



Racine EAA Chapter 838  
Monthly Newsletter  
May 2015 Volume XXVII Issue 5  
<http://eaa838.org/>

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

Welcome to **your** EAA Chapter 838 monthly newsletter. I will 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](mailto:newsletter@eaa838.org). This month, I want to start a little trivia quiz. If you have an old picture which many members might know something about, send it to me, and offer a trivia question.

Dave Finstad has taken over the membership chairman. Do not forget to send in your membership renewal unless you have recently renewed. If you have questions about when your membership expires, please email Dave at [membership@eaa838.org](mailto:membership@eaa838.org).

## **President's Corner**

As I write this we had our best weather weekend of the year, so far I hope. Beautiful temps and skies..... why are planes always broken when the weather is at it's peak. I had a broken ADAHRS unit on my Garmin G3X. I noticed while flying that my altitude visual didn't look right. I changed the barometer setting to field barometer reading on AWOS and that made it worse! I looked at my GPS altitude and confirmed the G3X was off. After a few weeks of taking the plane apart, getting someone in to test and reset my system (a Pitot/Static test), we just confirmed that the ADAHRS was indeed broken. Garmin 2 day air shipped a new one to me free of charge and now all is good. Total time down.... Almost 4 weeks. The joy of planes.

As the new weather approaches remember all of the fun things coming up. The Pancake Breakfast, Young Eagles and the granddaddy of all – Oshkosh! I invite everyone to join us for the Chapter Meetings on the third Thursday of each month. We had a great meeting last month about drones. It was fascinating and informative. I got to get me one of those (what movie is that line from?)

Blue Skies and see you later this month.

Daryl

## **Pancake Breakfast**

Do not forget your Chapter 838 Pancake Breakfast on Saturday and Sunday, June 13<sup>th</sup> and 14<sup>th</sup>. Please help us out by volunteering and/or coming and eating the great food. Bring your friends and relatives. Contact Bob Helland if you want to help. You should be receiving tickets soon. As Roy Stuart says: If you don't want to use them, just send a check as your donation to the chapter.

## **Our EAA Chapter 838 May 21<sup>st</sup> Meeting**

In preparation for the May 21<sup>st</sup> meeting, here are a few attachments from the presenter:

### **Following the crew of “Ready, Willing and Able”**

Doug Tomas will be speaking on the results of his research on his great-great-uncle who was a flight engineer on the B-24, “Ready, Willing, and Able”, shot down over northern Italy in WWII in December, 1943. His research turned up some unexpected surprises along the way; corresponding with surviving crew members, a special connection with a B-24 in the National Museum of the US Air Force, all leading to a trip to Italy for a special dedication in December, 2011, and continuing surprising finds.

Doug Tomas grew up in Madison, Wisconsin, and from an early age had a love for aviation. At 10, he attended his first EAA fly-in and convention in Rockford, Illinois, in 1969. The next summer Doug and his father and friends were spending weekends picking up rocks from the ground that would become the flight line before the first fly-in and convention in Oshkosh, he has been hooked on all things that fly ever since.

Doug earned his private pilot license at 17, during the summer between his junior and senior years in high school.

He attended Blackhawk Technical Institute, in Janesville, Wisconsin, to earn his Airframe and Powerplant Mechanic’s license in 1979. He then went on to work on Twin Beechcraft cargo aircraft for Blackhawk Airways, and then helicopters for Omniflight Helicopters in Janesville. In 1986, Doug started work at Midwest Express Airlines for nearly 19 years. He now works as a Service Technical Specialist for Case IH / New Holland on large four-wheel drive tractors in Racine, Wisconsin.

Doug continues to work as an aircraft mechanic and inspector as a hobby, mostly on antique/classic aircraft. He also maintains and fly’s his 1949 Piper PA-16 “Clipper”, in East Troy, Wisconsin, and is a co-owner of a 1946 Aeronca 7AC Champ they are currently restoring in Stoughton, Wisconsin.

His other interests are photography and genealogy.





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## **Monopoly Night Fun and Games 2015**

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

See you then.



## **Chapter 838 Young Eagles for 2015**

Remember that 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.

**May 9<sup>th</sup> is our next session of the EAA Chapter 838 2015 Young Eagles season.**

Future sessions are:

June 13th, July 11th, August 8th, September 12th, October 10th, and finally November 14th.



