
EAA Chapter 32 News

The official publication of Experimental Aircraft Association Chapter 32 - St. Louis, MO (Jim Bower, Editor)

February, 2024

Check out our fantastic Web Pages at
WWW.EAA32.ORG
Laura Million, Web Designer



Visiting scouts enjoy our Sonerai. Does anybody else know who built this airplane and later donated it to the chapter? See the article elsewhere in this issue.

Newsletter Contributions and Deadlines

Anyone wishing to submit articles, advertisements, rants, etc. to the newsletter should send them to your friendly editor on or before the Tuesday ahead of the scheduled meeting. Send contributions to newsletter@eaa32.org.

President's Corner

by Bill Doherty

Greetings, Chapter 32! Winter is entering the second half, and the temperatures haven't been too bad, the Super Bowl is over so hopefully we'll see and hear less of Taylor Swift and Travis Kelce. Spring training starts this week too, so we'll soon hear the sounds of baseball. Spring is coming!

Last weekend we had some scouts visit the ARC after they had their Blue and Gold banquet at the administrative building next door. The ARC was nicely arranged for the group with our Sonerai exhibit plane as a center piece for them to see and climb into. I think all who participated in the day had a great time. One young girl of 7 proclaimed she's going to be a pilot, an astronaut, and a veterinarian. Sounds like a great combination to me! She's already eager to get a Young Eagle flight but has to wait until next year. In the meantime, I told her parents about AeroEducate so she can start learning about aviation now.

EAA's Virtual Homebuilders Week was in January. This month from February 20-22 is Virtual Ultralight Days on EAA.org. There will be plenty of live events you can register to participate in and will no doubt be accessible afterward.

I remember when the ultralights first started showing up at Oshkosh in large numbers. The evolution of technology and innovations has been amazing to watch. The rise of light sport aircraft owes much to the ultralight movement. In many ways it's true grass roots flying.

There are so many parts of EAA to enjoy, from ultralights to antique and classic aircraft to the experimentals and warbirds. Each has its own level of innovation. I love to walk around Oshkosh and see the various ways aircraft designers solve some particular challenge. The best ones to me are often the simplest, like a fuel gauge that's just a clear sight tube or an air-speed indicator on the strut of a Pietenpol comprised of a small needle that's pushed back by the airstream. Simple but effective.

I also love learning about the history of aviation whether it be the progress of that innovation, or the deeds accomplished by those who flew or are flying the aircraft. Sometimes we learn something about ourselves, our community, and our country by learning about various aircraft or categories of aircraft.

Recently, I've been reading the book "Masters of the Air" about the Eighth Air Force during World War II. It's a pretty sobering read and one that fills me even more with respect for that generation. On a side note, I saw a posting in a discussion group about a particular B-24 crew in the Fifteenth Air Force that flew and fought the war from bases in Italy. The posting featured a particular aircraft named "Pistol Packin' Mama". There were several photos of the plane showing the nose art and some of the crew.

I replied that my Uncle Jim Doherty had been a radio operator in B-24s in the Fifteenth. When I was a kid I had a model of a B-24 that I wanted to paint as a plane in which he'd flown. He told me he'd flown in one named "Pistol Packin' Mama." Now I didn't expect this plane in the posting to be the one my uncle flew in. Pistol Packin' Mama was the name of a popular Bing Crosby song at the time so there were probably numerous aircraft that carried this name during WWII.

To my surprise, the author of the posting replied that he'd looked up my uncle's name and found he was assigned to the same squadron as this aircraft and although not primary crew had quite probably flown in it. It was not uncommon for one or more of a crew to fly missions in other aircraft.

So, almost out of the blue came a moment from history that touched my family and me personally. While in the middle of reading of the horrors these crews faced, this became an emotional experience for me.

Masters of the Air is now also a miniseries on Apple TV. It was produced by Steven Spielberg and Tom Hanks, who also brought Band of Brothers and The Pacific to the screen. So far, I've watched just the first two episodes. I want to finish the book then binge watch the series.

Preserving these historic aircraft is very important as it helps teach current generations about the sacrifices made on their behalf by a generation that's almost gone now. We must not forget history.

Looking forward to this year we will participate in the car show this April with our food booth. This time we'll concentrate our efforts on breakfast to feed the show participants who will have been up all night readying their cars. We'll then have our usual lunch foods although I do not plan on a huge amount to purchase. I told the organizer of the event if they want to bring in some food trucks, we'd welcome them by the ARC and make our area a kind of food court. I think that would be productive and could provide opportunities to show attendees what we do and possibly generate some interest in aviation as well as what Chapter 32 does locally.

Well, that's about all I have this time around. I don't have a video to link to this time. Last month I found the February Chapter Video but the March one hasn't been uploaded yet.

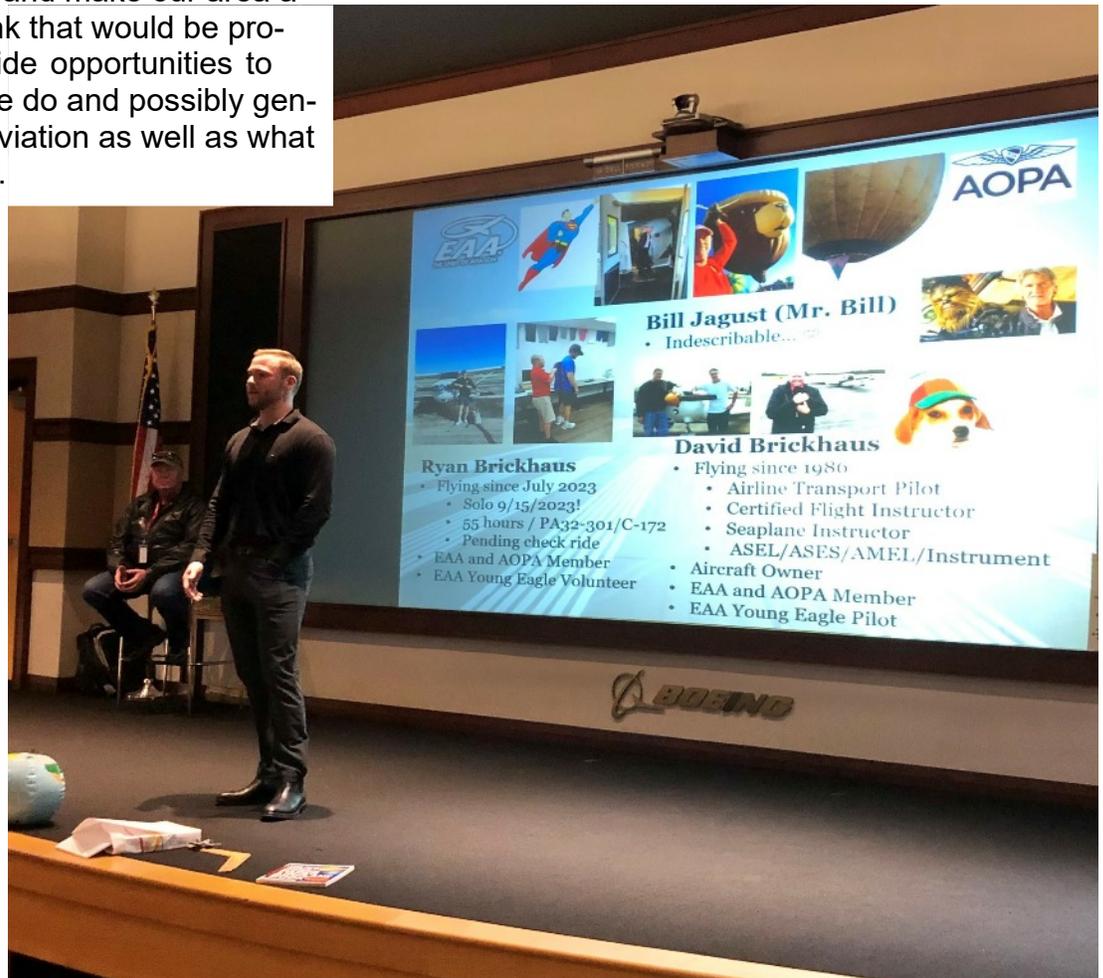
Until then, I'll see you at the ARC or maybe around the pattern. Stay vigilant and always fly safe.

