



The Hagerstown Homebuilder

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June

2011

EAA Chapter 36 Aircraft of the Month



Jack Raun's RV-6

EAA CHAPTER 36

**June
2011**

2011-12 OFFICERS AND SUPPORT STAFF

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Lounge, at the Hagerstown
Regional Airport.**

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IT'S FLYING TIME AGAIN..!!!

Reprint May 2009

From the President June 2011



If you've not been up yet to enjoy the nicer weather days, you're missing out. The fly-in's have started and the weather has been *almost* ideal. Still a bit windy during the late morning and afternoon hours causing for a bumpy ride, in other words, thermals.

This past April,

Sandy and I flew the Archer over to Frederick for a \$20 breakfast and the open house at the flight school. The Cessna sales people were there with a 210 and the 350 Corvalis, their fiberglass plane. The weather was great and there were a lot of others up flying as well. We even ran into a co-worker from the office who was taking flying lessons. He's working simultaneously on his commercial and twin ratings. He's just about ready for the check ride.

This last Sunday in April we headed out to Cumberland for their first fly-in breakfast for 2009. The pancakes were great as well as the rest. We met up with some friends and other members of our chapter who also came out for breakfast. A couple of them were Mike and daughter Caitlin who had driven out.

Mike, one of our newest members, had never flown in a small plane and has been waiting to go up for some time. Well that Sunday was finally his day to go. We all jumped into the Archer and off we went. After showing Mike the usual routine of the preflight checklist and checking the pattern for traffic, I demonstrated a soft field takeoff, got up to 80 in ground effect and pulled back for the "elevator" ride up. He was grinning from ear to ear by now.

After settling in at a level altitude and checking clear for traffic, I let Mike steer the plane with my help.

For a first timer he was doing real good considering it was bumpy. We flew a high extended pattern and headed back in for the landing. Talking Mike through the steps, we came around set up for the final approach and on in we went.

Mike did a great job helping make the landing in spite of being nervous. He's definitely hooked on getting his license now! Later Mike received an AOPA First Flight Certificate for his achievement. Since Caitlin rode along she received her first Young Eagles Certificate for 2009. It's another for her collection from previous years of flying.

In past letters I've talked about getting up and shaking off the winter rust. One of the most important maneuvers is taming the cross wind landings. Most landings are of the cross wind type, some in stronger winds than others and at various angles too. One important aspect is knowing your aircraft's X-wind *MAX* component. Do you know yours and can you handle the aircraft at that max? My plane has it posted on the dash. If it's not in yours I'd recommend looking it up in the operations handbook and posting it.

Here's one way to keep in practice, HGR has two different runways so instead of taking the favored one, try asking to land on the other and do both right hand and left hand X-wind landings. Most of all practice doing them, it'll keep you on your toes.

As always remember to check the weather at your destination and in route. Most importantly don't forget to check the NOTAM's and TFR's. P-40 area and the D.C. ADIZ are still out there in our area. Fly Safe and be safe,

