Hangar Talk

The "Lightning" Newsletter

September 2010 - Volume 3, Issue 9

Steve Hacker's Lightning of the Month

Please submit a photo of your Lightning for future "Lightning of the Month" consideration.

The newsletter goal is **to get the word out** on anything having to do with the Arion Lightning aircraft, and **to give a voice to Lightning builders, flyers, and anyone interested in this amazing airplane**. It is not only a way for the factory to provide Lightning news, but it is your newsletter as well. Its success will depend on you getting involved to spread the word and to help others that are considering a Lightning, plus building, flying, and maintenance tips. So think of this newsletter as an "exchange of information publication". Send your inputs directly to me at: **N1BZRICH@AOL.COM.**

Contents in this issue

And now, the rest of the news.

September 2010

This month the Lightning newsletter has two great articles that look at a very important question for future Lightning builders. Let's say you have finally decided to build a Lightning, but where should you accomplish this task? First, Steve Hacker, this issue's Lightning of the Month owner, offers some interesting comments about how he took up flying later in life and decided to build an airplane to help him with his flying lessons. Being a little concerned about his lack of past building experience, he decided to use the builder's assistance program that H&S Aviation, the Lightning North Central dealer, offers in Wisconsin. It is a great story.

Next, Wayne Patterson from Perth Australia covers his Lightning build. Wayne chose to build at home and offers some outstanding considerations for those of you that are thinking about a Lightning "do it yourself" project in your home. When you build an airplane at home, it becomes a "family project". The way Wayne and his wife worked out some of the project storage issues is very interesting reading.

One other important section in this month's newsletter can be found in the Flying Safety section. Sensenich has recently released a new service bulletin on the carbon fiber ground adjustable propeller for the Jabiru engine. If you are using one of these props, be sure to read this section carefully.

Should you build a Lightning and learn to fly at the same time?

By Steve Hacker

During the summer of 2008, I took up flying at the age of 55 with light sport flying lessons. Today, 2 years later, I have my own airplane – a completely built Lightning- N335CE but I am still a student pilot. I imagine that to most of you, my accomplishment of building an airplane, before becoming a pilot sounds backward. Yet once I started flying lessons, I soon realized that I wanted to own an

airplane, and thought: what better way to finish one's training than to do so in one's own airplane.

When I started looking to **own** an airplane, **building** one was not in my plans - yet it was pretty hard not to notice the Lightning. I read every available Lightning newsletter from beginning to end, and took a test flight with Nick at the Sebring Air Expo in January 2009. I really liked the plane but initially disqualified it based on the fact that I did not consider myself competent enough to build my own airplane. When I learned that I could purchase a completely built Light Sport Version, then for around $120,000, I began thinking harder about the Lightning. Yet, I had a lower figure in mind. Could I get into a new Light Sport Airplane for around $100,000? Tom Hoffman of H&S Aviation priced out a Lightning, with almost all of the extras and showed me that if I were to build it – using their builder's assistance program at their hangar at Brennand 79C, that I could hit my target number. I told Tom that as a kid, I could not even build a good model airplane but he assured me that H&S could make it happen. We started in June of 2009 and passed our FAA inspection on October 4, 2009. True to their word, H&S helped me build my Lightning and we did so in just 4 months. I should point out that I had neither the tools nor the facility to build an airplane, so even though Brennand in Neenah, WI is 300 miles away from my home, building my plane at H&S was the ideal fit for me.

I mentioned previously that I am still a student pilot after 2 years but some points bear mentioning. First, once I started thinking about owning my airplane, for all intent and purposes, I stopped my Light Sport training which I was doing in a Flight Design CTSW. Second, during the build process I changed from building the plane as an Experimental Light Sport to Experimental, so that upon resuming my flight training, I could do so to gain my Private Pilot license. Being in good health, I liked the idea of completing my Lightning as an Experimental to gain the higher speeds, gross weight, and the flexibility that comes with building an Experimental plane

However, now came the obstacles: First, you cannot participate in flight training until the plane passes its 40-hour fly-off. Fortunately, Allan Skruby and Danny Jones of H&S Aviation helped me with that. The next hurdle was insurance: AIG through the EAA Insurance Agency had no problem insuring the plane through the build process, and the test flight period because I had removed myself as a named insured. But once I asked EAA Insurance to reinstate me as a named insured - post the 40-hour fly-off- AIG cancelled me - stating that they did not issue insurance to student pilots who build their own airplanes! Needless to say, I found AIG's position to be quite disingenuous, since they knew from the get go, that I was a student pilot building an airplane. Fortunately, The Wings Insurance Agency through Specialty Insurance Company stepped in and provided coverage, albeit at a hefty increase.