**Blue Skies!
Bill Doherty,
President**

EAA Spirit of St. Louis Chapter 32

Various Aviation Explorer post photos are scattered throughout this newsletter.

These photos are from the Aviation Explorer Post 9032 event on 2-7-24.



January Meeting Minutes

Dave Deweese

January's meeting began with the Pledge, Bill Doherty presiding.

If you're a new member and haven't gotten your t-shirt, see Jim.

Our IMC/VMC presentation is canceled.

Lauren's future college roommate Jalyn is visiting.

Bob gave the treasurer's report including checking, savings, PayPal, and Ray Foundation balances. Dues are due. We ended up ahead money-wise versus 2023, even with the car show hit.

Chris Ward reports a new scholarship that can be applied to any aviation college degree, not necessarily pilot. Must apply by 3/1 and not for former Ray Scholarship recipients. Gateway High School has some junk aircraft, Chris wondered if Minorities in Aviation could make use of them. Geanovea got three airframes out of the deal. To make room for Boeing they're getting rid of a lot of older stuff, Chris wants to make sure anything useful is saved.

Lauren Peca has flown once in the past two and a half weeks, weather has not been cooperating. When she can she'll do her cross-country to Jefferson City. Chris reports that Marco is having similar weather challenges. He says that there is some flexibility as long as the student is booking time - weather issues can lead to an extension. Marco has also passed his written.

Chris will be interviewing candidates soon for the newest Ray Scholarships - this year board members will be involved so he has witnesses.

Explorer Scouts will have a presentation next week in the Prologue room. They'll be doing a wind tunnel tour as well. February 24 will be the light sport/ultralight safety symposium. Chapter 64 will be doing the food. Jim notes cooperation with other chapters in the area. Chris, Bob, and Jim will attend the chapter leadership academy this week. The new chapter at Spirit (1675) is thinking about hosting a leadership boot camp in the St. Louis area. Mr. Bill is now the president of 1387, they're considering combining their YE events with hours.

Jim also mentioned scholarships besides Ray, EAA scholarship deadline is 3/1.

New Business:

Car show is coming up in April, Bill's thinking about breakfast only as there will be food trucks. We're discussing whether or not to sell lunch food.



The air show's coming up in June, 7 to 8. Do we want to have a table? Bill will look into the charge for having a table, maybe located in the STEM area. Note that the table won't include electricity so we would need handout materials. Jim made a motion, seconded, and voted to investigate.

EAA gives point for a "tool crib". We've had issues in the past with tools checked out and not returning. Don Doherty mentioned items that have been signed out but not back in. Jim reminds us that there's a list on the website - some items may require training. When it gets warmer Don would like to do an inventory plus condition check on our equipment.

Ken Derks has been busy, hanging wires overhead to facilitate lifting hinged panels, and has hung our extension cords on the west wall.

Bill has the service awards from 2023, handed out to those in attendance.

We'll try to reschedule our IMC/VMC presentation for February. Jim will look at having a FAAST team presentation for March.

2/10 there will be Scouting event at the admin building, they'll tour the CAF facility and our building. We're looking at a new large screen monitor.

MOSAIC rule comments end Monday.

Dave Doherty reports that HQ has a drawing for a Lightspeed headset for YE pilots, Dave got his in November. He also mentioned upgrading avionics in the RV-6A. He's downloaded Solid Edge and will use that to design the panel. After electrics the plane will go to paint. There are openings for flying club membership.

Jim Hann notes NPRM to have every Piper with a fabric covered tail replace the balanced rudder. J3 through PA-##.

Food cards are available: \$100 Dierbergs.

NOTES FROM DAVE'S JOURNAL



This year began icy and grey, tilting your chapter secretary's mind more towards hibernation than seeking out aviation activities. A couple of recent fifty-plus days, however, have put me back in the right mindset: imagining flying boat air pirates over the Adriatic, and watching Young Eagle flights depart from Smartt Field. (Come July I'll be missing the cool weather.) By March I hope to have a livelier journal, in the meantime I'll leave you with a few sketches.



Learners as We Go “Here We Go With the New Year!”

mr. bill



Well gang, 120 days into retirement and the plans are already laid out for the fun times this year! Tomorrow I am “LEAVING ON A JET PLANE, DON’T KNOW WHEN I WILL BE BACK AGAIN.” And I can not wait to go. It is the first of the COOL retirement flights on the BUCKETLIST for this year. But first, just like last year.....

WHAT ABOUT THOSE CHIEFS!

Now with the football season over my television will be off so I can study and get ready for the summer of fun of Airshows, Fly-Ins, and Flight Training.

First off, a flight down to Phoenix, AZ to enjoy an Advanced Aerobatic Flight with (World Champion) Mr. Jason from Arizona Soaring. We will also work in a few aerotows from the tow plane pilot seat to get current for the Soaring Season in Missouri.

Then a quick drive down to the Pima Air Museum to check out the 400+ planes now in storage in the desert. There is a Flight Review for the mature college roommate down there. And on Saturday, I will slip into the A.O.P.A. Gateway Fly-in with VIP passes.