Mark Hissey
President
EAA Chapter 36

Minutes May 3, 2011

- Meeting called to Order at 7:30.
- April 2011 minutes read and approved with one minor typo correction.
 - Treasurers Report read and approved.
 - Read the list of prior year members who have not paid dues and thus apparently have elected to decline continuing membership - Freeman, Hebb, Hixon, Jardino, Matthews, Mikolajski, Pierce, Schaeffer, Scott, Shockey, Swartz, Swift (Daniel),
 - The Fly-in picnic at Green Landings was held on Sunday, April 17. It was a nice event even with rather cool overcast weather. The event was well attended.
 - As reported above, Bob Scott has apparently elected to decline continuing membership in Chapter 36, and therefore can no longer be Chairman of the Chapter's Young Eagles' program. As Mark Hissey has carried out the roll of volunteering with the EAA National Young Eagles and as Co Coordinator for our chapter he now has accepted the duties as our Young Eagles Coordinator.
 - Mark and Sandy Hissey reported they have been working on plans for possible Hancock airport fly-ins this summer. They reported as follows:
 - . Mark has obtained insurance for the events.
 - . Both owners of the airport have given their permission for the events.
 - . Sandy explained WV Health Dept's. food & sale regulations, including:
 - . Water for hand washing by food workers
 - . All food workers must take a simple written test. This can be done at home. Ben Trillanes agreed to obtain the test papers.
 - . If Don Myers is willing to let us use his port-a-pot we would be responsible for having it services and cleaned. Don did recommend we look into an additional one owned or rented by the chapter for the fly-ins.
 - Ken Jones suggested if we are to host the fly-ins we should have someone volunteer as the Chairman of the events to provide overall control. Mark suggested we should have at least six persons agree to be food workers and thus take the above mentioned tests.
 - Mark Hissey reported that he has been in contact with Hagerstown airport authorities and is looking into the possibility of holding fly-ins at the Hagerstown airport using the facilities at the Firehouse next to the Terminal. This has the advantage of existing bathroom facilities, running water, and an existing grill. Details need to be worked out and agreed to with airport authorities.
 - After discussion it was agreed to attempt to hold the first summer fly-in at the Hancock airport on Saturday June 11, contingent on our obtaining commitments of a Chairman and six food workers. Sandy Hissey agreed to send out Emails to ask for volunteers. It was also agreed to cancel the fly-in in the event we cannot obtain such volunteers.
 - As reported last month Hagerstown Aircraft Services has decided to discontinue hosting an annual fly-in as they had in the past. However, Mark Hissey reported that the Hagerstown Aviation Museum is planning a rather large fly-in/drive-in event on October 15 and 16 at the Top Flight facilities. Tracy commented it might be an over-whelming task for the chapter to cook for this large of an event and the amount of attendees expected for both days. Discussion suggested we may want to try anyway.
 - Jim Marsden reported that the Piper J-4 was picked up last Saturday by the new owner.
 - Ben Trillanes reported that the proposed Sport Flying Club which had planned to take ownership of our current Kitfox project has disbanded because they have not been able to obtain enough members to defray the costs. This means the Kitfox ownership will remain with the Chapter, and will thus be available for sale in its current condition, or when finished.
 - Mark Hissey reported on proposed runway closure at the Winchester airport, July 15 through August 15, although 2600 feet may stay open with certain restrictions - if approved by the FAA.
 - Jay Kanagy reported the following May events:
 - . Saturday, May 7 - Aviation Safety Day at Lititz, PA, including tours and equipment vendors.
 - . Saturday, May 14 Pilots and planes are requested at the Hagerstown airport to fly Boy Scouts to obtain aviation badges. Mark Hissey is only pilot so far to sign up for the event. Curtis Berry offered to volunteer.
 - . May 19-21 - Balloon festival at Ellicot City, MD.
 - . Saturday, May 21 - International Learn to fly day - Frederick, MD
 - . Sunday, May 29 - Cumberland Pancake breakfast
 - Meeting was adjourned at 9:00.

Submitted by Ken Jones

Chapter 36

News and Events



Our Kit-Fox Project is progressing well. Weekly build night is Tuesdays, nights of each week. As you can see, it is not all work, so plan on attending whenever possible. Help is always needed.

Happy Birthday

June 4 – Dean Truax
 June 10 – Gregory Shantz,
 June 15 – Gary Hartle

Happy Anniversary

June 1 – Jay Kanagy
 June 6 – Dean & Phyllis Truax
 June 26 – Al Hays

The Events page, on our website has been updated. Check it out for all local activities.

<p>Spread the Joy of Flying with the general public through our "Fly-Outs to Fly-Ins" program. Let's get a group together, contact others to ride along, and perhaps share expenses as we visit various fly-in's.</p>	<p>E V E N T S</p>	<p>June 11</p>	<p>EAA Chapter 36 Breakfast Fly-In Drive-In. Potomac Airpark (KW35), Hancock, MD/Berkley Springs, WV. Latitude: 39° 41' 33.40" N. Longitude: 078° 09' 57.90" W. Young Eagles will be flown. Poster.</p>
		<p>June 17-19</p>	<p>22d Annual Father's Day Fly In, The 22d Annual Father's Day Fly In at Shreveport North (62PA) (17-19 June 2011) welcomes any aircraft capable of operating from a well maintained, lighted 70x2600 foot turf runway. Phone: 717-243-7923, Send an Email Website</p>
		<p>June 22- 25 Lock Haven, PA</p>	<p>Sentimental Journey Fly-In to Cub Haven Fly-In featuring the PA-15 Vagabond and the PA-17 Vagabond Trainer. Theme "Vagabonds Saved Piper". Douglass C-54E "Spirit of Freedom" scheduled to appear. Educational Forums, Static Displays, Food Vendors, Exhibitors, Flying Contests, Poker Run, Local Fly-Out Destinations, Camping, Live Entertainment, Movies, Airplane. Motor Glider & Helicopter Rides, and lots of Antique and Classic Airplanes on Display. Piper Aviation Museum Located on the Airport, WILLIAM T. PIPER MEMORIAL (LHV). Fun for all ages! Contact: Ed Watson, Phone: 570-893-4200, Send an Email. Website</p>
		<p>June 25-26</p>	<p>SportAir Fabric Covering workshop is just one of a family of workshops presented EAA. It is an intensive 2 day course on general fabric covering techniques using the Poly Fiber covering process. Details</p>
		<p>June 26</p>	<p>Pancake Breakfast, Greater Cumberland Regional Airport, CBE, all you can eat buffet, adults \$7.00, children under 12 \$4.00, Sausage, Eggs, Hotcakes, French toast, Home Fries, Coffee, Orange juice, Held last Sunday of month April thru Oct. Contact: Bernie Frank, Phone: 814-784-3576, Send an Email</p>

