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News!

June 2022

On the Web: www.EAA80.org

Facebook: www.facebook.com/eaa80

Twitter: https://twitter.com/eaa_80



President's Corner

Bruce Mundie

Summer is semi-officially here! Make sure to mark your calendars for another month of EAA 80 activities!



Young Eagles is set for Saturday 18 June, and school is out so we will have plenty of Young Eagles to fly! Scott always will accept help with flying and ground crew. Please consider volunteering.

Did you know that EAA 80 will hit 55 years of service to Eastern Nebraska and Western Iowa this year? Let's celebrate by ordering newly designed chapter shirts! Design ideas to be unveiled at our meeting, at Oracle, on 13 June.

I am still very interested in documenting some of EAA 80's history. I would like to write down some of the important events that we have been through in our first 55 years. This list should include members who have had first flights in homebuilt aircraft, locations that we have called home, and a running list of officers for the chapter. This sounds like a job for a chapter historian! Let me know if you are interested.

If you have not heard, Patrick Stolinski, our 2021 Ray Scholar officially received his

private pilots certificate on 10 May 2022. Congratulations to Patrick! Additionally, Delaney Moffit is our 2022 Ray Scholarship winner. Congratulations to Delaney! Looking forward to continuing our line of successful Ray Scholars!

Once again, great flying and building weather is ahead....get out there and enjoy!

Thanks and fly safe!
Bruce

Calendar of Events

June 13, Chapter Meeting at Oracle Aviation
Presenter-Bob Condrey, AirVenture
June 18, Young Eagles, Millard, 8 am
Sept 11 Chapter picnic, Plattsmouth
Sep 24 STEM Day, location TBD

EAA Ray Aviation Scholarship



EAA 80's 2021 Ray Scholar, Patrick Stolinski, completed his private pilot checkride on 10 May.

L to R: DPE Jeremy Strack, IP Caden Cornett, Patrick Stolinski, Bruce Mundie

Right: Delaney Moffitt, EAA 80's 2022 Ray Scholar recipient



Through the generous support of the Ray Foundation, EAA provides up to \$10,000 to deserving youths to cover their flight training expenses, totaling \$1,550,000 in scholarships annually. *From the EAA website.*



Miscellaneous Notes

Vice President

Bob Dyer

Future presenters include:

June 13 - Bob Condrey will talk about AirVenture Updates and Plans.

Future - David Greer has a presentation about the AWACS

Young Eagles

Scott Pridie

The May 14 Young Eagles rally flew 21 kids. The next rally is June 18 at KMLE, 0800. Looking for volunteers.

Membership

Rich Kolkman

The Chapter welcomed three new members last month:

- Delaney Moffitt, Omaha (Ray Aviation Scholarship recipient)
- Scott Swanson, student @ UNO
- Seth Dokter, Gretna

EAA Chapter 80 Meeting Minutes

May 2022

The chapter meeting was held on May 9th at Oracle Aviation (Millard Airport) and called to order at 7 PM by Bruce Mundie.

Guests and New Members: Guests included Scott Swanson (UNO Aviation, working on CFI); and Delaney Moffitt (2022 Chapter 80 Ray Scholarship recipient).

Meeting Minutes: The April 2022 minutes were approved as written.

Treasurer's Report: The treasurer's report was provided in the April newsletter and approved as posted. The opening balance was \$15,627.34. The ending balance is \$15,712.65.

Membership: Rich Kolkman reported that 69% of the 104 active members have paid their 2022 dues (two new members joined this month; Al Nelson and Dave Seger).

Scholarship:

- The 2022 scholarship winner is Delaney Moffitt. She is starting with about 10 flight hours and is anxious to get flying.
- Patrick Stolinski (2021 winner) finished his oral exam for the private license and hopes to fly the check ride this week.

Tech Counselors: Mike Howard had no inputs.

Young Eagles (YE): The next YE flight event is this Saturday, May 14th, at Millard Airport. Last month 21 were flown, this Saturday is capped at 16 due to a pilot shortage.

Tools: No change.