March, I need to get the EXPERIMENTAL Fleet Inspected and ready for the remainder of the year. There is a Big Envelope in my future.

April has flights to Florida to visit the PROFESSIONAL ROTORCRAFT ASSOCIATION FLY-IN in Wauchula, Florida. This event is April 03-06.

What happens at a Gyrocopter Fly-In you ask?

<https://youtube.com/watch?v=Sv7OSpPdnKc&feature=shared>

Sometime during this trip, I will sneak over to Winter Haven, Florida to the JACK BROWN SEAPLANE Base for some “Splash and Goes” in one of those Piper Cubs on floats. This was my instructor last year.

What does that look like, you ask?

https://youtu.be/F8esY5sZGfQ?si=mfYP6xyghkDsS0_u

One early morning or early evening there will be a short drive over to the WALLABY RANCH in Davenport, Florida. This isolated place is home to the Hang-gliding groupies.

This is truly the most honest flying I have found to date. You are towed up to altitude by an ultralight and at 3,000 feet of altitude, you release, and you fly like a bird!

<https://youtu.be/Ie2bWcK7Nws?si=O0G2POur6P68cxaC>

April also has a flight in a North American machine on April 03. BIG BUCKETLIST flight.

April 08, I plan to fly over to Southern Illinois-Carbondale for some “darkness” because that is the primo spot in Illinois for watching the total eclipse.

I plan to take some future flight/maintenance students there on Wednesday, April 10 for a tour of the campus. I know WHAT you’re thinking.....

WHY not do it on Monday? The whole campus is closed, and everything is SOLD OUT.

So just like pilots at the Oshkosh AirVenture Airshow there will be a lot of studying and reviewing of the procedures that one needs to be PROFICIENT at these devices before one straps into these flying machines. Each machine **FLIES TOTALLY DIFFERENT THEN THE NEXT MACHINE!** So, I will be doing my homework and assuring the people I am flying with that I AM READY!

Alrighty then gang. I will MISS you at this Saturday’s meeting but let me know if I can help anyone with SAFETY PILOT Duties or a Flight Review as I did with one of our very own pilots this week.

Q? What plane made by North American Aviation was called the NA-73X?

A: Designed for the British, who named it MUSTANG the P-51.

Q? Who owned the P-51 Mustang in TOP GUN?

A: The P-51 was built in 1946 and is owned and flown by Tom Cruise.



Double Eagle Seat: Big Boy Mod

by James Braley

The problem with the original seat.

On the double eagle, the designer had a pretty nifty light weight solution for the seat. He took 1-inch strips of .020 aluminum and rivets them together in a basket weave and then slings the seat over a top and bottom fuselage bar in order to create a hammock style seat. This arrangement creates a seat that is only 1 pound.

When I went to mount the seat per the plans, I found that 1: it was not comfortable, 2: it caused me to be cramped to one side and 3: even with me pushing myself to the left as much as possible, my right leg location restricted control stick movement. My lovely wife spotted me in this predicament and bluntly told me that “you don’t fit, half of you is hanging out of the airplane”. After recovering from this sudden outburst of flattery, reality set in, and I realized that if I am ever going to fly this thing without a massive body shrinking program, I am going to have to change the seat design to allow me to fly from the middle.



Designing a new seat

It seemed obvious to me that I needed to move the seat to the middle, but I didn’t simply want to make a single middle seat that would prevent more normal sized humans from using the aircraft as a two place. I took a lot of inspiration from the Sonex line of aircraft that allows the builder to fly from the middle and use the outer two rudder pedals. I decided the best way to do the design is to build a bench style seat.



I got to work making a new horizontal seat bar and then made a vertical tube coming down to support the down pressure of the occupant(s). Then I needed to figure out how to hold the wooden seat. I bent up some 1-inch strips on 1/8 inch 4130 plate into “L” brackets and welded them on the back seat tube. This allowed me to drop the seat pan even lower as I needed the headroom beneath the top longeron. I then welded in tabs on the front seat support horizontal.

I could have left the brackets like this and then bolted the wood to them, but I wanted something to prevent the opposing horizontals from pulling apart. So I welded in some strips of .035 4130 sheet to bridge the gap between the horizontals. After that was done, I cut a piece of 1/2 inch 5 ply marine grade plywood to fit the opening.

At this point I just needed to make a backrest. I decided to repurpose the aluminum seat that I made. I added 2 more lateral strips and then installed it in position between the vertical supports on the fuselage.

Weight Penalties

- This seat design is heavier. There is just no way around it. The piece of plywood is 5.6 pounds alone. Looking at the materials I added, I found the below additional weights:
 - 40 inches of $\frac{3}{4}$ " .035 4130 tube = .89#
 - 30 inches of $\frac{1}{2}$ " .035 4130 tube = .45#
 - 24 inches of $\frac{1}{8}$ " 4130 1 inch strip = .85#
 - 56 inches of .035 4130 1 inch strip = .56
 - Seat board of $\frac{1}{2}$ " marine ply = 5.6#
 - Welding rod = ~.5#
 - Weight savings for – 1 weave seat = -1#
- Total additional weight = 7.85#s



The Result

I now have a bench style seat that allows me to fly solo from the middle while also allowing the future possibility of two smaller folks flying together. When using my feet on the outside rudder pedals, I find that the control stick has ample freedom of movement. Yes, it's added weight, but it's comfortable and just feels right.





Starships and Skyhawks

By: Lauren Peca

I've always been a lover of science fiction, primarily for the sense of wonder it stirred (and still stirs) in my heart. I watched Luke Skywalker weave his X-Wing between the massive pillars of the Death Star; I watched Captain Kirk brave the unknown and attempt to reconcile with V'Ger; I read about the narrator taking on Martians in *The War of the Worlds*. All of these books, television shows, and movies inspired a sense of grandeur in me, and the belief that there was something greater beyond the limits of the Earth I know to explore.

I experienced a similar feeling on my first night flight two weeks ago.

As I was preflighting, I took time to look at the stars above me. I consider myself somewhat of an amateur astronomer, and because of that, I like to identify the stars and planets that dot our night sky. On this night, I saw Orion's Belt and Jupiter not too far away. When I gazed up at the stars, I felt the same sense of childlike wonder that I did when I watched the sci-fi shows of my childhood. I felt like I could conquer the world.

We took off on 26R, and almost immediately after lifting the nose, I experienced what is referred to as "the black hole effect." I saw nothing but the dark of the night, and it disoriented me for many moments. Eric reminded me to look at my instruments, not outside, and I soon felt my stress alleviating. We turned right towards the north, and I soon saw the

thousands of streetlamps and house lights that compose civilization—St. Louis County. I had my air vents open, and truly, with the air blowing on my face, I felt free. It's the same feeling I had on my very first flight, and it's the feeling I continue flying for. I successfully made 7 landings that night. Needless to say, I love flying at night.

