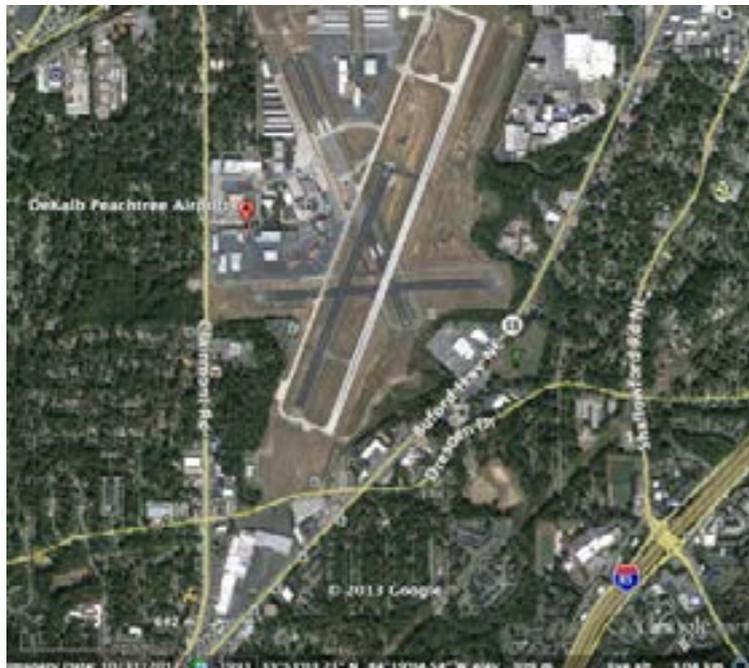




## Stop at Atlanta: Something Different

by R.G. Blocks

This is our first long cross country trip in our C162 Sky-catcher. It seems a shade faster than our C172 and quite a bit more efficient. This trip is our attempt to see friends and family, take in several historical sites and uncover any limitations of the machine or my piloting techniques. I'm imperfect, just ask Marge.



Arrival in Atlanta was an adventure. We were inbound to KPDK, Peachtree DeKalb Airport where Epps Aviation, my brother-in-law's favorite flying family business is located. It was Epps and his friends that resurrected the 'P-38 Glacier Girl' from Greenland's 1942 WWII icy grave a few years ago.

See (<http://www.eppsaviation.com/>) for more info on the firm and Glacier Girl.

Peachtree DeKalb's ATIS promised good visibility and strong winds. Don't you just love positives?

We were the only airplane inbound. Peachtree Tower provided a "6JA CLEAR TO LAND 34" then gave winds on the downwind as 300, 20G32, the base winds, 300, 20G34 and the final to RWY34 winds 300, 20G34. This would be interesting.



Bear in mind that the C162 lands dirty, with full flaps at 37 Kts and stalls clean at 41 Kts. Also, that the machine loves

to fly with slightly better than a 10:1 glide angle. Cross the numbers going faster than 55 Kts and you just might make landing a drawn out challenge. I've done that. Ugly.

I stayed bit tight (close to the airport) on the high side, delaying my descent much before final. The reason was I could see a depressed parking lot and buildings and a free-way at the foot of the runway. It is also an older, wooded and highly congested city area. If anything went wrong I wanted to be high, tight and land at KPDK. There simply were no alternatives to the airfield for landing. Apprehension creates adrenalin. It's one of few hormones my body still produces effectively.

Throttle back, trim back with the spiffy electric trim, starting down the descent and we STOPPED descending and did not move forward. We were over that depressed area prior to the runway, and perhaps 200-300 Ft above runway elevation. We were not moving forward or downward nor were we stalled. We were flying absolutely motionless for more than a few seconds. I've experienced this phenomenon before: it's not alarming and calls for a light touch.

PDK Tower noting our pause said, "6JA CLEAR TO LAND 34". I had already powered up with a gentle burst, and we slid beyond the invisible air curtain formed by PDK buildings and the bowl south of RWY 34. Then, I reduced power. It was a steep, uneventful and smooth touchdown. The Tower came on with a "Nice Job 6JA, Left to Epps Parking." I muttered a, "Thanks for your help, sir." He'd given me the clues.

**Continued**



Racine EAA Chapter 838

# Continued

Meetings

Third Thursday's 7:00 pm

Social 6:30 pm

May 2013

Volume XXIV Issue 5

[www.Eaa838.Org](http://www.Eaa838.Org)

## Surprise Weather

I'm thinking in retrospect about my choice of full flaps. I'd need them if an off runway or change of plans was necessary. They did help our steep descent. Our roll out was not more than 50 feet. No complaint we were at taxi speed when crossing runway 9 and 27.

