

DRAGONFLY BUILDERS AND FLYERS NEWSLETTER

THE OFFICIAL VOICE OF DRAGONFLY BUILDERS ALL OVER THE WORLD

Volume 103

MAY/JUNE 2003



In a sea of EZ's, sat 4 Dragonflies. Pictured in the foreground is Brad Hale's MKII, which is sitting directly beside Allan Tenerelli's freshly colored MKII, which is sitting in front of Richard Terry's MKII. Not pictured is Tim Iverson's MKII. Tim flew in the day before and was parked quite a way distance from the others. Oddly there were no Q's what so ever in attendance.

Burt Rutan's 60th birthday bash. By Pat Panzera

On June 28, 2003, friends and family of Dick and Burt Rutan hosted a "surprise" birthday party for the famous brothers. Dick was about to turn 65 and Burt turned 60, so the birthdays were celebrated together. Over 100 canard aircraft were in

attendance. Although the vast majority of the planes in attendance were Long-Ezs, Cozys, and Velocities there were also 2 Defiants, a dozen or two (maybe more) VariEzes, 2 "Evolution EZ", 1 Speed Canard and our 4 Dragonflies.

Word was put out to the canard community, with over 300 respon-

dents promising to attend, and attend they did! The official record for the most Canards in attendance outside the Rutan hangar was broken Saturday, a stunned Burt Rutan reported to the guests. In 1988, 82 versions of his various designs (mostly Ezes) participated in a fly-in to Burt's Mojave California home base. On Saturday, the unofficial

I asked Allan about his new paint job. Here's the reply. ~Pat

Pat, I painted the plane just before I took it back to Oshkosh in 02. What I used was Velspar Omega 2K Polyurethane. It is a two step system, color and clear coat. I also added a few things of my own.

The first coat came out flat white and went on very easy. Then I added a fine white glitter that you can buy at a crafts store in the first clear coat. Then two more clear coats and some small runs and the white was on.

The design in red and yellow was about the best I could do with the small amount of artistic abilities I have. The red and yellow also have ultra fine red glitter in the finish.

Then I color sanded with 600, 1000, and 1500 grit wet paper. Sanding is probably the worst part of painting. Then polish with 3M compound. While I was polishing I burned through in a couple of spots. It is real hard to paint a plane without mistakes, at least for me it is. Most of the painting was done outside in front of the hanger in the morning when the wind is calm and the bugs are still asleep, at least most of them.

If I were to paint it again I probably would choose different colors. I am not real happy with the yellow, it was not the shade I intended. But until I find the time and energy to change, it will stay just the way it is.

The paint I used is not real expensive (about \$150 total) and it is easy to use and seem very strong and easy to maintain.

Allan Tenerelli N59RJ

count was up to 89, as Burt watched a spankin' new Vari-Eze taxi by the open hangar door. A more current count has it at 102 by the time everyone was on the ground, partaking in the BBQ lunch being served.

When the cat was let out of the bag, and Burt was told of the impending "surprise", he knew that there would be no way that the 1988 record would be broken. When Burt arrived at the airport around 10:30am, he was like a kid in a candy store, trotting up and down the ramp to check out virtually every plane he could. He was visibly giddy when speaking with some of the pilots, and quite frankly a bit miffed at a few of the design changes that he saw and wasn't too happy with. He was especially surprised to see 23 Vari-Ezes mixed through the sea of Longs, and kept joking, "Weren't those things grounded in the 80's?" Although I didn't count the number of Vair-Ezes on the ramp, I have reports that the actual number could be as high as 35.

Burt and Dick were scheduled to speak around 11am, so there about, we gathered in to the HUGE hangar adjacent to Scaled, as Scaled's hangar was fully occupied with SpaceShipOne and White Knight. Even through lunch Burt had his crew working away at preparing for the next step in his manned space program, putting people on board SpaceShipOne, and hefting it aloft for more trials. As of this writing, SpaceShipOne has been airborne, coupled to the underside of White Knight, yet no one has been on board during any flight.

Burt's family went all out for this event. The owners of the borrowed hangar were kind enough to roll out 4-5 of their F-4 Phantom projects to make room for a couple dozen

highly decorated tables, on which there was a helium balloon made up as a hot air balloon, weighed down with a load of popcorn. For a donation of \$5, we received a laminated color collage of various Rutan photos, which we used as a placemat. Some of us were also lucky enough to receive a commemorative golf ball.

Once we were seated, there was a 10 minute or so large screen multi media display, of the boys growing up together. I wasn't surprised in the least to see R/C models as a big part of their childhood. It was really cool to be let in on this part of their lives. It was actually quite emotional, visibly displayed by the boys, but looking around the room, I could see that many of us were genuinely moved as well. I felt privileged and honored to be a part of this event.

Burt's wife Tonya introduced the dynamic duo. She mentioned that for the first time ever, these two were speechless. If you've ever heard Burt or Dick speak, they are usually not short for words. But this time, things were different. In essence, they took turns with the microphone, acknowledging one another's accomplishments displaying mutual respect and admiration for one another. They also acknowledged their parents, especially their Mother, for instilling in them the attitude that they can do what ever they set their minds to. Dick set his goals on becoming a fighter pilot in combat, where as Burt went on to become an aircraft designer in an era where all his peers were going into rocket science. Burt has now come full circle. Later on in life, Dick became Burt's test pilot, just as they did when they were kids, with Burt designing and building model planes, and Dick flying and crashing

them. Together they conspired to build and fly a plane capable of orbiting the earth without refueling, and just as their mother taught them they could, they did it!

During the "stand up comic routine" of Burt and Dick, which started out by Burt telling Dick to move the "O-F-F button (on the microphone) to the O-N position, Burt began to speak on his manned space program. He gave a shortened version of what he presented in France recently (at their version of OSH... which he recommends that we not bother to visit, as it don't hold a candle to the real deal). Burt will make this same presentation at the upcoming AirVenture. Once Burt concluded his verbal presentation, he invited us to visit his hangar next door to take a real close look at SpaceShipOne and the White Knight. He told us that we could look, but not bother the crew working on the ships. No photography was allowed.