The next Saturday, I completed some more of my solo time. For the first time, I headed to Elite's southern practice area, marked as around Eureka, Pacific, and Union. I was very nervous prior to takeoff... so nervous, that I taxied the wrong way for about 30 seconds. The very kind ground controller reminded me to get on the right way. Whoops! I took off safely, but my pride was wounded.

In my flight, I did two steep turns to ACS standards, and two superb power-off stalls. I fumbled my way through some radio calls, and my landing wasn't as smooth as I hoped, but when I got on the ground, I had to give myself a reality check.

I, a 17-year old girl, flew an airplane. For an hour. By myself.

That is a rare achievement. I felt my wounded pride restore itself when I realized this.

In conclusion, I would like to share my senior quote. "As Captain Kirk once said, 'The greatest danger facing us is ourselves, and an irrational fear of the unknown. But there's no such thing as the unknown—only things temporarily hidden.'"

Embrace the unknown, Chapter 32.

Members' Projects

Chris Santchi's RV-4

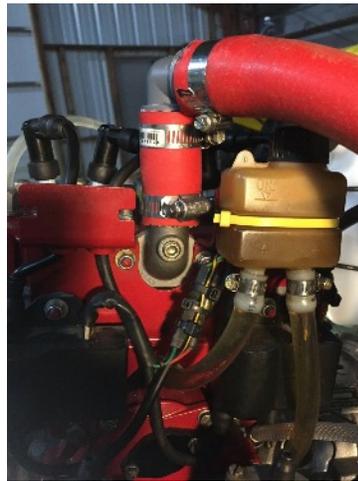


February, 2024

Dave McGougan's Kitfox

Enclosed are a few photos but not progress, but going backwards! I got around to sending pics to Rotax Rick in FL and he alerted me that my hoses were hooked up wrong! Also I needed two more parts, which are ordered now. With the extreme cold, things have slowed down. But I did get a brand new computer for Christmas so I can finish the FAA process. Still have plenty of time to have a spring inspection.

I had my cooling system hooked up incorrectly and had to order about \$200 worth of parts and correct the mistakes. I'm glad I found out though. It killed several weeks.



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Frank Dressel's RV-14A

Excitement comes in small increments. Last month I finally installed the fuselage steps which were last on in 2022. As you can see, they're painted now and just need the no-slip grip tape applied. Each step is only held on with two AN 3 bolts but getting to the bottom location and turning the nut was a trip. Van's instructions suggest using a 5/16" universal socket—a socket combined with a universal joint. Well, I could only see the nut with a mirror but with forceps and a lot of misses, I got the socket on the nut. Then with a 3/8" open-end wrench I could turn the bolt and slowly tightening the nut. I know you should turn the nut and not the bolt but now it's tight. Torque value, hum—let's see, five-inch wrench and a final oomph force—that's about right and it's "just a step."



I've learned small things can make a big difference. The two canopy halves are held on primarily with four piano hinges. The two hinges joining the top and bottom halves are fairly straight down the cowling sides. However, the two hinges joining the upper cowling to the curved fuselage have to bend almost 90 degrees. Boy, I was really having to push and wiggle the pins to insert them. At some point I looked at the point of the pin and realized a couple of things. First, the taper of the point can extend a half inch—the distance between the hinge hoops, making a much more gradual taper. Second, and later obvious—dummy—the taper was off 90 degrees. That is, the handle on the opposite end of the pin I hold horizontal when pushing it home but the taper was shaped for the pin handle to be vertical. Oh well, live and learn what a difference the new ground taper

makes.



I've had lots of help on this project right from the start. Folks from church, my wife and neighbors, Chapter 32 and here on the East Side, Chapter 64 with tools, stands, ideas, help and encouragement. Thanks. And occasionally supervision by our cat Gus who enjoys a high perch on a warmer day. Thinking about warmer days, that's why I'm typing here inside the house rather than working in the chilly garage.

Finally, the cowling is finished. I had lots of issues with the elevation of the already painted fiberglass cowling inlets relative to the inside aluminum baffling. Luckily, with help, I could adjust the air filter box and fiberglass snorkel running to the throttle body so that the rubber seals now sit nicely.

So, just a few more things in the engine compartment. I'm waiting on the propeller and throttle control cables from

McFarlane to arrive in a week or so. Then on to stuff in the cockpit and tailcone. So, this project is moving slowly but steadily. But, right now I'm enjoying a cup of coffee and dreaming of warmer days and the plane finally together and in its hanger.



Membership Opportunity

Spirits of Aviation Flying Club, LLC



This flying club is an economical way to own and fly a Vans Aircraft RV-12. Ownership shares are purchased to become a part of the “Club”. Costs are shared among its owner members. Fixed costs such as hangar rent and insurance are evenly divided between its members and paid on a quarterly basis. Flight hours are expensed on a per hour cost (currently set at \$15/hr.), which is used to purchase consumable items, such as tires, oil, incorporating any service requirements and an eventual engine rebuild or replacement when the time comes. An online calendar is used to reserve the plane with dates and times by members. With a limited number of owners, the plane is readily available most of the time.

As time goes by, a member wishes to sell their ownership in the club for various reasons. Over the six years the club has been in existence, members have bought shares, and members have sold their ownership shares.

The Spirits of Aviation Flying Club, LLC originally had six owner/members. It presently has five. One of them wishes to sell their share of the club. As a result, the Spirits of Aviation Flying club has an opening for one or two new members. We are looking for someone who has some flying experience, is willing to assist with maintenance when it is needed and has some applicable skills they can use to help with maintaining the plane, and/or is willing to learn skills as required to help keep the plane in good airworthy condition.

If interested in becoming an owner/member of the Spirits of Aviation Flying Club, please contact the club for further information.

Contact info:

Dave Doherty

dwdoherty@aol.com

Cell: (636) 240-5983

EDITOR'S NOTE...

Please see the supplement to this issue of the newsletter for a great “*Sport Aviation*” article about this RV and the Spirits of Aviation flying club.

Aviation Explorer Post 9032 Activities Update for February, 2024

Jim Hall, AE Advisor

Here's an update regarding the Aviation Explorer Post 9032 meeting on February 7th in the Boeing Prologue Auditorium:

Bill Jagust, David and Ryan (his son, a student pilot) Brickhaus presented a round table discussion about their experiences in flying. They shared how they got started, what kinds of flying they have done and where it has taken them in life. Although they all love flying, they each gave reasons for having an alternative career plan. It was very interesting.

Brian Etter (of Boeing) and one of his sons provided escort and IT support for the event and all went well.