The trip from Nashville KJWN to Atlanta KPDK was to have been 188 NM (or 216 SM) but was probably 220NM (or 253 SM) when adding in our multiple excursions to avoid snow. The true speed (including the unplanned layover before landing at RWY 34) was 129 Kts (149SM/Hr) using the zigzag route distance. The effective airspeed down the planned route was 110Kts (or 127 SM/Hr). Fuel consumed was 8.4 Gal; hence, fuel burn was 4.94 Gal/Hr or 25.7 SM / gallon. We were a bit like a new SUV.

The neat part of Atlanta would be seeing my kid sister, her husband, the in-law side of the family and crocus blooming in local gardens. Their Atlanta Church featured a twenty-one-piece orchestra and a choir populated with many voices only a big city can offer. We feel like we are leading a charmed life to visit folks living on the right side of the tracks. Everyone here appears perfect: but then I'm not.

Atlanta, where Epps was the second stop during landing. That's what I'll remember.

Written for EAA 838 Contact by Roger G Blocks while thinking about that landing.

••••



## Subject title



Spring is here! Or is it summer? Or winter? It's hard to say this time of year in Wisconsin. I am a little late getting this article to Phil because I'm feverishly working to complete my annual inspection (actually "condition inspection" because it's experimental) in time for Young Eagles on May 11.

We were originally planning on serving breakfast at the Kenosha Wings & Wheels on July 6, but due to concerns of over-stretching our volunteer capacity and with Bob Hellingland being unavailable that day, I decided to call it off. I spoke with the EAA217 President and we agreed that if there were doubts of doing a good job with it, we shouldn't do it. I would still encourage our chapter members to attend. They will be serving lunch and if it is anything like last year, they will have plenty of interesting cars and airplanes show up.

For those of you that partake in the homebrew beer that I bring to meetings, April was the last meeting that I will bring beer. I have been doing it for 2.5 years and it's become more effort than it is worth based on the declining sales recently. The idea originally came from Frank Fonk in an effort to increase meeting attendance. It has had a minimal impact based on my judgment, although I'm glad that many members enjoyed it while it lasted.

Our April speaker was Brandt Madsen presenting the pilot's bill of rights. This was a fascinating presentation on the bill that was passed last year that sets a level playing field when the FAA decides to pursue action against you. I was blown away by how much unchecked power the FAA wielded in these matters before this bill. For May, we will have Dean Zakos and Steve Rehwinkel talk to us about Flying Ethics.

....

Speaking of Young Eagles, last month was what I would call a moderate turnout of kids and it was a long day getting through all of them because it was only Jim Hantschel and me flying. This is a problem. We simply need more pilots and airplanes to show up to Young Eagle events. If we get a big turn out of kids, we will have to start turning them away. We can't turn our back on our responsibility to promote flying to the younger generation. May is likely to be a moderate to large turnout based on the girl scout troop that is coming as well as the promotion that was done last month at the Just Add Kids expo. Remember that even if the weather forecast from the night before looks bad, we still fly if the weather is VFR. We need you to help fly.

Our pancake breakfast on June 8-9 is fast approaching. We will need people to help with flipping pancakes, cooking eggs, serving, etc. We could have a larger turnout than normal with the addition of the car show.



## EAA Chapter 838 Pancake Breakfast and Auto Show

Well here we are. It seemed like a long way off but by the time you read this we will be in spitting distance from this years Pancake Breakfast.

Please consider parking your plane at the event. Even though some people at other airports have said they will be coming, you know how that goes. With our own planes there people will at least have a few to look at.



Don't forget to let friends, neighbors, relatives and anyone else you see that has a vehicle for the show that they will receive a free breakfast for driving it to the show. If you have pilot friends at other airports they too will get a free breakfast if they fly in.

If you or your family members are members of other organizations, promote our event at their meetings and functions. You can download the flyer

at our chapter website or contact me at 414-758-7559 and I will see that you get some fliers.

I have some commitments from car clubs for both days and if we promote we should have plenty of cars for people to look at.

Local car shows will be starting very soon and I plan to attend as many as I can to hand out flyers. I think the free breakfast will bring in quite a few show participants. If you also attend car shows and would like to assist by handing out fliers, let me know and I will see that you get some.

We will be tracking the counts of cars and planes that show up so will have valuable information to use for the future.

