




The Arion F.L.A.S.H.*

***Fun Lightning Aircraft – Sierra Hotel**

Semi-official possible name of the Arion Lightning Newsletter.

April 2008

Volume 1, Issue 3

Welcome to issue # 3 of the  Newsletter. The goal of this newsletter is twofold; first, to “get the word” out on happenings at Arion Aircraft, and second, to give a “voice” to Lightning builders and flyers as well. It is Lightning “Hangar Talk” sessions put into print. To be successful we will need the inputs from Lightning flyers and builders in order to meet that goal. So it is not only a way for the factory to provide Lightning news, but it is your newsletter as well, and as such its success will depend on you getting involved to spread the word and to help other builders and / or flyers with their project airplanes. So think of this newsletter as an “exchange of information publication”. Send your inputs directly to me at N1BZRICH@AOL.COM.

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News Flash

Late Friday afternoon, 28 March 2008, the new Lightning Demonstrator, N324AL, took to the air with designer and chief test pilot, **Nick Otterback** at the controls. After landing, **Nick's** first words upon shutting down the engine and opening the canopy were, "This is the best flying one yet". As many of you know, they were starting to worry about getting the airworthiness certificate in time to complete the test flying before the Arion crew had to depart for Sun-N-Fun. Although they had sent the paperwork to the FAA back in early February, a new FAA system for this type of thing had apparently slowed the process. The aircraft had already passed its DAR inspection, but they still needed the FAA "approval". Numerous phone calls were made to check on the paperwork, and some others to try to help speed the process and perhaps some of these helped. We may never know, but while **Nick, Dana, Mark** and I were having lunch we got a call from **Pete** saying the approval had been faxed to him. All **Nick** had to do was drive to the DAR's house after he got home from his "day job" and his final signature on the airworthiness certificate would allow **Nick** to make another first flight – this time on the beautiful new N324AL.



Nick preparing to taxi out for the initial flight of N324AL.

Now flight testing will begin in earnest so that the time can be flown off before the Arion team departs for Lakeland, Florida. Unfortunately the flight approval came too late for me to fly N324 AL before I had to get back to Virginia, even though as I write this, I am still in Shelbyville due to "delta sierra" weather. I am sure I will get a chance sometime in the near future. One thing the rest of us can do is keep our fingers crossed for good test flying weather so that **Nick** can complete phase one testing and fly it to Lakeland so we can see the new 2008 Demo Lightning at Sun-N-Fun.



This photo was made just before engine start. **Nick** decided to make some very detailed and precise adjustments to the new canopy latching system using a very delicate instrument – a file. You can see the concentration on his face as he performs this difficult operation.

How I Chose the Lightning

Lightning builder **Jim Langley** shares with us the decision process he used to decide which aircraft to build. Now here, in **Jim's** own words, is "**How I Chose the Lightning**".

I did a fair amount of research before making up my mind to build a Lightning. In fact, I was looking for a little over a year, which included two trips to Oshkosh, the Sebring Light Sport Expo and finally Sun n Fun. But before I could finalize on an aircraft design to build I had to clearly understand one very important thing. What was my **mission** going to be? Well, *fast, fun to fly, good looking, nimble, and quick to build*. So, here are some of the requirements that I had when selecting which aircraft I wanted to buy:

- It did not need to be Sport Pilot compliant, but if I changed my mind before certification, I wanted the option to make it so.
- It needed to be agile, not docile, but with good handling characteristics.
- Composite or Metal? Uhhh, composite, or a good reason to be metal.
- Good useful load and a roomy enough cabin area for two 6'-2" people
- It needed to be fitted with a Jabiru 3300 by default, or as an option. I wanted to fly fast for little cost!
- Low wing, low wing, low wing!
- Capabilities for a good speed to stall ratio; at least 4:1.
- I wanted to utilize a build center to complete the aircraft quickly with expert advice along the way.
- Finally, I did not have \$100,000 to spend. I needed something reasonable.