Libby Yunger, Ed Ruhbeck and Ken Derks were there to add more about their flying experiences. Two of the explorers who are also taking flying lessons; one at Ideal and one at Elite; shared that they're hoping for better weather. In fact, Ryan Brickhaus had his pre-cross country instructor lesson, that was to be Feb 8th, cancelled by weather.

Everyone had fun with the indoor distance flying contest that had the explorers each folding their own paper airplanes and then launching them from the stage into the auditorium. There were a few abrupt landings into audience members; but no injuries to persons or planes. The winner got their own copy of *The World Record Paper Airplane Book* by Ken Blackburn; a book on folding airplanes.

David provided copies of his slide presentation, an FAA publication for 'Aspiring Aviators' and the March/April edition of "AOPA Flight Training" magazine to each of the dozen explorers in attendance.

The evening was educational and fun at the same time and lots of questions were answered during the event. Thanks to everyone who participated!

Upcoming Plans:

- February 21, 4:45pm - Boeing Polysonic Wind Tunnel Tour (limit of 15 participants) meet at Boeing Building 100
- February 24, on Saturday - Open Attendance at IUAC Ultralight/Light Sport Symposium held at SWIC; Granite City, IL
- March 9, on Saturday - Proposed AE Post Aviation Program Tour of South Western Illinois College; Belleville Campus
- March 20, 6pm - Proposed Navy Recruiter Speaker re: Nuclear Engineering at Boeing Prologue Auditorium
- March 23, time TBD on Saturday - Proposed St. Louis Astronomical Society (SLAS) program on solar eclipse held at STL Gateway Arch
- April 3, time TBD - Proposed Air Evac Helicopter Facility Tour
- April 17, 7pm on Wednesday evening - Proposed SLAS Stargazing at Francis Park. Note: Alternate Plan to visit GYAF Simulators
- May 1, 6pm AE Post Officer Elections & Aviation Jeopardy at Boeing Prologue Auditorium
- May 4, on Saturday Proposed visit to Bonne Terre, MO Space Museum & Mine Tour
- May 15, Proposed rocket making with St. Louis Rocketry Association
<https://www.stlouisrocketry.com/> Date: TBD maintains two insured launch sites. The model rocket launches are held at Buder Park. High power launches are held at Elsberry, Missouri site. AE have been invited to attend

- June 8 & 9, 2024 Spirit of St. Louis Air Show & STEM Expo; details to come
- July 22-28, attend Aviation Explorer Camp at EAA AirVenture 2024

Recently Completed Activities:

(Note: see previous EAA Chapter 32 archived monthly Newsletters for older information re: past AE activities)

- February 7, 6pm – Panel discussion on flying by Pilots/Aircraft Owner/CFI/Airline Captain and Student Pilot speak on Flying held at Boeing Prologue Auditorium
- January 24, 6pm - Pete Seddon of STL “Gateway” TRACON (Terminal Radar Approach Control) speaks at Boeing Prologue Auditorium
- January 10, 6:30-8:00pm Aviation Explorer Post 9032 Officers & Advisors Virtual Meeting

ABOUT POST 9032

Aviation Explorer Post 9032 is an established career exploration program based in St. Louis, MO. Part of the Greater St. Louis Area Council, ‘Learning for Life’ program. AE Post 9032 is a chartered youth group with advisors and support from Boeing and Chapter 32 of the Experimental Aircraft Association. Meetings are held in the Boeing Prologue Auditorium located in Building 100 @ 6300 James S. McDonnell Blvd, Berkeley, MO 63134, USA.

Additional links to AE Post activities are listed below:

<https://www.facebook.com/aeopost9032/>

<https://www.instagram.com/aeopost9032/>

Tentative dates for Aviation Explorer Post 9032 meetings and activities are on the website calendar: <https://www.aepost9032.org/>

The AE post officers have a lot of great activities lined up for 2024.

Proposed Agenda: Each month the usual schedule (flexible around other activities with some events being held on a Saturday):

1st Wednesday; 6-7pm General Meeting in Boeing Bldg. 100 Auditorium

2nd Wednesday; 6:30 & 7pm Post Officers and Advisors Virtual Online Meetings

3rd Wednesday; 6-7pm Guest Speaker or offsite Activity (day/ date subject to changes)

Note: The application process is now open for the 2024 EAA Aviation Scholarships. Flight training and post-secondary scholarships are available to everyone over the age of 16. The window to apply will close on March 1, 2024.

Flight training scholarships help cover the costs at any flight school in the United States or Canada that is not a university program. Post-secondary scholarships help pay for collegiate level programs in the United States including but not limited to: aerospace or aeronautical engineering, aviation business administration, air traffic control, aviation maintenance, professional flight, or any aviation-related STEM field.

More information about individual scholarships and online application procedures is available at EAA’s scholarship website at [EAA.org/Scholarships](https://www.eaa.org/Scholarships). Scholarships are administered through the EAA Aviation Foundation.

The EAA Ray Aviation Scholarship is a scholarship program that is funded by the Ray Foundation, managed by EAA, and administered through the EAA Chapter network. Through the generous support of the Ray Foundation, EAA provides up to \$11,000 to deserving youths to help cover their flight training expenses, totaling \$1,800,000 in annual scholarship funding. **Local EAA Chapters can provide additional information.**

Ray Aviation Scholarship Fund applicants are the most engaged, excited, and motivated aspiring pilots the chapter has had the pleasure of meeting. It will be incumbent upon the chapter to vet local youths to help bring forward the most deserving candidate in their local area.

Aviation Explorer Post 9032 Activities Update for February, 2024 (continued)

Local candidates must meet the following criteria:

- Minimum of age 15 for glider training
- Age 16-19 for powered flight training
- Possession of a student pilot certificate
- Possession of FAA medical certificate (private pilot students)
- Be able to begin their flight training within 60 days of receiving the award

Additional consideration will be given to candidates who are former Young Eagles, EAA student members, and actively participating in the EAA Flight Plan, specifically the Sporty's Learn to Fly Course.

Once selected by the chapter, the candidate will also be screened by EAA through an application process. If approved by EAA, the scholarship recipient will have to comply with the following requirements:

- Partake in two hours of chapter volunteer service per month, such as:
 - Young Eagles rally volunteering.
 - Volunteer at pancake breakfast/fly-ins
 - Chapter build project support
 - Chapter gathering participation
 - Chapter social media and website maintenance
- Submit regular progress reports during monthly check-ins
- Reach designated flight training milestones, as outlined by EAA's training timeline

<https://www.eaa.org/ea/learn-to-fly/scholarships>

[Additional update on EAA and Other Aviation Scholarships:](#)

With unprecedented demand for pilots, technicians, and crewmembers, now is a great time to enter aviation. The scholarships listed below can help you achieve your aviation goals.