## **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.



## Aviation Explorer Post 218

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

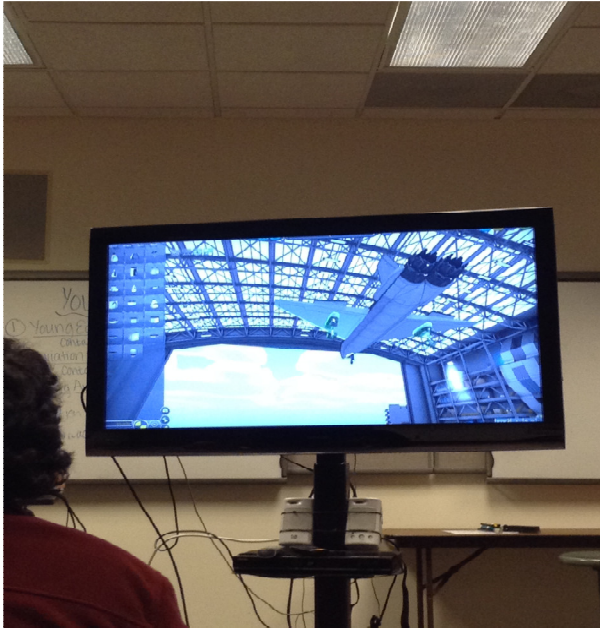
Going to the Milwaukee Tower was quite the experience, especially since it was a stormy night. To see and hear someone talk about their job and what they do every day was very interesting. The whole group got to go into the lab where they train/test new employees. After seeing the lab we saw where they talk to the midflight pilots on the planes in . In this room they can direct planes around big storms and away from other planes; they also can monitor the weather and see if anyone is in Milwaukee's airspace. It was nice to actually see and to hear people at work directing the planes because of the storm.

Then to the delight of the group we got the honor of going up to the top of the tower. When we got up to the top we had to break up into two groups. While up in the tower even though it was storming and night time it felt like you could see so much of the world around you. We couldn't stay up too long since the people working were rushing around looking screen to screen and out windows because the storm was right above us. I know we all had an amazing time and great experience.





On April 23rd, at the last meeting Jacob Koehler brought his computer with a computer game called Kerbal Space Program. On this game you can actually build your own aircrafts and test them out. For building the aircraft it lets you pick its wings, body, cockpit, etc. As for testing it out you get to see if it actually will move at all, then see if it will take off, fly, and land. During this meeting we also got to take home, if we wanted, some model planes and aviation books that were donated to the post. Lastly during this meeting all of the leaders of the post – the president, vice president, historian (me), and the advisors – got together to discuss how to run the post and talk about new ideas.







## **Special EAA Work Weekends**

*Tragedy hit the Aviation Explorer Base over the winter. Mold was found under the trailer at the Explorer Base at EAA Oshkosh making the trailer unusable. The plan is to rent a trailer this year which will give the Explorer Bas more time to determine a long range goal for the future. The Explorer Base is completing paperwork to become a 501 (c3) non profit organization so they can raise funds, and donors will be able to take tax deductions from their donations.*

*EAA is being very helpful to the Explorer Base. They will provide a semi trailer for temporary storage of equipment. The Explorer Base plans to have three work weekends to facilitate the use of the rented trailer.*

*In May, the Explorer Base staff will package up everything currently in the trailer. They will box items that can be boxed, and determine what should be moved, and what should be disposed of.*

*On Saturday June 6th, the Explorer Base staff and volunteers will move these items to temporary storage to be provided by EAA. It probably will be a semi-trailer to be located on the Explorer Base grounds. Please contact Ken Sack or Jerry Baker if you can help us out on June 6<sup>th</sup>.*

*Then, around the first week of July, the old trailer will be disposed of, and another trailer will be put at the same place. The Explorer Base was able to sell the trailer to an interested person, who will move the trailer from the grounds. The other trailer will be rented by the Explorer Base for a month.*

*On Saturday July 11<sup>th</sup>, the Explorer Base staff and volunteers will move the equipment into the rented trailer for use for AirVenture. Please contact Ken Sack or Jerry Baker if you can help us out on July 11<sup>th</sup>.*

*On either the last weekend of AirVenture, July 29-30 or the next weekend Aug 5-6, the Explorer Base staff and volunteers will move the equipment from the rented trailer to either an EAA semi trailer or to pallets which will be shrink wrapped and moved inside of some EAA building on the grounds for use next year.*

I have a dual screen Garmin G3X EFIS installed in my Cozy IV. This system is fully loaded, with most of the options. I have an attached Garmin 530 GPS/NAV/COM, GTR 200 Com and the Garmin Digital Autopilot. The system is amazing, but keeping up with it can be quite a handful. I actually read, and re-read, the Pilot's Manual as often as possible because there's always something I learn.



