

June 2016

NEXT MONTH'S PROGRAM WILL BE ON

MONDAY June 13, 2016

- Social hour from 6:30 to 7:30 PM
- Meeting begins at 7:30 PM
- **Speaker: CHAPTER HOUSE, ENTRANCE B, LAKE ELMO AIRPORT 21D.**
- **Our Chapter Web site address: www.eaa54.org**

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Upcoming Events

1. July 9 Young Eagles Event
2. July 11 Chapter Meeting
3. Pancake Breakfast / Aviation Day — August 14
4. Airventure July 25 to July 31

Swift Fuels Presentation Notes

by Bettie Seitzer

Swift Fuels representatives John and Brian, joined us by web conference to talk about the new unleaded 94 and UL 102, unleaded avgas replacements. The transition to unleaded has already started, there are multiple companies working toward a complete transition.

Avgas is a boutique product, consumption has been declining, in part the recession drove that, but there has been a recent spike as the economy has improved.

There are about 20,000 landing sites in the US. Acetone is manufactured in larger quantity than avgas in the US, making it a specialty product.



Banning lead is a political hot button; lead will not be banned, but it is being attacked on another front. The national standard for airborne lead was cut by 90%; the airborne lead for a given volume of air cannot exceed the threshold. States and municipalities are responsible for enforcing the threshold. The way that works for aviation is that government bodies will restrict piston engine flight in areas that exceed the threshold.

When lead is measured, it is all of the lead, not just the aviation. Lead does not degrade, it is always lead. For example, the dirt alongside country roads contains significant quantities of lead from years of automobiles using leaded gas and having high emissions.

Research has been going on to develop safe alternatives to leaded fuels. FAA and PAFI have been collaborating in this development. They put out a request for any submissions of potential alternatives. They got 17 submissions, only 4 were accepted for testing. In March of this year, the number was reduced to two and Swift was one of those. The candidate fuels were put through extensive testing in Phase 1. Phase 2 testing will begin, any fuel passing the testing will be certified as an approved replacement. The goal of the program is a seamless transition from leaded to unleaded alternatives

The two Swift fuels are all hydrocarbon. They have been actively working to get an aviation fuel through ASTM since 1995. They worked with OEMs and testing centers to gather data on their products to get endorsements.



