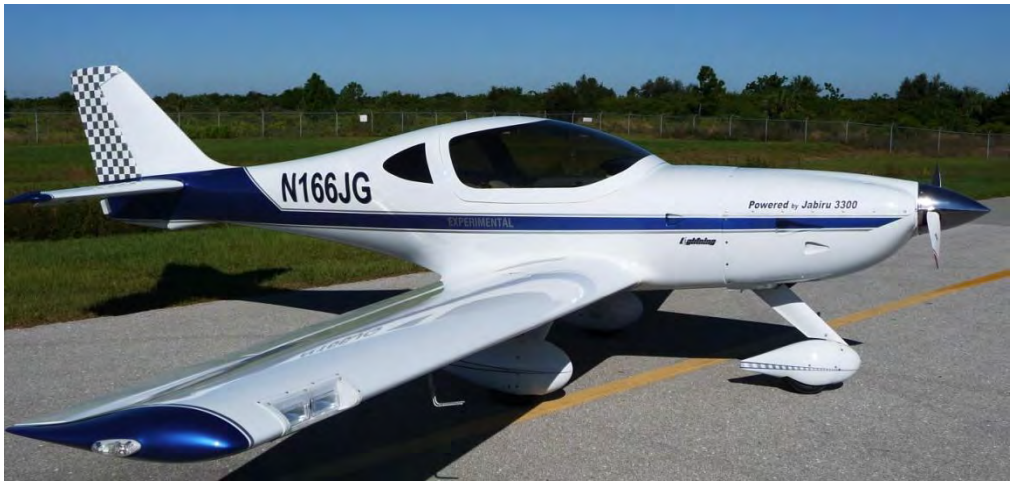
Hangar Talk

The "Lightning" Newsletter

November 2009 - Volume 2, Issue 11



Jim Goad's "Lightning of the Month"

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

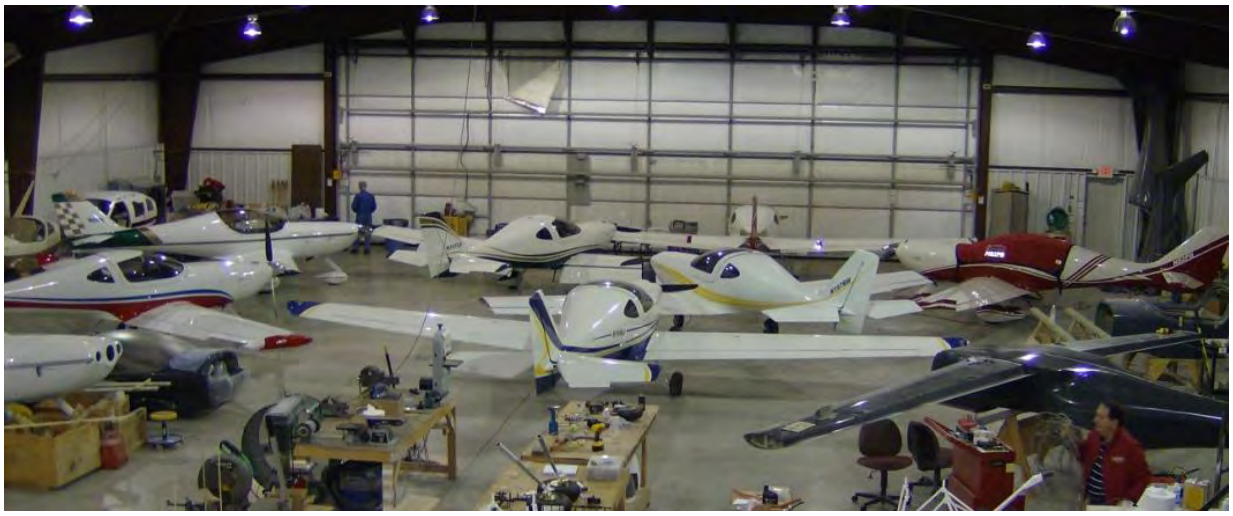
The newsletter goal is **to get the word out** on happenings at Arion Aircraft, and **to give a voice** to Lightning **builders and flyers**. To be successful we need your inputs. So it is not only a way for the factory to provide Lightning news, but it is your newsletter as well, and its success will depend on you getting involved to spread the word and to help other builders and flyers. So think of this newsletter as an "exchange of information publication". Send your inputs directly to: **N1BZRICH@AOL.COM.**

Contents in this issue:

And now, the rest of the news.

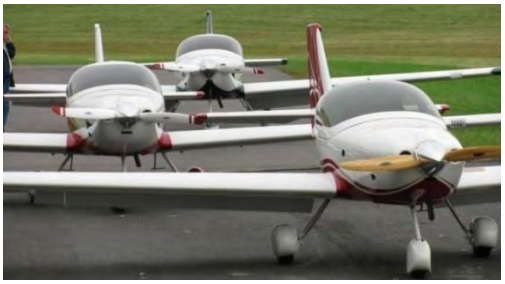
Lead Story:

The third annual Lightning Homecoming and Fly-In, which was held on the weekend of 9 and 10 October, was a huge success even though the weather did not cooperate. As you probably know, the event had been delayed for a few weeks because of unseasonably bad weather in Tennessee. Well, the rains and low ceilings were once again present during the alternate weekend as well, but that did not prevent those attending from having a great time. Many fun hangar activities, briefings and facility tours were scheduled during Friday afternoon and evening and all day on Saturday. The only events that had to be canceled were the speed dash to see who has the fastest Lightning and the navigation round robin time/speed/distance runs to see how well a pilot could predict their time for the designated course. Oh well, bragging rights for who has the fastest Lightning and which Lightning pilot knows their steed's performance the best will have to wait until next year. Even though the competitions were canceled, there was still lots of "trash talking" and friendly banter between the contestants, so I predict that next year will result in some very determined pilots that want to take home one of those coveted trophies.



Lots of Lightnings. This photo was made Thursday evening after the two ship formation from Virginia arrived (Linda and Joe with Buz on the wing) and the single ship from Maine (Pat and Carl). The other Lightnings shown above were already at Shelbyville before the event started.

Speaking of trophies (well actually, wall hanging plaques were presented), **Carl and Pat** were awarded a **"Lightning Bolt" plaque** for flying the longest distance from "up north" (that's a Tennessee term for someone that "might" be from Yankee land). And **Jim Goad,** one of two Florida Lightnings in attendance, was also awarded a **"Lightning Bolt" plaque** for flying the longest distance from "down south" (hopefully no explanation is required). Congratulations to all three of these intrepid aviators. **"Lightning Nut"** awards were going to be presented to the winners in all the various classes of the creeper races, but it was determined that the winners were already "nutty" enough. Maybe next year. Photos of the various creeper race contestants and results of the races will be covered below.



This is a sketch of the "Lightning Bolt" award without the actual bolt showing.

BOLT Award

for Excellence in Pilotage

THIRD ANNUAL LIGHTNING OPEN HOUSE

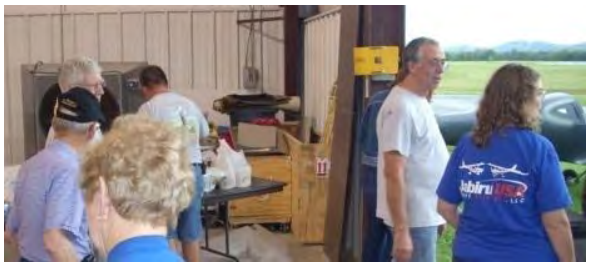
And FLY-IN

10 OCTOBER 2009

Friday afternoon was spent getting reaquainted with Lightning friends and catching up on what everyone had been up to during the past year. Nick and I flew a few demo flights while the rest of the Lightning crew got out the BBQ grill and started "burning" brats, burgers and chicken. Below are various photos from Friday afternoon and evening.

