



EAA Chapter 175 Smoke Signals Newsletter



Meeting: Saturday, September 24th 2016

**Breakfast @0800
Meeting @0900**

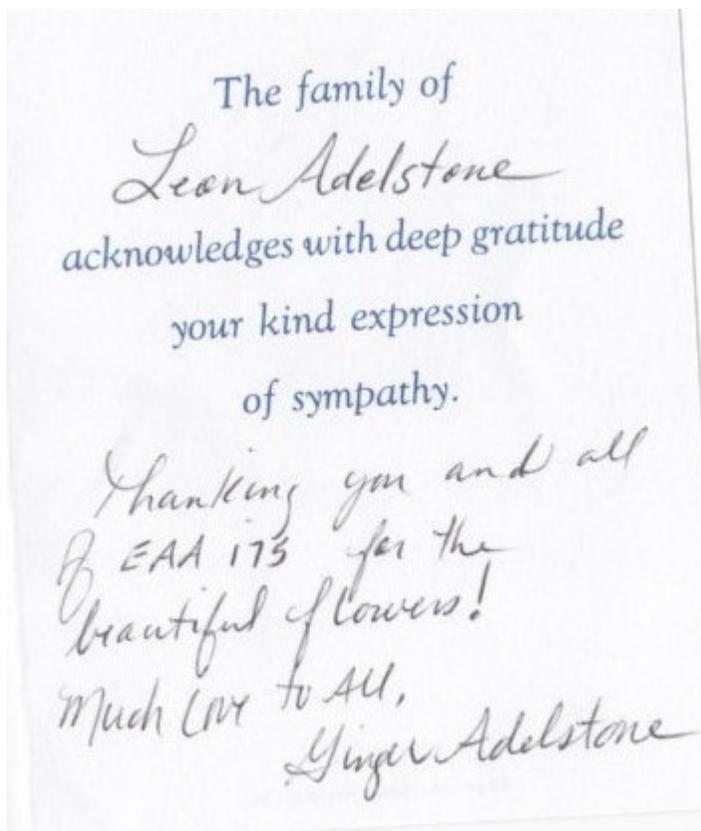
**This Month's Guest Speaker
*Our own Mike Tippin...building an RV***

PRESIDENT'S CORNER

Last month, I announced that we're also approaching our fall chapter officer nominations/elections and to please think about becoming part of the leadership team and helping make the chapter great. Well, we're actually a little behind on that process. I am planning on giving up the presidency to a willing member but I am throwing my hat in the ring for newsletter editor...I seem to like putting this letter together.

We need ALL to consider taking positions If you'd like to become an officer, simply email or speak with myself or Bill Johnston. We're supposed to vote in October but might delay until November.

From Ginger Adelstone, our prior President, who lost her husband Leon:



I hope everyone is having a safe and enjoyable end to their summer. Fly Safe!

JPK

FROM THE BACK SEAT
September 2016

OK, this month's issue is written as I cross the US enroute to California...so it will be a short one. I am currently sitting at FL 390 discussing aviation with a former U-2 pilot who is interested in returning to aviation, but on a much smaller...and lower...scale this time. I have him leaning hard towards Taking a Rust Pilot course to begin his journey back to the cockpit. Ask me how I did at the next meeting...which alas will be the October meeting.

There has been a change in meeting activities for the 24 September meeting. The promised visit by Larry Mednick from Evolution Trikes is delayed one month and will now occur as the 22 October meeting. The 24 September meeting will now focus on membership projects, as our own Mike Tippin who will give us a presentation on building his RV build. I have viewed many of Mike's construction pictures and the quality of his work is outstanding...and to think he is building the aircraft in his bathroom. Mike will give us a rundown on the pleasures and pitfalls of his build and how you can avoid the snares when working on your next aviation endeavor. Bring a friend to this meeting and share the fun!

The Florida Trike community presentation on flying weight shift trikes is now scheduled for 22 October. Larry Mednick, owner of Evolution Trikes, will present and he agreed to do so promising to bring a Revo or his new ultralight trike for show-and-tell after the presentation. This should be very interesting presentation on the aviation version of the motorcycle, so don't miss it!

Please, don't forget to plan now for the Annual Awards Banquet to be held on 21 January 2017 at the Chapter Clubhouse. While we are working to find a guest speaker; we have secured the world's best steak and lobster chef, Mike Tippin, to cook for us. The meal choice will be similar to the May event, steak, lobster, potato, and corn for around \$10 per person. The chapter will pick up the difference in cost and provide drinks. Members are asked to bring a favorite side dish and adult beverage of their choice...just bring a little extra so we can share. There will be more information on this event as we get closer to December. Bring your family and friends...trust me it is a good time for all.