AOPA Scholarships:

[AOPA Flight Training Scholarships](#) can be used for flight training expenses in pursuit of a primary pilot certificate or advanced rating. In 2019, AOPA gave away more than \$1 million in scholarships to high school students, teachers, and adults in flight training. **[See here](#)** for tips on making your application stand out.

Industry Scholarships:

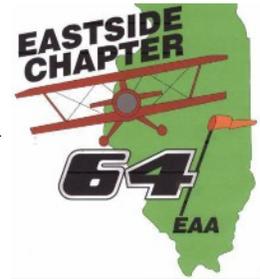
- **[Aero Club Foundation of Washington](#)**
- **[Air Force Association](#)**
- **[Aviation Education and Career EXPO Scholarship](#)**
- **[Experimental Aircraft Association \(EAA\)](#)**
- **[General Aviation Manufacturers Association scholarships](#)**
- **[The LeRoy W. Homer Jr. Scholarships](#)**
- **[National Air Transportation Association \(NATA\)](#)**
- **[National Business Aviation Association \(NBAA\)](#)**
- **[National Gay Pilots Association](#)**
- **[The Ninety-Nines](#)**
- **[Organization of Black Aerospace Professionals](#)**
- **[SMS-Pro Aviation Safety Scholarship](#)**
- **[University Aviation Association \(UAA\)](#)**

- [Whirly Girls helicopter scholarships](#)
- [Women in Aviation, International](#)

Regional Scholarships:

- [Aero Club of New England](#)
- [Alaska Airmen Association](#)
- [Montana Department of Transportation](#)

EXPERIMENTAL
 AIRCRAFT
 ASSOCIATION



Trivia Night

Scholarship Updates:

- [Aviation Scholarships](#)

When? Saturday March 23, 2024

Where? Millstadt VFW Post 7980

200 S Veterans Dr, Millstadt, IL 62260

(Look for the tank on Highway 158)



Amber, Award Winner 2019



Kaitlyn, Award Winner / New Pilot, Jan 2022



Nathaniel, Award Winner / New Pilot, Aug 2022



Mia, Award Winner / New Pilot, Nov 2023



Lillian, Award Winner / In-Process, 2023

Help Support our Youth Aviation Pilot Training Scholarships!!

Fun – Trophy – Cash Prizes - 50/50 – Fun
\$15 per-person / \$110 for a table of 8

Doors Open at 6 p.m., Game Starts at 6:30 p.m.

Register at: EAACH64Secretary@gmail.com
Or phone @ 618-239-9359 (leave a message)

Food and snacks welcomed, but drinks **MUST** be purchased on-site (Cash Only; ATM available onsite)



It's Back!!!

“The Return of the Sonerai”

By Jim Hall

About a dozen of the Scouts from Pack & Troop 857 who attended their “Blue & Gold” Banquet in the St. Charles County Airport Administration building on Saturday, February 10, 2024, took turns hangar flying in the ARC. After their award ceremonies, they took tours of the CAF and many also went to the EAA Chapter 32 facility to learn about homebuilt aircraft and hear of the upcoming Young Eagles season. While there they learned about EAA’s AeroEducate program, took home a foam glider to build on their own, and also got to ‘fly’ in the static display single seat Sonerai.

Pictures were taken by parents and scout leaders of the youthful student pilots in the aircraft and also in the cockpit of the colorful RV-12 display board. It was great fun watching the youth push the rudder pedals and pull on the control yoke while taking an imaginary flight. One scout hopped down afterwards and gleefully declared to his parents that, “I’m a pilot now and I’m going to fly.”

Backstory of Sonerai IIL (N502WM)

Earliest records found for N502WM, Sonerai IIL were dated December, 1987 and stated that the aircraft had 12 hours total time on that date. It’s not known exactly how many hours were spent in construction of the plans built aircraft; but it likely took ‘a while’ and no doubt each week it was slated to be finished very soon.

The aircraft owner was William M. Nelson and he chose to install a Volkswagen conversion engine; the 60-2hp Homebuilt Aircraft Products, Inc (H.A.P.I.) version available from 1979-89. Although we don’t have the logbooks, we know he flew it for years and it has a few hundred hours on it. Classified as an “Experimental” aircraft, changes to the plans could be made. Because he was tall, Mr. Nelson converted the 2-seat plans to a single seat design to more comfortably fit his height. Although we don’t believe he used it for competition; the Sonerai design was often seen racing and as such the original Sonerai I which is a mid-wing sport plane, racer, was designed to meet all Professional Race Pilots Association (PRPA) and Formula Vee Racing requirements.

Eventually it was donated to EAA Chapter 32 with the understanding that it would not be flown again; but would be used for educational purposes and to show how that type of aircraft could be built. The FAA Registry shows that Sonerai IIL (Serial # 0102L) was listed as a Deregistered Aircraft on 4/17/2012.

In the past Chapter 32 has unfolded the Sonerai IIL wings and used it for static display during Young Eagle events where youth were allowed to climb into the cockpit and feel what it is like to look at the panel and imagine flying. It was even on display during the Spirit of St. Louis Airshow and STEM event in October, 2018. The aircraft is now back in the ARC and ready for ideas to bring it up to speed.

We’re going to again use the Sonerai IIL for educational purposes and to excite the imaginations of youth and visitors to see the potential in following their dreams to build and fly. You can help us make it happen in time for the April start of our Young Eagle events this year.

About the Sonerai IIL Origination

The **Sonerai II (original)** is one of the most versatile two-place homebuilt airplanes ever conceived, and can be built in several versions. The IIL is especially popular with taller pilots, as the pilot’s legs go over the top of the main spar carry-thru structure, rather than under it. In its original form, the standard Sonerai II is a mid-wing, two-place tandem, tailwheel airplane that is flown from the rear seat solo. The Sonerai IIL is the same airplane but with a low wing. The Sonerai IILT is the same as the IIL except that it is built with a steerable nosewheel (“T” for tricycle). Many builders with limited taildragger experience opt for the tricycle gear. The Sonerai II will accept engine displacements from 1700cc thru 2180cc. The cockpit is 23-1/4” wide.

The wing is composed of two panels that fold alongside the fuselage, enabling the airplane to be towed tail first on its own landing gear. The fuselage and tail surfaces are constructed of standard sizes of 4130 steel tubing, and are fabric covered. The wings are fabricated from 2024-T3 Alclad aluminum sheet, 0.025” thick for the ribs and skins, and 0.040” thick for the spar channels. Stainless steel flush Cherry N pulled rivets are used for wing skin attachment to simplify assembly. The fiberglass cowling removes easily to allow complete access to the engine, fuel tank, and instruments. The landing gear is a formed aluminum spring manufactured

from 5/8" x 6" 2024-T351 bar stock, and uses 5" wheels and 3/4" axles. A tapered rod tail spring is used for the tailwheel. All Sonerai II versions feature a 10 gallon main fuel tank with the option for a 6 gallon auxiliary tank.