News



LEADED AVGAS DRAWS POTENTIAL LAWSUIT. EAA REACTS AS PART OF GA AVGAS COALITION

May 11, 2011 —The Oakland, California-based Center for Environmental Health (CEH) provided notice early this week that it intends to sue 50 fuel retailers and suppliers (including subsidiaries and affiliates) for violating California’s drinking water and toxic enforcement law, based on the suppliers’ distribution of aviation gasoline, which contains a lead additive. The aviation members of the General Aviation Avgas Coalition, which includes EAA, are exploring all options for supporting the named fuel retailers and suppliers.

Because the National Airspace System belongs to the people of the United States and benefits the entire country, Congress has reserved to the Federal government, through the Federal Aviation Administration (FAA), the right and responsibility to regulate all aviation activities in the U.S. The threatened CEH lawsuit in California raises the specter of a patchwork of state regulations governing fuels pilots may or may not use in their piston-powered aircraft.

Equally important, at the heart of the federal aviation gasoline fuel standard is safety of flight – ensuring that the engine of an aircraft in flight does not suffer a catastrophic failure.

The FAA, the federal agency with oversight for general aviation, and the Environmental Protection Agency (EPA), the federal agency with oversight for environmental concerns including aircraft emissions, are working with the general aviation industry – including aircraft and engine manufacturers, fuel producers and developers, and representatives of fuel suppliers and consumers – through the FAA’s

Unleaded Avgas Transition Aviation Rulemaking Committee (ARC) to address the transition to unleaded fuel. The ARC is working through a host of factors, with safety paramount, for transitioning to an unleaded fuel. These include certification, production, and distribution, as well as environmental and economic concerns.

It is imperative that the issues surrounding the safe and effective transition to an unleaded fuel be addressed at the *Federal* level, and that the FAA and EPA be the agencies that address those concerns.

The potential for this type of legal action at the state level highlights the necessity of FAA leadership, EPA involvement, and industry input to continue the safe transition to a new fuel.

The lead content of aviation gasoline has already been reduced by 50% since the federal Clean Air Act was passed. But even as the general aviation industry works toward an unleaded solution, the Avgas Coalition has taken steps to further reduce the lead content as an interim improvement, developing a Very Low Lead fuel standard that will allow for a further 20 percent reduction in the maximum amount of lead in the fuel without adversely affecting air safety.

Because several of their members are named as potential litigants, petroleum industry representatives to the GA Avgas Coalition did not join aviation industry representatives in issuing this statement. →

HINTS FOR HOMEBUILDERS: AIRCRAFT CERTIFICATION - 5 MISTAKES TO AVOID



Every builder wants the final inspection to go smoothly and to receive that coveted airworthiness certificate on the first try. Joe Norris shares the five most

common errors that delay the issuance of the airworthiness certificate. Joe is the EAA Homebuilders Community Manager as well as a DAR, an A&P aircraft mechanic with Inspection Authorization (IA), and an EAA Technical Counselor.

[Watch the video](#) →

War Hero: *Submitted by, Daniel Wroe*



You've probably heard of this hero from WWII, but may not have seen all its accom-

plishments list in one place. Before the war, it was rejected by the armed forces as "impractical for military use". Ignoring this rebuff, its builder pulled every political string to have it tested, at his own expense, finally finding an ally in an Army Colonel by the name of Dwight David Eisenhower.

Over 5500 were eventually built. It trained many of the flyers who formed the backbone of the Army Air Corps and Navy air service, including America's top WWII ace and many of the flyers in the 1942 "Doolittle" raid on Tokyo. It was even converted to a glider, and as such, trained the men who piloted the fleets of Waco CG-4s that flew on D-Day and later land battles.