Are you on Facebook? If you or anyone you know is on Facebook we can use that for an astonishing amount of free advertising. Have them contact me and I will provide them with simple instructions on how to use Facebook to get the word out and it won't cost a cent.

There will also be discovery rides available and if this is something you want to participate in please contact me.

Saturday is Young Eagles day and as always we can use more pilots. There are a lot of rain checks that have been given out and if the weather is good they may decide to come to the breakfast and redeem them. So if you can fly Young Eagles on Saturday your help would be greatly appreciated.

Lastly pray for good weather. As you can imagine, just like flying this events success is heavily dependent on the weather.

Al Downs (414-758-0759)  
<mailto:aldowns10121@gmail.com>



**Airplane and Car Show**  
**FREE ADMISSION**  
Kenosha Regional Airport  
**Saturday, July 6, 2013**

Pancake Breakfast 8am-11am  
Lunch 10am-2pm  
Car Show 9am-4pm  
All types of Airplanes will be on display including World War II Warbirds all day.  
Helicopter rides for a fee

Fly-In Sponsored by EAA Chapter 217  
Midwestern Helicopter  
Kenosha Pilot Association  
AVP-Kenosha Aviation  
Lakeshore Helicopter

Car Show Sponsored by  
The Vintage Auto Group  
The Midwest Street Machine Association of Kenosha

Digital Media Imaging  
[www.wingsandwheelsofkenosha.org](http://www.wingsandwheelsofkenosha.org)





# Supported Programs

## Young Aviators

### Hard to give money away.

Every year, the Young Aviator program gives away around \$24,000 to educate young people. The generosity of the people and business that make this possible is wonderful. However, I'm always perplexed on how hard this is to do. I'm not talking about the work raising the money, or putting on a very professional program. That's a lot of work, and yet that's the easy part: Thanks 100% to the hard-working members and many volunteers who give their time and money to make Young Aviators week happen. Actually, the really hard part is to find and get 12 students to accept this gift?

How can this be? Are we that bad at marketing the program? Or is it a bigger problem with education or Racine in general? Graduation rates for Racine Unified high schools are under 70 percent of enrolled students in 2011-12. A 21% drop-out rate, almost six times higher than Kenosha County. This column will not go into the why this happens here story, but rather to remind you that the reason we have Young Aviators program it to make kids want to learn more and get excited about learning. As we say: flying is the appetizer to education. Getting a young person up in an airplane, away from a world referenced only on a two-dimensional screen will motivate them. Letting them see their town from 3,000 feet above will open their eyes to a bigger game.

We are all aware of the need for more technical, engineering and scientific people in this country. It seems the task of making a better generation in Racine can start with us. This week find a 14-17-year-old that you would trust in an airplane and get them to complete the Young Aviators application, found online (Young-Aviators.com). You could even give them a vote of confidence by paying the admissions fee of \$25. Once they see the unobstructed view from a cockpit window, the view we have all shared for years. They will instantly

know how connected we all are to the whole world. With their eyes wide open, the learning cycle will accelerate.

Mike Palazzola  
Chairman Young Aviators

### Young Aviators Announces Competition Scholarship Winners

Young Aviators is pleased to announce that Japheth Patterson and Andrea Van Offeren have each won \$100.00 educational scholarships.

Japheth Patterson of Shoreland Lincoln and Andrea VanOfferen of Starbuck School earned the scholarships based on their competition scores during the Young Aviators Open House held at EAA 838's facility at Batten Airfield.



Each attendee visited 7 sortie's or challenge features to test their knowledge on Aviation focused STEM (Science, Technology, Engineering and Math) questions. In addition, they were able to "fly" simulators, check out the aircraft manufacturing area and try their hand at a Barney chair (which mimics spatial disorientation). Andrea scored the highest for girls and Japheth for boys.

Young Aviators is a 501 C(3) non profit focused on increasing the STEM capabilities of young people using the fascinating world of aviation.

The 2013 Young Aviators program is accepting applications now for our August session. (Applications are due by May 10, 2013). The week long program utilizes a multidisciplinary approach that engages youth as well as instructors. Participants move between modules from topics such as Navigation, Physics, and Chemistry to hands on building, to flying simulators and to flying actual planes each day. It is an unparalleled learning and growth opportunity.