OK, that is it for now as I have to get back to telling the Flight Attendants the great job they are doing for me!! Until the next meeting...keep 'em flying.

Dd

EAA 175 CHAPTER MEETING MINUTES

DATE: August 27, 2016

LOCATION: Chapter House, Tampa Executive Airport (KVDF)

ATTENDANCE: 21

Business Meeting

The chapter meeting was called to order at 0900 by Denny D'Angelo. Thanks and recognition was given to Ralph LeBlanc and Steve Reisser for cooking breakfast this morning.

Old Business

Meeting Minutes and Treasurer's Report: The July meeting minutes were posted to the Chapter website and sent as the Smoke Signals newsletter to the membership via email. Denny gave a verbal summary of the Treasurer's Report. A motion was made and seconded to accept both the meeting minutes and treasurer's report. Without objection the motion was accepted as reported.

New Business

Denny reported that the October National Business Aviation Association (NBAA) show will be free for FL aviators. Make sure to pre-register on the NBAA website.

Bill Johnson wants to have our EAA Chapter help restore his PA-28-140 Piper Cherokee. When restored, the aircraft will be donated to a group similar to the now disbanded Silver Lady, so that our chapter members can fly it at a great price.

Chapter Program

Our program today was presented by Bruce Patton, President of the Tampa Bay Soaring Society. He was accompanied by Rand Vollmer.

Bruce Patton started our program with some basic gliding/soaring concepts including the difference in gliding and soaring. As we know, gliding is the second best thing for a powered aircraft. Gliding in sailplane is much more efficient due to the aerodynamics and configuration. Soaring is a term used when gliders use thermals maintain altitude and to climb to higher altitudes and maintain long durations of flight. Thermals enable lift, endurance and distance.

Some statistics show that soaring can enable long cross country flights (1,869 NM), great heights (50,671 MSL), and prolong flight endurance (56 and ¼ hours)

Staying in the air is a matter of using Thermal Soaring, Ridge Soaring, and or Mountain Wave Soaring

- Thermal Soaring is ½ art and ½ science in locating convection to maintain and gain altitude. It is seen on the ground as areas which accumulate heat such as plowed fields, mobile home communities or large shopping centers, and large parking areas. Meteorologically they are often accompanied by cumulous clouds.
- Ridge Soaring is the use of wind being deflected upward when flying near large hills or mountains. It may even be accomplished in FL utilizing sea breezes when roll clouds can be found.
- Mountain Wave Soaring involves catching the upward deflection found along mountains and identified by the presence of lenticular cloud. You can utilize the rising currents of the lenticular but be caution of the backside with strong downdrafts and the underlying roll cloud with its violent and destructive turbulence. Mountain waves allow profound altitudes to be attained. It is not uncommon to reach 18,000 MSL and as we all know, that's IFR territory. ATC must be notified before reaching FL180 so they may issue a TFR to other IFR traffic.

Mr. Rand Vollmer, TBSS member and sales rep for the Sipistrel Sinus Motorglider, presented information on the "Perlan Project" to enable breaking the altitude record for a glider to reach 90,000 MSL. The project had two missions. Mission 1 was accomplished in August 30, 2006 achieving an altitude of 50,671 feet. Mission 2 is not in progress in the Andes mountains to reach and exceed 90,000 feet. That will be an 8-hour climb using strong mountain waves. Check YouTube and search for "Perlan Project" for videos.

As a vendor for Sipistrel Sinus Motorgliders, Rand took time to discuss how gliders/motorgliders get airborne (Winch, Aerotow, and Self-Launch)

- Winch launching a glider utilized a high power winch on the centerline of the runway. Launches are very dramatic with what feels like excessive angle of climb. Rand said it's a real "E" ticket.
- Aerotow is a common method of launch being towed behind a general aviation aircraft, usually with a conventional gear. The trick for pilots, especially new ones, is staying above the wake turbulence of the towing aircraft.

- Self Launches can be performed using motorgliders. This is a glider fitted with an engine with constant speed prop and the ability to be feathered for efficient soaring.