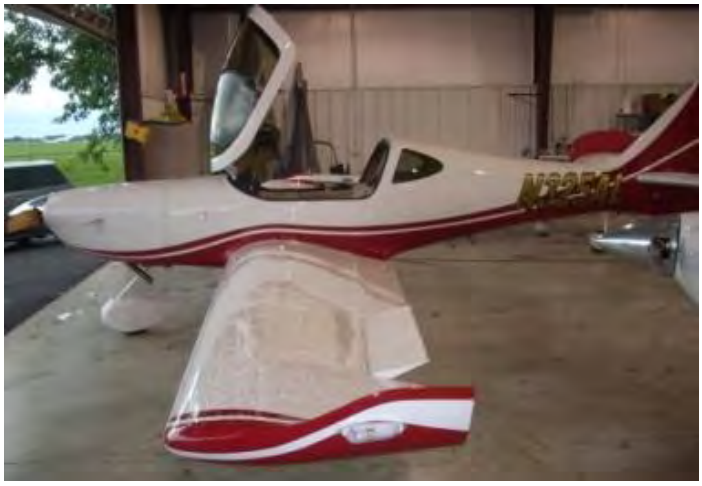
Joe, Carl, "World Record" Earl, Katie, and Dana listening to "Reverend" Jim's sermon about God is Great, beer is good, and people are crazy.

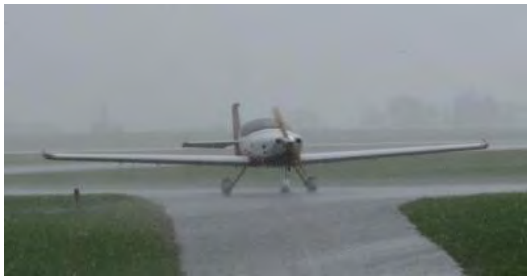
"Possum", Pete, Tom Nash, Pat and Dawn.



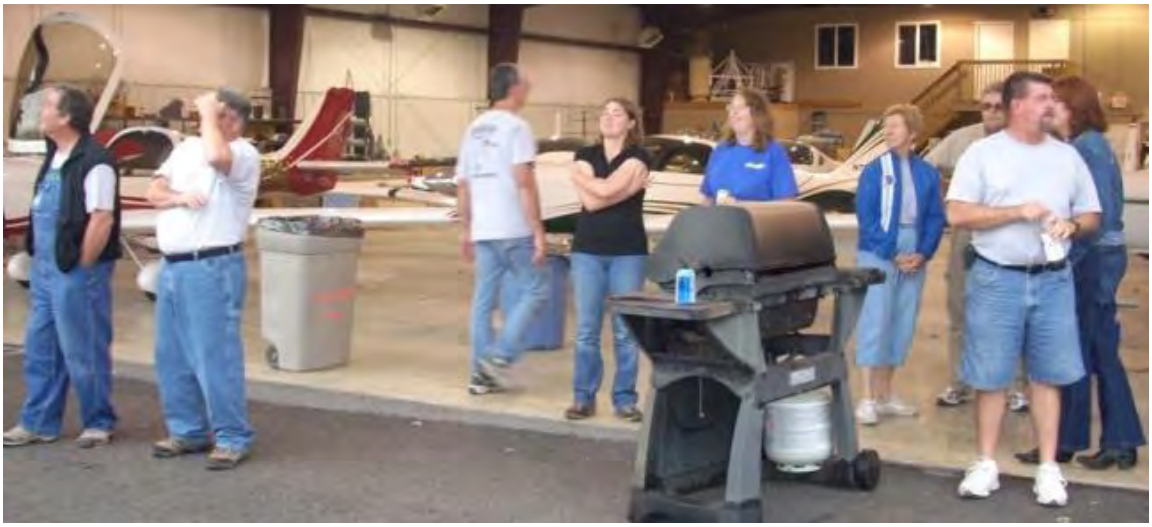
Linda, Carl, Earl, Mark, "Moostang", and Katie.

Wow, those brats, burgers and chicken shure do smell good!

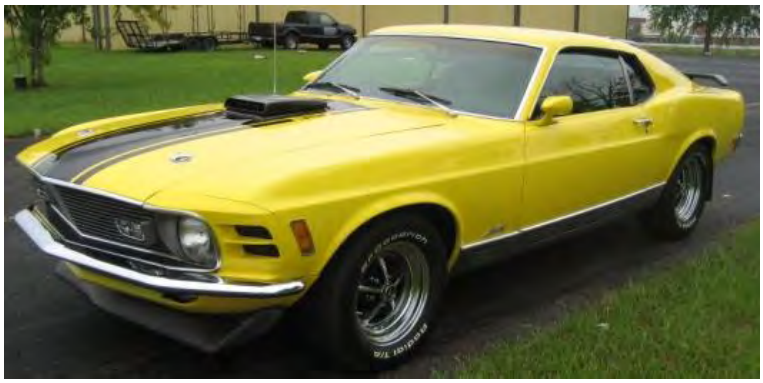




The LS-1 Lightning, without a doubt, the best SLSA on the market. It can sure handle a crosswind. Photo on the right shows its "all weather" taxi capability.

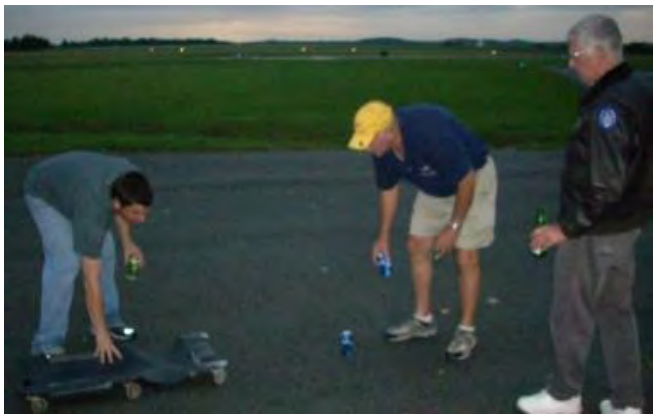


This photo shows "Possum" Phillips, Tom Nash, Dana, Katie, Linda, Pete, Mark and Clare watching Nick make a fly-by. Soon after this photo, a Mustang arrived. See the Mustang and its pilot below.




Yea, I know, it isn't a Mustang airplane, but Ford did name it after the real P-51 when they designed it. "Moostang" Mike is the owner, chief mechanic, and primary driver.

Friday evening's widely advertised creeper races turned out to be just as much fun to watch as they were to participate in. Although some races were run in the rain, the inclement weather did not hinder the enthusiasm or the intense competition. Three racing creeper events were held (all were sanctioned by the Creeper Racing Association Professionals - CRAP) during the evening: Oval track, slalom, and drag races. The fourth event, team creeper racing, had to be canceled due to wet track conditions and no lights on the track. We hope to get all the events run next year. Below are numerous photos showing CRAP contestents, CRAP race officials, and the CRAPpy fans.



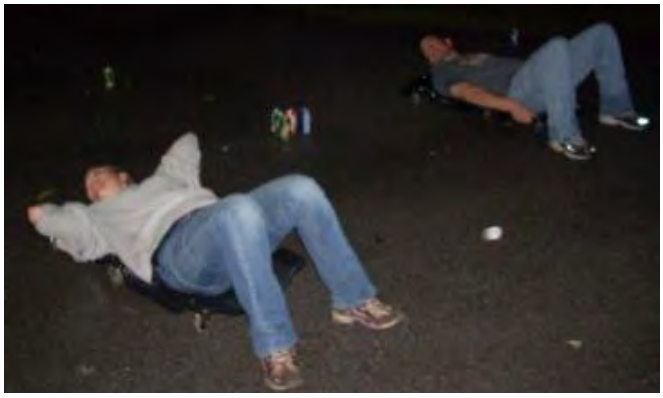

Left photo - Nick checks out another contestants racing creeper while "race officials" Buz and "World Record" Earl lay out the course. On the right, Mark and Nick practice for the team event.