With plane and insurance in hand, now all I needed was an instructor, preferably one in Minneapolis. My answer came from Hummingbird Aviation at Flying Cloud KFCM - run by Chris and Beverly Cooper – which uses a Jabiru J170 for flight training. They set me up with their instructor Jeff Dalton who took me to the point of soloing in my Lightning. Jeff however had an opportunity to pursue a business opportunity that curtailed his flight training so Hummingbird set me up with a 2nd instructor, Steve Fischer who is working me now toward my completion of training which I hope to complete in September. Of course, I had to get both Jeff and Steve checked out to fly in my Lightning and added as a named insured on my airplane. So I had Danny Jones of H&S Aviation, who did most of my 40-hour fly-off, check out Jeff, who in turn, checked out Steve Fischer, my current instructor. Sounding a bit complicated? Yes, but not insurmountable.

So is learning to fly and building at the same time a good idea? Probably not. But it sure is fun showing off my new Lightning and I do enjoy the look of astonishment and envy when I inform them that I am still a student pilot. A common lament amongst student pilots is that once they get their Private Pilot Licenses,

they then want to fly in an airplane much different than in the one they trained in, so at least I won't have that problem!

Have more questions about building a Lightning, and learning to fly too? Please do not hesitate to email me at shacker53@earthlink.net.

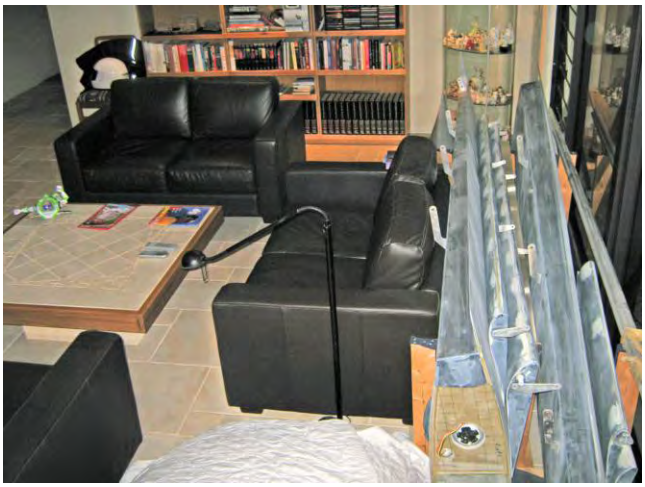
The Home Building Option

By Wayne Patterson

Buz does a great job with the newsletters, so I have written this article to support him – and for the interest of anyone considering home building a Lightning. I am a member of the SABC (Sport Aircraft Builder's Club) in Perth, Australia - but I have chosen to build my Lightning at home.

Google Earth map showing the location of Perth, Australia.

Let's look first at the issue of space. I have a standard double garage, but I do have an additional recess for the main workbench. I started by using all of the garage for the project, but then my wife bought a new car and wanted it housed in the garage. This required some negotiating, and a deal was struck – Sheryl could have half the garage for her car if I could keep the wings in the lounge room. This was not a major impost as I made a cradle to hold the wings on edge – and they fitted behind the *lounge chairs at the back of the room. We only lost a 2ft strip off the* lounge room.



Wayne's Lightning kit arrives at his home in Perth, Australia. Kit was crated for the long journey.

Opening up the crate – discovering all the kit parts!

It all fits into the garage.

The Lightning fuselage will fit in a normal length garage (I did check my garage dimensions carefully before I committed to the home build). It will even fit with the engine installed (as long as the rudder is not fitted!).

Whenever I work on the plane on weekends I leave Sheryl's car outside until I have finished - the risk of damaging the car is too high. I can, however, do small work on the bench safely, so weekday evenings I leave the car in the garage and work just at the bench.