After the stage show, we were treated to a bit of an air show. One of the crew had built a tissue paper and balsa R/C model of SpaceShipOne, powered by an electric motor. The model had fully functioning elevons and the tail was able to go in to "full feather", the high drag, low speed re-entry configuration. It was very interesting to see it maneuver around at very low speeds, make very steep turns, and even roll. Once the tail was tweaked up to the feather position, it fell like a rock! I don't know how much power it would take to make a full scale version to fly around as an experimental aircraft, but it sure seems like it would make a pretty nice plane.

Since the crowd was so large, we couldn't possibly all fit in the han-



gar at once, so we split in to 2 groups. The group I was a part of was allowed to eat first, while the other group went for the tour. I understand that Burt went along and introduced the planes, and fielded some questions.

By the time I was ready to head over to the hangar, an award was given out for the pilot who flew the furthest. I heard one person say he flew in from New York, but he was beaten out by the couple who flew in from Virginia. It turns out that the person from NY flew in commercial, whereas the couple from VA flew their Long.

Even though I've already seen the White Knight and SpaceShipOne back in April, I was still in awe when I entered the hangar to see it's graceful span filling almost the entire room. SpaceShipOne was parked just aft of the mothership, undergoing preparations for it's next flight. The nosecone was removed for access, and for some reason the windows were taped off. It was really a privilege to be allowed in to this otherwise "not open to the public" work space.

After I found my way back to the lunch hangar, (I was sidetracked by the multitude of awesome planes on the ramp, and couldn't pass up the opportunity to get a photo from the scissor lift provided by Scaled for photo ops) I was in time to help clean up. Early on we were asked to stick around to assist, and it was my privilege to pitch in.

My wife and I made some new friends who had flown in that morning from Baton Rouge LA via Torrance CA and Tucson AZ. They needed a ride to a nearby motel, and we were glad to oblige. While we were at the motel waiting, we were approached by another fine couple, who needed a ride back to the airport, so they could start their trip home to VA. These were the long distance award winners, and once again were happy to be of assistance.

All in all it was an excellent event, and I feel fortunate that I was able to attend. I'd like to thank Burt's wife Tonya and all the others who helped put this together, and I really look forward to the day when we get notified that SpaceShipOne is "going for it"!

Editor's note: As we all should already know, our friend Andrew Aurigema designed, built and flew his own tandem wing aircraft, known as the Eos Raptor. In doing so, Drew diligently produced a set of concise plans, so that others might be able to build a similar Raptor, or even borrow chapters of this plans, to copy certain innovative elements Drew incorporated in to his project. The following article is an exact reproduction of Drew's chapter on landing lights. The layout has changed to fit the format of this newsletter, but not a single word has changed.



Chapter # 100 : Landing Lights in the Aft Wing

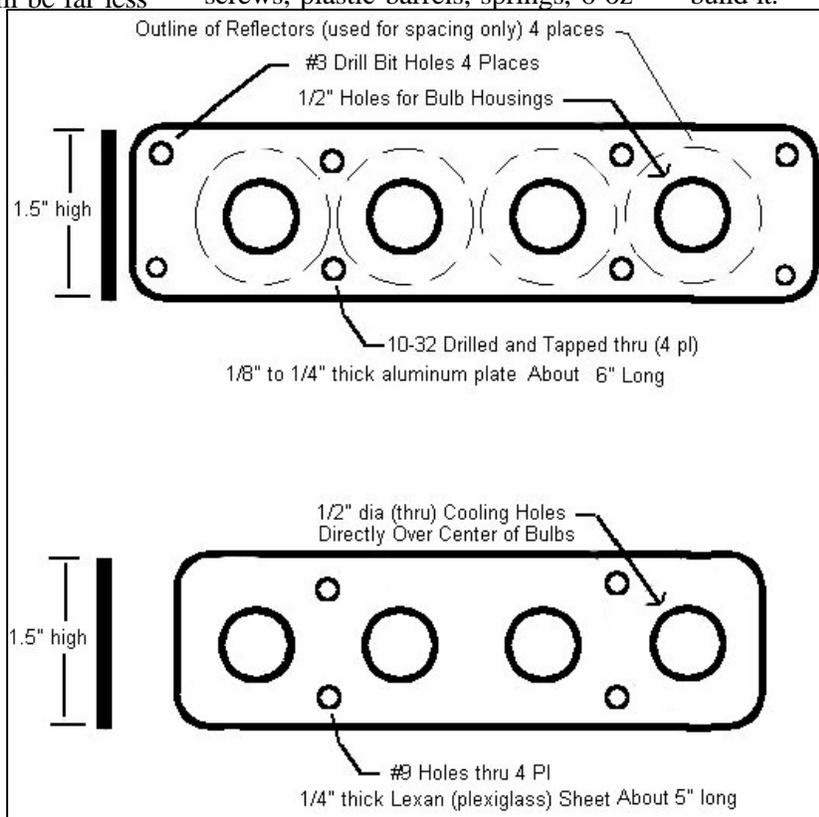
Theory: It gets dark at night. Landing lights are really good to have. You got to put them somewhere. The aft wing is loaded far less than the forward, so hacking into its forward edge will be far less likely to induce structural failure. The wing is only about 3 inches thick, so the lights have to be small. Borrowing from the camcorder world, we used 1.5" dia, self reflecting, 12 vdc halogen bulbs. At \$5 each and 40 watts, they were cost effective and very bright. Replacement bulbs were seen in Walmart so we are thinking that they are here to stay. We needed two, so of course, we installed four. Besides, they look way cooler that way.