It ended up serving in all theatres: European, Pacific, CBI (China Burma, India) and

stateside (both training and coastal defense). It was the first aircraft in the air to be damaged by Japanese fighters during the attack on Pearl Harbor. It was the victor in the last dogfight in the skies over Berlin. They were launched from the deck of the carrier Ranger during the invasion of North Africa, only to be devastated by friendly fire. It was credited with bringing down withering fire on the enemy and turning the tide in numerous land battles. When not doing direct battle, it dropped supplies to besieged troops, acted as an airborne radio link to far-flung forces, it ferried medial supplies to, and wounded soldiers from,

the front, and delivered OSS agents hundreds of miles behind enemy lines. It flew in weather so bad that normal bombers and ground attack planes couldn't operate. In southern Europe and the Pacific, it sometimes

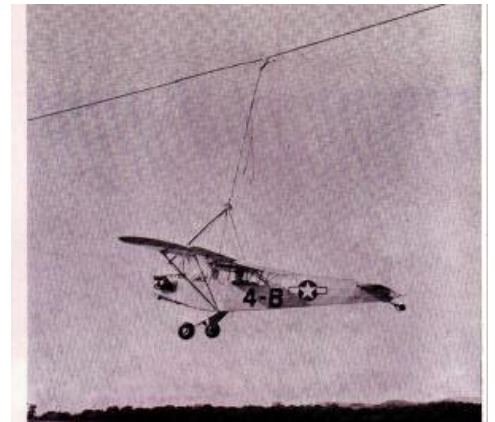


operated on floats. At times, it operated with no landing gear at all. It almost always flew alone, but was so successful at inflicting damage on the enemy that the Luftwaffe sent formations of their best fighters to hunt it down.

If they were able to bag one, German pilots could earn more credits towards an air medal than if they downed a P-51, P-47 or other top of the line fighter. Ground troops got 15 days leave if they managed to bring one down. Even though he was hopelessly outclassed, one Allied pilot managed to destroy his

Messerschmitt pursuer without firing a single shot.

Bob Hope flew in them. Ernie Pyle flew in them. Almost every officer, colonel and above, flew in them. They operated from



aircraft carriers and beaches and roads and pastures and runways built on tree-tops and runways consisting of a single cable, but rarely from a designated airbase.

While they did bomb and strafe and rocket the enemy, they usually flew into battle completely unarmed. In the end, they were declared unworthy of the expense required to return them home, so they were left in the countries where they fought... all over the world.

The military knew them as O-59s, NE-1s and L-4s, but you probably know it best as the **Piper Cub**.

Grass For Gas

BY DAVE HIRSCHMAN

Watching the clear fluid being poured into my airplane's fuel tank was disconcerting to say the least. We all know that 100LL, is blue, of course. And instead of the familiar smell of leaded avgas, this stuff carried the odor of a dank locker room, or a musty basement.

For more than five years, Swift Enterprises, a small start-up firm founded by Purdue University Professor John Rusek and largely staffed by grads, has been designing and producing its own form of renewable fuel meant as an unleaded replacement for 100LL.

Independent laboratories including the FAA's fuel and engine center have tested Swift fuel and determined it performs as well as and, in some areas, better than 100LL, in a variety of piston aircraft engines. More detailed tests are planned.

Teledyne Continental Motors and Hawker Beechcraft have performed flight tests using Swift fuel in an O-550- equipped Bonanza, and General Aviation Modifications Inc. (GAMI) has performed extensive ground tests.

Now I was at Purdue University Airport to meet with Swift officials and-perhaps more important-to fly home to Maryland on a tank of Swift's sorghum-derived fuel. My airplane, a Van's RV-3 licensed in the experimental category, is equipped with a stock 150-horsepower Lycoming O-320 with a fixed-pitch prop-a combination virtually identical to those found on ubiquitous Cessna, Piper, and Beech airplanes ranging from 172s to Super Cubs. Swift is about to enter an exhaustive data-gathering period in which it will collect thousands of hours of test data from many airplanes using its fuel in flight. But my 450-nm trip from Lafayette, Indiana, to Frederick, Maryland {with a planned stop in Mansfield, Ohio) would be the longest point-to-point flight to date on Swift's fuel.

"We'll be following you on FlightAware," said John Ziulkowski, a Swift officer, researcher, and pilot. "But call us when you land. We want to know every detail."