Taking this into consideration, here is a list of aircraft that made the final cut:

Arion Lightning - Estimated cost to build: \$75,000



Wing Span 27' 2"	Maximum Speed 190 mph
Length 20'	Cruise Speed 175 mph
Cockpit Width	Vne 208 mph
Elbow 43"	Stall (Full Flap) 45 mph
Empty Weight 775 lbs	Stall Clean 56 mph
Gross Weight 1425 lbs	Take Off Roll 315 ft
Useful Load 650 lbs	Landing Roll (with brakes) 500 ft
Engine: Jabiru 3300	Climb Rate (at gross) 1200 ft / min

Sonex - Estimated cost to build: \$55,000



Wing Span 22'	Maximum Speed 175 mph
Length 18' 1"	Cruise Speed 170 mph
Cockpit Width	Vne 197 mph
Elbow 40"	Stall (Full Flap) 40 mph
Empty Weight 620 lbs	Stall Clean 46 mph
Gross Weight 1150 lbs	Take Off Roll 250 ft
Useful Load 530 lbs	Landing Roll (with brakes) 500 ft
Engine: Jabiru 3300	Climb Rate (at gross) 1200 ft / min

Editor's note: Having been in a Sonex, I see no way for two 6'2" people to fit comfortably in a Sonex.

Sport Cruiser - Estimated cost to build: \$85,000



Wing Span 28.8'	Maximum Speed 155 mph
Length 21.3'	Cruise Speed 138 mph
Cockpit Width	Vne 160 mph
Elbow 46.5"	Stall (Full Flap) 32 mph
Empty Weight 780 lbs	Stall Clean 35 mph
Gross Weight 1320 lbs	Take Off Roll 360 ft
Useful Load 540 lbs	Landing Roll (with brakes) 400 ft
Engine: Rotax 912 UL	Climb Rate (at gross) 900 ft / min

Dynamic WT-9 - Estimated cost to buy: \$97,000+



Wing Span 29.7'	Maximum Speed 167 mph
Length 21.2'	Cruise Speed 155 mph
Cockpit Width	Vne 186 mph
Elbow 44.5"	Stall (Full Flap) 37 mph
Empty Weight 650 lbs	Stall Clean 42 mph
Gross Weight 1200 lbs	Climb Rate (at gross) 1000 ft / min
Useful Load 550 lbs	
Engine: Rotax 912 UL	

So, what made me choose the Lightning over the other aircraft shown above?

Cost: Next to the Sonex, the Lightning was the least expensive to build, and was made of high quality materials.

Speed of Assembly: I wanted to go through the build experience. I wanted to understand how my aircraft works and how to repair it. Most importantly, I wanted to customize my aircraft to fit what I wanted. Things like the arrangement of the avionics, colors, and interior were all important decisions I wanted to make. However, I didn't want to take 2-4 years putting it all together. Arion Aircraft had a build center at Green Landings in West Virginia within a two and a half hour drive from my house. With their builder's assist program, I could have my Lightning flying within 4-5 months; 2-3 months if I spent more time there!

Looks: The Lightning was by far the nicest looking airplane of the bunch. The WT-9 is also a pretty one, the Sport Cruiser is OK, but kind of fat; the Sonex, is a cute kind of ugly. Something like a Honda Element; you got to be homely to love one...

Performance: What can I say? The Lightning has the widest ratio of top speed to stall of the bunch. Very fast, very lively, smooth to fly, yet easy to land. When Ryan from [Green Landings](#) took me up for a demo flight, I was immediately hooked! The aircraft handling was like a fighter, yet when landing, it was very docile, like a trainer.