Construction : First of all, you need the wing to be made. If

you haven't made the wing, go make it. Next you need 4 of the little halogen bulbs, some 1/8" to 1/4" thick aluminum plate to make the retaining frame from, some 1/4" thick Lexan (Plexiglas) plate to make the bulb retainer from, some 1/10" thk Lexan to make the lens cover from, an assortment of 10-32 screws, plastic barrels, springs, 6 oz

BI glass, flox, resin and 40 grit sandpaper. Read the instructions and see if we forgot anything.....cause you gona need that stuff too.

Layout : Look at the sketch and the pictures. Any questions??? We did not think so. So get cracking and build it.



The dimensions are not critical. Space out the bulbs so that they do not touch and are in a straight line. Figure on 1/8" between each bulb for vibration and clearance. The bulbs can be laid out on the aluminum to draw the outlines of the reflectors. Then mark the centers for the 1/2" holes. Note that the base of the bulb must pass through the 1/2" hole in the aluminum holder frame. The base of the bulb is glass. If it is a tight fit, it will eventually crack the glass. Break all drilled edges of the metal so that there is no sharp point loading of

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A Page from Andrew's Raptor plans: Landing Lights (Continued from page 4)



the glass. The Lexan holder plate is there only to hold the bulbs to the aluminum frame. The less Lexan there is in the retainer, the better. Them bulbs get very hot. Arrange the 4 each 10-32 screws so that they do not touch a reflector. The 10-32 screws pass through the Lexan holder and are screwed into (tapped) holes in the aluminum. If you use very thin aluminum, you will have to install floating nut plates to take the attachment loads. We used light springs between the aluminum frame and the Lexan bulb holder. It made for an easier assembly and kept the plastic from deforming under load.

Note: we built this prototype for a TRI-GEAR. Our landing angle is



about 10 degrees up and our taxi angle is 3 degrees up. If you plan on using these lights for taxi with a tail dragger (where taxi angle is more like 10 degrees up) you may

want to get clever and set 2 of the lights to shine a bit more "down" than the other two. I have no idea how to do this, but drilling the outer 2 bulb holding holes in the aluminum at a 5 degree (down) cant comes to mind. You could make two separate bulb holder assemblies and have a 4 point spring suspension for each plate. It would be the best solution, but you would have to double up on the work.

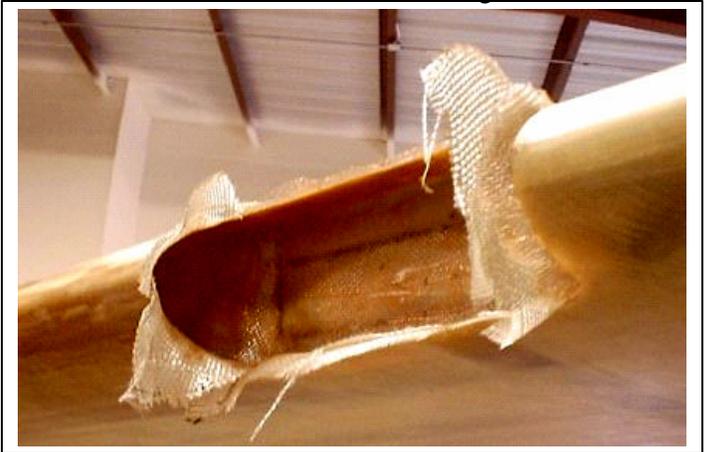
With the bulb holder made, you are ready to cut up your wing. The hole in the leading edge needs to be about 1" wider on each side than the bulb holder. A lot of stuff goes in that cut-out and you do not want it to small. Remember, you have to put aluminum attach-

ment plates in there and still be able to get to the spring loaded adjustment screws that move the bulb holder frame. See below for the hole we cut. It was about 1/2" to nar-

row and made for a very interesting time getting it all assembled. Make sure it is deep enough for the entire assembly. Ours was about 3" deep before we gouged out any foam. Figure on an inch in front of the bulbs, the depth of the bulbs and an inch behind them for wiring.

Hey, save that cut out leading edge. It will come in very handy later when you need the correct shape to heat bend the Lexan cover.

Note that the foam was taken back an inch from the glass cut-out. Go



do that now. The foam must go so that you can make a glass to glass bond. Get that glass clean (40 grit sandpaper) and ready for glass to glass bonding.

We used 6 oz BI glass in 3 layers (no special orientation). Wet flox (that is to say we painted the glass with resin then with wet flox) is a must for the glass to glass bond. About 4 oz of resin was used on this tiny area of glass. Do not let any bubbles form on the bonded areas, it will make the aluminum attachment plates a real bear to install latter. See below for what it all looks like just before cleanup.

Clean up the raw edges and anything that will hurt if you run across it. The next step is to bond in the adjustment anchors. This is a miser-