Cost: There are a few savings in home building. I guess the largest cost saving for me is car use and fuel to get to the airfield. A round trip from my home to the SABC is 1hr 10min and about 90km. So the cost of weekly (or twice weekly) trips would soon add up. I also don't pay any hangar costs.

Another cost advantage is when an enforced build delay occurs. Last year Sheryl & I headed off to Cambodia to head up a mission organization there (www.transformcambodia.com). All I needed to do was pack everything carefully (making sure all parts were either flat or well supported) and lock up the garage for 8 months. Had I been using a hangar I would have incurred costs just to store the aircraft project.

Wayne with some of the kids in Cambodia (They look after 800 kids.)

Time and convenience: This is the really big advantage of home building. I climb out of bed at 6.00 on Saturday mornings and by 6.30 I've had breakfast, moved Sheryl's car outside and work is underway. I can work all day and into the evening. When I have had enough (or that particular task is complete) I tidy up, sweep the floor, bring Sheryl's car inside, close the garage door and I'm done!

It is even better during the week. When I have small glassing jobs to do, I can mix the resin and do the job (often only 30 minutes) then head off to work. When I get home that night it has all set so I can immediately continue working. Jobs that require repeated filling (and setting) and sanding can be accomplished day by day with no lost waiting time.

Comfort: Definitely more comfortable to work from home. I live in Perth, Western Australia, where winters get down to 0C and summers up to 40C. A hangar is often not the most comfortable place to work. At home in winter, I keep the garage door closed in the cold mornings, and open the door to the house. If I crank up the home heating a little I get a heated garage. In the heat of summer I can work in the cooler early mornings, have a break during the heat of the day, and then work late in the cooler evenings. And I get coffee delivered all year round!

Access to equipment and hardware: I don't have to split my tools (some at home and some in the hangar) and then find the tool I require for the current task is at the other location! My home is also much

closer to hardware stores and aviation parts suppliers at the local airports (this may not be the case for others).

Wife Sheryl & grandson Kyle

Family and friend access: This works two ways. Firstly, because I am home when building, I am not away from the family. Heading off to a hangar every weekend could be an issue. My build time is going to be around 1,000 – 1,200 hours, and spending that amount of time away from the family is not an option for me.

Secondly, family and friends can help (which they love to do) There are many simple tasks that can be completed by friends wanting to help, and many other tasks are so much easier with extra hands available. It makes the build a more social exercise and in many ways a more enjoyable exercise. It brings the aircraft build into family "life" and strengthens that life rather than being in competition with it.

Another important benefit of home building is that friends and family can develop an appreciation of how well built and safe the aircraft really is. This is part of the education process for them – in preparation for when you want to share your flying fun with them! I want my family to be involved with my flying, and them having confidence in the aircraft is critical to that. You know the standard reaction when people hear you are building an aircraft – how can a home-built aircraft be safe???? As they visit and see progress (and help with the build) they see and start to understand the engineering involved, and see the quality of the build (you have to build it well!!). Their fear based on ignorance tends to fade away and they start to understand that a home built aircraft can be safe.

Neighborhood impact: One of the advantages of building Lightning is no bucked rivets. Or more specifically, no rivet noise! Nearly all the work I do is very quiet and has no negative impact on neighbors. In fact, the build creates interest and boosts community spirit in the area. I try to work with the garage door open to create interest. And I always invite interested people in for a look. It is often the kids who call out, “He’s building a plane in his garage!” If the family stops, I call them in for a look. I know all the aviation interested people living anywhere near me, including a retired airline captain in a wheelchair, because they drop in whenever the garage door is open and I am working on the plane. Many of these great people I have only met because they have seen my plane at home.

Local coffee shop owner, Gabriel learning to pull rivets

What it is all about – friends & neighbors interested and helping!

Joining a club or association: I would still definitely recommend joining an aircraft builder's club, even if you complete a home build. Our club has over 300 members ranging from old lads with 20,000 hours on DC3's to youngsters who have just discovered aviation. We have first time builders and repeat offenders – some of whom are on their 9th or 10th aircraft. The collection knowledge is substantial and invaluable – ranging from where to source hard to find bits-and-pieces through to how to set-up radios and an antenna that actually works properly! I continually learn (the education side of the equation again!) building tips from those who have gone before me. This makes my plane better built and saves me much experiment/discovery time when building.

