



First Quarter 2020

Volume 13 Issue 1

Jan-Mar 2020



Letter from the Editor:

Hi everyone and Happy 2020!!

Or should we say ADS-B Deadline Day? Either way, welcome to my 1st newsletter edition for Arion Lightning. As you probably read in previous newsletters, Dennis' schedule has increasingly gotten busier and busier and after a long and dedicated commitment to Arion's team, and he has decided to take a step back and pass the newsletter editor responsibilities on to me. Dennis has done a fantastic job and covered a ton of events, air shows, gatherings, and seminars, only to list a few, in order to bring interesting and crucial information to all our readers and subscribers. An overwhelming thank you is very well deserved to Dennis and his efforts.

For those of you new to the Arion Newsletter or missed last quarter's edition, there's a Pilot Bio article that gives a brief look into me, my plane, my background and some of my flying experiences. Obviously, this by no means "qualifies" me to be the authority or all knowing, just ask my wife! But simply means I volunteered to accept the role and do my best to carry on a great newsletter tradition and try to bring interesting articles, experiences and even an occasional tip or funny story to the experience. Which brings me to a very important topic. I think Dennis did a great job of providing material and stories that were beneficial and informative, and with that continued direction in mind, if you would like to see a particular article, tip, conversation or idea, please take time to reach out and let me know. I always welcome the advice of others and what you, the reader wants to see in their newsletters. Additionally, if you would like to submit an article for future newsletters, by all means forward those to me as well. My goal is not to change the direction of what is working so well, but to make/consider any changes to the rhythm of

the newsletter that ultimately makes it an even better read and valuable tool for the Lightning enthusiast. My cell number and email will be listed somewhere below so feel free to drop me a note anytime and share your stories or feedback.

I generally attend Sun-n-Fun, Oshkosh and a couple of smaller events throughout the year and am almost always interested in a flight to a fly-in, breakfast or any other excuse to adventure to another place that I've never been! I have a busy flying schedule around the Midwest and hope to branch out more as I get to know everyone and get invitations to come see their project or favorite restaurant. I also hope to attend another Jabiru Engine Seminar out in Tennessee soon. I've been previously but want to go again for a refresher, though mainly to meet some of the newest builders and attendees. It's a great 2-day class and in my opinion, absolutely worth the time. I also attend a ton of in-prompt-to gatherings so send me an invitation, and if my schedule allows, I'm on my way.

Hope to see you all soon or over the course of the next few months and years. Meanwhile, let's get to the articles and I hope you enjoy and, hope to hear from you soon.

I promise to try and keep you informed, educated, updated and sometimes entertained.

Tony
tony-gentile@att.net
[816-665-9191](tel:816-665-9191)
[N2300X](https://www.aircraftregistry.gov/aircraft/details/N2300X)

Inside This Issue:

Intro	1
Pilot Spotlight	2
CFI Tips	3
Lightning Strike	4
Big Boys	5
Factory News	6
News from the Dealers	7
Engine Seminar	8
Classifieds	9
Upcoming Events	10

adventures and your challenges. Don't be shy, step up to the plate! After all, we're brave pilots, right?



The "Brotherhood" of Lightning owners is getting bigger by the day and the stories that we can share are honestly helpful to the future builder or the wishful thinker that is worried how their dream might just be a project too big to tackle alone. Think back when you were considering the decision of what to build, how to build it, can you pull it off, or in my case, can I do it and not get killed by my wife by chasing another airplane adventure! The fears you had or even the concerns you considered are helpful to those who are now in the shoes you once wore.

Think about why you chose the Lightning over some of the other aircraft kits out there. With more and more engine choices for the Lightning becoming available, why you went with the engine choice you did. If you had the opportunity, would you make the same choices again? Now that you're an "expert", what would you do different? What voices in your head did you wrestle with that turned out to be great choices and why? Anything you might be able to share with the rest of the group? Here's an often debated and frequently discussed variable. Avionics!!! OMG, almost as sensitive as Ford -vs- Chevy. You'll find loyalist to a manufacturer based on a variety of reasons. The last plane they had, their experiences with the operations, their buddy convinces them, the wiring challenge or by far the biggest challenge of them all, cost.

For me, I enjoyed breaking it down to some of the lower, major component levels and studying why I would or wouldn't want to make a selection.