Builder Reports:

- Bill Haas is 90% done with the engine cowl modifications and hopes to proceed with engine runs and taxi.
- Ken Bahr is installing modified disc brakes on the Sonex.
- Tom Wieduwilt reported that the Bearhawk windshield cracked during installation and a new one is on order.

Builder Meeting: None scheduled.

Chapter Build:

- Mike Howard reported that the wings, struts and flaperons are installed. When the wiring is complete the wings will be removed for installation of the windshield, window, and doors.

Fly-outs: Mike Howard had three attend the flyout to Pella IA last Saturday where 80 other aircraft were on the ramp and lots of people in attendance.

Social Coordinator: The next event is the Plattsmouth chapter BBQ on September 11th.

IMC/VMC: The last VMC and IMC meetings are this week and will resume again in October.

VP: Bob Dyer reported the guest speaker in June is Bob Condrey on the 2022 EAA AirVenture, and the following month Jim Greer is covering AWACS.

PRESIDENT: Bruce provided the following:

- Chapter 80 received its Gold Star status.
- A Rans S-19 Venterra is being raffled off on December 17th. Tickets are \$100 each with a limit of 2500 tickets available. Contact Bruce if interested.
- We are in need of a Scholarship Chairman volunteer and Friends of EAA80 Liaison chair.
- Bruce is ready to brief the chapter hangar concept to the Millard airport manager first, then the Omaha Airport Authority.
- Bruce is on the Millard STEM Advisory board.
- Jim Byer is trying to set up a chapter base camp at Oshkosh this year. See him for more information.

- Bruce would like to start gathering a record of Chapter 80's history: first flights, presidents, locations, etc...
- There is an effort to update our website mid-year. Help is requested.
- If there is enough interest he is working on new Chapter 80 T-shirt ideas and then will sell them.

Calendar:

Jun 13, Chapter Meeting, Millard Airport

Jun 18, Young Eagles, Millard, 8am

Sept 11, Chapter BBQ, Plattsmouth Airport

Sep 24, STEM Day, location TBD

Old Business:

- Bruce has drafted a Letter of Intent to possess the Glastar project offered to our chapter.
- There have been no bids on the sale of the Zenith 750. If no bids are received in the next few weeks he will offer it up for sale on Barnstormers.

New Business:

- We have been offered a one-of-a-kind Corvair engine pusher aircraft (N15CF) to anyone that wants it. The engine is mounted in front with a pusher prop. It last flew in the 70's and is currently not airworthy.
- Marty Samuel has aviation parts and avionics for sale. Contact him at maritimesend@gmail.com

Announcements:

- Jim Beyer still has RV4 raw metal available for sale, Millard hangar C1.
- EAA Chapter 64, Millstadt, Illinois, is raffling off a 1946 Ercoupe 415-C as the grand prize. Tickets are \$50 each or 3 for \$125. Winners to be drawn on June 1, 2022. To purchase or see details, go to: rafflecreator.com/pages/52380/aerocareers-aircraft-raffle
- Howie Hague provided information on an RC Jets rally for Make-A-Wish at the KC Lee Summit airport. Making this a chapter fly out event was discussed for June 25th. The rocket club is flying their machines tomorrow night in Bellevue.
- There is an RV fly-in at Boone IA this Saturday.

- Tommy Ostlund said the EAA is seeking donation money (\$800k) to rebuild the center section of the EAA Tri-Motor.

Presentation: Collin Caneva provided a presentation for the STOL drag races scheduled this year from June 20-22 at Wayne Municipal Airport (KLCG). Collin is a STOL racer and participated in 12 competitions last year. Last year was the first time for this event at KLCG and there were 17 competitors and 250 aircraft in attendance. They raced on Thursday and Friday but unfortunately Saturday and Sunday were canceled due to the high winds. This year there are 42 racers signed up from 22 different states. Go to MAYDAYSTOL.COM for this year's information. Thursday is for training, Friday for qualifying, and Saturday for the championship races. Thursday and Friday practices are 12-2pm. The Friday and Saturday races are from 4-8pm and the field is closed during this time. Fly-in aircraft are welcomed. Off-field camping is available at mid-field. ATC will be available. Volunteers to help with the event are welcomed.