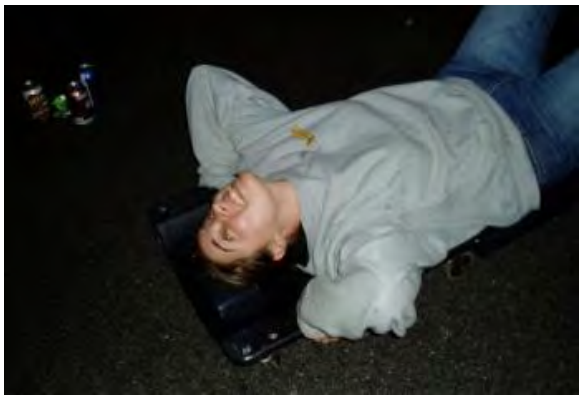
Above photos show creeper contestants, "Moostang" Mike, "Canzer" Mark, and "Danica" Dana.

“Canzer” Mark at full creeper speed.

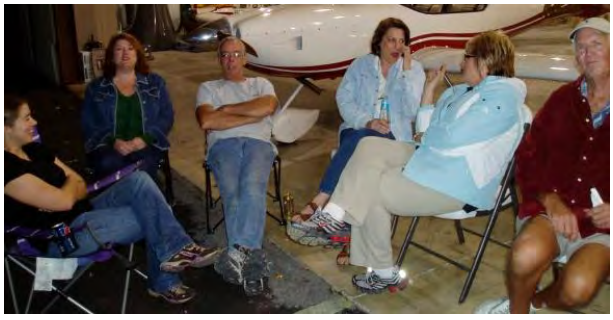
“Bare” (?) Paul right at the edge of a spinout.



Dana and Nick in the drag race finals.



And the “best two out of three” winner – “Danica” Dana.



Left photo shows some of the enthuiastic creeper racing fans relaxing between race events. In the right photo, Mark asks for a show of hands for those that would be interested in a Saturday morning briefing on the finer points of raising goats in Tennessee. Will Victoria finally share her secret?

Here are the **creeper racing results** in all three events that were run Friday evening.

Oval Track racing:

Fourth Place - "Moostang" Mike Jones

Third Place - "Canzer" Mark Stauffer

Second Place – "Danica" Dana Otterback

Winner – "Mr. Lightning" Nick Otterback

Slalom event:

Third Place – "World Record" Earl Ferguson

Second Place – Paul "Bear" Bryant

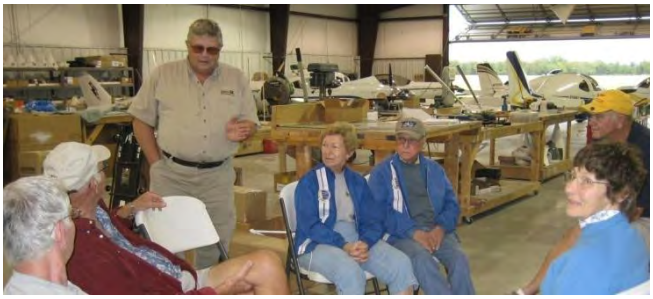
Winner – Nick Otterback

Drag Racing Finals were between Dana and Nick Otterback

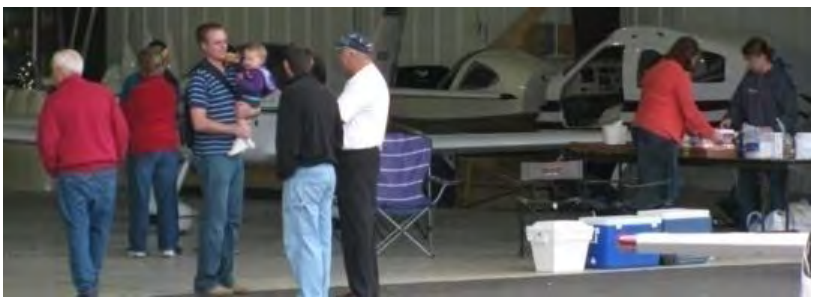
Winner – "Danica" Dana Otterback

Congratulations to all the winners. You will go down in Lightning history as the winners of the first ever Lightning Homecoming creeper races.

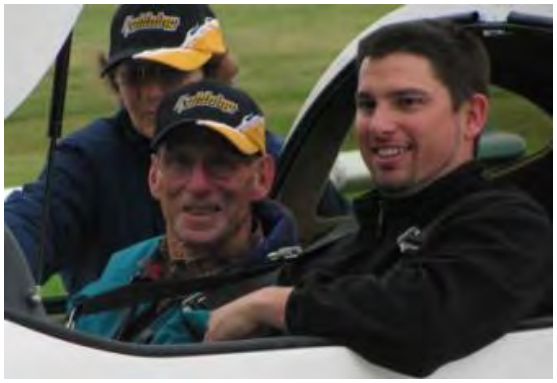
Saturday morning forums in the Lightning hangar were well attended and well received. Overall, five forums were presented: **Updating the Grand Rapids EFIS**, **Jabiru Engine Maintenance, Basics of Formation Flying, Tuning the Bing Carb, and What's New at Lightning.**

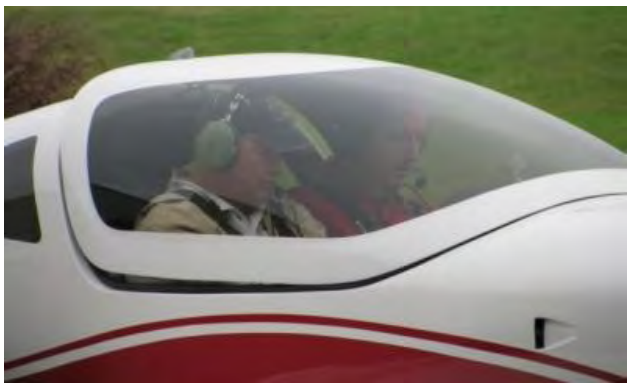


Above and below photos were taken during breaks during the various forums.

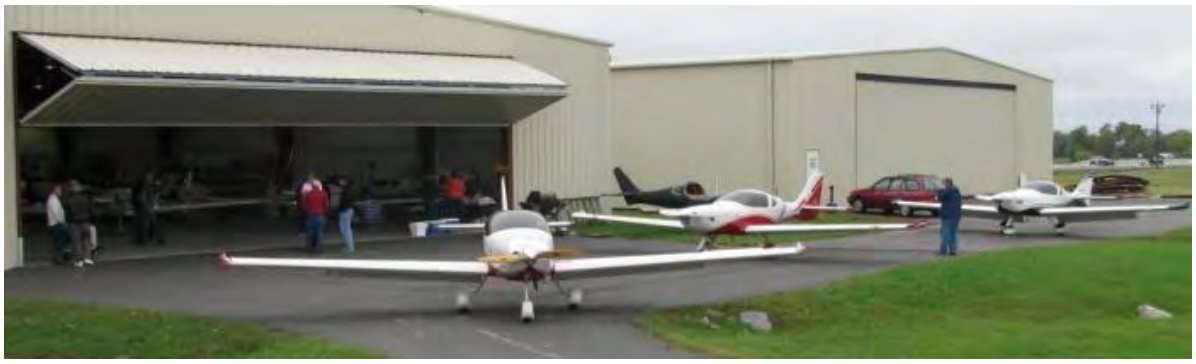


Later Saturday afternoon the weather finally allowed a few more flights. Nick flew a demo flight for a potential customer and then he led a demonstration formation flight with him and Carl in the LS-1 and "Bear" and Buz on the wing in "Bear's" airplane.