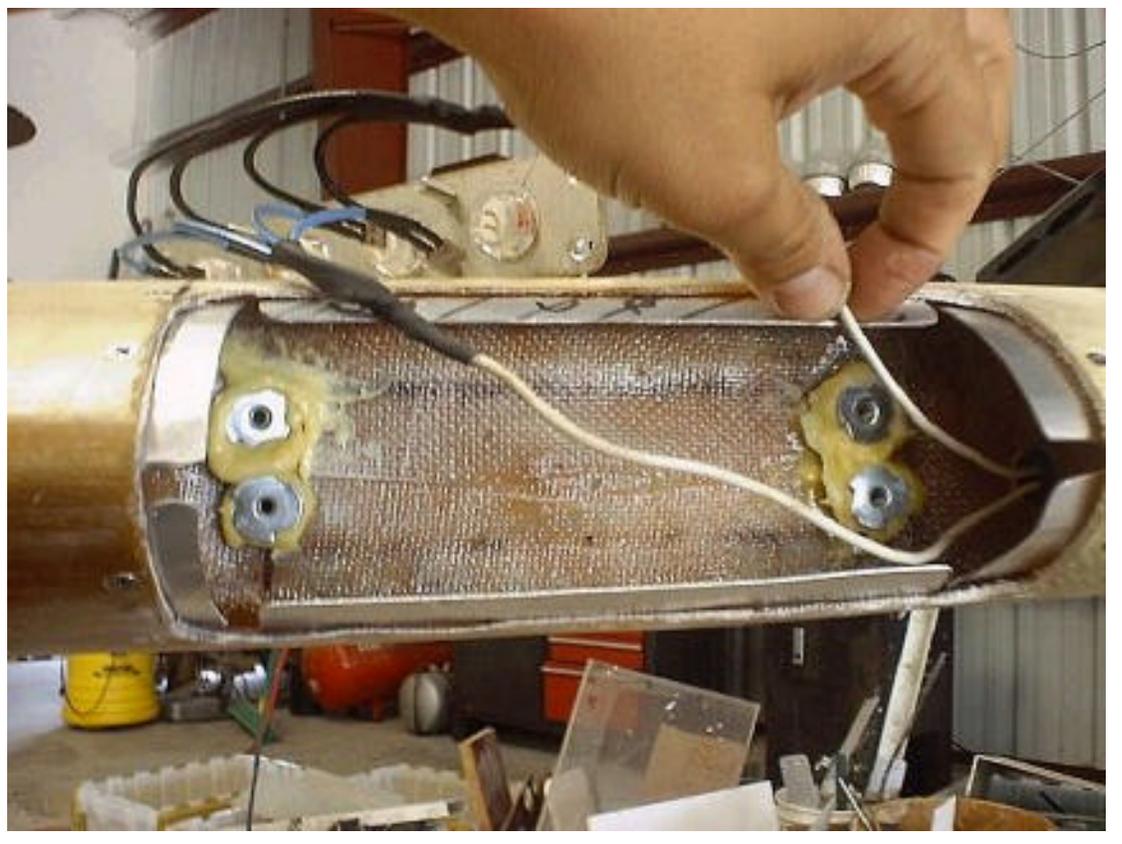
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able job, so try and pawn it off onto somebody you don't like. See below for what it all looks like when you are done.

Here is what you must do to get there. First, get some long 10-32 screws (about 2.5" should do) and 4 each SS 10-32 anchors with sharp pointy things on them. Get some of them nylon barrels that have a 1/4" hole down the middle and are about 1/2" in outer diameter. Anything will work, but you have to separate the anchors and the aluminum frame plate by about 2". Install the screws and the spacers (barrels)

and the anchors so that the sharp little nasty pointy things on the anchors are facing down (towards the fiberglass that they will be touching soon). There should be about 1/2" of screw sticking past the pointy things.

If you set it all up correctly, you can

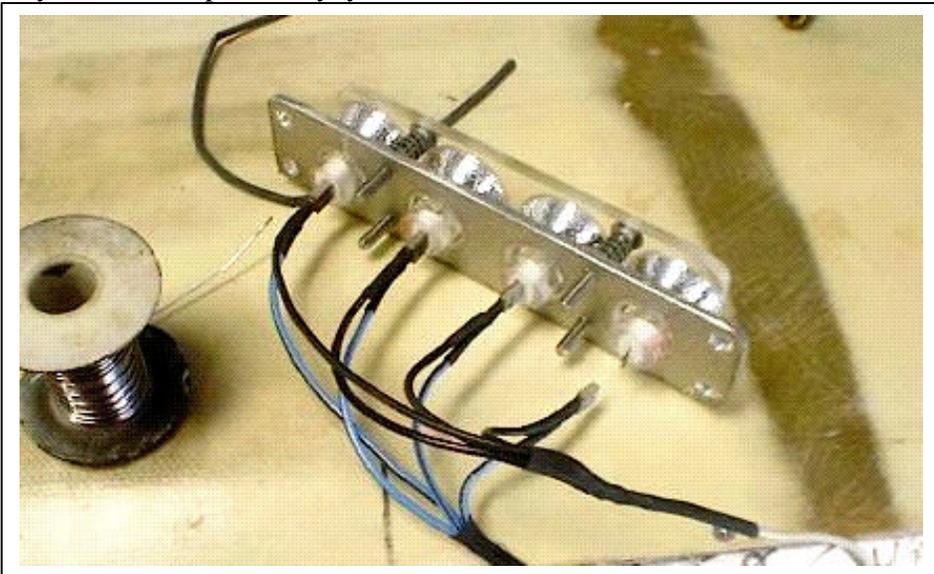


actually place your fixture in the cutout and mark where the screws will touch the fiberglass (in 4 places of course). That is where the anchors will be bonded home. So mark the places and drill a 1/4" hole about 1/2" deep (just to clear the screw). We bonded the anchors to the surface of the glass, but you can

do a classic anchor install and go to the subsurface. Your call. We used 5 minute epoxy and flox (very wet) but would recommend normal wet flox and epoxy. With the little structure all solid and such, it should be able to stay in place with duct tape while everything dries.

Eventually you are going to remove all the solid spacers and replace them with heavy springs. That way you can adjust the light holder and make the lights go where you want them.

Note: we built this prototype for a TRI-GEAR. Our landing angle is about 10 degrees up and our taxi angle is 3 degrees up. If you plan on using these lights for taxi with a tail dragger (where taxi angle is more like 10 degrees up) you may want to get clever and set 2 of the lights to shine a bit more down than



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the other two. I have no idea how to do this, but drilling the outer 2 bulb holding holes at a 5 degree cant comes to mind. You could make two separate bulb holder plates and have a 4 point spring suspension for each plate. Or you could mount the lights in at a slightly down angle so that you do not run out of adjustment range.