More information is available on the website: [www.Young-aviators.com](http://www.Young-aviators.com)

Nancy Pierce  
Young Aviators

## St. Catherine's High School

### Science Department

With the close of applications (May 10) for Young Aviators 2013 fast approaching, Steve Myers made contact with the Science Department at St. Catherine's High School to see if they were interested in a presentation regarding the program, which is oriented towards kids aged 14-18. Science teacher Frank Miles was made aware of the range of classes in the ground school portion of the week long Young Aviators program and invited us to present "Navigation by the Ancients" to one class and "Physics of Airplanes" to two separate classes of juniors and seniors. Although there may have been overlap between the Navigation class and either of the Physics classes, a total of 72 students participated in the presentations by Seán Dwyer. Surprisingly, only 5 of the kids had ever been on Young Eagle flights. At their age, many EAA 838 members would have crawled on hands and knees on broken glass for a chance of a flight. Is EAA 838 operating in stealth mode, or do kids have too much on their plates today?



# Supported Programs

## Can You Answer the Following Questions

- (a) Which President of the USA sent the first airmail letter in America?
- (b) Which famous American received the first international airmail letter?
- (c) Which Founding Father witnessed the first successful manned flight?

Answers on page 7.

Seán Dwyer

## Explorer Post 218

April 11th Meeting

On April 11th our Explorer Post took a trip to MATC to learn about their programs and the opportunities they offer. We went with a group of six, including two new members: Tyler and Esther.

It started out with a power point about their aviation technician program and the careers you can get from the license. We learned that it can be very beneficial to have the license and it can lead you into many fields of work. Next we went to the power-plant room which held many different engines from all sorts of planes and helicopters. It was interesting to see how the students de-construct and rebuild these engines. Next we visited the hangar with all of their planes they use in the program. As a group we jacked the plane so we could swing the landing gear up. Then we went in groups of two into the cockpit and each put the landing gear up and down. Next we were able to take a seat in their helicopter and see inside the other planes. All in all we learned a lot, had fun and gained some new post members!

Chrissy Kujawa

## April 25th Meeting

For our April 25th meeting we had Phil Fountain come in and set up the simulators for us. Some of us were able to go on both, and it was fun to try and land on an aircraft carrier. We even decided to play cards while waiting our turn.

We also got several new members, some of which are going to Oshkosh. Through Air force Academy applicants, the Young Aviators program, the kid's fair at Case High School, and the technology fair at Festival Hall we were able to recruit the new members and get others interested. Thank you to Chapter members for attending these events.

Kinzie Kujawa

§

## Aviation Explorer Club

Begins Wednesday  
May 8<sup>th</sup>

The Aviation Explorer Club, which has the goal of maintaining the interest in aviation generated by Young Eagles Flights, and is oriented towards kids aged 11-13, was again invited to participate in Science Day at Our Lady of Grace grade school this year. On April 19, Seán Dwyer and Jerry Baker presented "Physics of Airplanes" to a class of 5th grade students.



The 14 kids asked many questions and all received Rain Checks for EAA 838's monthly Young Eagles Day. In case you are wondering about the purpose of the Rain Checks, they allow the students to skip the ground school class that is conducted before kids are assigned to pilots for their Young Eagle flights.

Sean Dwyer

## Club Schedule 2013

(All meeting are in EAA Chapter 838 Building except where noted below.)

1. May 8- 6:00 PM - STEM
  - Intro to AEC, BSA, Explorers
  - Physics of 6 simple machines:
    - lever, inclined plane, wedge, screw, wheel & axle, pulley (hands on examples)
  - Application of simple machines in aviation, STEM
  - Physics & Chemistry of flight:
    - lift, drag, thrust, gravity, balloons, gliders

## Continued Next Page

2. May 22 - 6:00 PM - CONTROLLED FLIGHT
  - Controlled flight in aircraft:
    - pitch, roll, yawl, lateral, longitudinal, vertical axis
  - Power plants:
    - prop, jet, prop jet, rocket, multi
  - Configuration:
    - tractor, pusher, canard, rotary (helicopter)
  - Split into 3 groups and rotate:



# Supported Programs

Kit fox - operate controls  
Hands on plane in hanger - control functions  
Simulator (control functions and power input)

- Debrief with pilot, compare actual flight with planned  
(RAIN DAY IS 24TH)

When Ben Franklin was in Paris in 1783 to negotiate the Treaty of Paris, which ended our War of Independence, he witnessed the first manned flight by the Montgolfier brothers' hot air balloon. Just two weeks later he saw the second successful manned flight in a different type of aircraft, a hydrogen balloon. Both types of aircraft are still in wide use today, although hydrogen has generally been replaced with the safer, although much more expensive, noble gas, helium.