Garmin recently came out with a software release that provides a 'new feature' previously only available on the G1000's for Cirrus. The feature is called ESP (Electronic Stability and Protection). It's similar to what the Airbus and Boeing EFIS's have to keep the aircraft within predefined parameters..... so what's that mean. It means the software will stop the pilot from getting the plane into an 'unsafe' attitude or airspeed.

If the aircraft gets into too steep a bank angle, or too high or low a pitch angle, or too high or low an airspeed, the system will use the autopilot servos to command a return to a 'safe' attitude. All of these parameters are configurable, so it's not like Garmin is deciding on what's safe or unsafe. Some planes are ok at 60 degree banks, others, like the RV series, get wobbly at more than 15 degrees of bank...(sorry Eric, I had to take one shot!)

ESP will not kick in if the plane is below 200 feet agl. So on landing, you're not going to get the autopilot stopping you from controlling the plane. You wonder though, isn't that the time you might want ESP to not let you over control the airplane?

If the ESP system is activated for more than 15 seconds, taking control of the aircraft to return it to safe parameters, within a 30 second interval, the autopilot is automatically turned on and set to "Level" mode, flying the aircraft in straight and level flight.

What is the reasoning behind something like ESP? Why should we use it when the autopilot already has a straight and level button that can be pushed to fly the airplane? Pilot incapacitation seems to be the major driver, in my mind. If the pilot can't push the Level button, the plane will do it for him. It would be a safety feature for passengers. Of course they'd still have to land, but this would buy some time to talk to someone. All that said, I haven't decided if I'm going to turn ESP on. Do I want it to kick in if I go over 60 degree bank during steep turn practice? Your feedback is appreciated!

# Fly / Simulate / Fabricate / Learn . . . in Young Aviators

By Seán G. Dwyer

The goal of the *Young Aviators* program is to motivate students to take interest in STEM, regardless of career plans or college majors. That makes it as relevant to future journalists as to future astronauts. Aviation is just an appetizer, the main course is STEM.

The deadline for applications for 2015 is May 11, and the program will take place August 10 – 14. If you know a teenager, age 14-18, who would benefit from a unique exposure to science/technology/engineering/math – in an applied format that makes learning fun – then encourage him or her to apply. Application forms can be found at [www.young-aviators.com](http://www.young-aviators.com).

The tuition fee is \$795, but that covers less than 1/3rd of the total cost. The *Young Aviators* Board spends 12 months getting funding from donors to cover the rest of the cost of a week (Monday – Friday) in which the student flies an hour per day in the left seat with a CFI in the right seat. Some students start the week too young to take driving lessons, and end the week doing take-offs and landings. Another hour is spent with a CFI on the flight simulator, during which time the student gets to learn without the noise of the airplane and the need to look out for other traffic. All of that time is logged and signed off by the CFIs. Two hours per day are spent in the Fabrication Hangar. Students start with a flat sheet of aluminum and fold, cut, and rivet it into a wing component of a Sonex. We put a clock into it to make sure that it has a place of pride on the student's desk. As if all that was not enough, *Young Aviators* spend 2-3 hours/day learning physics, chemistry, meteorology, navigation, and history of aviation. Again this year Dr. Deborah Ford, the Chancellor of UW-Parkside has agreed to be one of the guest speakers.

Rather than just teach students **how** to fly, the program exposes them to how airplanes **can** fly. STEM is an overlapping continuum where each component needs the others. Science would be a hobby without engineering, and engineering is guesswork without science. Technology - the output of combining science with engineering - requires both. Math is the language whereby scientists, engineers, and technologists communicate. The sciences to which we introduce students apply to everyday life as much as to aviation. For example . . .