Hey, see them aluminum plate things on the sides of the big cut out. Them is the plates that support the Lexan cover and hold it in place. Go make them. We used 0.035 thk "dead soft" aluminum (like baffling stuff) and 6-32 counter sunk screws (flush riveted free floating nut plates on the aluminum). What a pain to set it all up, but that way you can take the leading edge cover on and off easy later. Don't install the free floaters that will hold on the plexiglass cover just yet. Just get the plates in place for now and set them so that they are a little below the surface of the glass. Total gap should be about 1/10 inch or so. The aluminum sticks out over the edge by about 1/2" in any direction on our protptype, but 3/4" would

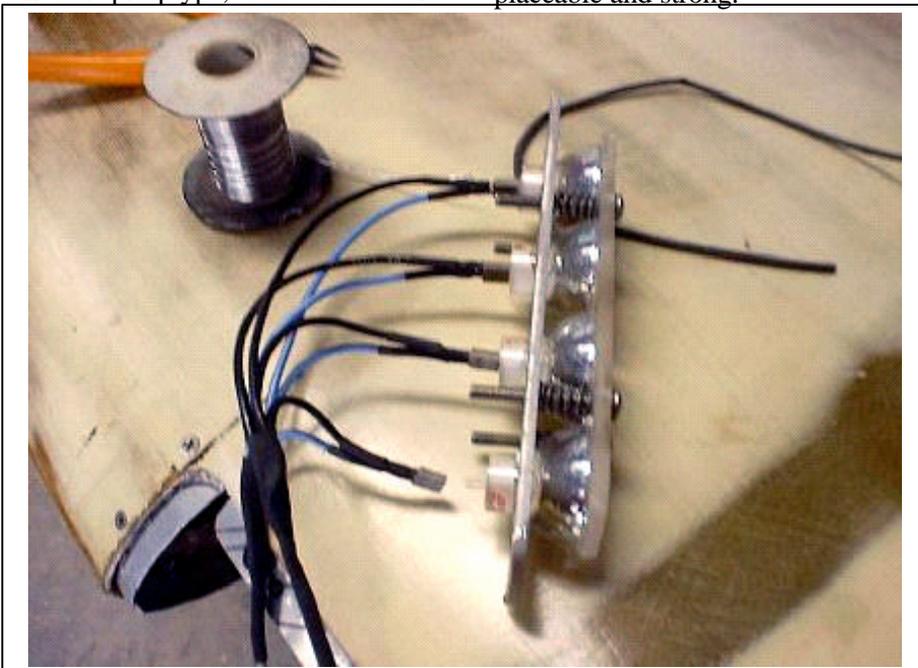
have been better for the top and bottom (where the final attachment of the Lexan clever will go). The Lexan you will be making the lens cover from does not like having holes drilled near an edge..... so make the top and bottom stick out enough to install the lens cover later on.

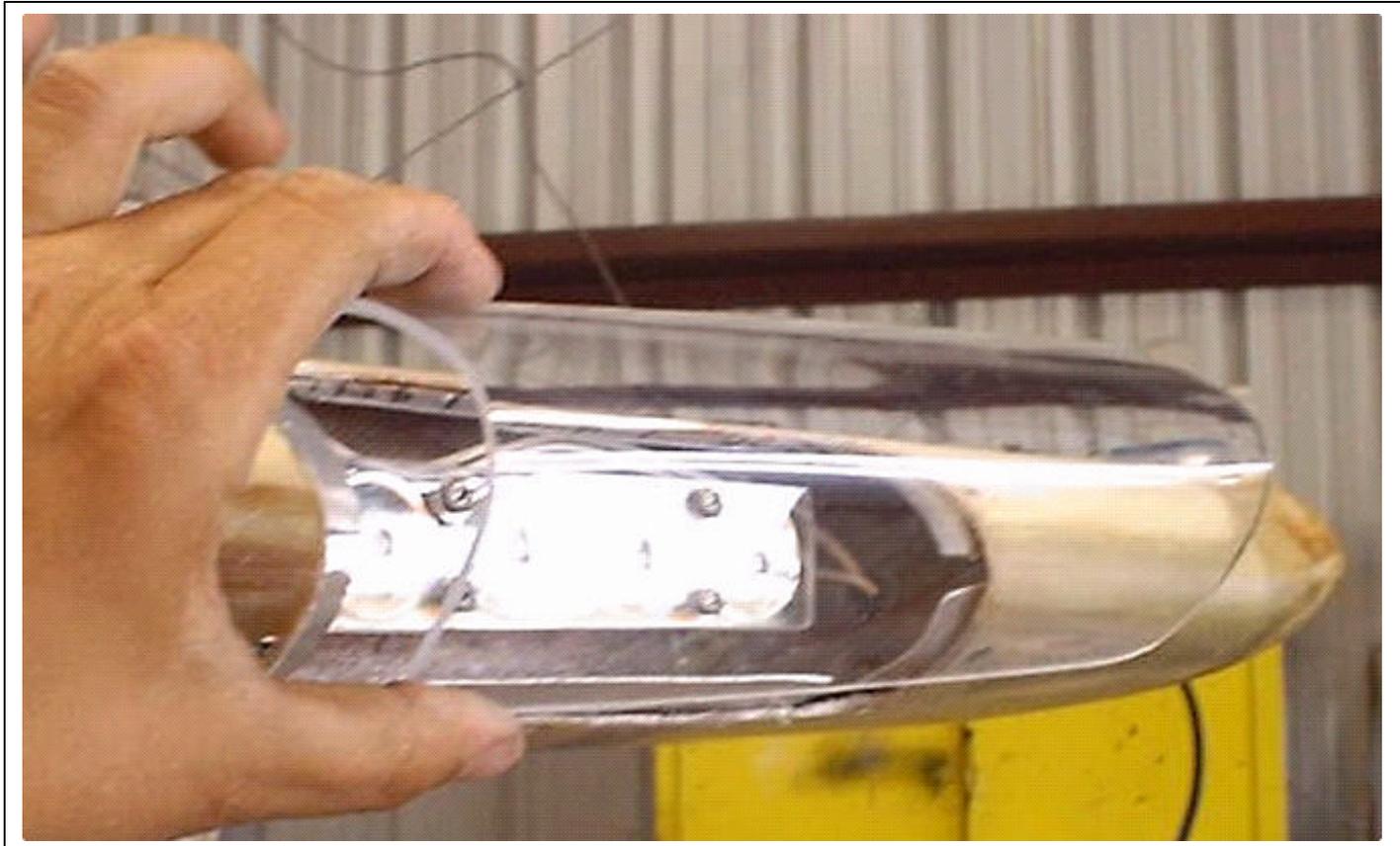
Sparky stuff: This is a good time to think about wires also. So go think about them. 160 watts is a lot of current at 12 volts USE BIG WIRES. See below for some ideas. We found the connectors at Radio shack (don't bother asking for what you actually need, just go poking about in the "do it yourself area". Never mention the word aircraft. These are light bulbs.....they gona burn out..... keep it simple, replaceable and strong.