You can read the letters written by Franklin to another scientist after the second flight in the 'Aviation Links' page of the Young Aviators website ([www.young-aviators.com](http://www.young-aviators.com)). The two flights are an excellent way to introduce students to the Ideal Gas Laws of chemistry.

Ben Franklin received the first international airmail letter from his loyalist son William, who had moved to London, England. The letter was carried by an American John Jeffries, who financed the first flight across the English Channel in 1785. The French pilot, Jean-Pierre Blanchard, who built the hydrogen balloon, accompanied Jeffries on the epic flight. Blanchard was a bit of a con-man, and the cross channel flight was a close thing. To lighten the balloon they threw everything they did not need overboard, and arrived near Calais in their underwear.

In 1793 Jean Pierre Blanchard made the first flight in a balloon in North America. The flight was witnessed by President George Washington, who gave a letter to Blanchard to be delivered wherever he landed. It asked that Blanchard be given every curtesy. It was probably fortunate that he did so, as the descending balloon startled farmers who had no idea what it was. They approached with pitchforks and calmed down when Blanchard handed them the letter from the President. The flight departed a prison yard in Philadelphia and landed in Deptford, Gloucester County, NJ. Also witnessing the flight that day were future Presidents John Adams, Thomas Jefferson, James Madison, and James Monroe.

....

9. Aug. 28th – 5:00 PM – Trip to Cessna Maint. MKE  
(Transportation by parents.)

10. Sept. 11 – 6:00 PM  
(Transportation by parents – drive to south ramp of Batten field off Golf Rd. for tour of maint. facilities and various aircraft in hangers)

11. Sept. 13 - Modine-Benstead Observatory  
Time to be determined

12. Sept. 25 - 6:00 PM - Awards presentation and picnic  
- Speaker - Carolee Barnett - American Air Lines  
- Awards - Katie Clark and BSA representative,  
Brian O'Lena EAA  
- Picnic by Ken Sack, Kristian Niemiec and parents  
(time as needed)

### Answers to Questions on Page 6

- (a) George Washington
- (b) Ben Franklin
- (c) Ben Franklin

Although there were many attempts to fly before the first successful flights, most ended up in a heap at the bottom of a tower. if you have to be carried away after a flight, it can hardly be considered "successful". "Successful" includes "Able to walk away afterwards and use the aircraft again".

3. June 5 - 6:00 PM - MODELING  
- Build and fly models  
- Build bottle rockets at home, hand out bill of materials)

4. June 19 - 6:00 PM - ROCKETS  
- Rockets and jets - design basics and differences  
- Discuss relationship between air pressure and water content on flight characteristics for bottle rockets  
- Build and fly bottle rockets. Document results

5. July 11 - 6:00 PM - Meet at RC Club field  
- RC demo and trainer  
(Transportation by parents)

6. July 31 - Oshkosh - AIRVENTURE - Oshkosh  
( Details TBD)

7. August 7 - 6:00 PM - GROUND SCHOOL  
- Aviation charts, weather (phone, computer)  
- Ground school - plan cross country flight:  
KRAC to KBUU  
88C/KRAC - headings, time, altitude, fuel burn

8. Aug. 17 - 9:00 AM - CROSS COUNTRY FLIGHT  
- Fly simulator cross country  
- Fly cross country with Chapter 838 pilots



## Doolittle Tokyo Raiders Celebrate Final Public Reunion

After speaking with Mr. Steve Hedges from AOPA a few weeks ago, I got permission to include interesting articles and topics from the AOPA website, so we will be having a monthly section from this great pilot organization.

Phil Fountain

### Final Doolittle Reunion

By Alyssa J. Miller

Richard Cole was back in his element April 17, flying a North American B-25 Mitchell bomber over Florida. Cole, James H. "Jimmy" Doolittle's co-pilot on Crew No. 1 for the famed Doolittle Tokyo Raid on April 18, 1942, had learned short-field takeoffs in the bombers at Eglin Field in preparation for departure from the USS Hornet.

"He still loves to fly and is still very good at it," Larry Kelley wrote in an email interview with AOPA of Cole's performance during a 40-minute flight in Panchito. Cole and Kelley have flown together a handful of times over the years. "Approach control assigned us an altitude of 1,500 [feet]. ... Each time I looked over at the altimeter while he was flying, it was exactly 1,500 [feet] level or in a turn didn't matter.

"This was a true indication that precise flying is still a natural for him."

Cole and two of the three other living Doolittle Tokyo Raiders, David Thatcher and Edward Saylor, gathered in Fort Walton Beach, Fla., for the seventy-first and final public reunion April 17 through 21. Robert Hite was not able to attend the event. The public gathering came less than two months after Thomas C. Griffin died Feb. 26.