Materials: I thought seriously about a metal aircraft because I had heard all the (quote unquote) horror stories about glass building and how messy it was. I had already built some very large R/C composite aircraft and didn't think working with composites was too bad. After all, to compare it to R/C, the Lightning

is kind of like an ARF; (A)lmost (R)eady to (F)ly. Take all the big pieces, put them together and you have an airplane. Most all of my R/C airplanes were like this, so why not the full-scale I am building? Besides, nothing is as pretty as a well finished composite airplane! After starting my build, I realized that I had forgotten how easy it is to fix a mis-cut, hole in the wrong spot, or many other mistakes with composites; just plain easy...

Room: Even after considering the MANY plusses of the Lightning, I almost did not buy one; why? The first demo I flew in was one of the early production airplanes and had a smaller interior. So, after flying the aircraft, I still needed to find one of the newer models to see if I could comfortably fit my big frame in the seat. Plus, my brother in law who will often fly with me is also 6'-2". Both of us in the older Lightning would not be what I call comfortable. I flew to Shelbyville JUST for the purpose of sitting in a newer Lightning. Unfortunately for me, the demo Lightning was not finished and the model I sat in was for a much shorter person so I basically had zero headroom! I WAS EMOTIONALLY CRUSHED!!!

(Enter Sun n' Fun...)

My brother in law and I went to Sun n' Fun to look at other airplanes. I was even considering buying an already built one like the Sport Cruiser, and was close to writing the check. On a whim, we saw the just completed demo in the Lightning display area. "Awww, what the heck, let's sit in it"... It's amazing what 3" less of seat cushion will do for head clearance! I wrote a check for my deposit an hour later. Pete even gave me a hat! Wow! I felt like one of the boys

So, that's the story of my journey to Lightning heaven. Hope to see you in the clouds.

Editor's Note: Thanks, **Jim**, that was a great run down of the "scientific" approach to deciding on which airplane kit to build. I appreciate your effort.

News from the Factory:

New Wing tips in development:

There has been quite a bit of Lightning list traffic recently about the new wing tips, so I thought it might be helpful to cover that topic in this issue of the newsletter. I will also show three CAD drawings that I made from a program that **Nick** sent me some time ago. Three different views of the tip are shown. The first one is an overall



The purpose of the new wing tip is actually two fold. First, and perhaps the most obvious, is it gives the Lightning wing a more modern look by incorporating a design that is sort



view showing the basic design of the tip. The next one shows a side view which gives a good idea of the size and area of the winglet. The last one is a frontal view and gives a good presentation of the winglet angle as it attaches to the wing.



of a combination of a winglet and a Hoerner tip. Winglets seem to have become the latest aeronautical design fashion and you now see them on everything from sailplanes to the biggest cargo / passenger aircraft. Of course the idea behind winglets is to diffuse the strong vortices released at the tip and optimize the span-wise lift distribution. By doing this you effectively lower the overall drag of the aircraft. As most of you know, Hoerner tips (curved up, as shown here) are designed to maximize the wing's effective lift area and also to minimize wing tip vortices. Hoerner wing tips provide the largest effective span for a given geometric span. What I am saying here is Hoerner tips makes the wing (a Lightning size wing) fly like it actually 6" to 12" longer than it actually is. Therefore this new tip will possibly end up being an even trade as to total drag since the winglet / Hoerner design will tend to negate the added drag of the longer tip. Therefore, if you like the look, now you can choose this new style of wing tip for your airplane.

The second reason that **Nick** designed the new tip was to allow the Lightning to be built to comply with light sport stall requirements without using vortex generators to help lower the clean stall speed. The new tips should add about five square feet of wing area to each wing which should make the total wing area with the new tips close to 101 square feet. This additional wing area is designed to allow the Lightning to easily meet the 45 knot clean stall speed.

What will the new tips do to the overall performance of the Lightning? Well, that is to be determined when **Nick** installs them on the prototype Lightning to test them. He will look for changes in cruise speeds and roll rate. Some slight decrease in roll rate is to be expected because of the longer wing span, but cruise speed may or may not suffer. We talked about the total drag issue above, so it's possible we may lose a few knots down low, but at altitude where you cruise on a long cross country, we might even see a slight increase. Certainly takeoff roll, rate of climb, and service ceiling should benefit from the additional wing area. With improvements like that, and the good looks of the new tips, I suspect that lots of Lightning buyers may want a set for their airplane.