Specifications

Seats: 2 (tandem)
Length: 18' 10"
Wing Span: 18' 8"
Wing Area: 84 sq. ft.
Height: 5' 6"

Tail Configuration: Conventional
Primary Structure - Wings: Aluminum
Primary Structure - Fuselage & Tail: 4130 Steel Tube & Fabric

Cockpit Width: 23-1/4 in.
Fuel Capacity: 10 US Gal. (+6 Gal. Aux Tank Optional)
Stall Speed: 45 mph [72.42 km/h]
Maneuvering Speed (Vne): 115 mph [185 km/h]
Never Exceed Speed (Vne): 200 mph [322 km/h]

About Sonerai Aircraft

The Sonerai family of homebuilt aircraft started it all for [Sonex Founder & President and EAA Homebuilt Hall of Fame inductee John Monnett](#). The Sonerai I was his first design, and was introduced to the world at the 1971 EAA Convention at Oshkosh, WI. It was designed to meet the requirements of the Formula Vee racing rules. The very popular Sonerai II followed in 1973. The low-wing Sonerai IIL followed in 1980, and the Sonerai IILT tricycle geared version in 1983. The Stretched Sonerai IILTS and IILS were introduced in 1984. The Sonerai II in its various versions is among the most popular homebuilt aircraft ever offered, with several thousand built to date. After nearly 50 years, the Sonerai still offers the homebuilder a value that is difficult to match.

EDITOR'S NOTE:

Mr. Bill Nelson, the owner (and...I THINK...builder) of this Sonerai was a great guy. When I knew him he had already stopped flying the Sonerai, but he had a really nice 1965 Piper Cherokee 180. I had the pleasure of taking two of my BFRs in that Piper. He was going to sell it at the time, and if I hadn't been working on my RV, I might have bought it from him. The engine was nearly run out, and he ended up getting it overhauled. I'm not sure when he sold the airplane or stopped coming to meetings.

A Plans Build Only Project

Over the long life of the Sonerai design, thousands of sets of plans have been sold, with several thousand Sonerai's successfully flown. These serialized plans to build one airplane consist of a Plans Set, Materials List, Detail Components Drawing (all Sonerai II's), Flight Manual, and a Builder's Manual with Construction Photos and Wing Construction Manual (Flight Manual, Builder's Manual and Wing Construction Manual authored by long-time Sonerai Newsletter Editor Fred Keip).

Please Note: The plans set is printed on 11" x 17" paper. They are the original hand drawn plans created in the 1970s and 1980s (they are not CAD drawings). All drawing changes are included and noted in the plans.

There are three separate versions of Sonerai plans available:

- **Sonerai I:**
Single Place Mid-wing Taildragger
- **Sonerai II:**
Includes Two Place Mid-wing Taildragger (II), Two Place Low-wing Taildragger (IIL), and Two Place Low-wing Tricycle (IILT)
- **Sonerai IIS (Stretch):**
Includes Two Place Low-wing Taildragger (IILS), and Two Place Low-wing Tricycle (IILTS)

The Sonerai features easily-folding wings for maximum versatility and minimum ownership costs. The wing spars are secured via taper pins in the cockpit, and once removed, the wing is simply folded flat along-side of the fuselage. Built-in provisions secure the folded wing panels to the aft fuselage.

A built-in spar support tube allows the wing fold process to be accomplished by one person. The folding wing design can fit into a garage or share a T-hangar with your flying buddies. It can be towed by the tailwheel on its main gear, or loaded onto a trailer for longer trips.



4-8-2024

**Calling all
Race Classic
Bonnie**

At approximately 2:00 p.m. on Monday, April 8, 2024, Mother Nature will provide an airshow at KMVN not to be seen again until 2044. You are invited to return to Mt. Vernon Outland Airport (KMVN), Mt. Vernon, Illinois to experience nearly four minutes of totality with other aviators.

All of the amenities of your previous visit(s) will remain: Free Admission, Free Camping, Free Parking, and Free shuttles (to/from local hotels). Showers are available on-site.

Food and fuel discounts will be extended by Bonnie Café and SRT Aviation.

Come be part of the fun!

Midwest LSA Expo attendees, Airventure/Air Racers, KR/Ercoupe/Fly-Baby Builders/Flyers, Aviator Club Members, CAA Members, and all area aviators!



Greater St. Louis Regional Aviation Events 2024

There are always a lot of aviation events each year.

These are just a few we're aware of that EAA Chapter 32 members have asked about.

Let us know of any others that aren't listed here and we'll try to share them.

Sat Feb 24 2024 at 08:00 am to 03:30 pm

IUAC Ultralight & Light Sport Safety Symposium

FREE EVENT! Speakers will cover a variety of topics during the day of interest to ultralight and sport pilots. Earn FAASTeam credits! Win door and raffle prizes from aviation companies!

SWIC Granite City Campus, Barnes & Noble Booksellers, 4950 Maryville Rd, Granite City, IL 62040, United States, Granite City, Illinois

Saturday March 23, 2024; Doors open at 6pm

EAA Chapter 64 Trivia Night

Millstadt VFW Post 7980 200 S Veterans Dr, Millstadt, IL 62260

Supports Youth Aviation Pilot Training Scholarships

Saturday, March 30, 2024 - Register by March 1, 2023

Wings of Hope located at Spirit of St. Louis Airport Spring 2024 SOAR into STEM

This hands-on 5-week course will provide the foundation for advanced exploration of humanitarian aviation in the areas of flying, aerospace engineering, and unmanned aircraft systems.

- In-person learning program in the Wings of Hope hangar
- Mentorship program with career planning
- Aviation Hero guest speakers
- Open to students 14-18 years old

Program Concentrations:

Week 1: March 30 – Airplane Basics

Week 2: April 6 – Mechanics & Engineering

Week 3: April 13 – Navigation & Communication

Week 4: April 20 – Drone Education

Week 5 – Discovery Flight and Career Fair April 27

Saturday, April 27, 2024; 7am-2pm Rain Date: May 4, 2024

St Charles County Regional Airport (Smartt Field) Auto Show

Salt River Automotive Presents - Wings and Wheels

May 13-18, 2024, is EAA Learn to Fly Week. ALL EAA Chapters are invited to participate by hosting a Flying Start event on Saturday, May 18!

