



Racine EAA Chapter 838
Monthly Newsletter
August 2015 Volume XXVII Issue 8
<http://eaa838.org/>

Meetings Third Thursday's 7:00 pm
Social at 6:30 pm

Welcome again to **your** EAA Chapter 838 monthly newsletter. I need your assistance with articles. Please email anything that you would like me to include in a future newsletter to me at newsletter@eaa838.org.

President's Corner

Oshkosh is over... summer isn't far behind. Could just be me, but it seems that this year Summer 'flew' by. Cooler temps earlier, then Oshkosh was moved up a week. That's what really did it, they messed with the schedule. My birthday is August 2nd so I'm used to having my birthday during the show. It's always near the end, the last weekend, or maybe I miss by a day, but it's close. Not this year. So what gives? Why move it up a week? I'm open to your idea's why..... Hopefully you made it up to the show. We flew in on Sunday, then flew back on Wednesday. From a flying in perspective I thought it was busier than before. More planes in homebuilt camping than the last few years. That's a good thing.

Hopefully you'll see some new improvements around the building this month. Steve Myers and Steve Rehwinkel did some consulting on our building landscaping and we'll be removing the overgrown and unmanaged plants and replacing them with much more manageable landscaping. The patio bricks will also be raised and reset. Thank you Steve and Steve for taking on this important task.

The Chapter picnic will be Saturday August 15th beginning at 11:00 am. The Chapter will be providing drinks and the main entre', but please bring a dish to pass. We'd like a rough count of the attendees so we can order the correct amounts, so please RSVP back to me.

Blue Skies
Daryl

Next Meeting

The Chapter picnic will be Saturday August 15th beginning at 11:00 am. See more in Daryl's article above.

Explorer Post 218 has invited EAA Chapter 838 again to their annual mini golf match. It will be on August 13th, 6:30 PM at Mulligans at 6633 Douglas Avenue - Racine, (262) 681-6464. The cost is \$5.75 if you are 62 or older, or \$6.25 if you are not.

See you then.

Note from Dave Finstad

Thanks to everyone who have responded to my letter about renewing your membership. For those of you that have not responded, please do so ASAP to remain in good standings with your membership.



Monopoly Night Fun and Games 2015

The seventh annual Monopoly Night, EAA Chapter 838's 2015 Fall Fundraiser will be held on Saturday October 10th. Mark this on your calendar so you do not commit yourself to something else. We hope that you can join us this year.

There will be a preliminary meeting the first week of August. Please let us know if you want to help out with Monopoly. This is one of the major fund raisers for YOUR Chapter 838, and we NEED YOUR assistance, to raise funds. Email monopoly@eaa838.org



Chapter 838 Young Eagles for 2015

We have had several scout groups make plans to join us at various rallies over the summer, so we are looking forward to a busy season. I invite everyone to join us on the second Saturday of each month at 0900 for fun, flying and frivolity – and you might even learn something if you sit in on the ground school that our Explorers teach! Pilots are especially welcome – and desperately needed!

Any questions, contact Tracy Miller at milltracy@hotmail.com or 847.420.5098.

In general, we have our Young Eagle Rally's the second Saturday each month from March through November. This is a great time for you to inform any relatives, neighbors, or friends that are between the ages of 8 and 17 about Young Eagles.

August 8th is our next session of the EAA Chapter 838 2015 Young Eagles season.

Three more future sessions this year are: September 12th, October 10th, and finally November 14th.



Aviation Explorer Post 218

This is another part of our youth education, and is for co-ed high school students.



Joe Santiago, who will be in Young Aviators this month designed our new shirts.

AirVenture 2015 in Oshkosh

AirVenture Oshkosh, it's the event that everyone in Post 218 looks forward to every year. A week surrounded by people and aircrafts of all kinds, what's not to look forward to? During the week we get to camp out at the Aviation Explorer Base with Posts from all over the States and this year we even had a group from the U.K. come. Being in the base together we get to make new friends with all these people; even more so with our flight teams which is a group mixed with people from different posts that you work with throughout the week. The volunteer work we do while we are up there is 2 hours a day, and doesn't even seem like work because it is an honor to be given the responsibility and privilege to help. This year was one of the best years to go because it didn't rain at all, which makes the week really nice. The AirVenture experience is purely amazing anyone would enjoy. AirVenture can't come back soon enough; till next year Oshkosh.



Aviation Explorer Club Post 5218

This is part of our youth education, and is for co-ed middle school students.

Unfortunately we have decided to take a year off for our program in 2015. The response I received was the best that we have had in the four years that we have offered this program. However, over 50% of the kids do not stay with the program by the end of the year. It takes a lot of effort to provide a program like ours. There are also some family circumstances that may make some presenters unavailable throughout the year.