For those that are building now, but would like the new tips in the future, I suggest you install the original tips with screws so that they can be easily removed and replaced when the new tips are ready for production.

To the right is another new development for the Lightning. This picture, depending on who you listen to, is either a Klingon cloaking device, a yaw trim device, or the outside canopy handle. Or maybe it is all three. What say you?



NOTE:

Here are two important Sun-N-Fun meetings to put on your "must attend" list:

- First, we finally found out when the **Lightning forum** will be held: **Wednesday at 1200** in the Forums Plaza. Don't know which tent yet, so check the schedule when you get there or look on the posted board in the forums tent plaza.
- The **Lightning get together** that we have every year will be **Thursday at 1200** in the Lightning booth. Be there to "meet & greet" and put some faces to the names of those on the Lightning list.

News from the Dealers:

I didn't get any news from the dealers for this issue, probably because many of them are getting ready to head down to Lakeland, Florida, for Sun-N-Fun, so I thought I would show some of their demo aircraft that I have photos of.



Lightning North Central's beautiful demonstrator. Read about **Tom** and **Al** in this issue's skunk works section.

The **Green Landings** demonstrator right after a big rain storm in WV.



Lightning Southwest's demonstrator. One of the first Lightnings built. That may be **Greg** you see on his hands and knees praying for some rain (like at GL) for the desert where he lives.

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, Hedgesville, WV, 304-754-6010, www.greenlandings.com

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

Sport Plane Dynamics, Ed Ricks, Glendale, AZ, 623-695-9040

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

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

News from Builders and Flyers:

Linda and Joe's beautiful Lightning, **N59JL**. They hangar their "fleet" of aircraft in Wakefield, VA.



Joe and Linda Mathias have a total of more than 100 years flying experience between them. **Joe** started in 1939 while he was in high school; **Linda** started much later after completing college and with a career in government service well underway. **Joe's** passion growing up was like so many young boys; he was infatuated with everything aeronautical. He built and flew model airplanes; when old enough, he rode his bicycle to the airport in Norfolk, VA almost daily to watch the planes fly and occasionally wangle a ride. As a young flight instructor, **Joe** taught many hours in J3's before joining the Army Air Corps. When air transport training shut down in WWII, **Joe** switched to gliders; he flew Operation Varsity crossing the Rhine River into Germany. **Linda** was unaware of general aviation until a Navy co-worker started talking about his flying lessons. That awakened her interest and she immediately signed up for flight instruction in 1971.

Naturally, **Joe** pursued an airline career; he spent 25 years flying for Piedmont Airlines starting in DC-3's and ending with the Boeing 737. After an early retirement due to angina, **Joe** went into business with a friend restoring antique airplanes. Staggerwing, Fairchild, and Travel Air were commonplace terms in their shop in Virginia Beach. After **Joe** restored a Bellanca Decathlon which he had purchased from the insurance company



following an accident, he met Linda at one of the local airports flying her Decathlon. By this time, **Linda** had earned her commercial and flight instructor certificates; they were both interested in aerobatics and entered several competitions together.

Aircraft ownership was in their blood; **Joe** owned six airplanes and **Linda** three when they married in 1989. On their honeymoon, they flew **Linda's** Cessna 180 to Halifax, Nova Scotia. **Linda** subsequently sold her C-150 and Decathlon because there just wasn't enough hangar space for all; luckily some of **Joe's** planes were projects awaiting restoration so they didn't take up much room. He has since restored his J-3 Cub for the second time since he bought it in 1958; he also has completed a WWII training glider, rebuilt the 180, and has been working on a 1936 cabin Waco which they purchased in 1992. If you get the idea that **Joe** is a tube and fabric man, you guessed right!



