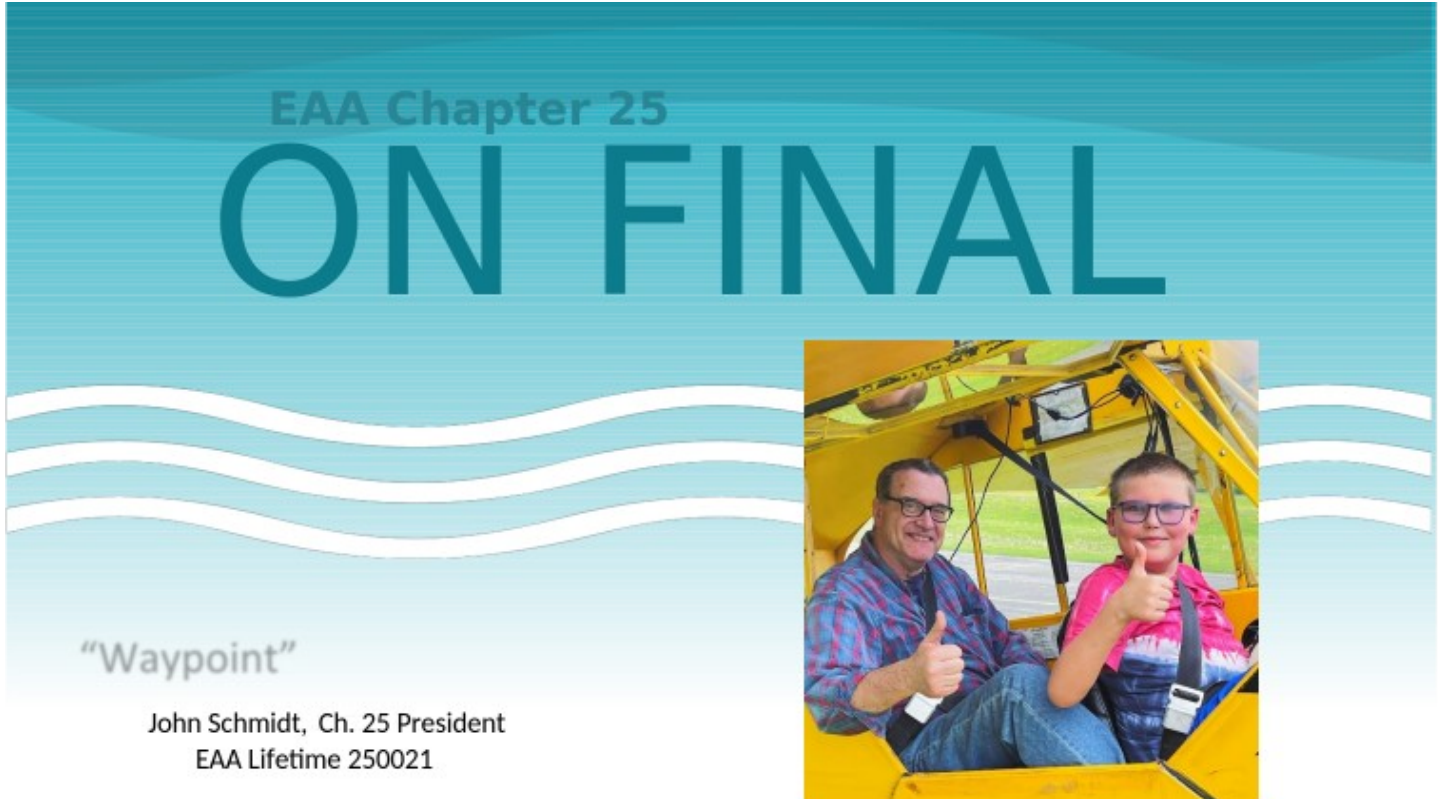


# November 2024

Chapter 25's Website - <https://chapters.eaa.org/ea25>



## State of the Chapter

I'd like to think that I tend toward optimism; I think that there are a lot of possibilities.

Maybe that comes from being a teacher. One HAS to be optimistic, because there's a number of forces working against you. Maybe a positive outlook comes from my dad; I sat at a church dinner this month and the person across from me made mention of how positive my dad's attitude always was (this, after Dad's been gone for 16 years now).

A positive influence can be remembered for a long time. Quick, think of the best teacher you had in high school. They might be long gone now, but that spark of memory in your noggin is proof.