After five days of webinars, chapter Flying Start events will be the highlight of the week. Chapters that host a Flying Start event on May 18 will receive additional promotional support from EAA, and be and will be given two weekly passes for EAA AirVenture Oshkosh 2024.*

**Events must be registered on [FlyingStart.org](https://www.flyingstart.org) and have at least 5 attendees to qualify for the wristband.*

EAA Flying Start is a chapter hosted program which welcomes, inspires, and educates aspiring aviators about their pathway to becoming a pilot.

The program consists of an EAA-prepared PowerPoint presentation, which the hosting chapter customizes with information about their local chapter and flight training resources. The event is capped off with a free introductory Eagle Flight with an EAA volunteer mentor pilot.

May 24, 2024 **Aviation Maintenance Technician Day: we take the time to honor all of our Aviation Maintenance techs** because without them we'd never make it where we wanted to go. We often thank pilots and flight attendants while we make our way to and from far dis-

tances, but we never get to thank the important people on the ground who ensure our safety. Every time you step on a plane, every time you buy a ticket, every time you arrive safely, you have an aviation technician to thank. They are the unsung heroes of travelers and some of the hardest workers in the travel industry. While we have high respect for anybody who makes an honest living, Aviation Maintenance Techs are not your average maintenance person, they are mechanical experts dedicated to your safety. So today we offer a special thank you for continuing to break the barriers of human limitations and set course to the skies!

4-8-2024 Mount Vernon Outland Airport (KM-VN) Mt. Vernon, Illinois

Solar Eclipse Viewing approximately 2pm Free Admission

June 8, 2024 EAA International Young Eagles Day encourages young members of the Experimental Aircraft Association (EAA) to participate in its Young Eagles Program. It's also a day for EAA members to share their passion for aviation with others.

Sat, Jun 8 & Sun, Jun 9 from 9 AM – 5 PM

Spirit of St. Louis Air Show & STEM Expo

July 22-28, 2024

EAA AirVenture 2024 – OSHKOSH, WISCONSIN - Not too early to start making plans to attend...

August 19, 2024 National Aviation Day is celebrated across the United States. It is an annual national observance that honors the development of aviation.

The holiday was first observed in 1939, after the proclamation by U.S. President Franklin D. Roosevelt. August 19 was chosen on purpose because it is the anniversary of Orville Wright's birthday. Orville was the younger of the Wright brothers, renowned American aviation pioneers. He was still alive when President first issued the proclamation.

Get ready to take flight and celebrate National Aviation Week from August 19-25! This week honors the amazing advancements and achievements in aviation, from the first successful airplane flight by the Wright brothers in 1903 to today's modern aircrafts. It's a time to appreciate the hard work and dedication of pilots, engineers, and all those involved in making air travel possible. So let your imagination soar as we celebrate this exciting week dedicated to one of mankind's greatest inventions – the airplane!

September 21, 2024

COMMEMORATIVE AIR FORCE MISSOURI WING (CAF MO) - HANGAR DANCE

October 26, 2024

St Charles County Regional Airport (Smartt Field) Open House & Pumpkin Drop



43rd ANNUAL ULTRALIGHT & LIGHT SPORT AVIATION SAFETY SYMPOSIUM



February 24th, 2024

SOUTHWESTERN ILLINOIS COLLEGE SAM WOLF GRANITE CITY CAMPUS

Located 1 mile south of I-270 Exit #4—Home to the Airframe & Powerplant (A&P) and Industrial Technology Programs



Come in from the cold and earn **FAA Wings credits** for attending this **FREE** one-day event! **Registration begins at 8 a.m. Presentations from 8:30 a.m. to 3 p.m.**



You'll hear from some of the industry's leading experts covering a broad range of safety, operational and maintenance related topics.

- **"Pilot Medical Issues & Glider Operations"** by Dr. Rich Hehmann, Senior AeroMedical Examiner and Flight Instructor in fixed-wing, gliders, and helicopters.
- **"The Paragliding Experience"** by Richard McDermott, Hang Gliding and Paragliding Instructor
- **"Sport Pilot and Unconventional Aircraft Operations at Towered Airports"** by Diane Earhart, Master Pilot/CFI and Retired Air Traffic Controller
- **"Gyroplane Operations"** by Greg Gremminger, one of the nation's leading gyroplane instructors.
- **"Aircraft Operations Safety"** by Chris Collins, Pilot and Director of Mount Vernon Illinois Airport and the annual Midwest Aviation Expo
- **"Avoiding Pitfalls When Buying Used Aircraft"** by Bob McDaniel, Master Pilot/CFI and Private Airport Operator
- **"Aviation Safety Seminars and the Wings Program"** by Randy Ottinger, St. Louis FAA Safety Program Manager



Enjoy displays and exhibits of ultralight and light sport aircraft accessories and products.



Tour SWIC's Airframe & Powerplant and Industrial Technology training labs.



Come early for breakfast! Scrambled eggs, potatoes, sausage, pancakes, and a drink.
Lunch includes a pulled pork, chicken, or a vegetarian option, with sides, cookie, and a drink.
Food prepared by the Experimental Aircraft Association's Gateway Chapter #64.



Great raffle prizes and lots of free door prizes throughout the day!

SPONSORED BY:

Southwestern Illinois College • Illinois Division of Aeronautics • Illinois Ultralight Advisory Council
FAA St. Louis FSDO • Experimental Aircraft Association & EAA Chapters 64 & 331

For additional information e-mail dusterpilot@charter.net or call 618-530-0805

www.safety-seminar.com

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APRIL 27, 2024 7AM-2PM

ST CHARLES COUNTY REGIONAL AIRPORT - SMARTT FIELD KSET 6390 GRAFTON FERRY ROAD PORTAGE DES SIOUX, MO 63373
FOR MORE INFORMATION FOLLOW US ON FACEBOOK @ SALTRIVERAUTOMOTIVELLC OR CALL 636-900-7258
SPECTATOR ADMISSION IS FREE RAIN DATE: MAY 4, 2024



AWARDS

Employee Choice Best Import Best Rat Rod
Best Airplane Best Street Rod
Best Lifted Truck Best Slammed
Best Unfinished Best Truck
Best Daily Driver Best Story
Best Classic from the 90s, 80s, 70s,
60s, 50s and 40s - Older



SCHEDULE

7AM - Vehicles/Planes Can Begin Arriving For Setup
8AM - DYNO \$20 (First Come, First Served)
8AM - 1PM - Free Bounce House
1PM - Awards
2PM - Show Ends
Food and Drinks Available for Purchase



**PRE REGISTRATION IS FREE WITH THE PURCHASE OF A
T-SHIRT OR REGISTRATION IS \$10.00 THE DAY OF THE EVENT**

PRE REGISTER AT

[HTTPS://WINGSANDWHEELS.GIVESMART.COM](https://wingsandwheels.givesmart.com)



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