tahoe went with me and he got the first ride. We both enjoyed ourselves very much and are very grateful to the Evans brothers for the opportunity to finally fly what we are both building. My only regret was that the traffic pattern got very busy and my 12 year old son, Nathan, did not get a ride. He was very disappointed. I had to promise him the first ride when our Dragonfly is finished.

My impression of the plane was that it was very stable. Control feel is very good in roll and yaw, but the airplane is very sensitive in pitch. Guy says that he is used to it and it is not a problem. But I can see how a new pilot could get into trouble very easily because of it. I realize that I need to find someone locally who can give me a thorough check out in a Dragonfly before I try to fly mine. Do you know of anyone? (*Yes, When you get your airplane done we'll get you together with a check pilot*) Also, since I have not done my elevators yet, I was wondering if it would help to leave them at the original length instead of making them longer as on the mark II plans.

Do you think this would make the airplane less sensitive in pitch? *Yes, They is going to be an article in DBFN#61 on this very subject - Spud*

Ron and I were both inspired by this experience and it reinforced our desire to get our airplanes flying as soon as possible. I am averaging over 80 hours a month on my project and Ron is putting even more time into his. We got a lot of good ideas from the Evans brothers and their beautiful Dragonfly. The only sad part is that their airplane is for sale. They are going to abandon us and move over to the RV6 camp! Oh well, they have been a great help to the Dragonfly group and I envy the lucky person who buys their airplane.

Thanks Again Gene and Guy.

Michael J. Digangi
1520 Appaloosa Ct.
Carson City, NV. 89701

Hi Spud,

Here is a little bit of e-mail from down under, "home of the Americas Cup" and so far only one partly complete dragonfly. I am the second half of the building team working on Phil Mattar's DF in Christchurch, New Zealand. You may add our e-mail address to the list of on-line DFs. DF builders can contact us using either Compuserve or Internet. The addresses are:

Tim Hughes & Phil Mattar
CIS: 71141,3460
INTERNET:PULSE.DATA@CSC.CANTERBURY.AC.NZ

Tim Hughes - Christchurch, New Zealand

Status of my project:

I just recently completed the final fit-up of the wing and canard to the fuselage. It took all day to set it up in the drive way and align everything. I had a little celebration when I finally removed the level boards off the canard and wing top surfaces. They've been on their 8 or 9 years.

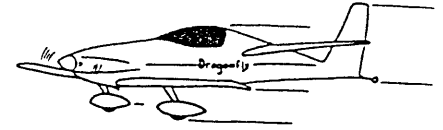
I've already painted my fuselage and control surfaces with Dupont Centauri White Acrylic Enamel. Used the new spray-on Fill N Sand primer to fill holes and UV protection. Used the Evercoat Putty filler for poor layups and small pinholes. If I had to do it over again I would have paid much more attention to the initial layup of glass. The trouble starts with a less than perfect surface. You then add the \$%#@&*!@##\$ micro over the glass. That is the part of the finish process that was the worst. In difficulty, time, and adding problems later on. Next composite aircraft I build, I will not use that process. (P.S., a Chapter member is building a Velocity. Their technique provides an almost smooth surface after glassing. One coat of Spray Filler (Not Featherfill) and its ready for finish. No \$%#@##\$%&%\$ micro used. I hope to finish both wing and canard in a few weeks. Then all but touch up finish is done.

My engine is a HAPI 60-2DM. I bought it way back about 1986 from Rex. It has been in my garage with oil in it until Spring, 1995. When we tore it down, it was in new condition. A little clean up and it is ready to be installed and run. (That is a good article from Chuck Ufkes in the last newsletter. I'm going to check my HAPI flywheel as he suggests.) Engine installation, instrument hookup and engine run is next. I was hoping to fly to Kansas this September. But, I'm now trying to just get to the airport this summer.

I need to know what other Dragonfly builders and flyers are in the area around Atlanta. Please send me a list of those in Georgia, Florida, Tennessee, Carolinas, Alabama if that is not too big a list. I'm especially interested in someone who can give me a couple of hours flying instruction in their Dragonfly. (I've had one hour in Chuck Ufkes D-Fly several

years ago at a Pancake Breakfast in Kissimmee, Florida. Enough to make me happy, I got the Dragonfly, but not enough for flight instruction.)

Carl W. Ericsson
1450 Willow Point cove
Marietta, GA 30068
(404) 518-8887



From: Vic Maynard

I can't hardly wait for each issue of DBFN!