Now comes the fun part. You have to make a Lexan cover for this light fixture thing. Go get some 1/10 inch Lexan from the local hardware store (or Lowes or Home Depot) and get ready to break/melt some trial parts.

Hey, remember that leading edge you saved.....tell us you actually saved it. We know it is made of glass and foam, but we are going to use it as a mold. It will take 250 degrees of heat for a few minutes. You will need a real heat gun (not a hair dryer) and some gloves that you can ruin. Heat guns are like \$18 so stop being cheap and go get one. Use loose fitting leather gloves.....that air coming out of that gun is very hot and you may want to get that glove off quickly. Lexan will behave nicely at 250 F and turn to liquid at about 400 degrees F. So use the heat gun to get it warm, but not to hot. It will bubble, blister and off gas if you get it to hot. Never let the gun stop moving. Bend slowly (and have some body else around to keep the heat going). Bend slowly. Bend very slowly. Start with an over big sheet and use a sander and band saw to trim it down. There will some waste material. So let there be.





After it is all done it will look like this.

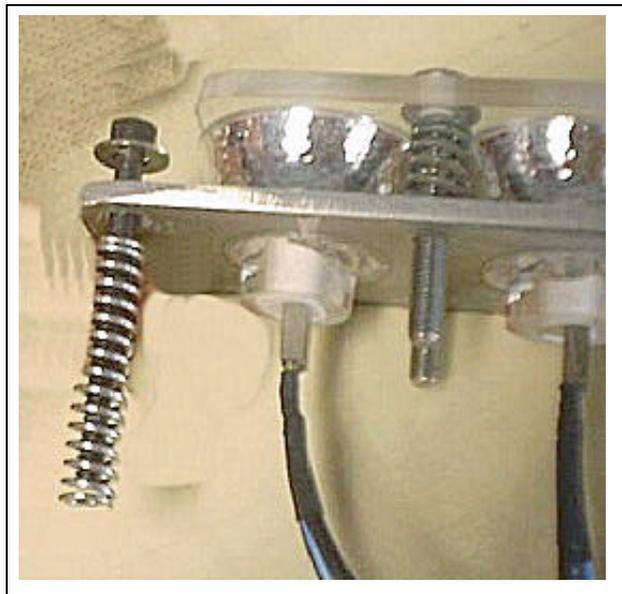
Now for the totally “not-fun” part. You have to drill holes in that new cover. Use only Lexan cutting drill bits. Get them from AC Spruce or Wicks or where ever, but get them. **DO NOT USE NORMAL DRILL BITTS.** Do not drill the aluminum retainer plates with the Lexan Bits. When you go through the Lexan, it will mark the aluminum. Switch bits and drill out the aluminum. You have to install free-floating nut plates on the aluminum anyhow, so don't even think you are anywhere near done. Drill one hole in the cover at a time. Drill out the holes for the 6-32 screws a little big (like a touch) then counter drill for the flush fit. The normal 100 degree counter bit cutter will cut the plexiglass just fine. We put three attachment screws along the top and 2 on the bottom.....none on the sides. Just go slow. Do a fit check with

each hole and screw. Do not press the Lexan down hard.....it will crack. Bend the aluminum if needed but do not load up the plastic..... it will crack. There is a way to fix cracks (if you make one) but it involves methyl chloride and that is **VERY BAD STUFF**.....Go make another cover if you screw up. We used clear silicon to seal the cover to the retainer plates (with the 6-32 screws of course). All water tight and a breather hole for air exchange. Remember, this thing is going to get very hot.

Springs and things: we did this for the mounting / positioning system. 10-32 cap head screws about 2.5” long seemed to work good.

In closing: We are sure that a bunch of grunt work got forgotten, but between all the words and the pictures, you should get it built. Total investment is about \$25 and 3 days of work..... and it looks way cool.

Andrew Aurigema, Sunny FL



By Jeff Le Tempt

The 13th Annual Tandem Wing Field of Dreams Fly-In is right around the corner. Things are shaping up to make this a great event. Now is the time to fill out the registration cards and get them back to me. You can fill out and mail in the registration form contained in this newsletter or you can complete the registration on-line at the event web site.

The schedule is subject to change, but shaded column at the right is what I have planned as of today.

There are the usual familiar forums, but I am very excited about the addition of the hands on composite construction class and the prop forum. Last year Drew and me did a very basic composite class, but as I recall I was the only one who got dirty. It was very well received, but this year we thought we would take it to the next level. This will be a hands-on introduction to composite construction and will be limited to about 15 people.

The class will include hot wire cutting styrene foam, forming urethane foam, working with fiberglass and carbon fiber cloth, filler materials and many other essential basics to get the new composite builder started off on the right foot. The things you learn in this class could save your life and will certainly save you a lot of time. There will be a \$20 fee for this class above and beyond the normal registration fee. I am really hoping to be about to do this class for about \$10 per person if I get the donations I was promised. If that is the case I will refund each participant the excess money. Since class size is limited I need to hear from you ASAP to reserve your seat.

Amended Event schedule

Subject to change

3 October

1300	Event Officially Opens	
1300-1700	Fun Fly	
1300-1700	Composite Construction	Drew Aurigema Jeff Le Tempt

4 October

0900-1100	Performance Run and Fun Fly	Alan Thayer
0930-1030	X-Plane	Drew Aurigema
1035-1045	Dragonfly Forum	Spud Spornitz
1150-1300	Q Forum	Jimmy Masal
1305-1350	Prop Forum	Culver Props
1355-1535	AeroElectric Forum	Bob Nuckolls
1540-1650	Engine Forum	
1700	Group Photo	
1830	Awards Banquet	

5 October

0900-1200	Fun Fly	
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The class on weight and balance has been deleted.