Engine start and run-up were completely normal. There's no special technique to starting an aircraft with the new fuel, and the pre-takeoff procedures were the same as ever. Acceleration on takeoff was as brisk as usual, and the rate of climb was a basically robust 1,500 fpm at 110 KIAS---even through the 20 gallons of Swift fuel added about 10 pounds compared to the six-pound-per-gallon weight of regular avgas. (Swift fuel weighs about 6.5 pounds per gallon.)

The RV-3 has single-point EGT and CHT probes,

and the EGT consistently read about 75 degrees F higher than normal in cruise, while the CHT was 25 degrees F lower than normal. Swift officials attribute the differences to their fuel's higher octane rating (about 104), which causes Swift fuel to burn slower and later in the combustion process.

Level at 7,500 feet in cruise (20 inches manifold pressure, 2150 rpm, 65 degrees OAT), I enriched the mixture slightly more than usual to keep the EGT at 1,400 degrees F or below. The CHT was 325 degrees E and fuel burn on the 90-minute flight averaged 8.5 gph.

Swift fuel is designed to mix seamlessly with avgas, so I stopped about halfway home in Mansfield, Ohio, to blend the two. With slightly more avgas than Swift fuel in the 24-gallon tank, the hot start procedure was identical to avgas. Acceleration and climb performance were unchanged.

In cruise at 9,500 feet (19 inches manifold pressure 2,450 rpm, 60 degrees OAT), I leaned the mixture a bit more aggressively to keep the EGT at 1,400 F or below. The CHT climbed to 340 degrees, and fuel burn on the second 90-minute flight averaged 8.2 gph. The spark plugs in the RV-3 had been cleaned and gapped just before the flight with Swift fuel. After three hours of flying, they appeared totally unaffected.

It would have been nice to have a full engine monitor capable of measuring and collecting more detailed and precise engine performance parameters, and Swift intends to collect vast amounts of such data in future tests. The company also has acquired a twin-engine aircraft with two engine monitors and plans to fly with 100LL feeding one engine and its own fuel supplying the other.

The company is seeking to show that its fuel meets 100LL performance standards and can safely replace avgas throughout the GA fleet. Swift officials estimate the process of defining, revising, and meeting those specifications with its unleaded fuel will take up to four years. In the meantime, Swift is exploring partnerships with a variety of energy firms capable of manufacturing its product. The manufacturing process, company officials say, is far simpler than refining oil and can be done just about anywhere in the world. Sorghum, switch grass, garbage, or petroleum can be used as raw materials and distilled into the chemicals used in Swift fuel.

Continued next page

Swift has a pilot manufacturing plant in Indiana capable of producing about 200 gallons of its fuel a day, and company officials say they are convinced it can be manufactured in industrial quantities at a cost well below leaded avgas. It's one thing to read lab or news reports on the merits of renewable fuels-but it's especially exciting to put such a fuel in an airplane and fly it on a real cross-country trip. Swift fuel has made the leap from the purely theoretical to a real

product, and it appears to hold great promise for shifting GA to an unleaded, non-petroleum-based future.

Giving Swift fuel its own color is a simple matter of adding dye, but the locker-room smell is going to stay.

E-mail the author at dave.hirschman@aopa.org.

Thanks to Joe Boyle for sending in this article.

The Schedule of Aircraft Re-registration

If your certificate was issued in this month (of any year)	Certificate expires	Re-registration required
March	March 31, 2011	Nov. 1, 2010, to Jan. 31, 2011
April	June 30, 2011	Feb. 1 to April 30, 2011
May	Sept. 30, 2011	May 1 to July 31, 2011
June	Dec. 31, 2011	Aug. 1 to Oct. 31, 2011
July	March 31, 2012	Nov. 1, 2011, to Jan. 31, 2012
August	June 30, 2012	Feb. 1 to April 30, 2012
September	Sept. 30, 2012	May 1 to July 31, 2012
October	Dec. 31, 2012	Aug. 1 to Oct. 31, 2012
November	March 31, 2013	Nov. 1, 2012, to Jan. 31, 2013
December	June 30, 2013	Feb. 1 to April 30, 2013
January	Sept. 30, 2013	May 1 to July 31, 2013
February	Dec. 31, 2013	Aug. 1 to Oct. 31, 2013

FAA Final Rule Link: <http://www.federalregister.gov/articles/2010/07/20/2010-17572/re-registration-and-renewal-of-aircraft-registration>