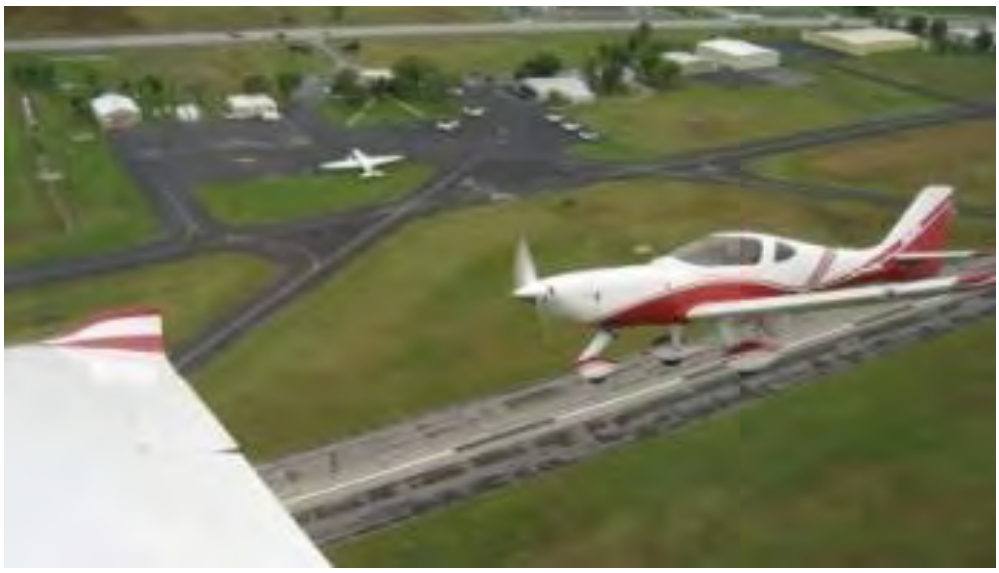




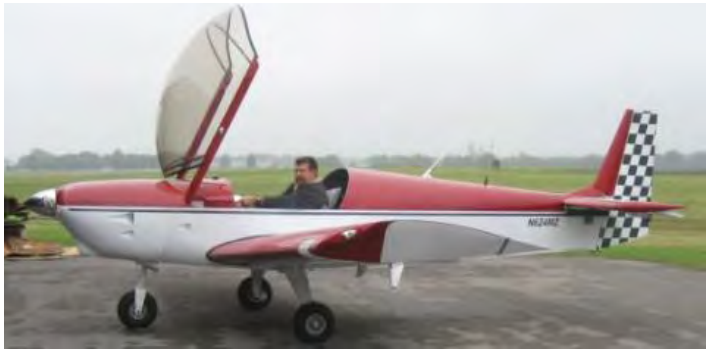
Left: Pat, Carl and Nick preparing to lead the formation demonstration flight.
Right: "Bear" and Buz, the wingmen, going through pre-takeoff checks.



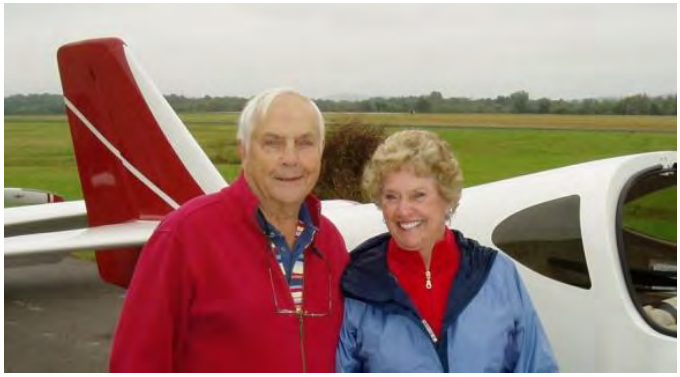
Above: Lightning fromation two ship taxiing out. Below: Over Shelbyville Airport. Photo by Carl.



Below are some more photos from Saturday.



Mark brought his Zenith Zodiac 601XL for all to admire. He has just started the Phase One flight testing on this nice "aluminum" airplane. Nick calls it the Panzer since he thinks it flys like a tank. Perhaps "Canzer" is a better name, since it is made of tin cans. Just kidding, Mark. It's beautiful.



Left: Gale and Geri Lyle – future Lightning customers?
Right: Savannah Sumner, youngest "pilot" at the fly-in. Here she checks out a Jabiru. She was there with her dad, Aaron, and granddad, Craig – both Esqual pilots.

Victoria and Nick - Do these two look alike? Same smile.

Satruday evening's get together was once again at one of the favorite Lightning "hang outs" in Tennessee – the **Bell Buckle Café**. The BBQ pork and pork chops are a favorite and the live country music is always good. Photos below:

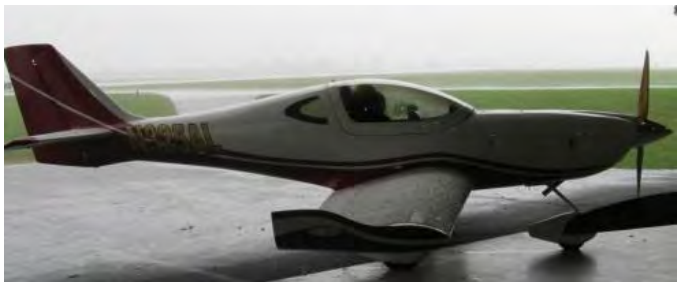
Left: Pete and Barb, with Barb's sister Judy from Oregon. **Right: Clare and Mark.**

"Moostang" Mike, "Bear", Carl, Linda and Joe. Great people, great food.

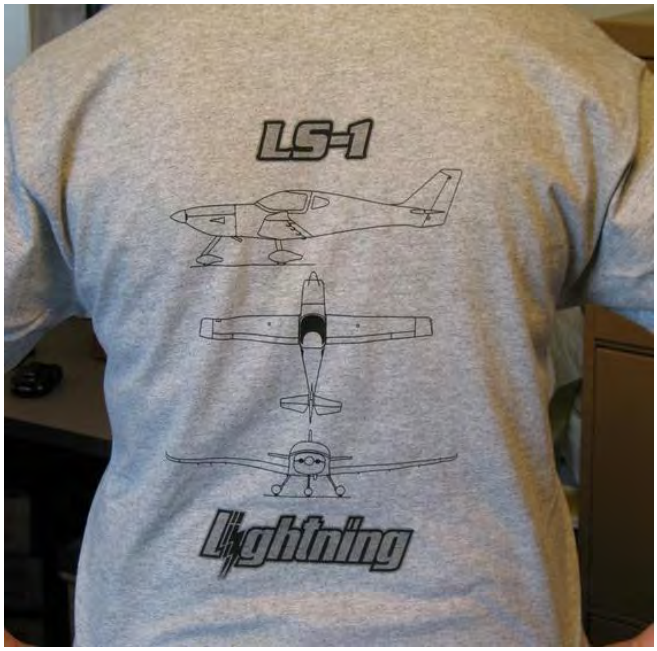
This year's Lightning Fly-In, even with the "delta sierra" weather, was the best one yet. If you missed it, be sure to plan on being there next year. I am sure I will probably forget someone, but I am going to try to list everyone that came to the homecoming: Linda and Joe Mathias, Pat and Carl Beatrice, Jim Goad, Earl Ferguson, Paul Bryant, Tom Nash, Charles Gallagher, Craig, Aaron, and Savannah Sumner, Gale and Geri Lyle, Lisa and Jerry Turner, Randy Cottilier, and Mel Miller, plus, of course, the entire Lightning team with a few Jabiruites there as well. Well, I was there also. We all had a great time. Thanks to the Arion Lightning team for hosting the event.