In early 2006 **Linda and Joe** heard **Buz Rich** present a program on his Esqual building experience at the local EAA chapter meeting; admiring **Buz'** beautiful airplane and hearing him talk about the merits of the newly offered Lightning kit whetted **Linda's** appetite for a replacement to the 180 which could be built quickly and have the attributes of fuel economy and speed. With the price of fuel climbing and their increasing difficulty getting the 180 in and out of the hangar, they decided to sell it in 2006. A trip to Sun 'n' Fun in April to view the Lightning prototype clinched the decision to purchase a kit and use the "builder assist" program. They placed the order in early July and were scheduled for a slot at Shelbyville, TN in November. The next few weeks were spent deciding on avionics and paint scheme. Avionics Systems, Inc. in Leesburg, VA was chosen for the panel build and avionics installation; the Lightning would be IFR-capable with a Chelton Sport EFIS, TruTrak autopilot, and Garmin radios.

Thanksgiving week was the magic date; **Linda and Joe** made the eleven hour drive to Shelbyville where they met the Arion crew. Working with **Nick Otterback, Mark Stauffer, and Mike Jones** was a pleasure. A friend, **Dennis Copeland**, who also loves airplanes joined them that first week to help with the build. Even though they lost Thursday of that week due to Thanksgiving, **Mark and Nick** worked with them on Saturday to make up the time. At the end of the week, the plane was on its gear, wings completed, the engine mounted, and the cowling fitted, it was ready to go to **Chad's** paint shop. The order for the interior had been placed with B&B Auto Trim in Shelbyville; **Linda and Joe** drove home expecting to be back in early January, 2007.

But, things happen -- **Chad** was moving his paint shop to a better location over Christmas which took more time than expected and Direct2Avionics (the distributor of experimental Chelton systems) went out of business on December 22 with no warning. Avionics Systems had received only half of the equipment and it took Chelton a while to develop policies for satisfying the incomplete orders. Problems were resolved in mid-January and **Pete Krotje** advised that the plane would be back from the paint shop on January 22. The trek back to SYI was on; the plan was to spend two weeks to finish the plane and get it inspected. The permanent registration required for inspection had not arrived when it was time to leave home; arrangements were made with a neighbor to forward it immediately to Shelbyville. After arriving back in Shelbyville, daily calls to the FAA in Oklahoma City were becoming increasingly more frustrating. Meanwhile the Lightning was progressing nicely; the complexity of the avionics created more challenges than most of the previous factory assisted planes but with **Linda and Mark** talking frequently with the panel builder, they



found places for all the antennas and the black boxes. The plane would be ready for inspection by the end of the second week but WHERE WAS THE REGISTRATION?

Finally the FAA said that the registration request form submitted was for a LSA vice an experimental-amateur built so the process would have to start over again! There was no point waiting in Shelbyville because the FAA wouldn't estimate how much longer it would take. Before leaving, **Linda** was able to start the engine and taxi the plane; that was some consolation. It took three weeks to get the paperwork resubmitted and receive the permanent registration then drive back to Shelbyville one more time. **Linda and Joe** arrived at the Arion hangar on February 26, test pilot **Buz Rich** had arrived in the Esqual. The inspection was scheduled for February 27; everyone worked feverishly to get all the paperwork and last minute details ready for the DAR **Gary Meuer**.



The assistance and dedication of **Nick, Mark, and Mike** and also **Buz Rich** made for a smooth inspection; the airworthiness certificate was presented on February 27. **Buz** made the first test flight on February 28 and even flew it to an EAA breakfast within the flight test area three days later returning to SYI to land in a 17-knot crosswind. It took several more days to get 20 hours of flight testing completed because of bad weather; on those days, **Buz** helped **Linda** work on the gear leg fairings and wheel pants so **Chad** could paint them before departure. On March 8, **Linda** flew N59JL back to Virginia on a ferry permit; **Joe** drove home with the fairings in the van.