We will send an email out again in March or April 2016, to see how much interest there is to offer the program again next year.



Special EAA Work Weekends

The Aviation Explorer Base is extremely grateful to everyone who helped us move everything out of our old trailer, and then move it back into our new rented trailer prior to AirVenture 2015. Explorers moved everything out of the trailer into the storage building provided by EAA on Saturday and Sunday at the end of AirVenture, so no additional assistance is needed this year. Next year, we may ask for a few people to drive to Oshkosh to move the essential items back into next year's rented trailer prior to AirVenture 2016.

Also we plan to start a fundraising effort for a new facility somewhere on the EAA grounds. The location has not been established. We cannot build where we are now, because of water-runoff processes there. New buildings would require a retention pond, which is way too costly.

AirVenture 2015

The Aviation Explorer Base had another great year in Oshkosh. 206 Explorers, adults, and staff camped with us and volunteered over 5,400 hours at Home Built Parking, Flight Line Safety covering the ropes on the three intersections of the active P1 taxiway, and Flight Line Operations in the North 40. Explorers from 20 different posts, and 15 states and one foreign country joined us. 13 Air Cadets from Great Britain spent the week camping and volunteering just like any other post. After Air Venture, they went to a Boy Scout camp in northern Wisconsin.

Racine Parade of Planes

By Daryl Lueck

This year Chapter 838 was again asked to lead the Racine Fireworks Parade of Planes. The event is held prior to the start of the Fourth of July fireworks. Last year we had 4 airplanes that participated and we had a ball! The plan is to fly a rectangular pattern over the lakefront in early evening, when the fireworks crowd has started to gather. We planned for a 7:00 pm departure. This year we had 7 planes, nearly doubling the aircraft from last year. Our team included Carl (Bambie) Bumpurs, Eric (Lone) Wolf, Ralph (Racer) Skorupa, Dave (Teach) Finstead, Daryl (Lucky) Lueck, John (Hans) Anderson and Pat (Professor) Pfaffle. Hans and the Professor were friends from our Kenosha Chapter that joined us. From an aircraft perspective the RV's had us again with 4 examples. My Cozy IV and a Cherokee and a 172 joined in the mix. Pretty good representation. We had engine start and taxi on time and Lone Wolf lead us to 14 for departure. He would be flying with Hans in formation to lead the pack (another Wolf metaphor). As the Lone Wolf completed his run up he announced he was ready. The rest of us joined in sequence, "2's ready, 3's ready....." It sounded very Thunderbirdish! We had great spacing between planes, with an overland altitude of 1700 msl. Over the water, northbound, we dropped to 1200 msl. Little 'S' turns along the lake front gave our viewers a nice view of the planes. Due to the over flight of the land we did not break the speed of sound. Speeds were held to about 115 knots. We completed 5 passes over the lake front and then headed in. Pilots were rewarded with a couple of VIP passes to watch the fireworks! We had a great time, stayed safe, and Racine got to see a little more of our airplane culture! Hope you can join us next year.





Out With The Old Conversion from a NARCO AT-165 Transponder to Avidyne AXP-340 Mode S/ES ADS-B Out Transponder

By Scott Sherer

5/13/2015

It's been about seven months since I started down the road to get to this point. To make a really long story manageably short, in October of 2014 I conspired with my shop to upgrade my avionics to get from my trusty, reliable Garmin GNS-530W and Narco Transponder to a new generation of equipment including ADS-B out. Ultimately what happened was that I got an Avidyne IFD-540 to replace the Garmin GNS-530W GPS, an Avidyne AMX-240 audio panel to replace the Garmin GMA-340 and an Avidyne AXP-340 Modes S/ES transponder to replace the old Narco AT-165. Along the way we did an annual inspection which uncovered a couple of spots of corrosion that needed to be addressed, and the installation of two auxiliary fuel tanks adding 30 gallons of fuel to my already generous 129 gallons. All of this took about five months. Today we rolled the plane out of the shop and a new phase of the project began; the test flight.

Having three large projects done at the same time makes me question the sanity of this airplane's owner, but the end result was nearly flawless. This flawless ending had much to do with the folks at Burlington Aircenter (KBUU in WI) and nothing to do with me. As far as the avionics project went, and the new transponder/ADS-B out project in particular, the end result was perfect. ADS-B out worked as it was supposed to as evidenced by the transponder display screen showing an ever changing lat/long display indicating that the ADS-B out was working correctly. Also, you can email the FAA and they'll check your ADS-B log records in their database and confirm that everything on your airplane is functioning perfectly. The following webpage has instructions on how to do this: <http://www.faa.gov/nextgen/equipadsb/>. Now that we've had the first flight we can look back at the installation and see what I've learned in the process. Picture 1 is a promotional photo from Avidyne of my new transponder. It looks just like the one in my panel. Picture 2 shows one of the members of my shop team, Nathan holding my new transponder just before it was installed. Note the smile on his face; this is evidence that he didn't have to pay for it.