We are currently marketing My First Keyboard (preschool keyboard for children) and don't have time to finish our nearly complete plane. Look for it in your local Comp USA, Tiger Direct, Micro Warehouse, AAFES and other stores.

We put about 4 hours on the Subaru conversion with the prop on a test stand last year. Needs fuel injection added for smoother burn. Overall it runs great. Thanks for the great news letter. - Victor Maynard

OSHKOSH UPDATE!

Those looking for Oshkosh event details DF/Quickie dinner, forums and so on please refer back to DBFN #59 page 9.

Don't forget prepayment for this years Dragonfly - Quickie banquet must be made at the Great Plains Aircraft booth K209 (in middle approx.) in the central exhibit building **No Later than 1:00 PM on Thursday July 27th.**

Let's make sure to visit one of our friends at Oshkosh. Rob Kermanj of Boca Raton, Florida, 900+ hour Mark I Dragonfly & RV-6 builder. Rob Has started his own business. He's in the apparrel business. That is caps, T-shirt, Polo-shirts and etc. He has purchased one of these hi-tech computer driven sewing machines to embroider anything you can think of. He says he has a beautiful Mark o design done and will have the Mark II one done by the time we arrive. Make sure to check them out. You can find Rob in his Beagle Aviation booth #D-128 (approx. in Middle) in the South Exhibit building.

Make sure to stop by Wicks, Aircraft Spruce and Alexander's they all have supported us at one level or another.

Have you sent in your Ottawa Fly-in registration yet? What are you waiting for! Mail it Today!

HITCH A RIDE FOR THE 1995 OTTAWA FLY-IN

Spud, I'm flying into Kansas City International Airport on Friday Septmber 1st to attend this years DF fly-in. I'm interested in getting together with some of the other builders that are also flying in so we can share the rental car and fuel expenses. Please have them call me (207) 324-324-6072 Jody Adams - Sanford, Maine

THE 1995 ANNUAL FLY-IN

This year is going just too fast. Wow! I can't beleive it, but as I wrap up this issue of DBFN there is only 45 days until this years annual fly-in.

Last year we had over 120 builders attend the daily festivities. We even had 103 attend Saturdays awards banquet. We had a total of 18 aircraft which was excellent for the weather we had to deal with.

This tandem wing fly-in continues to grow. It is the most concentrated collection of tandem aircraft, builders and industry expert that you'll find anywhere, even Oshkosh.

This is our FIFTH year at Ottawa. It seems to me that this in its self a milestone. I think we all should try to make this year a little more special than usual. I'm working on a major award that will be for one of the owner/pilots of a Dragonfly, Quickie, Q-2, Q-200 only that flew to this event. I don't want to say what we are up to because I don't have it firmed up yet! The way this will work is simple. If we have 25 planes attend. The pilot/owner will have 1 in 25 chances to win this grand prize. If we have 35 your chances are 1 in 35! I figure the planes are what make this so special for ewveryone!

We have a official challenge this year from the Quickie boys. No, not the Q-2 guys and No, not the Q-200 guys. The Quickie guys (the single seaters). The challenge the Dragonfly guys. Jon Finley of Minnesota with a VW power Quickie (the main ring leader) is attempting to assemble the largest gathering of Quickie ever. And at the same time he that they are going to have more Quickie than Dragonfly's! Well guys, are you going to let them beat!

Yes, Girls we are still panning on the big shopping trip on Saturday into Kansas City.

Everyone needs to make that committment and start making those flight plans right now. Let's make this our biggest year ever for everyone! - Spud

PLEASE MAIL THOSE REGISTRATIONS TO-

THE LITTLE ENGINE THAT COULD!

● **Or in this case, The Little Dragonfly That Could!**

One of the guys at our airport (Doug) is a regular customer at a restaurant about 90 miles away. He said to me one day, "Why don't you and Steve fly along and have breakfast in Wilcox with us?" Well it was Saturday morning (that we could spare) so we said "OK". Steve is a Quickie builder and flyer and he thought it would be fun also.