The builders assist program at SYI was everything it was advertised to be; **Linda** learned a lot and used tools she was previously unfamiliar with. Even with **Joe's** aircraft building experience, he had never worked with composites so that was new to him. Camaraderie at Arion was great; challenges were met with good nature and lots of ingenuity. It was the first IFR plane turned out at Shelbyville and required some head scratching to place all the antennas, install a landing light in the bottom cowl, and install a heated pitot tube with LED's in the panel; **Mark and Nick** were definitely up to the challenges. **Linda** commented "Even though we have continued to work on minor items ever since, it was wonderful to build a plane and fly it so quickly. We highly recommend the builder assist program if you can spare the time away from home; we just wish we had some of the recent improvements!"

Building a Lightning

Without the Builder Assist Program

Jerry VanHeeswyk provides a perspective for those who have not yet ordered a Lightning kit. **Jerry's N62JV** is pictured to the right.



I have seen several potential builders inquire about the difficulty of building a Lightning without using the builder assist programs. Technically, I built my aircraft without builder assist, but there is much more to the story that puts me in a unique position to comment on this question. My experience and observations follow.

I ordered one of the first Lightning kits from **Greg Hobbs** in Marana, Arizona. My airplane (kit #7) may have been the first Lightning planned to be built without Builder Assist. At the time I placed my order, the building instructions were not yet available. Furthermore, I correctly anticipated there would be minor revisions as the new kit and design were being refined. To allay my fears, **Greg** offered to let me build my aircraft in his facility (which was to be a build center), to provide some initial guidance, and to lend a hand on those tasks not easily completed by one person. **Greg** had been to Shelbyville, and assisted in building several Esquels and Lightnings. His experience would prove invaluable. **Greg** lives about an hour's drive from my home in Tucson, so I would be able to commute, and build on my schedule. Who could refuse an offer like this?

My kit arrived in May, 2006, and I spent the next 18 months building. However, it is important to note that other priorities (job, family, etc.) made it difficult for me to be away from home more than a few hours per week. I spent every Saturday morning at **Greg's**, and brought home the smaller parts to work on in my shop during the early morning hours, before work. In 14 months N62JV was just about ready for paint and final assembly. I do have some aircraft building experience, but, certainly, **Greg's** help and guidance were a significant factor in completing my aircraft on this schedule. In my experience, there are few kit aircraft that can be built easier or faster than the Lightning. The instruction manual is now as good or better than any I have seen, there are few special tools required, and most handy builders have the necessary skills to successfully complete a Lightning.

This is not to imply there will not be challenges. All projects of this nature are bound to have an occasional challenge where a part does not fit properly, or an instruction is unclear, etc. No two homebuilts are exactly alike, and much of the personal satisfaction from building comes from expressing the builder's individuality. While a fixed wing aircraft is not a highly complex machine, for safety, it is important to follow the instructions and use accepted building practices. For those with limited experience, it is also critically important to discuss any significant modifications with the designer or a technical counselor. The staff supporting the build center is one good source for this information. But, for those building on their own, a call to Shelbyville or a question posted on the web will, almost certainly, quickly yield the needed advice.

I may be unusual in the sense that I really enjoy the building, and resolving the myriad technical challenges that are certain to develop. A semi-experienced builder, working alone, and with sufficient free time, should be able to finish a Lightning in about a year. I do not keep detailed records of my building time, but would estimate N62JV took about 600 hours to complete.

So, for me, this investment of time was a labor of love. If you are more typical, and in a hurry to get airborne, the build center may be exactly what you need. I have worked alongside builders taking advantage of the build center, who have completed their airframe in just a few short weeks. They also had the added advantage of an experienced Lightning builder to provide guidance, and make them aware of any "gotchas".