Picture 4 shows the mess in the panel at the height of the project. If you've ever looked at your own panel in this condition you'll too will wonder how this mess could ever work correctly again. On my first flight today after this was done everything worked as it should. Amazing to me but it's all in a days work for my chief mechanic and avionics guru Erich.

Picture 5 shows the airplane powered up in the hangar one day before first flight. Everything in the panel survived the smoke test (did the panel burn up when we powered it up for the first time?), fortunately.

Just so that you know, from my point of view the project was quite stressful. Months of being down, a wheel barrow full of money and new technology to learn. A new audio panel, a new GPS and a new transponder. About 400 pages to read and learn in all. In addition to reading and reading and reading, I installed the IFD-540 simulator and spent a couple of months playing with it on my PC. This was hugely helpful and I understand that both Avidyne and Garmin do this for their new GPS boxes. I give both companies a gold star and a thumbs up for this! As far as the GPS goes in this article, its only purpose is to supply the transponder a digital lat/long which subsequently can be retransmitted. When the transponder you're looking at buying uses marketing language like "plug and play" or "compatible with a King KT-76 or its many variants", be prepared. It is probable that a new tray and connector will be needed. At the very least, wires from your GPS will be needed for that lat/long signal and your old transponder doesn't have this. When I replaced my old KT-76 transponder with a new Narco AT-165, it truly slid right into the old tray and socket. No avionics tech needed. I purchased the Narco mail order and slid it right in myself. This new generation doesn't work that way. If you think it my take an hour or two of labor, better think ten to twenty hours. Your GPS will need to be removed and wires run from the GPS to the new transponder. And if you don't have a compatible GPS, you'll need a compatible lat/long solution for that, too. And also, while we're at it, I got caught by a relatively new but obsolete altitude encoder. My old encoder transmitted it's digital altitude to my GPS and altitude autopilot pre-selector using

Gray code. Gray code has resolution in 100 foot increments. My new transponder needed altitude resolution in 1 foot increments. This new code is output in RS-232 format. This is a big area to be careful in. If you need a new encoder as I did, better check and see what data format(s) you really need. It turns out that I still needed Gray code for my altitude pre-selector and GPS and RS-232 for the transponder. Unless you want to have two encoders and the wiring mess that goes with them, make sure that you get a dual format encoder. Do the right research and save yourself (and your avionics tech) a headache.

I have really good news! Of all of the devices in my cockpit this new transponder is the easiest device to use. It's so easy, in fact, that on a VFR trip I due absolutely nothing! True! Upon power up it comes online in GND (ground) mode. After takeoff it changes automatically to ALT (mode C altitude) mode. Upon landing it automatically switches back to GND. The only option that you could do if you wanted to is to switch it to Standby with the Mode button but there's absolutely no need. If you feel the need to play with the transponder it comes with other very easy to use features. These are flight timer, stopwatch and flight ID reporting. It does it's job quietly and simply. Avidyne really did their homework on this.

Finally, now that I'm compliant for 2020 and not subject to the last minute rush syndrome that many avionics shops are expecting I can think about ADS-B in. So far, I can't find any reason to purchase it. Not that I wouldn't like to have traffic but the function currently doesn't justify the expense. More specifically, as long as my Garmin GDL-69 data link weather receiver is supported by the XM weather subscription that I already have then half of the ADS-B in promise from the FAA is already in operation on my panel. If you've ever seen ADS-B in weather side by side with data link weather you would never switch to the ADS-B in, regardless of it's being free. The radar resolution is similar to going back to PC - DOS in the 1980's. I'm currently paying \$30 or so per month for data link and it's outstanding. Therefore, from where I sit weather can't be used in the financial justification for ADS-B in. As far as traffic goes, while I would love to have it on my panel, the cost for a certified solution becomes between four and five thousand dollars installed. We'll revisit this topics down the road when my budget recovers but I can live without it now.

Finally, I'm back in the air and happy to be done with all of this. I wish you luck in your endeavors, too. They are complex, expensive and very time consuming. As you deal with this issue on your airplane make sure that you share your experiences with all of the PFA members on the PFA forums at www.piperflyer.org.





Surviving the Unexpected Notice Number: NOTC6122

How do you prepare for an event when you don't know what the event is, or when it will come? That's a tough one, so let's try something a little easier. How do you prepare for an event when you know what it is, but you don't know when it will come? We actually do it all the time. (There is even a name for these two groups of events – the known unknowns and the unknown unknowns.)

All pilots, probably by lesson number three or four, start hearing about things that can go wrong during their flying lives, and how they should properly and safely react. Some of these events are irritants, but some are true emergencies. (And sometimes the difference depends on the pilot or the timing of the event.)