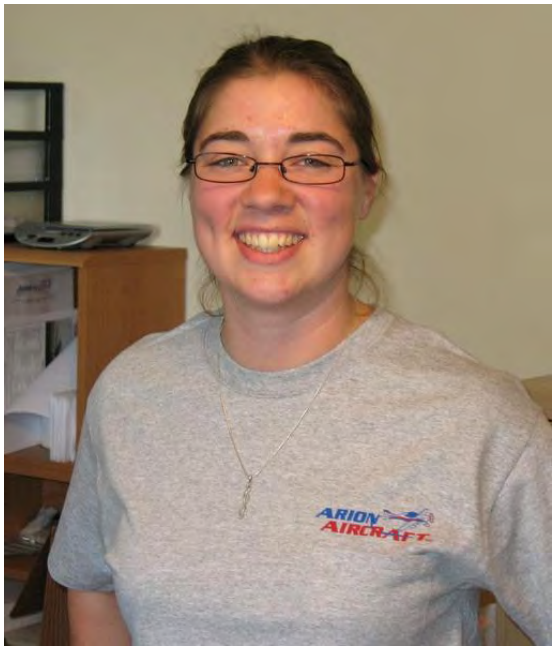
News from the Factory:

If you have called the Lightning phone number in Tennessee recently you have probably talked to the **newest Lightning team member, Angi Skinner.** Angi has been working there several months and seems to enjoy her job. I had the pleasure of taking Angi on a flight in the LS-1 while I was there, and although the weather was "not the best", she seemed to enjoy her Lightning flight and took lots of phone photos and sent several text messages to her family while we were flying. Angi's photo is below and now you will know who you are talking to when she answers the phone when you call Arion Lightning.



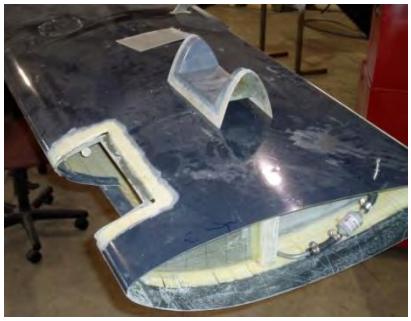
Left: Angi Skinner. **Right: Taxi in after her flight – yes, rain, lots of rain.**



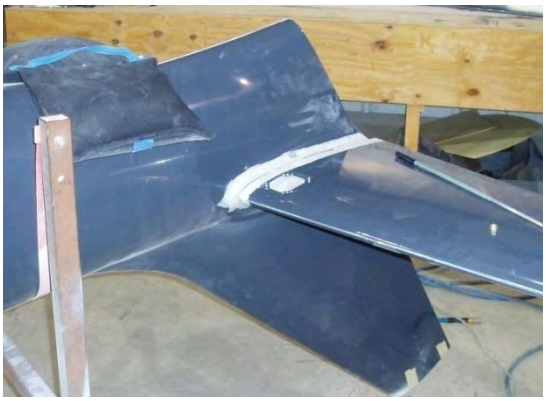


Here is Dana modeling the new Lightning T-shirt, which is available for $15.00. If there is an interest, a polo shirt can also be ordered with the new Lightning logo embroidered on it. E-mail Mark if you want to order either the T-shirt or to get colors and price of the polo with the new logo.

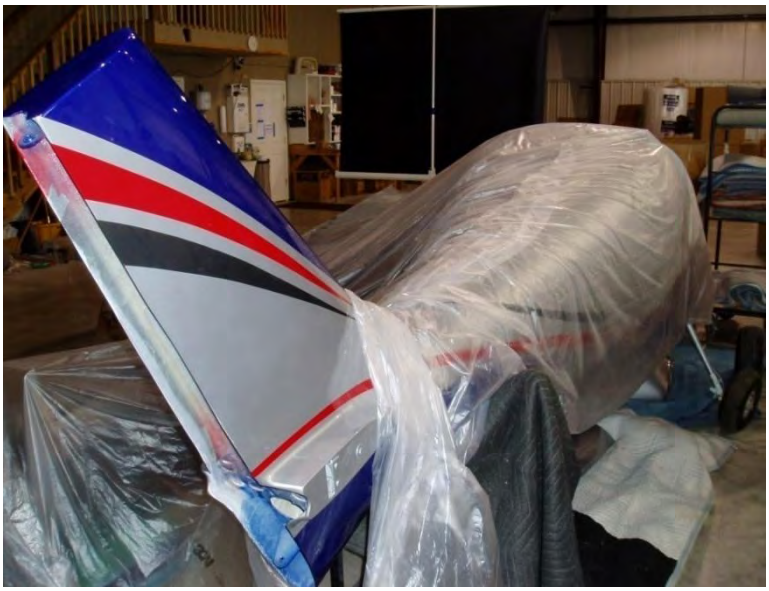
While we were in Shelbyville for the Lightning homecoming and fly-in, two new Lightnings were under construction. The photos below are of the Lightning that Jim Johannes is building using the builder's assistance program. The other Lightning under construction will be the newest LS-1 demo.



Above and below photos show the work that had been done on the wing and tail section during the fly-in. By the time you read this, it very likely will be in the paint shop.



Does the photo below show the silver demo Lightning having been disassembled?



No, it is a new Lightning ready to be shipped to the Brazilian dealer.

Thanks to Katie for this report:

During the first weekend in October the Lightning team went to the first ever Midwest Light Sport Aircraft Expo that was held in Mount Vernon, IL. The concept of this show is exactly as the January show in Sebring, Florida, except that it will be held in the fall. It is designed to be a smaller regional show that is dedicated to light sport aircraft and will allow prospective SLSA buyers to meet with vendors, ask questions and get demonstration flights.

Apparently weather was the biggest story of the weekend – it was cold and windy with a little rain. Otherwise, it was a very well-organized and many demo rides were given by Lightning, Jabiru, and other companies brave enough to venture out into the 15-25 knot winds. The organizers of the show were very disappointed at the non-seasonal weather. Normally it's very nice this time of year in southern Illinois.

The good news is, even though there were not many attendees, the level of interest of the people who did attend was great. Pete commented that he talked with more serious potential buyers at the Expo than he did at Oshkosh. The die-hards were out for one purpose only, and that was to shop for LSAs.

We will hope for better weather next year--a more typical warm, calm, sunny harvest time in Illinois. The smooth organization and warm hospitality made the show one we'll gladly participate in for years to come.

Left: Wind blows Mark down the ramp. Right: Nick, sick with the flu, finds a warm spot.