The 2016 Farnsworth School Hangar Tour

Neil Schoenheider and Paul Olson



Dan Bergstrom — Compass Navigation



Refreshment Stop

Vinette Olson Karen Bergstrom



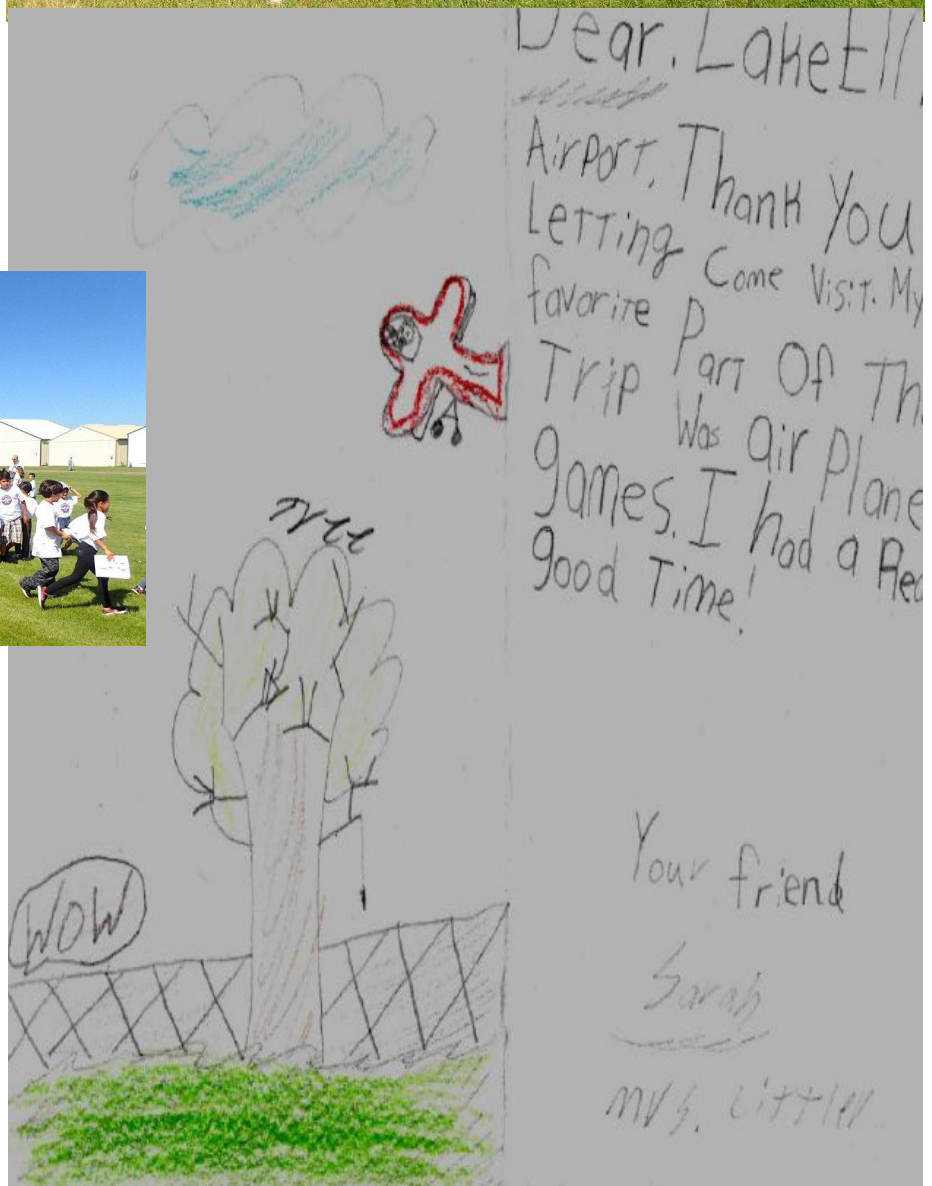
Al Kupferschmidt — Live Flight Demo

Special Thanks

Dave Becker - photos and pizza

Cindy Schreiber – Farnsworth Coordinator

Farnsworth staff & volunteers



2016 Oshkosh Weekend Work Party a Success!

Dave Voelker provided sustenance on Friday night. The remaining meals were provided by volunteers on the Airventure grounds

Below, Dave is pretending he is flying very low in a B52 — so low he can actually mow the grass.

If this was video you could hear him, “Raaaaaermmmm, Reeceaaaaaarrrrcrrrrrg”



Below is Tom Gibbons driving a Big Boy Tractor doing Big Boy chores. Tom is a trusted long term volunteer and is representing Chapter 54 with skill and humility.

Rumor has it that Linda Amble also participated in the volunteer activities to get the Airventure grounds ready.



Swift Fuels—From Page 1 What about auto gas in aviation? Federal regulations state that the fuel dispense be at least the minimum octane placarded. The number on the pump is the average anti-knock characteristic of the fuel. Ethanol inclusion is mandated by federal law, but there is no requirement to placard the ethanol content.

Swift undertook a study to collect fuel from airports, none of the fuel in the over 60 airports they sampled met the minimum requirements. They then began analyzing the fuel to determine what was needed for auto gas to perform well in aviation.

Auto fuel production varies seasonally, different formulations respond differently in vapor pressure. Fuel cannot be stored longer than 60 days as auto fuel will oxidize itself. Use of auto fuel will not be covered under most aviation insurance.

Swift will have two formulas

UL 102: premium high octane fuel needed by 46% of general aviation aircraft.

UL94: premium fuel for aircraft with a lower octane requirement to begin the nationwide transition to unleaded fuel 54% of aircraft can use this fuel.

There is an AML STC covering a large number of airframes and engines that can use UL 94.

Brian took over to talk about what lead can do to an engine.

The tribal knowledge was that lead was needed for lubrication, but the truth is that it was there for octane enhancement. Without lead, the spark plugs will stay clean, lead can build up enough to bridge the spark gap causing the ignition to fail. Spark plug life could double or triple with unleaded fuels.