Next Meeting: The next meeting is June 13th at Oracle Aviation, Millard Airport, at 7pm.

Technical Advisor

→Koehler's Korner→



I have promised to chat for the last two months on ignition system alternatives to magnetos, so will try to meet some of that promise this month, but first, a couple of general

comments. I never did make it to Sun N Fun. My plan was to go on Thursday so that, among other things, I would get the latest and most advertised on ignition systems. However, a major line of storms came through on Thursday and SNF was a total washout. I was easily able to alter my plans and go on Friday. I planned to arrive mid morning after the initial rush, driving over from Tampa where I was staying with a niece. I drove up I-4, off at County Line, and left onto Pipkin, like I have done dozens of times, and promptly came to a halt in traffic. This was about 0945. At 1115 I had moved about a half mile toward the gate, which was at least 1.5 miles yet to go. Doing some simple math, I realized I would not get in until late afternoon, at best, and turned around and left the pattern. It turns out the soaking rains of Thursday had turned the parking area into a quagmire, with multiple



**For Sale: Zenith 750 STOL
EAA 80 Chapter Build Project**

\$65,000

**E-mail inquires to:
RECCEFAIP@aol.com**



Stock Image



Stock Image

Specifications:

- Corvair, 6-cylinder, air cooled engine; William Wynne acft. mod
 - 100 hp at 3300 rpm; New, test stand hours only
 - Rotec slide plate carb w/pressure regulator
 - Dual point & dual coil ignition
- 68" Warp Drive propeller; ground adjustable
- Custom panel; Dynon HDX 10.5" glass with:
 - Mode-S transponder; ADS-B in & out; GPS moving map w/wx
 - Full engine monitoring system; Back-up internal battery
- Upgraded fuel system; 30 gals, w/aluminum fuel lines
- Improved nose gear suspension; Low pressure off pavement tires
- LED nav, strobe and landing lights
- Dual toe brakes, sliding seats, bubble doors, center control stick
- Experimental; Light-sport

Build Nearing Completion! View at Oak View Mall, Omaha NE

cars getting stuck. The parking staff was totally overloaded and parking was reduced to a trickle. I know the elements can intercede to cause chaos, but the SNF folks appear to not have had any contingency for this. There were no announcements on the SNF Radio, and no notifications to the waiting cars. This was bad planning and really needs to be addressed in the future.

On a brighter note, Chuck Kyle finished his Zenith 701 Cruiser and had a successful first flight during April. I have been Tech Counseling Chuck for the last several years and also provided Flight Advisor services. Chuck did it right, getting flight experience at Zenith and local flight time in a similar plane around his first flight airfield (CJR). I strongly suggest a presentation for a Chapter meeting by Chuck on his planning and successful execution of his first flight. Remember,

capacitive discharge type, like modern auto car ignition systems and provides variable timing based on RPM, and a consistent spark energy level, irrespective of RPM. Additionally, it costs less than a new magneto and allows the use of automotive spark plugs. Most builders install the Lightspeed in place of the left magneto which has the impulse coupling or Shower of Sparks. The variable timing and hot spark give very reliable starting, but when the pilot turns on the right mag, it fires at its fixed firing point (usually at 25° BTDC and dominates the ignition process, causing a typical rough idle and no performance improvement over a mag only system. At very high altitudes and low RPMs, it is possible the Lightspeed ignition may get out in front of the mag and give some small performance improvement, but other than starting the Lightspeed -on-one-side-only approach.



<https://www.centralcylinder.com/>

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statistics say that the average homebuilt has a 10% probability of an accident in the first ten hours of Phase 1 flight test.

Let's finally go on to alternate ignition systems. A lot of folks use Bendix and Slick mags, and mags are extremely simple and reliable, if properly maintained, but they do have some limitations, including a weak spark at low RPM, and a fixed firing point at all RPMs. To mitigate these issues at least one mag is equipped with either an impulse coupling or a Shower of Sparks system, as discussed in an earlier KK. So, many homebuilders have gone with electronic ignition systems, most of which are not legal to use on certificated aircraft.