Latest photo – just finishing the cowls

Bottom line: Home building has been a great success! Even though I will have access to a hangar at our Club airfield – should I build another aircraft, I would definitely build at home again. The build is faster and I enjoy it more; I don't sacrifice any time with the family (in fact we spend more time together because of the build); my street and the local community have an interesting (and positive!) issue to discuss - and all those around me learn more about the wonderful world of aviation!

Wayne@lpwa.net

News from the Factory

The Lightning factory guys must be pretty busy, as the news from them is limited again this month. Nick confirmed for me that Rick Disher's Lightning has indeed flown. Remember, Rick is the owner of the fiberglass company, Custom Fiberglass Molding in Weyauwega, WI, that produces all the fiberglass parts for the Lightning. Nick also mentioned that Rick's Lightning seems to be doing well and that Rick's only comment was that it sure was a lot different from his Maule, but in a good way.

Photos below shows Rick Disher's Lightning on an early test flight.

Nick also reported that they had just delivered a Lightning, with serial number 100, to Sid Mann from Austin, Texas. Sid's SLSA Lightning LS-1 is equipped with dual GRT screens with internal GPS and synthetic vision, a Tru Trak Autopilot, and Garmin radios. I hope to get a photo of Sid's LS-1 for next month's newsletter.

Current Lightning Dealers

Arion Lightning, LLC, contact Nick Otterback, Shelbyville, TN, 931-680-1781, www.flylightning.net

Lightning Southwest, Greg Hobbs, Marana, AZ, 520-405-6868,

Green Landings Flight Center, Ryan Gross, WV, 304-754-6010, www.greenlandings.com

Lightning North Central, Tom Hoffman, Neenah, WI, 920-836-2318

Lightning Northeast - Jabiru Power Solutions, LLC, Dave Jalanti, NY, dave@jabirups.com

Lightning Australia, Dennis Borchardt, Kingston SE, South Australia, 08-8767-2145

Lightning Brazil – Cimaer Ltd, Claudio Nunes, Brazil 24 900-000, 21-2637-3605, 21-9451-9700

Russia and CIS – AVIA-NIANIA, Moscow, Russia, + 7495518-62-75, avianiania@mail.ru

Lightning Florida, Max Voronin, DeLand Airport, FL, 386-873-9995, ww.moonshineaviation.com

News from the Dealers

From Lightning Florida

The only dealer to provide information for the newsletter this month was Max Voronin. Max reported that his dealership in DeLand, Florida, has just received an early Christmas present. Max sent two photos of what was inside the shipping crate - a Yak-52 (see photos below). He reported that it has the heavy spar mod which is good for +7 to -4 G loads. It also has a 360 HP engine which should help to make this aerobatic aircraft quite competitive all the way into advanced aerobatics.

Note: Competition aerobatic contests are divided into five different categories: basic, sportsman, intermediate, advanced, and unlimited.

Max intends to compete in IAC (International Aerobatic Club) contests and to eventually offer aerobatic training in his Yak. Looks like something fun to do the next time any of you are in Florida. Get in touch with Max at: voroninmax@gmail.com

News from Builders and Flyers

Are you thinking of building your Lightning at home? If so, then this first message from Bernardo Melendez will be good reading for you.

Hello Buz,

As one of the newest members of the Lightning family and having just received my kit airframe this past weekend, I don't have much to contribute to this newsletter... as of yet. As an experienced amateur aircraft builder and tinkerer, I'm sure that I will have, as my project progresses through to fruition.
I'm writing this to address an issue that other prospective builders may run across, and which may save them some money. And saving $$ is always good and smart, right?

I live in Houston, TX, and I had to arrange for my kit to get here from Custom Fiberglass Molding in Weyauwega, WI, (about 1350 miles) and, since I hate driving, I was forced to investigate other options to get delivery of my kit. I contacted several major and some smaller trucking companies and other shipping companies as to the cost of having my (crated) Lightning kit picked up and delivered to me in Houston. Prices for these services varied wildly, from about $2200 to over $3300 dollars. **Additionally, most would only insure my precious cargo by weight.** That is, their insurance would only pay a miserly 60 cents per pound. I figured that my kit would be worth much more than their coverage and that that was just not satisfactory to me at all.