Doug is an ex-Navy fighter pilot who is also a CFI and is one of the safe type of pilots. So when he said that I should get on the runway with him for a flight of two departure I thought that would be OK because his 1959 Piper Comanche would be so far ahead of me I couldn't come close to him if I tried. His Comanche has a blue printed 180 hp O-360 Lycoming that has at 190+ hp if not more and a constant speed prop. I have flown the plane and was very impressed, it is a show quality aircraft. When we got lined up on runway 12 he asked if I was all set, he was on the left side about 20 yards ahead of me, I said OK. He had another friend with him, so both planes had two on board and full fuel. In went the throttle, we rolled about 30 yards and I thought something was wrong with his plane because I was gaining on him quite fast. I pulled the throttle back to 21 inches manifold pressure and we finally matched speed. I thought he will get going in a second, he is just being cautious with me in trail. We stayed about 20 yards back until he got the gear up, then he started to pull away. I gave it full throttle now and started to gain on him again. I then pulled it back to 23 inches of manifold and we were locked into the same speed again. What a thrill for me to be flying this close to another aircraft. I had never taken off at less than full throttle but my trusty Dragonfly handled just fine. When we got to 500 foot AGL we hit some light turbulence that was enough of the close flying at 90 mph, I shoved in the throttle to 28 inches and just blew by him at about 30 yards away. I set up a normal climb at 600 foot a minute at 120 mph. The Comanche just kept falling back. I leveled at altitude and maintained about 150 mph IAS. Soon the Comanche came along side for some photo's, then just to show off he shoved his throttle in and got ahead of me, he normally cruises at 160 mph. I had always felt that my little homebuilt was some how "almost a real airplane", now I am just a little more prouder of my Dragonfly. It's quite a solid airplane and will fly quite nicely with two on board.

"The Kitchen Magician" - Justin Mace - Tucson, AZ.

TED GIVINS UPDATE

● The Check-out, DF Glider, Grass Strips and a Muddy Canard

Spud and fellow Dragonflyers,

Time to update you on the status (flying) of C-GGEM. I finished the annual inspection and started flying this year May 20. In the first 6 days I logged 12 hours without a glitch. Since then I've flown approximately 35 hours and I had to check the oil, and that's it.

During the 26-28 May I had the opportunity to meet the "soon to be next Canadian Dragonfly owner/pilot" Dave Alder. Dave is close to flying and had the chance to come to Ottawa (Canada). So we arranged for some cheap insurance, ie. **A Check Out!**

The weather really co-operated and we flew 6 hours in three days including a landing and takeoff from a grass strip. This was a must because a local field had a fly-in breakfast (more details later).

The first day was spent flying around demonstrating the non-spin characteristics, slow flight and then a bunch of flying just to get the "feel". After about an hour it was back to the airport for circuits and of course at least one fly-by. The next day we took off to do some cross country and just have fun. The day was hot and there was a fair amount of thermal activity so we slowed down to an economic cruise, 2800 rpm and 130 mph IAS. Indicated and true airspeed were pretty close since we were below 5000 ft. also the GPS confirmed our ground speed was around 115 kts. (132 mph). The flight was great, we met up with a buddy and flew some formation flying with his Vari-EZ then continued on our way. Nigel Field Vari-EZ - Subaru power had a oil leak and had to land.

During the flight I was showing Dave the canard buffet at stall. With power at idle, 1200 rpm and indicating 60 mph the buffet was starting, BUT the VSI was reading "0". Yes, we were not losing any altitude, we found a thermal and into the wind our ground speed was less than 50 mph. At this point I amazed Dave, showing him that the aircraft had full aileron authority by rolling +/- 30 degrees. After this we returned to Ottawa and landed 2 hours after take-off. Now the bad news (for big engine aircraft owners) after refueling our total fuel burn was only 5.9 gallons (Imp) or 2.95 gallon a hour.....It doesn't get any better. And with this type of fuel economy why even worry about the need to use auto

fuel!

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The problem was that one of the two tabs, (the lower one on the control stick) had broken off that the elevator pushrod attach to. The other remaining tab had the begun crack at the weld. Well the biggest problem here is that this DF was a single stick airplane.

A closer inspection revealed that it had not broken, but the tab had rusted through!

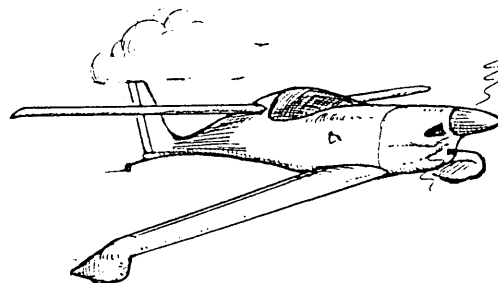
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Two years ago Bruce Dixon of Lawrence, KS which had not flown his DF yet had noticed a lot of slop at the bottom base of his rudder by the control horn. He

removed the rudder, there is a steel sleeve that is made up of a steel tube inside another steel tube to act as a spacer sleeve. He pulled it out of the rudder tube and it was just a handful of rust. He replaced it with an aluminum bushing, keeping it lubricated and inspected.