The men, representing "all that was so great about the 'Greatest Generation,'" are modest about their heroic efforts

that helped to change the course of World War II in the Pacific, Kelley said.

All 80 men who flew the raid volunteered for the secret mission: to bomb Tokyo. They were forced to depart the USS Hornet earlier than planned after being spotted by the enemy about 650 miles out to sea. Despite deteriorating weather and critically low fuel levels (caused by departing 200 miles farther out to sea than planned), the men successfully bombed many targets on Japan's mainland and then ditched their aircraft in the sea or bailed out over China (one B-25 landed in Russia). The raid boosted American morale and rattled the confidence of Japanese military officials, leading to the U.S. win at the Battle of Midway. (See "Secret Mission," in the October 2012 issue of AOPA Pilot.)

Because of the significance of the raid, the men became heroes in the eyes of generations of Americans. But in their own eyes, they were simply fulfilling a duty to serve their country.

"Dick told me how embarrassed he is by all of the attention he gets as he goes to events to sell his prints and books, and be the 'guest of honor,'" Kelley said. (All proceeds go to the General James H. Doolittle Scholarship Fund to award scholarships to young people seeking careers in aviation, Kelley added.) "He emphasizes to everyone that he was simply a soldier doing his job!"

It's a job that Cole, Thatcher, and Saylor told AOPA after the seventieth reunion celebration in Dayton, Ohio, in 2012 that they would do again.

"Definitely," Thatcher responded.

"I would, yes," Cole said.

"Yeah, sure I would," Saylor confirmed.

The men's selfless act is gaining attention on Capitol Hill as Doolittle Tokyo Raiders Sergeant at Arms Brian "Bear" Anderson is visiting each Congress member's office to explain the significance of the raiders' mission. Two bills have been introduced to honor the men with a single Congressional Gold Medal that would be on display at that National Museum of the United States Air Force.

"In the face of the almost certain fate of running out of fuel over the South China Sea, not one man would back down from the volunteer mission. 'Mission before Self,'" Kelley wrote. "This should have been done many years ago," he continued, adding that he hoped Congress would come together to honor the men "because it is 'The Right Thing to Do!'"

Anderson, who has been working on this honor for years, said he hopes the Congressional Gold Medal could be bestowed while members of the Doolittle Tokyo Raiders are still living.

§

### AOPA Has You Covered

After hearing aviation attorney Brandt Madsen speak about the "Pilots Bill of Rights" at our April meeting you may be interested in reviewing AOPA's legal and medical Protection Services for pilots on their website [www.AOPA.com](http://www.AOPA.com).

The airlines have the unions with pilot protective services and the corporate world has company legal departments. The private pilot is on their own when problems occur.

The following article was taken from the November 2010 issue of AOPA Pilot Magazine.



## Electronic Ignitions Reduce Fuel Consumption

### Frugal Flyer: Save Some Gas

By Dave Hirschman

Add right magnetos to the list of soon-to-be-obsolete airplane parts. Electronic ignitions have proven time and again that they can increase the top-end performance and fuel efficiency of aircraft engines, and they've flown hundreds of thousands of hours in mostly Experimental-category aircraft with impressive results.

Now, ElectroAir expects to become the first to offer an FAA-certified retrofit electronic ignition for Standard-category aircraft using one magneto (the left one) and a single electronic ignition. (Unison was the first to offer FAA-certified electronic ignitions in 2000 with its LASAR system that includes dual electronic ignitions and two magnetos.)

"We expect FAA approval in the fall and our first Standard-category product deliveries by the end of 2010," said Mike Kobyllick, president of the Michigan-based company. "We've been working hard, and we're very, very close."

ElectroAir has been performing the certification test flights in a Cessna 177 with a Lycoming O-360 engine and says a single electronic ignition that replaces the right magneto reduces fuel consumption by about two gallons an hour. The company has sold several thousand electronic ignitions to Experimental aircraft owners and claims typical fuel savings of 10 to 15 percent. Electroair's products are based on electronic ignitions pioneered by Experimental aircraft builder and inventor Jeff Rose.

ElectroAir recently supplied an electronic ignition virtually identical to the kind it plans to certify to Mike Regen, a Maryland-based pilot and aircraft owner, to install on his RV-4 with a normally aspirated, 160-horsepower Lycoming O-320 engine, a common engine that also powers thousands of FAA-certified airframes.