If you are handy around tools, and have a respectable tool collection (wrenches, screwdrivers, clamps, power drill, sander, etc.) in your shop, you can build a Lightning in a reasonable length of time without hands-on assistance. In addition to having the ability, you also need the desire. To assess desire, each of us must determine for our personal set of circumstances whether it is more important to save several months of building (and possibly, some frustration), or a few thousand dollars. Naturally, there are numerous other factors, such as space to build, availability of an additional set of arms and legs for those two-person tasks, etc. However, in my mind it all comes down to "can you do it?" and "do you want to?". Each of us is an individual, and will have to answer those questions for ourselves. But, however you put yourself in the left seat, the Lightning is an attractive, good performing sport plane that nearly anyone with good judgment can build - with or without assistance.

Upcoming Events:

Sun-N-Fun is 8 – 13 April at Lakeland, Florida. As mentioned in the first newsletter the Lightning team will be at the same location they have had for the last several years. Be sure to stop by and say hello. In previous years we have had a small informal Lightning get together for current owners and potential customers to exchange information. That will be on Thursday at noon at the Lightning booth. There will also be a Lightning forum at noon on Wednesday. So plan on being at this year's Sun-N-Fun and bring your Lightning.

Virginia Regional Festival of Flight is 14-15 June this year and will be at **Suffolk, VA**. The new location for this Regional Fly-In will allow the event to continue to grow. No event was held in 2007 because of the planning process for the change of location, but in years past this regional fly-in has been attended by Green Landings, the Lightning dealer from West Virginia. Hopefully they will be there again this year with their demonstrator Lightning.

Oshkosh is 28 July to 3 August. Several of you have indicated to me that you are planning on attending Oshkosh with your recently completed Lightning this year. I am hoping that we have between five and ten Lightnings attending, so start your planning process now. As I mentioned in the first newsletter issue, **Bill Hubbard** was at Oshkosh in 2007 and that qualifies him and his "jet" as a part of Lightning history, as his Lightning was the first Arion customer aircraft to attend Oshkosh. I have not heard yet if **Nick** or **Pete** plan on giving a Lightning Forum at Oshkosh, but I certainly hope so. **Pete** normally gives a well attended forum on the Jabiru engine, so I am sure a Lightning specific forum would be well received by many attendees hoping to learn more about this great aircraft.

Next Jabiru Engine Seminar (that is not "sold out" already) is **5 to 7 September**. Call **Dana Otterback** at Arion in Shelbyville to sign up. I have attended this seminar and I consider it a "must" for anyone with a Jabiru engine or anyone considering one. It is money well spent.

The 2008 Lightning Fly-In will be 27 September at SYI. This is the second annual event and you should start planning now to attend. Those attending last year had a great time. This is a fly-in for anyone that is interested in the Arion Lightning, not just those that are building or flying Lightnings. Good food, hangar talk, demo rides, informational briefings, and other "fun" activities are on the schedule. There will also be a "Metal Aircrafters Anonymous" meeting chaired by **Mark**.



Lightning Skunk Works:

On the First of April, a year ago, it was leaked that the Lightning Skunk Works was working on a vertical takeoff version of the Lightning. Initial plans were that it would be a 200 HP Jabiru powered craft. The 200 HP will come from an 80 HP engine in the nose to go forward and a 120 HP engine in the baggage compartment to power the rotors. On the right you see a photo of the initial prototype of the VTO Lightning. Pictured with the new craft are **Tom** and **Al**, Arion's two Wisconsin helio test pilots. Actually the prototype has not flown yet because of two minor problems. First, the dynamic duo can't decide which hand the stick should be in. And second, the very large rotor blades have so much drag that when the 120 HP engine is running the blades stand still and the fuselage goes around. **Tom** and **Al** say "No problem. It's all



just part of prototype test and development.” They also indicated that they have already come up with a solution – just nail the wheels to the ramp. You know the old saying, “To a man with a beer in one hand and a hammer in the other, everything looks like a nail.” Stay tuned for the further adventures of **Tom** and **Al**.