What I did find and discover however, was an outfit called uShip (www.uship.com). I located them by accident, and I'm happy I did. It appears that small independent truckers subscribe to this company's services. Basically, what they do is that you post your shipping requirements and then these independent truckers bid on your load, from the point of origin to the destination. You then get to review their background and their feedback. Once you accept any one of their bids, you are then given the trucker's name, and other contact information. You can then freely contact them and discuss any details of your shipment, schedules, etc. Additionally, the cargo they carry is insured up to $300,000 per uShip's rules, as I understand it.

I for one, had **excellent results** with the shipper that I chose, based on his feedback and his communication with me. My costs were also about half of what anybody else quoted me and my transaction went smoothly and with no glitches. In my case, the shipping crate was delivered to my driveway in perfect condition and the trucker helped me open the crate, remove the contents and put them safely in my garage. We also loaded another unfinished two place aircraft project that was in the garage and trucked it to the airfield and put it in the hangar. This gentleman went far beyond the call of duty and he seemed happy to do so. I guess that's what happens when you transport something as unusual as an airplane. Normally, people drive at 75 to 80 mph down I-10 (my route to the hangar) but many were just slowing down and keeping up with the truck for a good, long look-see. I thought that was funny, but at the same time, it made me feel proud of my creation. Anyway, I highly recommend www.uship.com for your shipping requirements.

If anyone wants to contact me directly for the name, number and info on who I personally used, please email me at: n45bm@yahoo.com.
Kind regards,
Bernardo Melendez

Next, Bob Haas covers some of the recent mods he has incorporated on the Lightning he built some time ago. Check out his photos below.

Hey Buz, in the following pictures you can see the after production mods that Nick had me do, among other things, to get the plane on the ground gracefully. That trim tab is twice the area of the out of the box original. Also, I removed the aerodynamic elevator balances and changed the elevator fulcrum to dampen out the pitch responsiveness. The results are a much more docile and more conventional feel to my aircraft.



In the photos above, you can see the larger trim tab and the aerodynamic elevator counter balance that Bob mentioned. On the left photo is the new larger trim tab. The center photo shows the original trim tab and the elevator aero counter balance. The right photo is the latest configuration without the aerodynamic counter balance. It was found that the counter balance made the Lightning a little too sensitive for most people's flying experience.

It is interesting, my back seater "went west" with breast cancer in June of 08. We had campaigned on the airshow circuit around the mid Atlantic region in our Fairchild PT-19 for many years before we moved to Summerland Key. There we had Boca N.A.S, Marathon, and Tamiami to go to. At Buckingham Field, we did the Warbird thing around S.W. Florida.

The Lightning is now for sale, but I'll put some more time on it for sure before that happens. Hope to see you at OSH if my buddies O-2 Warbird stays together.
Bob Haas.

Upcoming Events

4th Annual Lightning Homecoming and Fly-In, Shelbyville, 2 October 2010.

If you haven't been to one of the previous Lightning homecomings, start planning now to attend this one. You will have an absolutely great time. All of last year's creeper race winners will be back to defend their titles and we will once again plan to have several Lightning competitions that you will want to compete in.

Technical Tips

The first tech tip for this month is from Linda Mathias. Although most Lightnings built recently at the Tennessee factory have a nice small fiberglass overlap between the wing and the fuselage gap, many of the early Lightnings and most homebuilt ones have to use some type of tape to cover this small gap. This gap should be covered to provide the best aerodynamics – lower overall drag and to insure the lowest stall speed and no unusual buffet. I have seen this gap covered with everything from white electrician's tape to white duct tape. The white electrician's tape works well, but is not really wide enough for one strip to do the job. The duct tape, while wider, doesn't go around the compound curves as well and really leaves a messy residue when you remove it.

Linda and Joe Mathias, both pilots that are also glider qualified, use a tape on their Lightning that was devised for soaring. It is called Bowlus Maxi Gap Seal Tape and is available in white or clear, and also comes in three widths from one to two inches wide. I find the 2" tape too wide to stretch nicely around the wing leading edge curve, so I am now using 1&1/2" tape. The tape is available from Cumulus Soaring, Inc. in Minnesota.
Their web site is: http://www.cumulus-soaring.com/bowlus.htm.
Cumulus Soaring, Inc.
8661 Connelly Place
Savage, Minnesota 55378, USA
Phone: 1-952-445-9033

The information below comes from their web site.