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TED GIVINS UPDATE

● The Check-out, DF Glider, Grass Strips and a Muddy Canard

Spud and fellow Dragonflyers,

Time to update you on the status (flying) of C-GGEM. I finished the annual inspection and started flying this year May 20. In the first 6 days I logged 12 hours without a glitch. Since then I've flown approximately 35 hours and I had to check the oil, and that's it.

During the 26-28 May I had the opportunity to meet the "soon to be next Canadian Dragonfly owner/pilot" Dave Alder. Dave is close to flying and had the chance to come to Ottawa (Canada). So we arranged for some cheap insurance, ie. **A Check Out!**

The weather really co-operated and we flew 6 hours in three days including a landing and takeoff from a grass strip. This was a must because a local field had a fly-in breakfast (more details later).

The first day was spent flying around demonstrating the non-spin characteristics, slow flight and then a bunch of flying just to get the "feel". After about an hour it was back to the airport for circuits and of course at least one fly-by. The next day we took off to do some cross country and just have fun. The day was hot and there was a fair amount of thermal activity so we slowed down to an economic cruise, 2800 rpm and 130 mph IAS. Indicated and true airspeed were pretty close since we were below 5000 ft. also the GPS confirmed our ground speed was around 115 kts. (132 mph). The flight was great, we met up with a buddy and flew some formation flying with his Vari-EZ then continued on our way. Nigel Field Vari-EZ - Subaru power had a oil leak and had to land.

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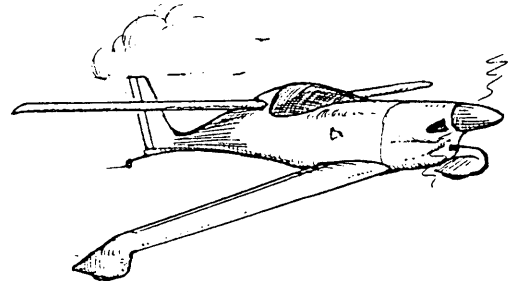
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For Sale: We're building another airplane so we're looking for a good home for our Dragonfly Mark II. This is a well proven aircraft that has excellent construction and excellent care. First flown in June of 1987. 520 TT on airframe. 2 hours on rebuilt 2180cc VW motor (hydraulic cam, Ellison throttle body, ported heads, forged rods, piston and crank). Full gyro panel (IFR certified) with Garmin GPS. Best Overall Dragonfly award at 1992 annual Fly-in. \$18,000.00. For more info call Gene Evans (209) 733-8358 evenings. (59 & 60)

For Sale: Hapi 1835 engine - new in shipping crate - 60 hp with dual ignition. Also prop, spinner, exhaust and mount for DF. \$2200.00 (502) 759-4740 after 8:00 CST (60)

Wanted: Your extra materials, looking for 5" carbon fiber (for spar caps), bi or uni cloth, blue foam, cowlings, canopies, etc., Instruments, Spud (913) 764-5118

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

For Sale: INSTRUMENT PANEL LAYOUT STICKERS- Trying to lay out your instrument panel and you've forgotten which circle is which? Here's what you need!! A packet of 10 pages of full size photo-repro's of instruments, gauges, switches, etc. Just peel them off and stick them to a mockup of the panel or on the instrument panel itself. A good way to fly the instruments before the plane is finished. Send \$20.00+\$2.50 S/H to Houde Enterprises, 12573 U.S. HWY 26, Riverton, WY 82501 <55-61>

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condition (less weave fill, etc.) Call for cash offers (502) 759-4740 after 8:00 CST. (60)

For Sale: Subaru's Power! 2 - Video's #1. Build your Subaru to "0" time, balance and blueprinting...\$49.95 #2. Engine mods & installation firewall forward...\$49.95. Both tapes for \$89.95. Add \$6.00 for postage. Subaru direct drive prop extension-\$375.00, EA-81 engines starting at \$3900.00. Also for the Dragonfly - Wheel pants (small) \$150.00, Subaru cowling (4.5" longer)-\$495.00, Body cooling scoop (P-51 style)-\$495.00 Radiator-call for pricing. Send check or M.O. (U.S. Funds) to **Air-Ryder Manufacturing Inc.** Box 6896, Westaskiwin, AB, T9A 2G5 Canada

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Tell someone that
there are
300 billion stars in
the universe and he
will believe you.

However,
tell him that
something has
wet paint on it
and he will have to
touch it to be sure.



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