Barring a miracle, we won't meet the goal of 165 chapter members by Dec. 31, 2024. BUT, we WILL have more members on Dec. 31, 2024 than we did 364 days earlier. We're going in the right direction. I hereby propose that the 165-member goal be 're-set' with an new goal date of Dec. 31, 2025.

Barring a miracle, we won't have enough money in the hangar fund by Dec. 31, 2024 to break ground on a new chapter hangar, BUT, we ARE making measurable progress, and we ARE doing something about it (pancake breakfast, promotion, receiving donations, planning). Greg Cardinal will put up a piece of red tape on the new hangar fund 'thermometer' on the hangar wall (hopefully, without falling off the ladder).

I'd like to improve as your chapter president for 2025. I'd like to become better at creating, organizing, and motivating member/volunteers to participate in activities and events that benefit all. We've done that with our first (and annual) Father's Day Pancake Breakfast - the volunteerism numbers and efforts there were incredible. On the other hand, I wrote last month that we have a Ch. 25 member who is willing to pay for an EAA HQ-sponsored RC airplane kit, if we can just assemble a few members to commit to work with local kids to build it, and I've heard .... crickets, (so far). We could use more Young Eagles pilots. I think we are busting at the seams for room during chapter meetings; progress on a new hangar is steady, but slow.

We are moving forward. I've always been proud to be a member of EAA Chapter 25. 2025 awaits. I'm optimistic about what is to come.

Our speaker this month is Randy Phillips from South St. Paul, who has done a restoration of a gull-wing Stinson.

John Schmidt  
EAA lifetime 250021

**NOTE: Let's have chili feeds for the November, January, and February meetings.** That way, we don't have to fire up the grill outdoors to roast tube steaks. November is covered - we've got 4 volunteers bringing chili (hey, we could have a contest, with awards!). I'll ask you to sign up with me to volunteer to bring some chili for the January and February meetings.

THANK YOU!

## EAA Chapter 25 - Minutes for Oct 2024



Steve Wentworth

- October Chapter meeting took place on Wednesday, October 16<sup>th</sup>.
- President John Schmidt called the meeting to order at 7:00 pm.
- The Pledge of Allegiance was led by Dan Strehlow.
- 4 guests introduced themselves.
- An abbreviated finance report was given.
- Kris Olsen gave a Young Eagles report.
- John Schmidt gave an update on our potential Ray Scholar.
- Steve Wentworth gave an excellent and interesting talk on his aircraft salvage business.

Meeting adjourned at 8:45 pm

Greg Cardinal

### **Noah Reardon - EAA Chapter 25's first James Ray Scholar**

Thank you so much for all of the support that I have received from EAA Chapter 25. Sorry that I have not been able to attend a meeting over the past few years, but I would like to add that I have made enormous progress during my time at the University of North Dakota.

This past August, I completed my commercial multi-engine check ride! This fall, I am now working towards my CFI rating. It is a lot of work, but I know I have a group of pilots around me who are supporting and have my back. After every check ride I have, I call my mentor and the person who helped me get into aviation John Schmidt. Without his support, I do not think I would be where I am today.

Furthermore, everyday I call my mom and let her know how my training is going and she loves hearing how it is going. She has always been supportive and has gained more interest into aviation so much to the point where my family has already booked a hotel for Oshkosh 2025! My dad loves how much I had grown up and became such a mature person who has a passion and drive to become a pilot.

My father has told me that he wants to get his private pilot license but is waiting for me to get my CFI rating for one reason... So he can have his son teach him to become a pilot. He wants me to understand how to teach someone well just like how he taught me so well when I was growing up.

All of this was kickstarted by the class I took with Mr. John Schmidt back in 2017 where he introduced me to the wonderful world of aviation. He then encouraged me to attend chapter meetings which lead me to receiving the James Ray Aviation Scholarship and attending EAA Airventure camp where I ended up meeting one of my current CFIs who was one of the camp counselors. The belief of the chapter members lead to my success and I would not be here with the support of you all. I hope to come to a meeting soon and reunite with all of my fellow pilots. Thank you so much!

Noah Reardon  
Nreardon2003@gmail.com

## Build Updates

### SE5A

By Chris Bobka

Longtime chapter Bob Poore inherited a scaled down SE5A replica First World War fighter. It languished in the rafters of his Airlake hangar for years. After the "Piet Project" moved on to the paint booth at John E. Schmidt's Forest Lake hangar, many of the crew on the Piet Project were growing antsy because the hands on experience and social comradery of the "build sessions" were beginning to become noticeably missing. Greg Cardinal took a leadership role and coaxed Bob into getting the SE5A out of mothballs and parts were duly moved to Dale Johnson's centrally located Burnsville shop and work began in earnest to get it completed. Work progressed rapidly and a point was reached where a motor was needed.