Bowlus Maxi Gap Seal Tape

Overview:
This tape is made by Michael Bowlus. It has a great reputation as a fantastic gap seal tape. Like the 3M tape this is polyethylene tape. It is extremely stretchy which allows it to follow the complex curves around the leading edge of the wing root on my Ventus b (although no tape can form to every curve). This tape utilizes UV protection so that is lasts longer in the sun than other products. That is very important for gliders that remain assembled for long periods of time - especially if they sit in the sun all the time. The tape is designed to stay in place and not split even when you take off from an airport with high temperatures, fly at high altitude in low temperature environments and land back in high temperatures. Also the Bowlus tape is a brighter white than the 3M tape.

Note: No gap seal tape lasts forever. All tape will crack or split eventually.

Note from Mike Bowlus on cleaning tape residue:
"Any adhesive residue should always be cleaned up with lighter fluid, *never MEK, acetone or lacquer thinner.* Lighter fluid will not harm paint, gel coat or canopies. Never get anything near any airplane that will harm the canopy! I have heard of guys dropping a container and having lacquer thinner splatter on a canopy, NIGHTMARE!"

Important Safety Note: "Gap Seal Tape" is NOT DESIGNED FOR USE ON CONTROL SURFACES
This stretchy plastic tape is perfect for use sealing fixed gaps - such as the gap between the wing and fuselage. I do NOT recommend using it on control surfaces such as the gap between the wing and aileron or the fin and rudder, or the horizontal stabilizer and elevator. Plastic tape will shrink over time and especially when it gets hot in the sun. If it is connected to a control surface it may contract over time and not allow full travel of the control surface. Or as it gets tight it may pull off as it is stretched by the control surface - which could lead to high drag or reduced control of the aircraft as the tape flaps in the wind or changes the airflow over the control surface. Using plastic tape secured on both sides of a control surface gap is unsafe and may be an illegal modification to the aircraft.

This next tech tip is from Tex Mantell. Tex has provided us with lots of good tech tips over the years. This one is a follow up to one he sent in some time ago about exhaust leaks. Good info.

Buz,

This is a follow up on the exhaust wrap which I applied a few months ago. I am pleased to report that it works real well. No excessive leaks around the pipes. This exhaust wrap is available in most hot rod shops or truck stores. You must soak the wrap in water to get it soft and pliable, then wrap it and secure it in place and let it dry. The next day use the recommended paint and it's done.

Tex

This next tech tip comes in from Dave "Corky" McCorkdale. Although Dave built and flies an Esqual, his firewall forward setup with a Jabiru 3300 is very similar to a Lightning.

Hope not to bore all, but thought this info should be passed on. I did all testing within a 2 hour time period; therefore, same temp and at the same altitude. At 2 pm, I went up and had a WOT (wide open throttle) of 3110 RPM. Then, I installed a 1/2 inch spacer on the air filter inside the air box that would keep the air filter 1/2 inch further from the firewall. I made up the filter spacer thinking no one would see it, so don't look at the hole spacing.

Then, went up again and had a WOT of 3160. I then changed the scat tube out for a rubber tube from cowl to air box and I had

a WOT of 3230, but the EGTs were 1420 and 1160. Not willing to give up rpms, I installed a plate in the outlet of the air box knowing this to be a hit or miss. It turned out to be a hit. EGTs at WOT were within 10 of each other at cruise, and within 35 and within 15 below cruise. I am still excited about this. Didn't get a chance to epoxy in the center plate - which I think is the EGT cure of the decade, giving smoother air into carb and in turn having EGTs closer together
Photos below.
Dave McC
Esqual 060

Dave's photos above, showing the smooth rubber tube that replaced the scat hose and the aluminum plate he installed in the air box outlet are easy to understand. However, I am still not sure how the spacer, that appears to be around the air filter, actually moves the air filter ½" out from the firewall. A message to him asking for more info resulted in the message below.