Pilot Spotlight

HELP! A Call to Arms:



If you're anything like me, you can't get enough exposure to the passion of building, owning or even just flying the Lightning. We eat, sleep and drink airplane. And if you're a Lightning builder or even if you bought an already built Lightning, we'd love to hear from you. Share your experiences,

HELP! A Call to Arms: (continued)



What would it do for me? What was my mission, was it in my budget or even my build-time? I'm Instrument rated so my choices obviously were to allow me the ability to fly IMC. That opens up another wallet that I had to carefully consider for my build.

What you know and what you went through are important to the future builder. Part of enjoying the passion of flying the Lightning is sharing your experiences and thoughts. So, my plea to you is- Share what you know!

If you want to put something together in rough draft, I'd be happy to take what you send and work with it to make it fit. If you've always wanted to submit your "all about me" in a completed form but were too reluctant to send it in, now's your chance! I would love to know about your build, your adventures and your thoughts. Share it with everyone and we can collectively work to put some of those fears that future builders may have but were afraid to ask to rest.

I fly out of KLXT, a suburb of the Kansas City area. If you have a build or a story that is best told in person, I would absolutely enjoy the chance to fly to your piece of the sky and we can do a Pilot Spotlight in person. This offer is for anyone who is in any stage of the build process as well. It would be a fascinating adventure to see a project in the beginning stages and then return at a later date and get caught up on the progress.

CFI Tips

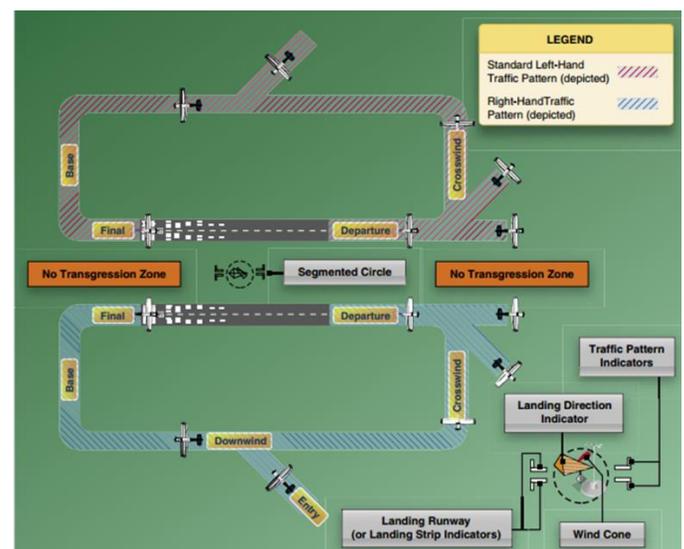
Operations at Non-Towered Airports

(Article by Jim Dexter, CFI)

My good friend and Instructor, Jim Dexter occasionally has some interesting topics that get brought up at aviation conferences, seminars, training events and checkride discussions. I've asked him to send me some information that might be valuable to us "seasoned" pilots from time to time when he comes across it. I find that we generally know most of the basic information but how much do we practice what we know? And do we really know it or is it something that we just do?

From time to time, the subject of proper traffic pattern operations is asked. Are straight-in approaches allowed? What about right-hand patterns?

The Aeronautical Information Manual (AIM) in section 4.3.3 provides guidance on traffic patterns. Basically, left-hand patterns are expected (except for helicopters), unless designated as right-hand traffic patterns. A right-hand pattern is indicated on Sectional charts, VFR Terminal Area charts, and Chart Supplements. The AIM states straight-in approaches can be made, but not if it disrupts the flow of other traffic in the pattern.



CFI Tips (Continued)

Keep in mind the AIM provides recommendations on operations and is not regulatory. However, the FARs are regulatory, and specifies how turns are to be made in the pattern. [FAR 91.126](#) (for class G airspace) specifies *approaching* airplanes must make all turns in the pattern to the left (unless designated as right-hand pattern). In addition, [FAR 91.127](#) (for class E airspace) specifies *departures* must comply with the traffic pattern established for that airport.

I recall reading an aviation article once where the pilot had enforcement action taken against him by the FAA for making a right-hand pattern for landing. The situation was a passenger got airsick, so the pilot made a hasty return, back to the airport, making a right-hand pattern to save time. I find enforcement action rather severe given the circumstances, but this serves as an example it can happen.

We know the turns should be made to the left, but what about the situation where you are approaching from the opposite side of the airport traffic pattern? There are two commonly used techniques for pattern entry in this case. Some pilots overfly the airport at a 45-degree angle away from the downwind direction and continue beyond the downwind leg. Then they do a teardrop entry to enter the pattern on the downwind leg at a 45-degree angle. My preference is to overfly the airport approximately midfield, and then execute a left turn entry onto the downwind leg. This allows me a good view of the windsock, and I make announcements overflying the airport and along each segment of the approach. An alternative to these two methods is to fly to a point a couple of miles outside of the downwind leg, to make the traditional 45-degree angle into the pattern.