Regen documented the changes using a computerized engine monitor that measures multiple engine parameters. "I wanted to lower my fuel consumption just like everyone else," he said. "But I was also looking for better reliability, greater efficiency, and a reduction in periodic magneto servicing that's typically required every 500 flight hours."

Installing the electronic ignition required removing the right magneto and mounting a timing sensor in its place, as well as adding a manifold pressure sensor, a coil box on the firewall, and a "brain box" containing circuit boards in the cockpit. ElectroAir says the entire process takes between four and six shop hours.

The rest of Regen's single-battery, 14-volt electrical system was unchanged. The left magneto was untouched and can still power the engine in case of electrical failure. The key switch remains the same (left, right, and both) with the key in the Both position in normal flight. Regen also installed new spark plugs, REM37BYs, which have the gaps ElectroAir recommends.

Regen said his four-cylinder engine runs more smoothly with the electronic ignition, and he's able to lean more aggressively at cruise. "I normally fly cross-country trips at about 10,000 feet," he said, "and the engine runs smoothly at much leaner settings and reduced fuel flow than it used to. It even runs smoothly lean of peak—and that's something that wasn't possible before in carbureted engines."

Lean-of-peak operations have typically been limited to fuel-injected engines with precisely matched nozzles. But the electronic ignition with its variable timing allows carbureted engines to get some of the same benefits.

I accompanied Regen on a recent flight to document some of the changes. At 7,500 feet msl on a nearly standard-temperature day, Regen ran his engine rich of peak at full power

(23 inches manifold pressure and 2,500 rpm), and the airplane was soon traveling 156 KIAS with a fuel flow of 9.4 gph. With one long pull on the mixture knob, Regen watched all four CHTs and EGTs peak and then fall while the engine continued to run smoothly. At its leanest setting before the onset of engine roughness, Regen's speed had dropped to 136 KIAS and the fuel flow to 7.2 gph. By slightly enriching the mixture, he settled on 140 KIAS at 7.4 gph. Put another way, Regen traded an 11-percent reduction in airspeed for a 20-percent drop in fuel consumption. (CHTs stayed below 400 degrees Fahrenheit while rich of peak and about 70 degrees cooler when lean of peak; EGTs were in the mid-1,300-degree range while running rich, and about 1,400 degrees at the lean setting.)

"I've noticed that the spark plugs are much cleaner," he said. "The longer-duration spark allows the fuel in the cylinders to burn more completely, so there's less chance of lead fouling the plugs."

The variable timing that electronic ignitions provide also makes hot starts easier, and promises far greater efficiency at high altitudes where the fixed timing of magnetos becomes a major disadvantage. Also, electronic ignitions are designed to last longer than aircraft engines and shouldn't require periodic maintenance like magnetos.

ElectroAir electronic ignition systems retail for \$1,200 for Experimental versions, and prices for Standard-category versions will be about \$3,400 after FAA certification, company officials said.

....



# Racine EAA Chapter 838

# NOTAMS

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

May 2013  
Volume XXIV Issue 5  
www.Eaa838.Org

## NTSB / FAA / NBAA / TSA

### FAA Safety Team

#### “Illinois Pilots Assn - Aviation Safety Seminar”

**Topics:** Propeller Maintenance & Repair,  
Flying the Beijing Schedule,  
Alternative Aviation Fuel

**When** Saturday, May 11, 2013 at 9:00 AM  
**Location:** Poplar Grove Airport  
Vintage Wings and Wheels Museum  
11619 Illinois RT 76  
Poplar Grove, IL 61065

**Description:** All pilots are welcome. Dr. Susan Shea is the lunch keynote speaker. Spot landing contest.

#### “Pancake Breakfast and ForeFlight Seminar”

**Topic:** Exploring ForeFlight 5.0  
- Preflight, In-Flight and Post-Flight

**When** Saturday, May 11, 2013 at 9:00 AM  
**Location:** EAA 932 at Galt Airport (10C)  
5112 Greenwood Rd  
Wonder Lake, IL 60097

**Description:** Join us for a Pancake Breakfast by EAA chapter 932 and then at 10:30am we will explore ForeFlight 5.0, the latest version that includes track-up, extended centerlines and new Hazard Avoidance along with built-in traffic pattern procedures based on actual winds. We will take an in-depth look at all ForeFlight features as well as a demo of Stratus, which provides free in-flight weather and GPS.

#### “The OODA Huh?”

**Topic:** This clinic explains the OODA Loop, an intuitive decision making model which can help pilots improve their ADM skills.