Other Items:

Lightning Serial Numbers and Owners

Here is the latest list of Lightning kits sold to date; serial numbers, N numbers, owners name, location, and flying status, if known, are all included. Hopefully this list will be helpful to current owners in order to share information and for potential customers to be able to find a flying Lightning or kit near their location. Once again we have **Dana Otterback** to thank for this effort. The newsletter may not include this list in every issue, but periodically will publish it as the numbers increase.

NOTE: Send me your N number (or national registration) and I will add these to the list.

<u>Serial & N #</u>	<u>Owner</u>	<u>Location</u>	<u>Status</u>
1 -N233AL	Prototype, Arion Aircraft 2005	Shelbyville, TN	Flying
3 -N430GH	Greg Hobbs	Marana, AZ	Flying
4	Green Landings	Hedgesville, WV	Flying
5 -N17EF	Earl Ferguson	Atlanta, GA	Flying
6	Rick Discher	Weyauwega, WI	
7 -N62JV	Jerry VanHeeswyk	Tucson, AZ	Flying
8 -N155AL	H&S Aviation	Neenah, WI	Flying
9	Tex Mantell	Fairport, NY	
10	Duane Sorenson	Pisgah Forrest, NC	Flying
11	Charles Dewey	Green Landings	Flying
14	John Davis	Crossville, TN	Flying
15 -N727RB	Rick Bowen	Colonial Beach, VA	Flying
16 -N396JC	Joe Cooper	Green Castle, IN	Flying
17 -19-4692	Dennis Borchardt	South Australia	Flying
18	Tholhuesyn	Australia	
19	Dunbar	Australia	
20 -N59JL	Linda Mathias	Windsor, VA	Flying
21	Charlie Keith	Green Landings	
22	Albert Wachtmeister	Green Landings	Flying
26	Johnny Thompson	Greg Hobbs	
27	Bill Hubbard	Kokomo, IN	Flying
28	Ernie Pritchard	Payson, AZ	
29 -N323AL	2007 Arion Demo	Shelbyville, TN	Flying
30 -VH-PDI	Peter Discher	Australia	
31	Keen	Australia	
32	Dennis Borchardt	South Australia	

33	Fry	Australia	
34	Chesbrough	Australia	
35	Belie	Australia	
36	Grubb	Australia	
37	Dennis Borchardt	Australia	
38 -N730AL	Jim Langley	Green Landings	
39	H&S Aviation	Neenah, WI	
40	Claudio Nunes	Brazil	
41 -N166JG	Jim Goad	Punta Gorda, FL	Flying
42 -N213RC	Richard Cleavinger	Louisville, CO	Flying
44 -N838BF	William Fisher	Greg Hobbs	Flying
45	Ed Ricks	Glendale, AZ	
46	Ron Ritchie	Hamilton, New Zealand	
47	Claudio Nunes #2	Brazil	
48	Steve Sundquist	Yakima, WA	
49	Bill Applegate	Tucson, AZ	
50 -N716MZ	Bill Browns	Neenah, WI	
51	Buddy Carlisle	Green Landings	Flying
52	Colin Kennedy	Owasso, OK	
53	John Eynon	Carbondale, IL	
54	Fred Peters	Greg Hobbs	
55	Walt Mefford	Greg Hobbs	
56	Borchardt #3	South Australia	
57	Borchardt #4	South Australia	
58	Borchardt #5	South Australia	
59 -N324AL	2008 Arion Demo	Shelbyville, TN	Flying

Serial # 60 has not been assigned yet, however there are seven more kits that have been paid for or have down payments on. One will go to Russia, so that is certainly a first. Others go to **Lynn Nelsen**, **Wayne Lenox**, **Walt Mendenhol**, one to **Arion** (to become the Light Sport Demonstrator), and two more to **Australia**. Have you ordered yours yet?

Final Thoughts:

I sure hope many of you can get to Sun-N-Fun this year. It really is a fantastic experience. And of course, it is not too soon to be making your initial plans for Oshkosh. You deserve a yearly trip to both of these great EAA Conventions.

Blue Skies,

Buz Rich

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