Keep in mind that not all aircraft operating in the pattern may have communication radios, so see-and-avoid is vital. There are still a large number of aircraft without ADS-B, or even transponders. Also, keep an eye out for the five mile straight-in final airplane. There may be someone practicing an instrument approach.

Lightning Strike

KITPLANES, March 2020

(Article by Tony Gentile)



Nick is at it again! Another Kitplanes publication featuring the Lightning XS is gracing the magazine's March 2020 cover. Paul Dye, Kitplanes Editor at Large and former NASA Lead Flight Director for the Human Space Flight program has published a fantastic article featuring once again, the Lightning Strike! If you've followed the Lightning for any time at all, you'll know that this is not its first brush with fame and stardom. Nick and the Lightning has consistently been a feature for Kitplanes and their curious fascination with not only a great airplane that is growing in popularity, but in the honest patience of Nick Otterback and his approach of introducing new and improved aspects of the Lightning only when proper testing and confidence is where Nick feels it should be.

Paul writes; *"Every time we go to a major show, we try to make sure to drop in on Nick Otterback to see what he's been working on. The designer behind the Arion Lightning is always forthcoming and never gets ahead of himself. He lets us know what's on his plate but is quick to say "it's not quite ready for you to fly yet" if some new design isn't. I really like that in a kit manufacturer"*.

Lightning Strike (Continued)



A great article focusing on the Lightning's ability to reach new heights (and speeds) with the XS and Titan's IO-340 equipped engine option. Paul came off pleasantly impressed with the latest numbers and flight test information. The article ends with a lengthy and honest conversation with Nick and the future goals and challenges of the Arion's Lightning. Pick up a copy and read where the Lightning is going and some of their future plans. Another excellent job by Nick with a little help from a major magazine publication, KITPLANES!

Lightning Plays with the Big Boys

(Article Submitted by Per Pfeffer)



I have never tried to fly in proper formation, but the opportunity recently presented itself. Besides flying, one of my other hobbies is driving my old Morgan sport car and being member of the Norwegian Morgan Club, FjordMog. Another member of the same club is a previous Norwegian fighter pilot, helicopter and commercial pilot in SAS. He is now retired but one of the pilots who regularly fly the only registered Dakota, DC-53 in Norway.

The aircraft was produced in USA 1942 and belonged to the US army (42-68823). In 1944 the aircraft flew 6 military missions between England and Normandy supporting the invasion of the continent. It has recently participated in the 75th year anniversary of the invasion.

The American president has Air Force-1. After building my Lightning LN-PAP in the workshop of the previous president of the Morgan Club, I suggested LN-PAP should be his presidential aircraft, also called M-1. Considering that USA has a population of approximately 330 mill. and Norway 5 mill., the aircraft of the Morgan Club should be about 60 times smaller than Air Force-1. In other words, a Lightning would be a generous offer (see picture).



Last fall the FjordMog decided to take a local trip with the Dakota. This was a great occasion for me to fly as M-1 together with the members.

I called the DC-3 pilot and suggested a rendezvous in the air. The Dakota pilot asked about my experience with formation flying. I had to admit that it was nonexistent. He suggested that I should fly

lead, keep straight and level and that he would move up to me, first on the star board side and then on the back board, to permit everybody aboard the Dakota to get a glance of our Lightning, the M-1.

My wife had the camera in the right seat, and I was doing my best to keep stable course and altitude. I noticed in the corner of my eye; a huge shadow closes in on us. A barely dared to throw a glance to my left: my God was that close! I got my attention back to staying stable. This was not an aircraft to pick a fight with. After 15 minutes the Dakota signed off and waved goodbye.

Both the Morgan members and I were left with a unique experience. I could imagine trying formation flying in the future, but with a more equal partner and not quit as close, at least not without a lot of training.

News from the Factory

Tennessee and Nick's Latest

I spoke to Nick just this morning and caught him between tasks, so I took a little bit of his time to find out what is happening out there. As always, he's got his hands full and juggling a number of major projects, all at the same time.