The Sipistrel Sinus rents for \$180 wet with instructor. Transitioning from a private certificate to getting the glider rating can be done in a week with an average cost of \$1,200. No written is required and your check ride will cost \$400. A non-pilot can attain a private pilot-glider certificate for approximately \$4,000. Glider certification does not require a medical, and does not have the restrictions of a Sport Pilot Certificate allowing you to fly above 10,000, above the 120KT speed limit of a LSA, at night, and if you have a instrument rating, fly IFR. Rand is an instructor teaching out of Zephyrhills Airport. He can even give you a BFR in the Sinus aircraft which has a cruise speed of 170 mph, and flies at 40+ mpg. Discovery flights are \$99. A new one will set you back between 120 to 150K.

Rand's final comments were to show how the Sinus is a great cross-country aircraft. He flew his wife on a 3,900 NM, 35-hour cross country from here to Martinique with an average airspeed of 111 KTs burning a total of 101 gallons of fuel carrying 80 pounds of luggage. It is an impressive airplane. The chapter adjourned to the ramp to view, sit in the left seat, and enjoy this beautiful aircraft.

Our program ended at 1010.

Respectfully Submitted, Steve Reisser,

Secretary EAA 175

SAFETY TIP OF THE MONTH



OTHER INTERESTING INFORMATION

1. Check out the almost revised P-51 Mustang!
<http://nationalinterest.org/feature/revealed-how-the-us-air-force-almost-brought-back-the-p-51-17525>
2. Just got to see it! <http://justacarguy.blogspot.com/2016/08/get-eyefull-of-this-set-of-dukws-linked.html>
3. **Oshkosh 2016 from an EAA 175-member viewpoint! By Bud Yerly**

I enjoyed having the opportunity to go to Oshkosh 2016 this year with a friend and client Jack McKenzie.

Lodging: I departed the Peoria area on Sunday and arrived in time to check into the University of Wisconsin at Oshkosh dorms. It is about \$120 for a room in Gruenhagen hall

for a two-person air conditioned coed dorm room per night. (About half that for non-air conditioned room.) The campus cafeteria is excellent at \$8 for all you can eat breakfast of eggs, pancakes, French toast, meats juices, hot beverages, etc. Dinner is a 7 course affair at \$15 and again, is all you can eat and very good food. There are plenty of other places to eat (and have a drink or two) within a short walk of the dorms. Food prices are surprisingly good for an airshow/college town. Of course the transportation to and from the campus to the airport is a convenient bus ride and \$20 gets you a weeklong pass or \$3 for a day round-trip fare. The dorm is a bit pricey for some, but much better than a tent camp out in the field at Oshkosh in thunderstorm season, getting soaking wet at \$27 a day. You don't miss out on the comradery of mixing with your fellow enthusiasts either because the dorms are full of them, they are also quite happy to be dry and warm. So for me, I'll gladly share a room at twice the camping rate and be dry, cool, and comfortable...

Itinerary: Weather Sunday was great at the field, but many folks from the south and out west were weather delayed and arrived late Sunday late in the afternoon. The break in the afternoon weather made the Sunday afternoon arrivals a real head turning and somewhat scary affair to watch. I was shocked to find the controllers speechless on Sunday evening at times as some discourteous pilots were cutting one another off, not following procedures, or just not listening, and causing chaos. Finally, the controllers took charge and threw everyone out of the entry points and things settled down. Many just landed at Fondulac or Appleton (which is my favorite). Monday and Tuesday saw the field completely full of aircraft camping. Weather was hot, but ideal. Wednesday and Thursday were a bit soggy but the weather was tolerable. After all, the show must go on.

The display barns were full of venders and most were aviation oriented for a change. I was tasked on Monday to do a Europa display, and give a talk. We only had one row of Europas as many landed out at the surrounding airports rather than land and park in the airfield camping area. Tuesday, I met up with old friends, worked the Airmaster booth for part of the day and even saw long lost relatives. Wednesday was seminar day for me to both sit and listen in and I did a seminar for the Europa Club and again, met more old friends and clients.

I had many requests from clients to look hard for ADS-B info, ideas, deals, discussion groups, seminars and the like to try to find what would work best for them. So Wednesday I spent the whole day following up on requests, then between seminars I dashed through the vender area to confirm what I was hearing and seeing in the seminars. Thursday, I decided would be mine to just see the show.

Old Stuff: I took the time this year to go through the club areas. That is, the Piper, Cessna, Luscombe, Waco, Beechcraft and other antique and award winning aircraft parked on the line, and in club parking and camping areas. It was awe inspiring to see well maintained and well used aircraft we all grew up with in better than new condition.

There was a World War I display area that was very interesting. Folks dressed in period

clothes, showing off Bleriot, Albatross, Spad and other replicas of these historic antique machines. It was a pleasure speaking to the owners and listening to their tales of adventure in their planes.