Photo of a SE5A

Bob has lots of motorcycles and almost as many airplane engines but none of what he had was really suitable. He needed a Continental O-200 with its one hundred horsepower so he set his sights on trying to find one. O-200 engines have been out of production for many years and it is barely supported by Continental and peripheral parts like cylinders have been made available by aftermarket suppliers. The heart and soul of any motor is its crankshaft and O-200 crankshafts have become as rare as hen's teeth. A new one, if you can find one, can easily fetch ten thousand bucks. The O-200 was most widely used in the Cessna 150 series up through the mid 1970's when the 150 was redesigned slightly into the Cessna 152 which uses a slightly more powerful yet much heavier O-235.

Bob kept his ear close to the ground. He scoured Barnstormers and various forums on Facebook. Eventually one showed up on Facebook marketplace and was not too far away. As with buying many airplane parts, it was alleged to have been in a 150 and removed at TBO with a little over 2000 hours on it. He bought it for a couple of grand. What a risk!

It kicked around in Greg's hangar for a few months until it was announced that the build session for the coming Wednesday would not be at Dale's but rather at Greg's hangar and that the tear-down of the O-200 would commence. I said I would come and bring my toolbox full of my mostly custom made tools to help out.



Taking apart a seasoned motor can be full of many pitfalls. Ends of studs get rusty to the point that nuts are hard to get off. Even worse is that the varnish from the oil that is normally welcomed as it protects many of the internals from rust now works against the disassembly process as things don't slide off of other things as they normally would on a new engine. In short, taking apart a motor is in many ways harder than putting it back together.

Our gathering that Wednesday included Greg, Bob, Freighter Bob, the dog, Peter Denny, Tom Youngdahl, John E. Schmidt, Jeremy Vecoli, Jim Fischer, Mike York, and myself. There was a lot of energy and as soon as the oil sump and accessory case came off, it was discovered that either an old rag had gone through the gear train or that a mouse had made a nest inside. It was eventually concluded to be the former. The good thing was that the only wearing part of the accessory case is the oil pump and it appeared to be in perfect condition and other than needing a good cleaning, it was good to go.

Next off would be the cylinders. A lot goes on here. Intake tubes and elbows came off. Six nuts have to come off each cylinder and all were removed save one on each cylinder to hold it on until it was its turn. Then the rubber boots at the base of each pushrod shroud need to be slid up the shroud a ways. The clamps that hold these on are impossible to remove unless the right tool is used. That tool can be had at Carquest for about \$15. The motor is rotated so that the piston is at the top of the cylinder bore and the last nut is removed. The cylinder is pushed to and fro until it parts with the crankcase and it is slid off. The pushrods are slid out before they hit the floor. Everyone peers into the cylinder and oohs and ahhs at the bore and the piston. Usually they look awful from all the lead that accumulated from the 100 low lead fuel which is nasty stuff. The first piston was in a self-destruct mode as can be seen in one of the photos. The rings had broken and the ringlands in the piston were broken. Pretty ugly. Removing the gudgeon pin from the piston is the next order of the day and for that a special tool that Dale Johnson made for me is used to slide it out over the groans of the varnish built up between the sides of the small end of the connecting rod and the piston boss. Without this tool, you are not going to get it off unless a very big hammer is used. There was some interesting wear on the aluminum caps at each end of the gudgeon pin that bounce up against the cylinder bore.



Wires are used to keep the now loose connecting rod from banging up against the sealing surface of the cylinder's opening in the crankcase. One by one the cylinders came off. The two through studs are removed. These through studs hold a cylinder on one side and a cylinder on the other side. Each piston is removed in turn. A good push and pull on the connecting rods can be done to determine if there is any slop indicating an excessively worn crankpin. All good so far! The bolts are removed from the camshaft gear and the crankshaft gear and they are each in turn removed. It is far easier to do it now that after the crank and cam are out of the case!

Hands dive back in to remove the numerous bolts around the periphery of the crankcase halves. Three of them are press fit so as to act as locating dowels to keep the case halves aligned during operation. A few big nuts come off and a whack with Greg's charismatic lead hammer breaks the case halves apart. We can now take a good look at the camshaft and the camshaft followers also known as tappet bodies. Not too bad!