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

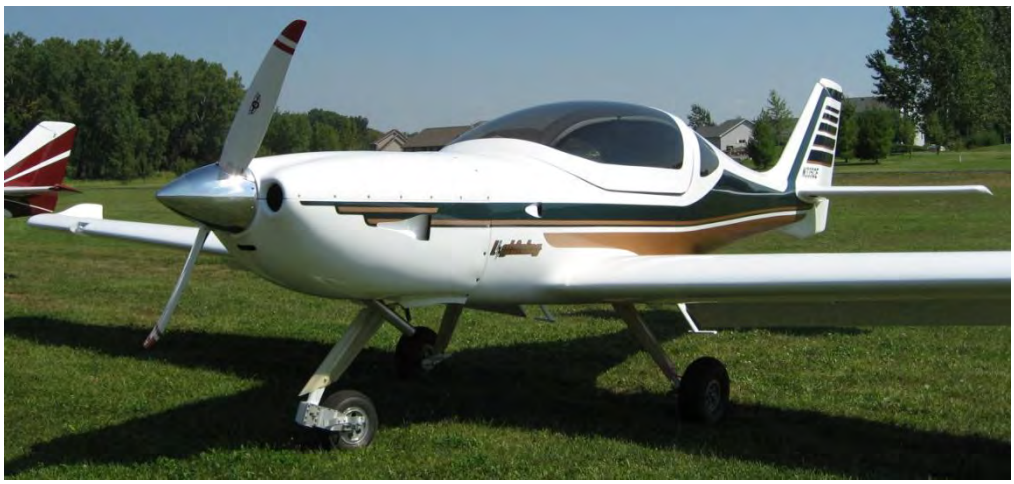
Lightning Australia, Dennis Borchardt, Kingston SE, South Australia, 08-8767-2145

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

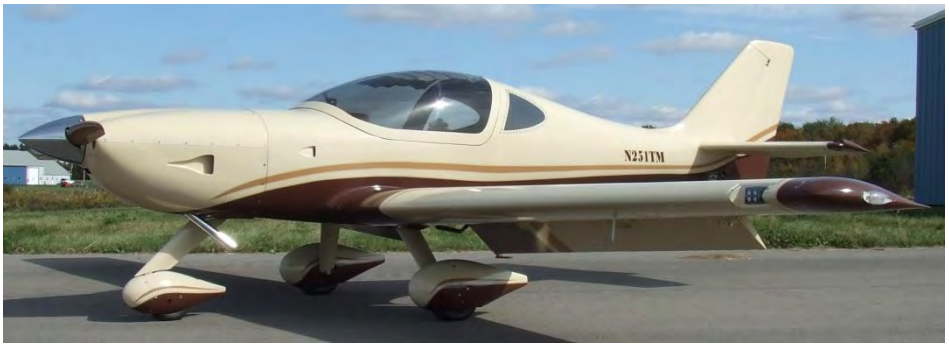
News from the Dealers:

Steve Hacker's Lightning flew for the first time on Friday, 16 October 2009. Steve's is the 47th to fly out of 81 kits delivered. Initial reports are the plane flew great! Steve, with the help of his two daughters, built his Lightning in Wisconsin at Lightning North Central.
Congratulations Steven!!



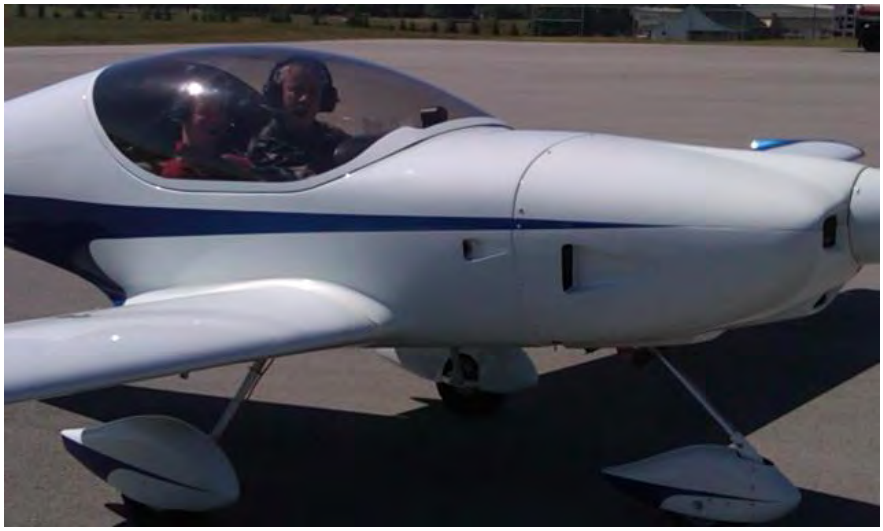
News from Builders and Flyers:

I am sure everyone has heard by now that Tex Mantell's Lightning is completed and flying. In fact, Tex's exact words were, "It's all done and flying great". He sent that email on 10 October. Below is a photo of Tex's beautiful Lightning. Hopefully he will give us a full report when he gets a little more of the phase one testing completed.

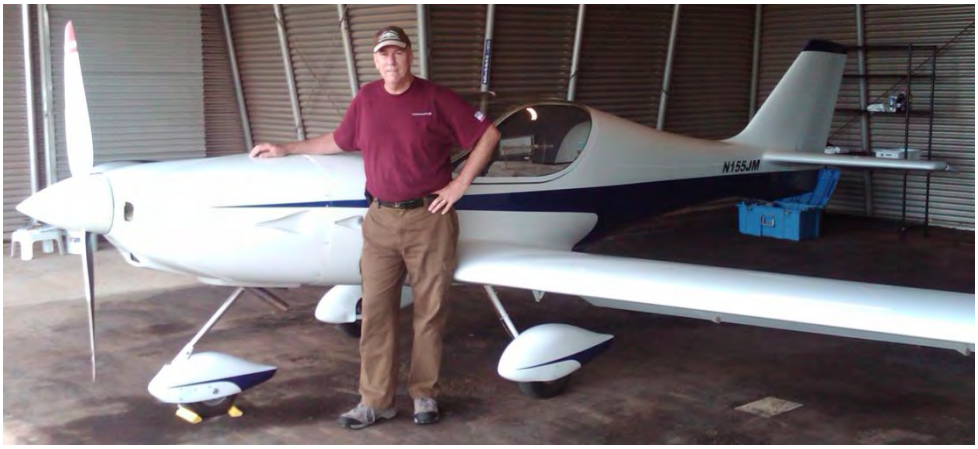


The next two inputs are from Craig Sumner:

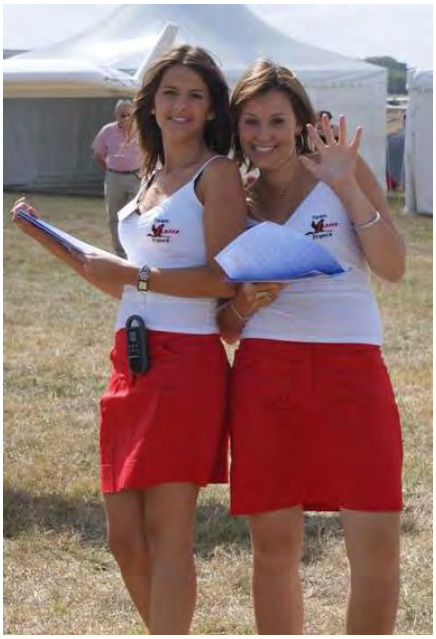
To All,
I really enjoyed flying my Esqual today! Scott McManus (CFI) flew an hour solo to become familiar with the Esqual and then it was my turn. It does not take much control authority to fly this airplane! The Esqual really handled well in the practice area, so we headed to its new home and hanger at the Huntsville Airport. I was ten miles out watching a 747 land and we were in the queue next. Had plenty of spacing so no problem there and the landing (two) was just fine... Scott and I plan to fly to the Lightning fly-in next weekend, October 10th, and look forward to seeing you all! Thanks for all of your assistance and guidance during the final build period in Shelbyville! Look forward to a long term relationship! Keep those newsletters coming Buz! The advice from all of the Esqual and Lightning pilots is outstanding!! Thanks again to all!!
Sincerely,
Craig E. Sumner



14 Oct
Buz,
I enjoyed listening to your formation flying presentation. Brought back some fond memories. Attached please find N155JM hangared at the Huntsville International airport. We intended to fly that morning, but as you know weather kept our plane home bound. Enjoyed seeing everyone and wish I could have spent the entire day with you fine folks. I did get to help Linda with her flap position stickers... We are enjoying our Esqual and taking the transition slow. There is a lot to learn with a new airplane and instruments that are just outstanding. Many thanks to the folks at Arion for hosting another informative fly in.
Have a good day!
Craig



As a bit of a tease about next month's newsletter issue (December 2009) I am going to include the photo below which was sent in by our United Kingdom correspondent – Clive James. Clive recently visited a fly-in in France and has some good photos, including the one below, and he will write up a short article about this special fly-in and the airplanes he say there. Thanks, Clive.