New Stuff:

Of course there is always the new whiz-bang latest stuff to look at. Avionics are getting even smaller, lighter, more reliable and frankly neater. Dynon has improved their Skyview, which runs much cooler and has a faster processor, and MGL has also improved their equipment with a better feel and look. Grand Rapids, AvMap, and Garmin displays were packed with folks as there have been significant updates in their products as well. Resellers such as Aircraft Spruce were packed with owners wanting to drop a few bucks. I was surprised at the number of telephone aps. They are coming so fast, you can have a complete AHARS (Attitude Heading Altitude and Airspeed Reference System) on your cell phone or tablet. iLevil has a neat system which I have installed many times that displays this on apple products, and they keep making more improvements.

ADS-B Stuff: As far as ADS-B In, Stratus had the most folks at their display with Lynx a close second. Foreflights Apple iPad display was easily the best, however WingX had a great display also. In a small corner of hangar D was the small company called Open Flight Solutions which sells a small two channel ADS-B In unit for about \$240 (www.openflightsolutions.com) with no annual fees. I personally use a homemade unit called the Stratux by Cy Young (www.stratux.me), which I built for \$100 (normally \$150 through Amazon.com). There are no annual fees. I use an Android program for navigation on my cell phone called Avare. Again this is free also. So to date, this is the cheapest ADS-B In system, and gives me all the traffic, weather and notams as well as the costly units such as Stratus and it does it on my cell phone. All this information costs nothing, although I do give them a donation to help them out as it started as a volunteer developed service, and is truly pilots making stuff for pilots. It's what makes experimental aviation great...

I will quickly recap the seminar information I learned on the 2020 mandatory ADS-B OUT requirement: ADSB-Out equipment is still in a state of flux. There are only two solutions in my opinion.

A. If you have a serviceable transponder and a certified WAAS GPS installed (such as a Garmin 430), an add-on box that only requires power and ground, and hooks in line between your current transponder and your antenna, is a fairly inexpensive way to go. Prices vary from \$1000 to \$4000 at this time. Common units are made by Garmin, Freeflight, Lynx, and Trig. If you have an experimental aircraft, expect to save about \$300 off of a certified unit from some manufacturers but only for a short time. The certified or SLSA owners seem to have an avionics shop they trust and they go with their recommendations on ADS-B OUT, but one must shop around or you may find yourself paying way too much.

B. If you need to replace your old useless transponder, Garmin and Stratus (Appareo) are the two most popular panel mount units for the price right now. Although there are many

others, these units are stand alone, which means they require no other equipment to meet the requirement. At approximately \$3000 these are certified units, contain an internal WAAS GPS, come with their own panel mount tray which fit into a standard 7-inch transponder tray hole. Simply reuse your existing antenna and altitude encoder. Other Avionics companies will follow in very short order I'm sure.

Caution: Since this is an FAA mandate to have big brother watch over all of us, it is a feeding frenzy now for your business. Prices are changing, so do your homework.

Note 1: As of this month there are add on boxes that now include WAAS GPS and antennas for the same price as the units in A above. This is very good news for the certified or experimental aircraft owners with serviceable transponders which do not have a panel mounted certified WAAS GPS navigation device as a nav source to plug into the ADS-B box.

Note 2: The FAA is planning a rebate of \$500 for anyone who prior to December 31st, orders, schedules an installation, then installs and verifies the installation with the FAA on a certified ADS-B unit. Look for some retailers to offer the rebate if you order and install through them. Again, this is for a certified unit with certified installer.

At the show seminars the word is to **do your research**. Know what you need for your specific airplane. Prices, equipment types (add on boxes or panel mount), and options are changing for both the experimental and certified owners. So far, all these options are for the better. One presenter suggested that we should wait, even the certified owners, to see what will happen now that competition has become intense for your dollars.

As for me, I plan to buy a Stratus ESG as it is a direct hookup to replace my defunct Narco AT150 panel mount transponder (I have to change the tray of course). This unit has a built in WAAS GPS, a Wi-Fi link to the Stratus ADS-B, and is compatible with my altitude encoder. It was show priced at about \$2795 for a non-certified unit while they last, including and tray, however I expect since everyone else is higher, and non-certified units are drying up fast, they may get greedy. To be determined. Since most folks use Foreflight and the Stratus works very well with it, I hope the Stratus will be a selling point. I personally still plan to use my home made ADS-B unit because it works great, and the price was right. That said, the gorilla in the room has a unit for only a few hundred more. The Garmin GTX 335 is a very nice unit which also has a built in WAAS GPS, but no Wi-Fi or Bluetooth at this time. But if you have a GDL39 ADS-B in all ready and the Garmin apps, this is the way to go. It is all Garmin and talks to one another. Worth a look for sure.