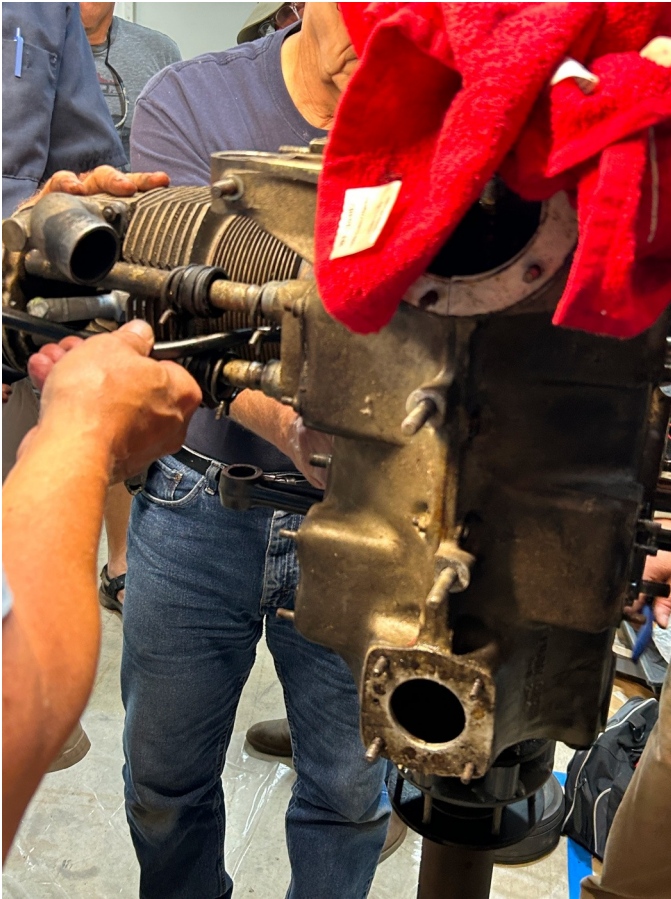


Getting tired now but there is still enough energy to look at a few things and measure a few things. How are the cylinder bores? Is the crank a standard crank or is it undersized? Looking at the bearing shell part numbers, we cannot see a U10 meaning that the main journals are still standard. Nice! Then out comes the dial bore gauge for measuring the cylinder bores which are determined to all have been chromed. One cylinder appears to be newer than all the others and has a very nice bore. Two others are just out of new limits whilst the last cylinder, the one that had the damaged piston, is toast but a possible candidate for re-chroming.

A debrief around the work bench with beverages reveals that a lot of cleaning needs to be done by Bob. Another cylinder needs to be sourced. Three pistons need to be cleaned so the piston ring side clearances can be measured. Usually the top groove is worn too wide and that spells the end for that piston. It is the top ring that takes a beating. The other grooves usually measure to new.



A long evening with lots of learning. For Bob, it was a very good purchase. The crankshaft will most likely work out for him. He has enough good parts to start building up a new motor for the SE5A before too long. Most Wednesday evenings, there is a "build session". Lately they have been at Greg's hangar. If a chapter member is interested in popping in for an evening of work and socializing, contact Greg and have him add you to his email list.





## Hatz Classic

By Kevin Knutson

The picture on the right shows the rear control stick in the full aft position, and it's up against the nose of the seat frame. This is exactly where the seat belt crotch strap is to attach to the seat frame.

Among the possible solutions, I've decided to build and install a curved stick to replace the straight one built per the plans.

I needed to get at least 3/4" clearance on the forward edge of the seat frame to ensure full aft clearance with full aileron travel. To get the curved stick and still fit the original stick installation, the replacement will need not just one curve, but an S-bend. The stick is 1" diameter 4130 chromoly tube and larger diameter than I have bent before.



Brimm & Boggess, Ca. 1940 says the minimum tube bend radius is six times the diameter. So, a six-inch radius was used to make a template of the curved stick conforming to the original installation dimensions.

I made wood forming blocks with the proper radius and bolted them to the bench. I welded one end of the tube shut, packed it full of fine grained pool filler sand and welded the other end shut. Next up, I arranged a series of fire bricks into a heating box to contain the torch heat.

Bending commenced by using a rosebud tip on the oxy/acetylene torch, heating the tube within the fire brick box.

Once heated, I dropped the tube into the bending blocks and it bent like butter.

