



President

Bruce Mundie
703-405-7817

president@eaa80.org

Vice-President

Bob Dyer
402-740-9309

vicepres@eaa80.org

Secretary

Craig Tylski

secretary@eaa80.org

Treasurer

Steve Farner
402-690-8751

treasurer@eaa80.org

Membership Coordinator

Rich Kolkman
402-616-9891

membership@eaa80.org

Tech Counselors/

Flight Advisors

Mike Howard
402-991-0403

&

Jerry Ronk
402-980-8973

&

Bob Condrey
402-651-0402

tech-counselors@eaa80.org

Young Eagle

Chair

Scott Pridie

youngeagles@eaa80.org

Newsletter Editor

Chris Halfman
402-618-3148

newsletter@eaa80.org

Web Editor

Dale Botkin
402-983-2661

webmaster@eaa80.org

News!

October 2022

On the Web: www.EAA80.org

Facebook: www.facebook.com/eaa80

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President's Corner

Bruce Mundie



Big month ahead for your president: I'm flying the Nieuport to the Air Force Museum in Dayton, Ohio. They will open-up Wright Airfield at the Museum and we will put on a 2-day air display highlighting World War I airpower. Wish me luck as a fly across the heartland at 70 mph!

Should we sponsor an Air Academy student? I think the answer is yes! I would like to consider the timing, vetting and scholarship amount soonest. Please let me know if you have any ideas.

The chapter Zenith 750 build will be moving out of ABLE ACE very soon, and it is time to move the Glastar so it can take its place. If you are interested in helping build the next Chapter 80 project, please let me know. We will need help moving it into the mall!

Lots of updates and additions to the chapter website. eaa80.org Please visit and your feedback is requested!

Chapter elections will be coming up in December. Please let me know if you are interested in a leadership position. We are a very active chapter and there are nearly endless possibilities for where we can go

next... your ideas and leadership are requested.

Looking to hold our monthly meeting at the Millard Airport in Oracle's main hangar with the Civil Air Patrol as our next speaker...BUT, we will check the weather forecast...if it is too hot (or too cold), we will flex to the Oak View Mall. I will send out any changes via e-mail and on Facebook.

Thanks, and Fly Safe
Bruce

Calendar of Events

Sep 24, STEM/YE Day, Oracle Aviation
Oct 10, Chapter Meeting, 7pm, Oracle Aviation, Millard Airport
Oct 13, IMC Meeting, Oracle Aviation
Oct 15, Young Eagles, Millard Airport
Nov 14, Chapter Meeting, 7pm, Oak View Mall Able Ace facility

Miscellaneous Notes

Vice President

Bob Dyer

The October 10th meeting presenter will be Steve Moffitt from the Civil Air Patrol

If you have any future presenter ideas, drop Bob Dyer a note.

Young Eagles

Scott Pridie

The chapter flew Young Eagles at Plattsmouth and Millard in September. During STEM Day, 44 kids were given rides, bringing the total for September to 51.

Thanks to all the pilots in our chapter that helped to accomplish this.

Membership

Rich Kolkman

The Chapter welcomed four new members last month:

Matt Insko, Papillion
Tony Holmes, La Vista

As was mentioned in a chapter email, long time member Duane Clausen passed away September 21.

Member's Projects

Ron Hansen-Sonex

I purchased a finished Sonex that needs some TLC. I plan to use the tech counselors to make sure it's safe to fly as I work through some of the issues identified during the pre-buy inspection.



It looks like my project is going to be a significant surgery where we need to rebuild several structural parts and rebuild the VW engine prior to reassembly. It's probably going to keep me busy all winter and well into next year. Given the way these projects never seem to get finished on time, maybe it will be a full year. We'll see. I have a large heated and air conditioned shop space with plenty of lighting so I'll at least be comfortable while doing it.

Members Spotlight



Steve Farner grew up in Ames, Iowa. He received his pilot's license while in High School in the early 1980's, and soon after purchased a 1/3rd interest in a Cessna Hawk XP. He attended Iowa State University, where he became instrument rated. Most of his flying was local or short cross countries, but he did fly to Canada for a fishing trip.