Buz
It just fits around the air filter as shown and fits perfectly on original air box. The original 4 screws will even work that hold the air box cover in place. What it does is acts as a spacer to keep the filter 1/2 inch further out. I made this up prior to any flights so I could document all changes having same flight conditions. It is made from stock aluminum and then drilled out to lighten it. I am thinking of making it out of wood to save weight, because it is not in the intake airflow. When I did the filter thing I had no change in EGTs. The EGTs changed only when I change to air box inlet tube.
Dave

Flight Safety

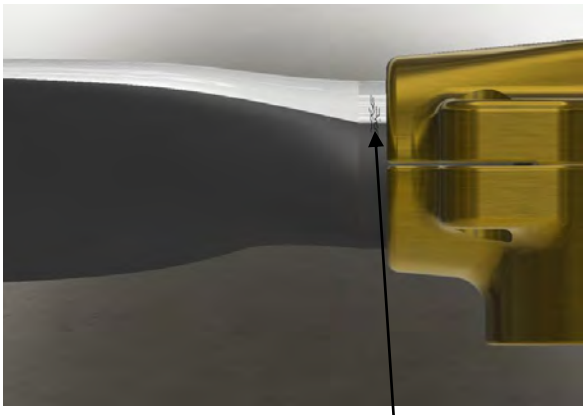
Many of you are using the Sensenich carbon fiber ground adjustable propeller on your Lightning. I want to make all of you that are using this prop aware of a new Service Bulletin from Sensenich that I found out about just after Oshkosh. I suggest you go to the Sensenich web site and read the Service Bulletin yourself, but the gist of the information provided there is covered below.

Service Bulletin for Jabiru Composite Blades

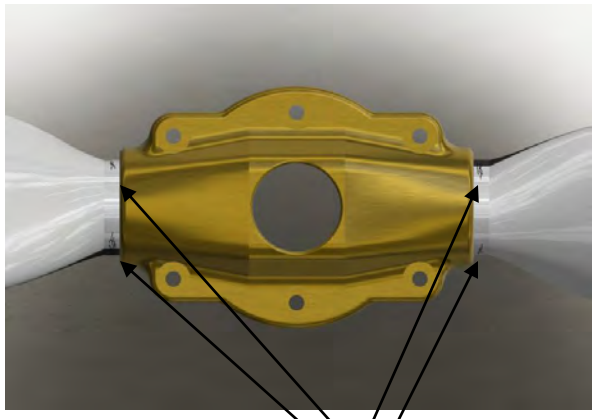
From Sensenich

We have released a Service Bulletin dealing with some paint cracks that have been found by a limited number of customers on their Jabiru 2200 and 3300 composite ground adjustable propeller blades. If you own one of these propellers please see SB-10-07-21 (Composite Jabiru Blade Service Bulletin SB-10-07-21) and follow the recommendations.

Cracks have been found on the leading and trailing edge portions of the shank, where the blade shank exits the hub and transitions into the blade airfoil. **See Figure 1. and Figure 2.**



Side view – cracks



Top view - cracks

Cracks examined to date have not progressed deeper than the outer composite ply, but the crack location warrants regular preflight inspection to detect possible crack formation and propagation.

COMPLIANCE: -*Inspect blade shanks prior to each flight*. Run your fingers around the root where the blade exits the metal hub, and check for loose fibers, cracks, or rough areas.

-Notify Sensenich of any occurrences and return the propeller for evaluation.

Lightning Skunk Works

Wayne Lenox, an early Lightning builder who lives near Luke Air Force Base in Arizona, sent the secret spy photo below that he took one day while flying near the gunnery and air to air ranges that are just south of where he lives.

Wayne wonders if this could be the new Air Force flight demonstration team. Why put pilots' lives at risk for air shows?

Final Thoughts

In deference to the checklist above, I think anytime you take anyone flying, you should encourage them to fly the airplane and ask as many questions as they might have. In your pre-flight briefing, mention that in the traffic pattern they should hold the questions and help you look for traffic. But take every opportunity to take people flying and do everything you can to help them enjoy the experience. Today's passenger in your Lightning might be tomorrow's Lightning customer.

Голубое небо (Blue Skies),

Buz Rich

N1BZRICH@AOL.COM **(Please contact me directly with newsletter inputs – I need your help to keep this newsletter both interesting and informative.)**