With unleaded fuels, lead will not accumulate in the engine oil. When lead builds up in the oil, it becomes acidic and causes corrosion. Without lead, it is also possible to add other components that provide protection and support modern electronic engine controls. Continued on Page 6

LEARN TO FLY THE ‘OSHKOSH’ WAY AT EAA’S INAUGURAL SPORT PILOT ACADEMY

Three-week course August 27-September 17 complete sport pilot flight training

EAA AVIATION CENTER, OSHKOSH, Wisconsin — (June 6, 2016) — The new EAA Sport Pilot Academy offers aspiring pilots two ultimate elements for flight training success: focused, dedicated instruction and learning at the EAA Aviation Center in Oshkosh, Wisconsin, the world’s home for sport aviation.

The new three-week academy August 27 through September 17. The group and individual instruction for all eligible ages are all designed for success in a three-week period, including the pilot check ride to earn a sport pilot certificate. Along with the dedicated instruction, EAA’s Sport Pilot Academy adds the “Oshkosh experience” that motivates and excites flight students within the unique learning environment. It offers unmatched extras, such as guest speakers, EAA behind-the-scenes tours, flight experiences in EAA aircraft, and much more.

“Students will be immersed in the world of flight like no place else when they come to Oshkosh for this all-inclusive flight training, so they will graduate this course well-trained, enthused, and most important, successful and ready to start flying as a certificated sport pilot.”

As the inaugural EAA Sport Pilot Academy is taking only a limited number of applicants, registration must be completed by July 1, 2016. The Sport Pilot Academy will use new light-sport aircraft maintained to the highest standards by EAA’s professional aviation maintenance technicians — the same team that maintains such legendary aircraft as EAA’s B-17, Ford Tri-Motor, and Pioneer Airport airplanes. Sport Pilot Academy students will also have access to EAA’s aviation education resources while in Oshkosh. Total cost of the academy is \$9,999 – which includes flight training, accommodations, meals, and unique EAA experiences. Complete information and registration materials are available at the “Sport Pilot Academy” area of the EAA website at EAA.org/SportPilotAcademy.

Swift Fuels From Page 5

The engine itself will not experience a build-up of lead deposits inside the crankcase. Valves will function smoothly with less sticking. UL 94 was introduced at Air venture 2015. It has a very long shelf life – up to one year. The formula is the same year-round, so no vapor pressure issue.

If the plane is approved to run on auto gas, it is permissible to use the UL94. If it is not approved, the UL 94 can be used if the plane is placarded. Many planes have been approved under an STC that automatically applies. Pilots should research their plane to confirm. Cessna, Piper, Beech, Maule all have many models that are approved

- Min 94 octane
- Low vapor pressure
- No fouling of plugs
- Low deposits in fuel systems
- Low oil dilution
- Up to one year shelf life
- Insurable and certified

Their production facility is in Lafayette, Indiana and they have plans to expand in order to expand their reach. They have collaborative working arrangements to transition airports from low-lead to unleaded. They also collaborate with airports to support the transition as needed. They provide tanks to airports that do not have tanks or trucks available; they help airports that do have tankage available to convert that storage to UL 94.

Their current market focus is in the Midwest with emphasis on the “tracks to Oshkosh”.

Question – is it available in the Twin Cities? No, there are targets in the area, South. St. Paul has a mogas tank and setup and is in negotiation. There are almost 30 airports currently selling it because pilots learned about the fuel and approached their FBOs about getting the fuel. They would appreciate help with getting into more locations.

What does it cost? They do not control the price; they control their wholesale price which does not include the transport cost or the retailer’s mark-up. They do monitor the retail prices and there is over a \$2/gallon variance between the low and high. The price is cheaper than to 100 LL setting next to it. (Prices vary from \$3.35 to \$4.25 — about the same price as 100LL)

What is in it? Everything that is in avgas today without the lead and without the lead scavenging additives that are in low-lead. They work with suppliers that can provide aviation alkyds that are higher quality than what is typically used.

What happens if you have to mix fuels? That is completely acceptable and will not adversely affect the engine or performance.