Engine Clinic:

The Jabiru Engine Lubrication System

Lubrication is vital for engine output and longevity. The job of distributing high quality aviation oil to the vital points inside of the engine falls to the Jabiru oil pump and lubrication system.

The lubrication system begins with good quality aviation oil. Jabiru lists several oil specifications in the manuals and all of them call out a mineral based oil with a package of additives, detergents, and dispersants suitable for an air cooled engine operating on 100LL aviation fuel. The additives are blended to carry away the lead deposits resulting from combustion of the 100LL fuel and to help the oil stand up to higher temperatures often found in air cooled engines operating at continuously high power output.

The oil is stockpiled in the oil sump at the bottom of the engine crankcase. Oil level is checked by a dip stick. Oil is screened as it is pumped out of the sump.

The oil pump is located below the crankshaft on the end of the camshaft. Jabiru uses a gear type pump consisting of an outer and inner gear. Clearances between the two pump gears are very tight, normally running about .002 inch. The gears are housed in the oil pump housing – the bump on the front of the engine with the Jabiru bird engraved on it. Oil enters the gears through the intake side of the oil pump back plate and is squeezed out through the output side of the back plate and into an oil passage in the left front side of the engine.

The output passage leads directly to the oil filter pad on the left side of the engine. From this point the oil would enter the outer small holes in the base of the oil filter. However, most Jabiru engines use an oil cooling radiator connected to the oil cooler adapter furnished with each engine. With the adapter installed oil is pumped out of the crankcase and into the adapter. Fittings connect the adapter to hoses leading to the oil cooler radiator, then through the radiator and back to the base of the oil filter. At that point the oil is back on course into the outer small holes in the filter. It then is pushed through the filter media and into the center core of the filter. From there it enters the engine crankcase.

Oil galleries (passageways drilled into the crankcase) direct oil along each side of the engine. Additional galleries connect the main galleries to the main bearings on the crankshaft. Along the way the oil also finds its way from the galleries to the hydraulic lifters providing lubrication and inflation to those units. As oil leaks out form the galleries and bearings it is thrown about inside the engine providing “splash” lubrication to the piston skirts and wrist pins and the cam shaft journals.

Oil splashes through the openings in the engine back plate into the gear case cover and provides lubrication to the crank gear, cam gear and distributor shaft gears and shafts. After doing its job lubricating the interior of the engine the oil runs back into the sump to be picked up by the oil pump intake tube and begin the process all over again.

An oil feed tube is fitted into an opening in the main oil galleries which carries a small amount of oil up the outside of the engine to the heads. There the oil drips onto the valve stems and rocker arms to lubricate those reciprocating parts. The oil from the heads drains back into the sump through the push rod tubes.

All along the way during the journey through the engine the oil picks up heat from the combustion occurring in the cylinders. Oil loses some of its lubricating ability if temperatures get too high. Additives and dispersants break down as well and reduce the ability to carry lead and other contaminants away.

That's why Jabiru uses an oil cooler in most installations and plumbs the cooler so that the oil is at its coolest (just after leaving the radiator) when it enters the engine.

Pete Krotje

For sales or service contact: www.usjabiru.com, email: info@usjabiru.com, phone: 931-680-2800

NOTE: Once again, it you have not attended one of the Jabiru engine seminars in Shelbyville, I highly recommend that you do so. The information presented on engine installation, operation, maintenance and overhaul is well worth the cost of attending the class. Call Jabiru USA to get scheduled.

Upcoming Events:

Sun-N-Fun, Lakeland, Florida, 13 to 18 April, 2010

AirVenture, Oshkosh, Wisconsin, 26 July to 1 August, 2010

Safety:

With the winter flying months coming up (at least here in the USA) now may be a good time to talk about several issues that can affect cold weather flying and operation of aircraft engines. In fact, I have had several email newsletters recently from various aviation groups stressing the potential dangers of cold weather flying. The two main concerns are airframe icing and, of course, carburetor icing. So, let's cover these issues as they might impact the kind of flying we do as Lightning pilots.

First, what do the **regulations** say about flying in icing conditions? Part 91 states that no pilot may operate an aircraft into known or forecast icing conditions unless the aircraft is properly equipped. Is your Lightning properly equipped? NO, so stay on the ground.

Next, what is meant by "known" icing conditions? Basically that boils down to an observation of icing, a pilot report (PIREP) of icing, or conditions that may produce icing. So if you hear about icing, see conditions on the ground that would indicate icing aloft (like freezing rain or sleet), or obtain a weather report showing possible freezing conditions, stay on the ground. A forecast indicating icing conditions could be an AIRMET, SIGMET, TAF or winds aloft forecast (FD) with negative temperatures at precipitation levels. Again, stay on the ground.

What **conditions** are necessary for icing to occur? You need two conditions – liquid visible moisture (precipitation) and the airframe parts cooled to below freezing (32 degrees F). So as I mentioned above, stay on the ground if you have these situations.

Now that we know the regs and the conditions necessary for icing, what are the **potential complications** from icing? If you have an accumulation of airframe ice, the obvious problems are: Loss of wing lift, added airframe weight, increased drag, possible control problems, fuel tank vent icing that could lead to fuel feed starvation, loss of engine performance, pitot static blockage, windshield ice, and propeller ice. Wow, that is a long list. Have I convinced you to stay on the ground?

Carburetor icing can occur in venturi-type and slide-type carburetors when ambient air temperatures are sufficient to lower the air/fuel mixture temperature - and consequently the metal of the carburetor - below the freezing point. There must also be sufficient moisture in the air, but this need not be visible moisture. Ice may form at the fuel inlet, around the valve or slide, in the venturi and in curved passages, choking off the engine's air supply. If icing continues, this can cause the engine to stop.

The formation of carburetor ice is indicated by a slow decrease in manifold pressure in aircraft equipped with a constant speed propeller, or a decrease in rpm in fixed-pitch aircraft (like the Lightning), probably with ensuing rough running as the ice build-up further restricts the airflow and enriches the mixture. **Corrective action is FULL application of carburetor heat**, which pre-heats the air entering the carburetor. Full carburetor heat should also be applied in conditions conducive to icing, particularly at low throttle settings such as on descent or taxiing. Carburetor heat will increase the fuel vaporization in a cold engine. Application of partial heat may cause otherwise harmless ice crystals in the airstream to melt then refreeze on contact with freezing metal. So always use FULL carb heat. Rough running may increase temporarily after application of full heat, as the less dense air will further enrich an over-rich mixture; however, full heat must be maintained until the engine eventually settles into smooth running.