~Jeff

Rather than take up a bunch of valuable newsletter space, I will refer you to the fly-in web site that I have created at

<http://www.fidnet.com/~letempt/>

If you don't have access to the internet go over to a friends house or your local library and borrow their computer for 30 minutes and get all up to speed. Included on the web site is information on hotels, driving directions, local attractions, and many other valuable bits of information.

I am still looking for someone to videotape the event. Don Stewart had done this for several years and I did it last year, but I think I am going to be a little busy with other

things this year. Please contact me if you are interested in doing this.

I look forward to seeing all of you at the fly-in real soon. If you have any questions or comments, please feel free to contact me.

My work number is (573) 596-0165 (ask for Mr. LeTempt) and my home phone number is (573) 364-2545. Of course you can always email me at letempt@fidnet.com.



Mattoon Tandem Wing Fly-In



By Terrence O'Neill

After breakfast, Cynthia, our Dragonfly co-pilot/autopilot and I took off in our N189SM for Mattoon (MTO) from Greenville, IL (GRE), a short 64 nautical mile hop.

The weather was beautiful, and light winds. Cynthia cruised at 22-inches manifold pressure @2600-rpm which is 60-hp in our antique Continental A80. We were indicating about 120-knots, just following the Garmin 195's GOTO trackline to Coles County Airport, looking down at the flat, pretty green fields. All Illinois north of I-70 is an airport.

We were greeted on the ramp by Spud and host Steve Larabee, and then checked out the Q-Birds and Dragonflies already there.

Nice planes. Nice people. I took a few photos with my old Nikon, trying to get every tandem-winger. Most of the crowd was around AR-

Goldman's (or was it Pat Panzera's) Dragonfly, with the cowl off. I don't think any of them understood what they were looking at. I didn't. But it was very neat.

We had to depart early, as we had guests flying their store-bought Cessna 182 down from Peoria, and also I had some expert advice from Spud on my own tailwheel spring which had been acting pretty 'floppy' lately .. to wit: "It's gonna fail!"

So we took the tailwheel with attached Dragonfly home, and landed without it failing. Next day I fixed it. I just shortened the spring three and a half inches, to the break point, and moved the tailwheel mounting sleeve bracket up that distance and bonded it back on, like new.

We hated to leave their very nice Mattoon fly-in. However, I enjoyed visiting awhile with host Steve Larabee, the gent who gave me my

S. Larabee	DF	N88SSL
R. Goldman	DF	N222TH
T/C. O'Neill	DF	N189SM
G. Konrad	DF	N19GK
P. Fisher	Q200	N17PF
S. Hoskins	Q200	N202SH
T. Crouch	Q1	N14TC
K. Welsh	Q1	N494K
J. Marshall	Tri-Q	N222RR

very first Dragonfly ride, in his pretty tandemwinger which put me in mind of the old Jaguar XK140 roadsters.

Now we're looking forward to our Missouri annual fly-in.



Continued on page 12

Frank Hilliard Checks In

I have a Jabiru 2200 engine on my dragonfly MK III N89VE That I have flown 165 hrs. And it is great.

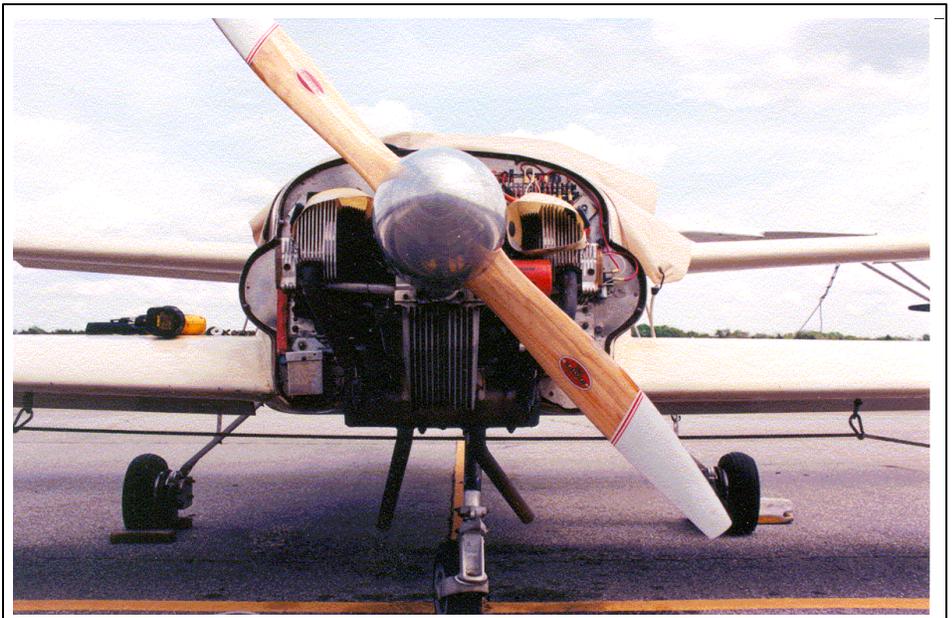
I chose a 52x50 Prop. And reduced it down to 52x44" two inches at a time The 50" would only allow the engine to rev to 3000 rpm in level flight. At 48" 3100 rpm. At 46" 3200 rpm.

The engine is rated 80 hp. @ 3300 rpm. So back it went for two more inches taken out. Now the engine will rev to and beyond 3300 rpm. I may be loosing some top end but now at cruise, 3100 rpm gives me 125 mph and 4 to 5 gph.

Jabiru sent me a mount with my engine that I did not use, because it would put my prop hub 4" fwd of the cowling, which was designed for a VW engine. So I made my own Mount, but I had to modify the cowling anyway to clear the Exhaust tubes on the fwd. cylinders. I also made a scoop For the oil pan fins.