For Sale, Rent or Wanted

Wanted: Four place airplane, fixed gear, Mid time engine, STC for auto fuel or approved engine and airframe. Also looking for hangar to rent at Lake Elmo. Please call 651-246-8028

For Sale: Rans S7 Courier, Rotax 912, Warp Drive Prop, 250 Hours, excellent condition. Contact Jeff G 612 701 9991

Please email newsletters@eaa54.org if you have an aviation related item to sell or looking to buy.



Tailwinds Flying Club Welcomes New Members

Tailwinds Flying Club is based at Lake Elmo airport. We are a non-profit corporation of 39 pilots who equally own three aircraft and one hangar (25E). Our goal and philosophy are to fly great airplanes safely and inexpensively. We currently have a Cirrus SR20, Archer II and Cherokee Six. Some of our members belong to EAA 54 and we love to fly Young Eagles. Please stop by and visit us anytime! North side, Fairchild Lane, Hangar 25E. To inquire about membership, please call 612-584-1740 or visit www.tailwinds21d.org.

EAA Chapter 54

Board Meeting Notes

June 4, 2016

Meeting called to order by President Jim Pearsall at 10:00 am. There was a quorum: Board members Jim Pearsall, Leif Erickson, Jack Miller, Dave Syverson, Dave Fiebiger, Jeff Hove, Dale Seitzer, and Linda Amble. Visitors were Patrick Moore, Michael Huebsch and David Cross

Meeting Agenda: Reviewed and approved unanimously

Old Business Summary

Reports: none

Vice President position to be filled when current position expires by vote

Still need a secretary

New business Summary

Aviation Day is on Sunday August 14th. Discussion on the event (i.e. forums, additional expenses, additional promotions and reorganization of leadership roles.) EAA Ultralight Chapter 12 \$500 to the club as they have closed their chapter. Budget proposed is \$3,000 (up from \$2,200). Leadership roles to date are as follows:

Leif Erickson on marketing

Jim Pearsall on toilets

Jeff Hove on sign-up

Building Upgrades and Siding: Extensive discussion. Review siding and window costs. Concern is short term capital cost verses long term savings. Decided to set aside \$3,500 for siding and \$2,000 for window replacement.

2016 Election Nominating Committee: No Action

2016 Budget: Officers are authorized to spend, but not to exceed, budgeted items of \$13,145.00 as amended. Vote was unanimous.

Other: Jim Pearsall recommended that we appoint a 'greeter' to be active at each monthly meeting. To open up the building, put on the coffee, and greet members and visitors as they arrive. A procedure to record and acknowledge visitors will be developed. Jack Miller will be this month's greeter. WI-FI need discussed.

Motion to Adjourn: at 11:35am by Dave Syverson, Second by Dale Seitzer. Unanimous

EAA AIRVENTURE OSHKOSH 2016 NOTAM NOW AVAILABLE FOR PILOTS FLYING TO OSHKOSH

Oshkosh air traffic procedures are required reading for all aviators flying to AirVenture

EAA AVIATION CENTER, OSHKOSH, Wisconsin — (May 24, 2016) — The Federal Aviation Administration has released the EAA AirVenture Oshkosh 2016 [Notice to Airmen \(NOTAM\)](#), featuring arrival and departure procedures for EAA's 64th annual fly-in convention July 25-31 at Wittman Regional Airport in Oshkosh. The NOTAM, which is in effect 6 a.m. CDT on Friday, July 22, until noon CDT on August 1, outlines procedures for the many types of aircraft that fly to Oshkosh for the event, as well as aircraft that land at nearby airports.

The NOTAM was designed by FAA to assist pilots in their EAA AirVenture flight planning. This year's NOTAM cover features a photo of Wittman Regional Airport's air traffic control tower, and also this year's Young Eagles logo. The Young Eagles program is celebrating their 2 millionth child flown during this year's fly-in. While the overall procedure is similar to past years, there are some changes compared to the 2015 version. Some of those changes include: Additional [hints and tips](#) for pilots arriving at and departing from EAA AirVenture Oshkosh 2016 are available on the EAA website.



FROM THE FLIGHT DECK (PRESIDENTS REPORT)

JIM PEARSALL

Greetings boosters of things that fly, particularly sporty things. This space usually has a focus, tied to a season, the calendar or a particular chapter activity. But, today, this edition has a potpourri of things to present. If you've seen one of these topics in the news, please accept my brief treatment and go to your favorite search tool for more information.