What about glass cockpits for GA aircraft? Today, for the certified aircraft owners there are certified Grand Rapids (Mini GA), and Dynon (D-10A) EFIS (Electronic Flight Instrument Systems) that display airspeed, attitude, heading, nav course and altitude on one screen. These units plug into a standard 3 1/8-inch hole and measure about 4 inches' square at a cost of less than a rebuilt electric or vacuum attitude gyro. They are a bit small with a four-inch screen but readable. It is worth a look as it will save of a lot of weight by removing that old vacuum system or your electric turn and bank and attitude indicator and replace

them with, neat and tidy electronic screens that cost less than an overhaul of the old boat anchor gyros. Aspen Avionics has a slick unit which dropped considerably in price this year. These units are full of features, easy to read, and perfect for the older certified aircraft. The base unit was advertised at less than \$5000 for a full ADI/HSI moving map. Again, do your homework.

There was a lot of iron on display. New improved UL direct drive aircraft engines, improved Jabiru engines with updated cylinders, and of course many aftermarket engine shops catering to both the experimental and certified Lycoming and Continental engine powered aircraft were proudly displaying their wares. TBOs are now excellent at 2000 hours for many of these engines.

It is very noticeable that the SLSA and Experimental aircraft kit manufacturer's displays were smallish. Costs for displays are up but their enthusiasm for their product was up more. Older pilots are looking for new airplanes and the SLSA planes fit that for the novice and sport pilot alike. One exception to display size was the RV-6s that were on display everywhere, as this show commemorated the 30th anniversary of this plans/kit built aircraft. There were RV-6s literally everywhere. Many of these aircraft had logged over 1000 hours and one of these on the field had been flown by its builder for over 4000 hours. That is a lot of flying every day.

The ultralights were a bit limited by weather and ceilings on Wednesday and Thursday, but I always go out there to see new things and new ideas. Belite showed off their new version of the Skydock 2. It uses a Polini motor scooter engine adapted by Polini for ultralight aircraft and powered parachutes. It puts out 35 horse power and is a bolt on (including the battery). Just bolt it up, add gas and a throttle and you are ready to go. Ultralights are making a comeback, however the new Class 3, aka Pilots Bill of Rights, will significantly impact them except for the guy who is bent on learning to fly himself. God can only help them. However, it was great to see many guys jumping into ultralights that are my age (65) who just want a single seat, low cost fun to fly on an early morning or evening airplane that is dirt simple. Good for them.

Other interesting events going on were the airshow performances and of course the warbird and Martin Mars flybys. Monday and Tuesday were chock full of flybys with clear skies and mild winds. The rain over the next few days didn't dampen the airshow. There was much to see and do. I left just as the Snow Birds Aerobatic team was coming in for the weekend. Shame I had to miss them.

Gatherings: The days were filled with lunches with old and new friends, from my oldest friend Claud Tugwell to a new friend Doctor Johnson (yes a black surgeon, who is a pilot and owns a Bonanza which was a topic of great humorous stories). Sharing builders' triumphs and woes, and listening to folks making their aviation dreams turn into

adventures made my day. Thursday night was my last event; I went with my Europa owners to the Homebuilders Dinner. Dick Van Grunsen (owner of RV Kit Planes) was the guest speaker and surprisingly spoke not on the RV aircraft but his concerns over the still high accident rate, especially with non-builders and second hand owners. This is something that is an issue our chapter has had numerous guest speakers, myself included, make time in their presentations to emphasize how to get a proper checkout in your experimental amateur built aircraft, or even a different certified aircraft.

Hospitality: The volunteers at the show served magnificently and made it well worthwhile. Everyone was courteous especially the tram tour guides (well, sometimes the driver that had terribly long days had due to lack of qualified drivers were cheered up by a reminder that we EAAers are all in this together, took care of the sourpuss day they were having). I enjoyed riding the trams and travelling around the campus seeing everything from a nice comfortable seat. Then when something caught my eye, I simply hopped off at the bus stop and explore at my leisure.

Alas, I had to leave on Friday morning due to family issues, but it was a worthwhile trip that I truly enjoyed. Good food, good people, and good times made the show an event to look forward to next year.

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