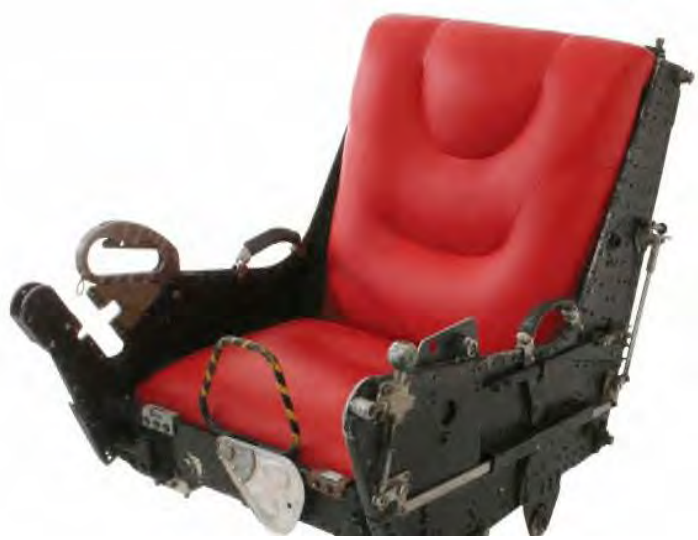
Bottom line: As I said above, stay on the ground if there is a possibility that a planned flight might encounter icing conditions. It is the safe thing to do.

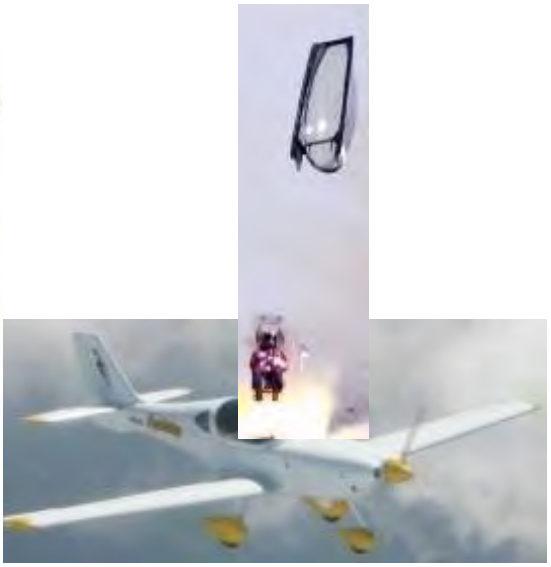
Lightning Skunk Works:

Over the past several years a few Lightnings have been built with a ballistic recovery chute system installed. The prototype Lightning comes to mind, as that is the only Lightning I have flown with a BRS installed. However, never being one to "rest on his laurels", Nick has come up with a new option that some of you may want to consider when you build your Lightning. This new system will is shown below. (By the way, what is a laurel?)

A ballistic recovery system takes quite a few seconds to fully deploy after you make the decision to pull the handle. These few seconds could mean the difference between a safe recovery or one that would spoil your day. So looking around at the various other possibilities, Nick began experimenting with alternate methods of insuring the safety of Lightning pilots that "are having a bad day" and want to "get out of piloting duties" as quickly as possible. This is not a new concept, rather one that has actually been in use for many years in other more advanced aircraft. As far as I know, this is the first time this type of recovery system has ever been used in general aviation aircraft. Well, you know the Lightning philosophy, "go big or go home". Well here is the latest way to "go big" and get home safely at the same time.

An ejection seat for the Lightning. And look at the nice upholstry is has installed. Any color is available. Order yours today, and possibly take the wild ride that could save your life.





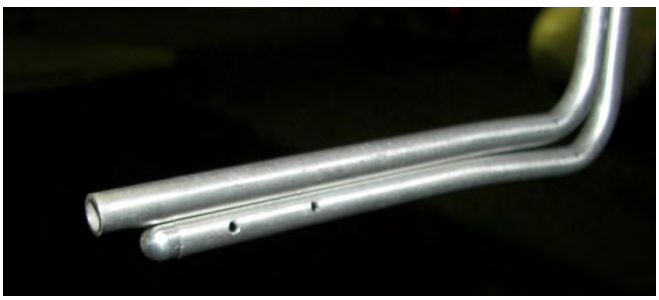
Technical Tips:

Tex Mantell has completed his Lightning and is now involved in flying off the phase one test flights. For this issue of the newsletter Tex has sent several Tech Tips that are covered below.

After completing my kit and flight testing I found that the static system was way off. My airspeed was not right and my auto pilot elevator was not holding as it should.

After looking at many different airplanes and their static ports, I think I found the problem. Most planes have a static port on both sides of the fuse which is fed to a tee connection and then to the instruments. As a plane would yaw the one port would see one pressure and the other side would see another. This would be corrected by the fact that both sides were connected to the tee thus equalizing the reading.

The static port on the wing has only one hole on one side. As the plane would yaw the pressure would change and drive the instruments crazy. I drilled another hole the same size on the other side and this corrected half the error. I then placed two more slightly smaller holes 1" back of these holes. Now the readings are very accurate and they don't bounce around. Also the auto-pilot holds elevation very precise. Tex



Tex's tip number two:

Just finished looking over the Lightning after 15 hours and found a possible problem one should look for. The oil lines from the block to the oil cooler can rub on the case and the motor mount. This might be something to check during every oil change.
Tex

Tex's tip number three:

If you are one that likes to clean your plugs, or damage the 12mm washer trying to get it off to get the CHT probe on, the crush washers are available separately. It's a Champion part number P-678 available from Monarch Products Inc. They're on the net or call 951-672-8501
TEX

Other Items:

Above in the Safety section we talked about winter flying and the possible hazards of icing conditions. One other thing that can be a potential problem is cold weather starting of any aircraft engine. Several things such as cold, thick oil and fuel vaporization in the carb can make winter engine starting more difficult. Below are several things to think about:

First, make sure everything about your engine is set to optimum conditions. What I mean by this is that the spark plugs are clean and have the correct gap, the coil gap is properly set (.010), and the battery has a good charge. I keep my battery on a trickle charger during the winter months so that it is always fully charged.

Next, pre-heat your engine so that the oil is warm and not too thick to allow the engine to turn over easily or too thick to provide good lubrication when it first starts. There are many ways to pre-heat your engine (if you don't have a heated hangar) but one thing I do that helps my cold weather starts is to keep the engine warm by keeping a 75 or 100 watt light bulb under the engine oil sump all winter long. Of course, I take it out for flying. Just make sure the light bulb is not touching any part of your lower fiberglass cowling. The other things I do to help hold the heat in the engine compartment is to place a heavy blanket over the top of the cowling and to plug up the cowl intake holes. My engine seems to stay warm and happy using this technique and I have been able to start it when the outside air temperature is well below freezing.

This technique keeps the entire engine, not just the oil, "up to temperature" and thus helps the carb choke to work properly. Of course, don't forget the Jabiru cold starting instructions about pulling the choke out, making sure the throttle is full back, and pulling the propeller through several blades (I use four to six) before doing the preflight.

Final Thoughts:

Here is the latest out of the FAA. Study it, as there may be a test.

FAA NOTICE OF PROPOSED RULEMAKING (NPRM)

Rule 1000.1A

No pilot or pilots, or person or persons acting on the direction or suggestion or supervision of the pilot or pilots may try, or attempt to try or make or make attempt to try to comprehend or understand any or all, in whole or in part of the herein mentioned Federal Aviation Regulations, except as authorized by the administrator or an agent appointed by, or inspected by the Administrator.

Rule 1000.1B

If the pilot, or group of associated pilots becomes aware of, or realizes, or detects, or discovers or finds that he, or she, or they, are or have been beginning to understand the Federal Aviation Regulations, they must immediately, within three (3) days notify, in writing, the Administrator.

1000.1C Upon receipt of the above mentioned notice of impending comprehension, the Administrator will immediately rewrite the Federal Aviation Regulations in such manner as to eliminate any further comprehension hazards.

Rule 1000.1D

The Administrator may, at his or her option, require the offending pilot, or pilots, to attend remedial instruction in Federal Aviation Regulations until such time that the pilot is too confused to be capable of understanding anything.

Everybody got that?

Blue Skies,

Buz Rich

N1BZRICH@AOL.COM (Contact me directly for newsletter inputs – I need your help to keep this newsletter both interesting and informative.)