- Charles' Law explains the lift of the 1st manned aircraft - a hot air balloon - and also why Piggly Wiggly's tub freezers do not need a lid, and why footballs pumped up in a warm room will have lower pressure after sitting outside in the cold.
- An aircraft's control surfaces use the Lever Principle, as do most tools known to man.
- Newton's three laws explain the 4 Forces of Flight, why cars need seat belts, and why hitting a bowling ball with a golf club is a bad idea.
- GPS navigation is so easy that map reading is a dying skill. So we will introduce students both to 'glass cockpit' navigation and to 'dead reckoning' as used by pilots at the Battle of Midway in 1942 (and by Columbus in 1492). Old methods are a fun way to teach theory (and still work after an iPad's battery dies).
- Low air pressure at high elevation increases take-off distances and reduces climb rates of airplanes. Similarly, when baking at higher elevations, it causes cakes to rise rapidly. . . and fall.
- Pilots need weather maps. Understanding causes of weather, climate, etc. educates anybody concerned about global warming. *Cause & Effect* are linked in *Young Aviators*.

Final point, we recognize that \$795 can be too much for some families, and a form for additional financial aid can be found at the website listed above. Will YOU be our force multiplier and encourage students to apply?

## Welcome New Chapter Members

New in April 2015

Raymond Peterson

## 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

May 21st The presenter will be Doug Tomas who will do a presentation on his great uncle's B-24 Bomber (Ready, Willing & Able) crew in WWII. I will forward his response to my request with attachments to you in a separate e-mail for your information. Looks very interesting. Doug is a lifetime EAA member and has done this presentation for other chapters.

PAST:

On 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.

On Mar 19th Chris Forncrook of Flight For Life was supposed to do a presentation on the aircraft and operations of Flight For Life, our region's medevac provider, but he was sick. Wayne Peach was a very suitable replacement and told us some war stories about aircraft maintenance during AirVenture, where Wayne has volunteered for over 25 years. If you did not attend, you missed a great show.

## Officers

President Daryl Lueck ..... 414-333-4228

Vice President: Vacant

Secretary Tracy Miller ..... 847-420-5098

Treasurer Oliver Kottke ..... 262-939-5567

Foundation Jerry Baker ..... 262-939-0091

## Committee Chairpersons

Programs Rick Goebel ..... 262-886-4171

Monday Shop Jerry Bovitz ..... 262-639-8583

Librarian Eddy Huffman ..... 262-639-8301

Membership Dave Finstad .... 262-752-0086

Newsletter Ken Sack ..... 262-554-9714

Young Eagles Tracy Miller ..... 847-420-5098

## Directors

Jim Hantschel..... 262-637-3376

Ken Sack ..... 262-554-9714

Roy Stuart ..... 262-884-0371

Eddy Huffman ... 262-639-8301

Alex Clement ....

Nick Fisher .....

**Chapter Messaging (262) 634-7575**

**Location: 3333 N. Green Bay Rd.**

**Racine, WI 53404**

From [www.eaa.org](http://www.eaa.org): Editors Note: remember that AirVenture starts a week earlier than normal.

<http://www.eaa.org/en/airventure/eea-airventure-news-and-multimedia/eea-airventure-news/2015-eea-airventure-oshkosh/04-02-2015-dierks-bentley-to-headline-eea-airventures-opening-day-concert>

## **Dierks Bentley to Headline EAA AirVenture's Opening Day Concert**



Dierks Bentley, who has rocketed to the top tier of country music's hitmakers, will get EAA AirVenture Oshkosh 2015 week off to a great start when he headlines the fly-in's popular opening night concert on Monday, July 20. The concert, presented by Ford Motor Company with additional support from Cirrus Aircraft, is free to all EAA AirVenture attendees that day and will be held on Boeing Plaza following the afternoon air show.

## **EAA AirVenture 2015 NOTAM Now Available For Download**

Special air traffic procedures required reading for all aviators flying to Oshkosh

April 21, 2015 – The FAA has released the EAA AirVenture Oshkosh 2015 Notice to Airmen (NOTAM), featuring arrival and departure procedures for EAA's 63rd annual fly-in convention July 20-26 at Wittman Regional Airport in Oshkosh.

<http://www.eaa.org/en/airventure/eea-airventure-news-and-multimedia/eea-airventure-news/2015-eea-airventure-oshkosh/04-23-2015-eea-airventure-2015-notam-now-available-for-download>

## F-35 Lightning II Poised to Make AirVenture Debut

A Lockheed Martin F-35 “Lightning II,” the fifth-generation fighter that will be used by multiple U.S. service branches, will make its initial appearance at the EAA AirVenture Oshkosh fly-in this summer. It also marks the first civilian U.S. air show appearance by this unique jet.

<http://www.eaa.org/en/airventure/eea-airventure-news-and-multimedia/eea-airventure-news/2015-eea-airventure-oshkosh/04-16-2015-f-35-lightning-ii-poised-to-make-airventure-debut>