Probably the most common experimental electronic ignition system is one made by Lightspeed. The Lightspeed system is of the

So, the obvious solution is to install a dual Lightspeed-like system, totally getting rid of the magneto. However, if you have a dual electronic ignition, you must have a back-up electrical system, because the Lightspeed type systems require an external source of power. If you have only a single battery/alternator electrical system and you lose it, the engine will stop! The problem can be solved by having either a back-up battery protected so that it will be fully charged to operate the electronic ignition if the primary electrical system fails, or a fully functional second electrical system. On many modern homebuilts, with no vacuum system, there are "back-up" alternators that can be mounted on the unused vacuum pump drive pad.

Plan on spending about \$2500 to \$3000 for a dual Lightspeed ignition system, plus the cost of the back-up electrical system.

There are several other options for experimental electronic ignition systems, most all of which must have back-up electrical power if installed in a dual configuration. The big exceptions are systems that have included a Permanent Magnet Generator (PMG) so that they can generate their own electrical power. The PMG makes them “self contained” ignition systems like a magneto, but the electronics give variable timing and a hot spark for starting. An example of this is the P-Mag by E Mag. Simply put, E-Mag has enclosed the electronic ignition system and a PMG inside the shape and volume of a normal magneto. The system has been STC'd for use on certificated aircraft, I believe. Typical costs for a four-cylinder E-Mag is about \$1700, plus costs for a new ignition harness, possible new gear(s), and plug adapters running the price up around \$2000 per mag. By comparison, if you have your current mags overhauled, expect to pay a bit less than \$1000, or roughly half the cost of conversion. If you believe the testimonials, you can save about 10% of fuel burn, which

would be a gallon per hour for my O- 360 Lycoming. If you fly 100 hours per year, that adds up to 100 gallons of fuel at whatever fuel costs at the time. Right now, fuel around here is about \$6.00/gallon, or a cool \$600 per year, which gives payback on a two-mag conversion to electronic in about three and a half years, not counting saving for using automotive plugs on your homebuilt.

Another company making a similar self-contained electronic ignition system is SureFly, with similar costs.

Hope this little discussion of ignition systems helps you understand part of what is going on under the cowl of your plane.

There will be an EAA SportAir Workshop in Oshkosh on the weekend of May 21 – 22. I will be teaching the Electricity course, but Sheet Metal, Composites, and Fabric Covering will also be offered. Hope to see some of you there.

Keep building, flying and maintaining.

Dick 05/2022

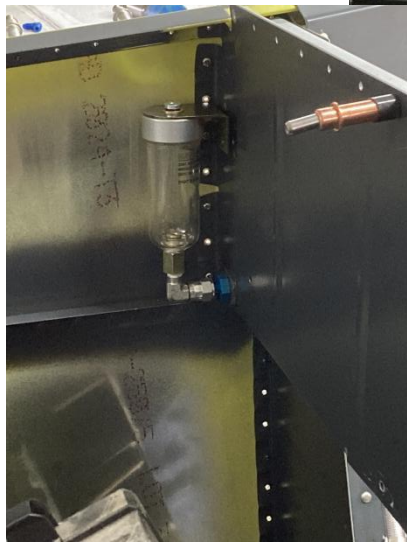
Photos

Here is a photo of the chapter Zenith project getting ready for the scales!



Photos (cont.)

Michael Stahl continues work on his RV-8. Fuel & Brake lines in the fuselage and firewall work to install the heat selector and grounding block are complete. Final riveting of the “canoe” is in progress. Keep smashing those rivets!



Upcoming Webinars

[Home Flight Simulation for Training and Proficiency – Part II](#)

Qualifies for FAA WINGS credit.

6/8/22, 7 p.m. CDT

Evan Reiter and John Albers

[Aluminum Overcast, the history of EAA's B-17](#)

6/14/22, 7 p.m. CDT

Chris Henry and Ben Page

[Getting Started With the Skew-T Weather Diagram](#)

Qualifies for FAA WINGS credit.