From the build side of things, they are nearing completion on 2 builder assisted XS Lightnings and they hope to start Phase 1 of the test fly-off soon. As with a lot of us, the winter weather is a factor in slowing things and finding the available conditions to get 1st flight setup. Nick was optimistic this will happen soon and doesn't anticipate any major delays. I can remember my 1st flight as if it were yesterday. All the log hours, dollars and decisions have come to a specific moment of excitement and a little apprehension. The trill of liftoff and the pride of accomplishment was hard to contain. There's a lot of systems to check, performance to verify and noises to address on that 1st flight, however you can't help but take a moment and enjoy the remarkable view. What an incredible moment in an amazing airplane.

One of the newest design changes is well on its way into the standard line-up for the Lightning. As announced, the new Carbon Fiber Spar is ready for its unveiling. As announced on Arion's website;

In an effort to lighten the aircraft and further develop the design, we have collaborated with a design firm "Structures Aero" and our composite supplier "Factory Ten" on an exciting project. The Lightning structures are already light and strong but the spar design was old and heavy. All aircraft to date have a traditional beam spar with uni-directional caps, sheer webs and cores. This is strong, but each spar weighs in at 38lbs.

After many months of design work, we are proud to announce our new All Carbon C-Channel spar. These new spars will continue to carry our gross weight up to 1850lbs for the XS. The spars are also much easier to manufacture. What this means to the builder/owner? These spars weigh 15lbs a side! that's over 40lbs Lighter! This is on the CG so no weight shift. All Kits and SLSA aircraft will be standard with these from now.

We're all looking forward to news and feedback on this exciting upgrade. I'm sure Nick will have more information available as the 2020 flying season progresses. Track him down at Sun N Fun for the latest.



News from The Dealers

Lightning Aircraft West:

Greg Hobbs and his Geronimo Build Center near Tucson has been incredibly busy these past few months. He continues to develop test designs for the Lightning's "Gap Seals" and has a couple of planes with this configuration now flying and gathering speed and performance data. His best guess is that by closing the openings below the wing at the flap and aileron gap area, he can improve cruising speeds in the neighborhood of 5-8 knots. It's a fascinating concept and I believe he's on to something. It's not always about more horsepower. One of the most often discussed topics of improving airplane speed is by eliminating drag or "dirty air". Getting the air to flow smoothly over the surfaces only makes sense and we all look forward to hearing more about this process and the numbers from Greg.



Another adventure from the Geronimo Build Center is Greg's newest relationship with the Tucano 915 Kit Aircraft. There is a great write-up and video from the well-respected Dan Johnson on the performance numbers, flight characteristics and build process on his website bydanjohnson.com. If you're curious or if you are looking for a new adventure in the LSA category, give it a look or stop by the Lightning booth at Sun n Fun or July's Oshkosh Air Adventure. He'd be happy to share his story and get you more information.



Jabiru Engine Seminar (Feb 21-22)

As we speak, Arion is hosting another Jabiru Engine Seminar February 21-22. From personal experience, this is a fantastic opportunity to learn all about the engine and how to properly take care of it. Even if you plan to have “the experts” service your engine when it’s time for maintenance, this is a fantastic learning environment to find out about what is new, old, recommended for your Jabiru and how to perform everything from basic maintenance to a complete overhaul and inspection. You’ll meet a variety of people from all over the world attending. You’ll learn who’s putting the engine in what types of airplanes and have the unique experience to tell stories and listen to issues that they may have experienced and what they did to resolve them. When I attended about 2 years ago, I met Jabiru, Lightning, Sonex airplane owners and even met 2 gentlemen who were not pilots or owners at all. They were aircraft engine mechanics and were interested in adding the Jabiru engine to their service offerings and wanted to learn more from the seminar.



If weather allows, I am going to fly out and attend this next week for a refresher and to meet all the interesting people and hear their stories from all over the world. I might even be convinced to tell a few myself. It is definitely worth your time to protect your investment and give yourself peace of mind. Watch the website news for future classes and sign up early, they fill up fast. Hope to see you at the next one.



Current Lightning Dealers or Representatives



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



Southwest: Geronimo Experimental Aircraft, Greg Hobbs, 18750 West Avra Valley Rd, Marana, AZ 85635, 520-405-6868 www.lightningaircraftwest.net



★ Russia and CIS, AVIA-NIANIA Ltd, Moscow, Russia, Phone: + 7495518-62-75, Mobile Phone: + 7925518-62-75, avianiania@mail.ru or avianiania@aol.com

For Sale:



N214DG

Experimental – Light Sport Compliant, Located at Geronimo Experimental Aircraft, in Marana, AZ

Asking \$87,000



Contact Lightning West for details and more information.

Upcoming Events



A smaller event but always fun to see what's new in the Midwest.