**When** Saturday, May 11, 2013 at 9:00 AM  
**Location:** Wausau Flying Service, Inc.  
Wausau Downtown Airport  
725 Woods Place  
Wausau, WI 54403

**Description:** Close to 80% of aircraft accidents are attributed to poor ADM (Aeronautical Decision Making). The FAA has increased risk management and ADM awareness at all levels of pilot levels of training. The OODA Loop is a decision making concept which integrates the FAA concepts of risk management, PAVE, CARE, TEAM, IMSAFE, CRM, SRM, hazardous personalities, situational awareness, etc. into one useful tool to bring the concept of ADM from the classroom to the cockpit.

§

### FAA

#### Paper or Plastic?

Navigating, whether it's by electronics, or by chart, should be secondary in your priority system. Learn more about setting aeronautical priorities (aviate, navigate, communicate) on page 18 of the Mar/Apr 2013 issue of FAA Safety Briefing, [http://www.faa.gov/news/safety\\_briefing/](http://www.faa.gov/news/safety_briefing/).

§

### For Your Information

Each individual who holds an airman certificate, medical certificate, authorization, or license issued by the FAA must present it for inspection upon a request from TSA. Fines of \$1,000 and up can be levied for refusing to answer questions.

Source CABAA Safety Day 2013, Professor Bob Baker, Embry-Riddle.

### Lessons Learned Website Change

The Lessons Learned from Transport Airplane Accidents website

[Http://Accidents-LL.Faa.Gov](http://Accidents-LL.Faa.Gov), has been replaced by the [Http://LessonsLearned.Faa.Gov](http://LessonsLearned.Faa.Gov) website.

Please note the new address. Your saved shortcuts to the old sight will remain functional for a short while. Thank You for your patience, we will be posting more lessons to the website in the not to distant future.

You can view or update your subscriptions, password or email address at any time on your User Profile Page. All you will need are your email address and your password (if you have selected one).

This service is provided to you at no charge by the Federal Aviation Administration. Visit us on the web at [www.faa.gov](http://www.faa.gov).

If you have any questions or problems with the subscription service email [support@govdelivery.com](mailto:support@govdelivery.com) for assistance.

••••



# Racine EAA Chapter 838

# The People

Meetings

Third Thursday's 7:00 pm

Social 6:30 pm

May 2013

Volume XXIV Issue 5

www.Eaa838.Org

## Welcome

### New Chapter Members

Adams Merritt  
Feb 2013  
Arts Michael  
Feb 2013

## Monthly Meetings

Boards Meetings	Second Thursdays	7:00 pm
Chapter Meetings	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
	Fourth Thursdays	7:00 pm
Young Eagles	Second Saturday	9:00 am
	(March - November)	

## Upcoming Meetings & Speakers

May 16 <sup>th</sup>	Dean Zakos	
	Steve Rehwinkel	Flying Ethics
Jun 8 <sup>th</sup> & 9 <sup>th</sup>		<u>Pancake Breakfast &amp; Auto Show</u>
Jun 20 <sup>th</sup>	Roger Blocks	Flying the Cessna Skycatcher
Jul 18 <sup>th</sup>		
Aug 10 <sup>th</sup>	Saturday	<u>Chapter Picnic</u>
Sep 19 <sup>th</sup>		
Oct 12 <sup>th</sup>		<u>Monopoly Night</u>
Oct 17 <sup>th</sup>		
Nov 21 <sup>st</sup>		
Dec 6 <sup>th</sup>		<u>Christmas Party</u>
Jan 17 <sup>th</sup>		
Feb 21 <sup>st</sup>		
Mar 21 <sup>st</sup>		
Apr		

## Officers

President	Eric Wolf	262-989-9653
Vice President	Daryl Lueck	414-333-4228
Secretary	Tracy Miller	847-420-5098
Treasurer	Steve Jenkins	262-681-2491
Foundation	Steve Myers	262-681-2528

## Directors

Jim Hantschel	262-637-3376
Phillip Fountain	H 262-639-9892
Ken Sack	262-554-9714
Roy Stuart	262-884-0371
Jim Senft	262-758-2189
Tony LoCurto	262-412-0019

## Committee Chairpersons

Programs	Rick Goebel	M 262-886-4171
Monday Shop	Jerry Bovitz	262-639-8583
Librarian	Eddy Huffman	262-639-8301
Membership	Ken Sack	262-554-9714
Young Eagles	Tracy Miller	847-420-5098
	Chapter Building	262-634-7575