We learn how to react to engines that quit at various points in flight; we learn how to react to smoke in the cabin; we learn how to react when the radios stop working. Many of these events never occur, but we practice and talk about them anyway. The common factor in all of these situations is that we never know when they will occur. So, how do you stay ready? Here are some ideas:

Read about how other pilots reacted to these situations, and how successful they were in dealing with them. For example, every flying magazine that crosses my desk has one or more columns dealing with the unexpected. In the last couple of months I have read about the effects of fuel starvation, TFR incursions, a forced landing in a parking lot, and icing, just to name a few. In some cases, the articles and columns describe a successful conclusion. Other times, an unsuccessful conclusion. But there are lessons in all.

Another idea is to join some type of pilot community where you can talk to other pilots about their experiences. Some of the more obvious are local EAA Chapters, local IMC clubs, or state flying organizations. But, there is another possibility as well. Flying clubs have long been a great way to share the expense of owning an aircraft. But suppose for any number of reasons that you really don't want to share ownership a plane with others. Find a local club and ask if they have regular meetings and whether you can join in just to chat. Most will say yes.

Finally, look around for a flight instructor and ask to go fly for an hour or so and work on things that you don't normally do. And although you may like your regular CFI, step out of the box and find someone new with techniques and thoughts that you might not have previously considered. Here are some sites to get you started in your search for a highly qualified CFI:

http://www.nafinet.org/member_directory.aspx

<http://www.masterinstructors.org/resources/find-a-master-instructor/>

For Beechcraft pilots: <http://www.bonanza.org/pilot-training-bppp/2012-12-20-14-28-45?noredirect=true>

Coming back to the original question: How do you prepare for an event when you don't even know what the event might be? Two examples come to mind. One is recent and involves an unexpected passenger with a potential to cause significant damage. (www.youtube.com/watch?v=sT7LaSbkpcg). The other example involves an aircraft at the other end of the size and complexity spectrum, and how the crew dealt with the loss of one engine and all flight controls. (en.wikipedia.org/wiki/United_Airlines_Flight_232)

In both cases, the pilots were faced with situations that they had never thought about. However, they discovered that their training for other emergencies helped form a basis for successfully dealing with the

unexpected situation.

Fly safe, have fun.

Christopher Hope

2015 FAASafety Representative of the Year

To contact the author, go to: www.ChrisHopeFAAFlightInstructor.com

For more information on the GA Awards program go to www.generalaviationawards.org/

This notice is being sent to you because you selected "Safety Stream - Pilots" in your preferences on FAASafety.gov. If you wish to adjust your selections, log into <https://www.faasafety.gov/Users/pub/preferences.aspx> where you can update your preferences.

Invite a fellow pilot to the next WINGS Safety Seminar in your area.

Pictures from AirVenture



Eric Wolf's home for a few nights



Daryl Lueck, Eric Wolf and Nick Fisher hanging out by the cool plastic plane enjoying Happy Burt Day!



Is Daryl thinking how he got a parking place so close to Eric Wolf? One row away.



Explorer Post 218 on their way to Oshkosh for AirVenture 2015



A group of 13 Air Cadets from the UK camped and volunteered with other Explorers this year.



The UK contingent at the Aviation Explorer Base





Some Young Aviator Graduates, and EAA Chapter 838 Ground School instructors



Five of Post 218 Explorers at WomenVenture 2015 getting ready for the big picture.



Explorers waiting for the Night Air Show. It was fantastic.



We even got a "real" tram this year. Jerry Baker was one of our tram drivers.



Welcome New Chapter Members

See Dave Finstad's article on page 2

Monthly Meetings

Board Meetings: Second Wednesdays 7:00 pm

Chapter Meeting: Third Thursdays

Social 6:30 pm

Meeting 7:00 pm

Shop Night Every Monday 7:00 pm

Explorer Post 218 Second Thursdays 7:00 pm and Fourth Thursdays 7:00 pm

Young Eagles Second Saturday 9:00 am (March - November)

Upcoming Meetings & Speakers

PAST:

July 16th - Chief Joseph Forro of the Milwaukee County Fire Department talked about fire and rescue operations and training at General Mitchell Airport.

June 18th - Chris Forncrook of Flight For Life gave us a presentation on the aircraft and operations of Flight For Life, our region's medevac provider.

May 21st - Doug Tomas gave a presentation on his great uncle's B-24 Bomber (Ready, Willing & Able) crew in WWII. Looks very interesting.

Apr 16th - Jim O'Connor gave a presentation on Drones, their history since the 1700's and current issues with their increasing numbers in the sky.

Mar 19th - Wayne Peach told us some war stories about aircraft maintenance during AirVenture, where Wayne has volunteered for over 25 years.

Officers

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