I like the absence of noise the Jabiru gives me, and I think The 80 hp Jabiru is just made for the Dragon-fly It makes my Dragon-flyable.

Frank L. Hilliard
Louisiana



Tandem Wing Fly-In schedule for 2003

October 3rd-5th The 13th Annual Field of Dreams Tandem Wing Fly-in will be held in Sullivan, Contact **Jeff Letempt** for more info. E-Mail: letempt@fidnet.com Website: <https://www.fidnet.com/~letempt/index.htm>

April 2004 (exact date to be announced) The Mountain State Tandem Wing Fly-In, Laughlin NV (Bullhead City AZ).

Dates are subject to change. If you don't have e-mail access, and you'd like more information on any of these events, call 559-584-3306 and ask for Pat

Classifieds

I recently asked Don Stewart if he wanted to list all the Ottawa video tapes he's produced over the past 8 years. Here's his response. ~Pat

From Don Stewart:

I will make available all Ottawa Field of Dreams Fly-In Videos between 1994-2001, inclusive (8 years). Each year's video is 6 hours or longer and include workshops, pilot interviews, aircraft features and the Awards Dinner. Each year's video is duplicated on one Extended Play VHS cassette. The cost for each year's video is \$20 plus \$5 shipping. ALL THE PROCEEDS OF THE VIDEO SALES GO TO THE CONTACT! CHARITY.

Ordering information is at: <http://www.siinc-sources.com/Dragonfly/dfvideo/> or call: (928) 778-6988) If you are not familiar with the Contact! Magazine charity, which is in place to assist the families of deceased aviators, please visit:

<http://www.contactmagazine.com/Issue72/NewCharity.html>

For Sale: Mark III Dragonfly project.

Task factory lightweight honeycomb fuselage; spraylat covered canopy is forward hinged with two air spring assists. Dual side stick controls are installed. The original and a new blank uncut instrument panel is included. The top cowl contains a custom fiberglass 4 gallon fuel tank. The wings are detailed (micro filled) and ready for primer. Canard is reinforced with *graphite*, the elevators are counterbalanced and are modified for simple removal from fuselage. ailerons are stock and reflexor options are open. A full set of engine instruments is included along with original Viking plans, and additional plans for the nose gear option. Fiberglass cloth, extra tires/wheels and many other parts too numerous to list are included with this project. Asking \$4300, a bargain price for quality workmanship.

Mick Myal, Tucson AZ.

520-881-2232 E-Mail

Myal@DCN2.net

For Sale: Dragonfly MK I N812RG, With HAPI 1835 engine, dual ignition, 40 hrs TT, A&E, Terra TXN923 Nav/Com w/ remote Tri-Nav indicator, new prop, always hanged, excellent condition, needs some engine and cowl work and touched up from sitting for too many years. Includes lots of extras, including all DF newsletters ever published. This has been a labor of love that I need to sell for several reasons. Located in central OH. Serious inquiries only. Asking \$11,000. Call or e-mail to discuss or for photos. Ronald L. Geese. (740) 964-9497 or rgeese1@columbus.rr.com

For Sale: Dragonfly MK II N189SM, with 80hp Continental A-80. 250-hrs SMHO by Skeezi Adkisson, and dual Savier electronic ignition. 3 blade Warp Drive prop w/ Gary Hunter blades. Curses 145-150 mph on 4.9 gph. 21+ gallon fuel capacity, dual throttles, hydraulic brakes, ELT, cabin heat, oil cooler and filter. Garmin 195, vortex generators, electric pitch trim. Asking \$22,000 or possibility trade for 2 place side-by-side, tri-gear with turbo or bigger engine. See photos in a recent KITPLANES @ magazine, featuring details on electronic ignition. Call 618-594-2681 and ask for Terry, or e-mail: troneill@charter.net

For Sale: Carbon Fiber NACA Inlets and Spinners. Spinners are \$250 each, including back plate, but w/o front bulkhead. Inlets are \$30 per pair, set in glass. Contact Charlie Johnson, 2228 East 7875 South, Ogden UT 84405 (801)-479-7446 or e-mail: OneSkyDog@aol.com

12th Annual Tandem Wing Fly-In Video now available So here is the deal. Send me \$25 USD and I will mail you a tape anywhere in the world. Personal checks (heck if I can't trust you guys who can I trust) or money orders are ok. Send you payment along with your address to: Jeffrey LeTemp 1107 Murry Lane Rolla, MO 65401 or e-mail: letempt@fidnet.com

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13th Annual Field of Dreams Tandem Wing Fly-in Sullivan, Missouri

(Previously held at Ottawa, Kansas and Burlington, Kansas)

Friday - Sunday, October 3rd, 4th & 5th, 2003

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Email: _____

What type of experimental aircraft building, flying, restoring, rebuilding?

Driving in? Yes _____ No _____ Flying in Commercially? Yes _____ No _____

Camping at airport? Yes _____ No _____

Flying in general aviation or experimental aircraft?

Yes _____ No _____ Type aircraft: _____

If you fly your Dragonfly or Q bird to the fly-in, you will be treated like a King!!! No registration fees and no hangar/tie-down fees. All you have to do is pay for your meal at the awards banquet!!! Thanks for flying your tandem wing aircraft to the event!!!!

People attending overall event: _____ X \$7.50 ea.= \$ _____

People attending Awards Banquet: _____ X \$12.50 ea. _ \$ _____

Kids 6 & under attending the banquet are free!

People attending Composite Class: _____ X \$20.00 ea.= \$ _____

If paying with PayPal please add 3% plus an additional \$.30 \$ _____

Grand Total: \$ _____

Mail your check/money order and registration to:

Jeffrey LeTempt, 1107 Murry Lane, Rolla, MO 65401 or you can use your credit card or PayPal account to pay your registration fees. Just go to <http://www.fidnet.com/letemptregistration.htm> and click on the "Buy Now" icon.