First, one thing I find our chapter members have in common is seeing, collecting or curating things aviation and thus frequent visitors to aviation museums and exhibits. Dale Seitzer has commented more than once how the product of my visits to these places, pictures, should be shared in the newsletter. I have countered that I would provide a presentation which I have put off. Not any more. Our next meeting program will be on aviation museums and I will prime the pump and be ready with slides from a few of my favorites, Wichita, Boeing in Seattle and the Hiller museum in Redwood Shores CA (SQL, yep no joke fellow techies). I also invite anyone else with a set of photos, call it a dozen or less to walk us through what you have. I also ask you put these on a poster to exhibit. Ask your kid or grandkid about current poster technology and standards.

Second in this potpourri is the new Airman Certification Standards (ACS) that if the FAA had their way could be called the death of rote memorization. We will see what the changes will bring, but in taking a brief look, listening to a few hours of commentary by the creators, and reviewers testers, it seems like a much more rational collection of questions and maybe an end to studying up on RDF.

Third, Pilot's Bill of Rights II, call your Congressman. Now.

Fourth, 21D expansion and Community Relations. I plan on knocking on every new neighbors door. Anyone have ideas what to put in a welcome bag? Anyone want to come with?

Fifth, AirVenture, Chapter 54 is taking advantage of a new program allowing a chapter to reserve four camping spots. We have a critical mass to occupy these but probably have room if you act fast. Use may require paying for a Camp Schoeller parking lot pass as we will only have four vehicle passes. So far we expect two Class A motor homes to flank our spot.

Last, at our June gathering I communicated a plan to have virtual meetings for Aviation Day planning. We also have a single master checklist we will work from. Please consider reserving every Monday Night at 7 PM starting June 27th to find out what is going on, how you can help sit down at your computer or dial up to the call

In closing back to AirVenture and the Chapter at Camp Scholler, what shall we name our encampment? Anyone know a flag maker?



FAA Finalizes Hangar-Use Policy By Stephen Pope

In a reversal, the agency now says it will allow kit-building activity in hangars at airports that receive federal funding.

It was a policy that never made a lick of sense in the first place, and now it's going away. The FAA yesterday issued a final policy on "non-aeronautical use of hangars" that purges terms like "incidental use" and "insignificant amount of space" from the document. As a result, the FAA will consider the construction of amateur-built or kit-built aircraft as an "aeronautical activity" permitted under the guidelines.

In the past the FAA did not define aircraft building as an aeronautical activity. Only final assembly was permitted at hangars on federally obligated airports. The new definition, which AOPA and other aviation groups have been fighting for, changes the definition to include noncommercial aircraft construction and not just final assembly.

"AOPA believes that constructing an aircraft, not just the final assembly, is an aeronautical activity, which the update appropriately reflects," said Jim Coon, AOPA senior vice president for government affairs.

The change also allow the storage of non-aeronautical items in hangars as long as they do not interfere with the "intended aeronautical use" of the hangar and are allowed by the airport.

For airports with hangar capacity that exceeds demand, the FAA noted "it is preferable to make use of the hangars to generate revenue for the airport, as long as the hangar capacity can be recovered on relatively short notice for aeronautical use when needed."

FAA \$500 rebate for ADS-B Out installations

Most of you have probably heard that the FAA is going to offer a certain number of \$500 rebates to people who install approved ADS-B Out equipment in their aircraft, beginning this fall some time, and lasting until the money for it runs out.

Note that this has nothing to do with ADS-B In equipment that many of us are already using, such as Stratus or Garmin GDL-39 receivers, or the Raspberry Pi units people are constructing at home. The rebate is only for TSO'd devices with permanently installed GPS that transmit your aircraft position and other data to the FAA's receivers. Some of these are transponder replacements, others are stand-alone units. More at the FAA's web page here:

<http://www.faa.gov/nextgen/equipadsb/>

This would seem to put a temporary hold on sales and installations until the rebates are available. You can buy ADS-B equipment now, but in order to get the rebate, you have to hold off on the installation.

John Renwick



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