Trimming to length, boring for the pivot bushing and fabricating all the busy bits at the bottom end then welding the works together completed the fabrication.

Drilling and fitting the curved stick to fit the original stick install will be the last fabrication step prior to powder coating.

For several photos - <https://eaabuilderslog.org/?blproject&proj=7dAZ6sqil>

**For Sale :****RV-9A kit**

Bruce Anthony - banthon90@gmail.com 612-270-0638

I have a RV-9A kit for sale in Rosemount, MN. Tail is mostly done and wing panels are mostly drilled and deburred. Willing to let go at a good price. Anyone interested please call me.

**Bellanca 14-13-3**

Ron Oehler - roehler533@gmail.com 952 250 8069

Ron has the following for sale:

- 1) 1947 Bellanca 14-13-3 project for sale.
- 2) Hangar 24B for sale after Bellanca is sold.

Hangar is in Delta row at Airlake, next to Terry Carmine's hangar.

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Now is your chance to attend a very special EAA Chapter Leadership Academy, an interactive, two-day workshop held in Oshkosh, WI.

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All the information can be found here:

[www.eaa.org/ea/eaa-chapters/chapter-leadership-training/ea/eaa-chapter-leaders-academy](http://www.eaa.org/ea/eaa-chapters/chapter-leadership-training/ea/eaa-chapter-leaders-academy)

From Cheryl Daml and the Holiday Tree of Hope asking for our participation again this year:

1990



2024

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## Young Eagles Update

by Kris Olson, Ch. 25 YE Coordinator

Our Young Eagles group flew 24 kids on Saturday, October 19th at Airlake Airport in Lakeville. Our pilots were Bryan Kaufmann, Mark Kolesar, Pat Moynihan and Mike Schoen. Our ground crew were Ron Hoyt, Jill Mount, and Ron Oehler. The temperature was 50-65 degrees and the winds were from the Southwest and light at the start and midmorning picked up, but the pilots were able to give the rides.

Our next Young Eagles rides event is Saturday, November 16th at Airlake Airport in Lakeville. We welcome more pilots and ground crew to help at our events. Contact me in advance, if you are interested at [ksimpson2@yahoo.com](mailto:ksimpson2@yahoo.com)

Total kids flown in 2024 - 200



## IMC Club Update

IMC Club meetings are the first Tuesday of each month via Zoom. Our next meeting is scheduled for Dec 3rd at 7:00pm CDT. Contact Terry Carmine for more information at [tlcarmine@gmail.com](mailto:tlcarmine@gmail.com). All are welcome to attend.



## Trivia Challenge

By John Schmidt

What is a 'blown flap'?

Answer next page -

**This Month's Quote**  
from AOPA's EBrief

"It takes less time to do a thing right, then it does to explain why you did it wrong."

Henry Wadsworth Longfellow

**Trivia Answer**

Blown flaps use air blown through nozzles to shape the airflow over the rear edge of the wing, directing the flow downward to increase the lift coefficient. They were used on some land and carrier-based fast jets in the 1960s, including the Lockheed F-104, Blackburn Buccaneer, and certain versions of the MiG-21. They generally fell from favor because they imposed a significant maintenance overhead in keeping the duct work clean and various valve systems working properly, along with the disadvantage that an engine failure reduced lift in precisely the situation where it is most desired.

[https://en.wikipedia.org/wiki/Blown\\_flap](https://en.wikipedia.org/wiki/Blown_flap)

**Need parts from Aircraft Spruce?**

Chapter 25 member Mark Elliot often (monthly, sometimes even weekly) orders from Aircraft Spruce. If you'd like to save the shipping costs (works well with small orders), and pay NO SALES TAX consider this strategy:

- 1 ) Find the Aircraft Spruce part number(s), and the amount of that item, you want.
- 2 ) Email your 'order' to Mark, and he will combine it with his next Aircraft Spruce order.
- 3 ) Wait for Mark to contact you, letting you know your material has arrived, and
- 4 ) Meet up with him to get your goods.

**DreamLandAviation@gmail.com   Phone 651-398-8637**

Contact any of these folks if you have questions or suggestions on what we might do differently to improve our Chapter 25.

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ON FINAL

EAA CHAPTER 2

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Submissions for publication, questions or comments on articles, etc. are encouraged and should be addressed to: Bill Norton

e-mail: **loribill123@gmail.com** Submission deadline: 1st Wednesday of the month.

New or renewal Chapter membership (\$25/year) should be addressed to:

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