6/15/22, 7 p.m. CDT

Scott Dennstaedt

[Tips for Flying Into EAA AirVenture 2022](#)

Qualifies for FAA WINGS credit.

6/22/22, 7 p.m. CDT

Fred Stadler

[EAA AirVenture 2022 Features and Attractions](#)

6/29/22, 7 p.m. CDT

Rick Larsen and Dennis Dunbar

[TBO 5000](#)

Qualifies for FAA WINGS and AMT credit.

7/6/22, 7 p.m. CDT

Mike Busch

[EAA's Online Builders Log](#)

Homebuilders Webinar Series

7/5/22, 7 p.m. CDT

Don White and Charlie Becker

[Squawk Talk — All About Radar and Transponders](#)

Qualifies for FAA WINGS and AMT credit.

7/13/22, 7 p.m. CDT

Prof. H. Paul Shuch

[Homebuilt Highlights from AirVenture](#)

Homebuilders Webinar Series.

8/2/22, 7 p.m. CDT

Marc Cook

[The Culver PQ-14](#)

Museum Webinar Series.

8/9/22, 7 p.m. CDT

Chris Henry and Ben Page

[The Treasures of Pioneer Airport, Part 1](#)

Museum Webinar Series

9/13/22, 7 p.m. CDT

Chris Henry and Ben Page+

[Flying With Datalink Weather—ADS-B and SiriusXM Tips](#)

Qualifies for FAA WINGS credit.

9/28/22, 7 p.m. CDT

John Zimmerman

[Tax Exempt Basics](#)

10/13/22, 7 p.m. CDT

Patti Arthur

These are the current webinars listed on eaa.org.

Please check the site at:

www.eaa.org/en/eeaa/news-and-publications/eeaa-webinars to see if there are other webinars available.

EAA Chapter 80 is classified as a Non-Profit Charitable Organization per section 501(c)3 of the Internal Revenue Code. As a result, we are eligible to receive tax-deductible contributions in accordance with Code section 170.

Your contributions will go towards such things as:

- ✓ Aviation scholarships
- ✓ Scholarships to send kids to EAA's Air Academy in Oshkosh, Wisconsin
- ✓ Helping promote Young Eagles events and rallies for the community
- ✓ Many other events that promote aviation in the Eastern Nebraska and Western Iowa region.

EAA 80 is a 100% volunteer organization, there are no paid members to the staff. Our only funding comes from chapter dues and occasional fund raising.

Please visit our website eaa80.org or contact an officer to inquire about making a tax free donation.



EAA CHAPTER 80

NEW MEMBER APPLICATION FORM

CONTACT INFORMATION

NAME:

EAA #:

HOME ADDRESS:

SPOUSE NAME:

HOME PHONE #:

E-MAIL ADDRESS:

CELL PHONE #:

PROFESSION:

RETIRED? [☐ Yes ☐ No]

MEMBERSHIP PROFILE

OWNED AIRCRAFT? [☐ Yes ☐ No]

TYPE:

N-NUMBER:

AIRCRAFT BUILDER? [☐ Yes ☐ No]

TYPE:

% COMPLETE:

AIRPORT BASE:

HANGER:

PILOT LICENSE/RATINGS:

JOIN E-MAIL GROUPS: [☐ Fly-Out ☐ Builders ☐ Young Eagles ☐ AirVenture ☐ Chapter Build]

YOUNG EAGLE

VOLUNTEER? [☐ Yes ☐ No]

YOUTH PROTECTION

TRAINING CURRENT? [☐ Yes ☐ No]

OK TO PUBLISH INFO. IN

CHAPTER DIRECTORY? [☐ Yes ☐ No]

DO YOU HAVE

A NAME TAG? [☐ Yes ☐ No]

YEAR JOINED

EAA80?

PAYMENT – DUES \$25/YEAR

PAYMENT FOR YEAR(S): [☐ 2022 ☐ 2023 ☐ 2024 ☐ 2025 ☐ 2026]

PAYMENT DETAILS: TYPE:

AMOUNT:

DATE:

MAIL CHECK TO:

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