After college, aviation was put on hold. He sold the plane and moved to Omaha to work in his family's candy and grocery wholesale business. After a few years in the business, he decided on a career change and attended graduate school at the University of Nebraska- Lincoln. He received his Ph.D. in Organizational Behavior and Human Resource Management.

He taught management at The University of Nebraska and Bellevue University for about 20 years, with his focus on the corporate education market. He retired from academics 5 years ago and returned to the family business, which had sold. He returned to manage the wind down process. He is still managing that, along with other business investments.

He and his wife Jeanne have 4 kids between the ages of 17 and 23. He has remained close to aviation. His family regularly camped at Oshkosh while the kids were growing up. He is active in the Omahawks RC club and regularly flies model airplanes with his son Jack. He also has an RV 10 tail cone kit that is about half completed but has pretty much decided that building is not for him. He has not given up yet because he is hoping one of his kids will take an interest in the project. He has been a longtime member of EAA and has become more involved by serving as Treasurer this past year. He is currently working on once again becoming instrument current.

EAA Chapter 80 Meeting Minutes

September 2022

The chapter meeting was held on September 12th at the Millard Airport, Oracle Aviation, and called to order at 7 PM by Bruce Mundie.

Guests and New Members: New members present included: Tony Holmes (part owner in the RV-12); and Tom Cable (exchange RAF pilot at Offutt).

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

Treasurer's Report: The August treasurer's report was provided in the chapter newsletter and approved. The opening balance was \$15,333.34. The ending balance is \$15,055.95.

September Treasurer's Report

EAA 80 MONTHLY TREASURER REPORT September, 2022

Opening Balance		\$15,052.95
DEPOSITS		
	OSH Camping	\$1,505.00
	Clothing Sales	\$100.00
	Aluminum Sales	\$11.00
EXPENSES		
	Zenith Expenses	\$57.14
	OSH Camping Reimbursement	\$1,620.00
	Zenith Registration	\$15.00
	SecState Registration Fee	\$27.00
	Able Ace Rent	\$150.00
	Ray Scholarship	\$4,000.00
Ending Balance		<u>\$14,799.81</u>

Membership: Rich Kolkman reported that 100% of the 110 active members have paid their 2022 dues. Eight people were dropped from the membership due to non-payment of dues, and four new members were added: Cheryl and Jim Schmidt, and their grandsons Samuel and William Mahan.

Scholarship:

- Delaney soloed on August 30th at Plattsmouth airport. National has released \$4,000 for the scholarship (\$8,000 so far paid).

Tech Counselors:

- Bob Condrey recently inspected a purchased Vans aircraft and reported several discrepancies with electrical wire protection. He discussed various means of protecting wires going through the frames and had examples to show. More detailed information will be provided in the next newsletter. His main advice was to spend the time protecting the wiring.

Young Eagles (YE):

- There will be YE flights during STEM day at Millard on 9/24. There will not be sign ups, and will be first come first served. Pilots and ground crews are requested.
- YE's were flown at Plattsmouth during the Plattsmouth Days and during the chapter picnic.

Tools: No report.

Friends of EAA80: Hague Howie reiterated STEM day on 9/24. There will be a pancake breakfast starting at 7am for exhibition members and pilots. The public will be served starting at 8am. Several helicopters, the AT6 and other display

Builder Meeting: Mike Stahl had a review of his RV8 prior to the chapter picnic. Several members showed up. The controls are installed and he's moving on to the avionics next.

Chapter Build:

- Mike Howard reported that the doors and windshield are being fitted on the Zenith.
- The RV12 at Able Ace has the basic kits almost done. Then the intent is to sell the project as is.

Fly-outs: None reported.

Social Coordinator: There were 70 meals served at the EAA Chapter picnic at Plattsmouth airport and considered a big success. The estimated cost came to about \$2.50 per person. Ed thanked all those that helped set up and clean up afterwards.

IMC/VMC:

- The IMC meetings will start up again on October 13th at Oracle Aviation and run through the fall and spring. There is FAA FAST credit for attending these.



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aircraft will be on hand. Hague needs help moving the Able Ace RV12 project from the mall to Burke High School on Thursday morning.

Builder Reports:

- Bill Haas has been running the engine on his Berkut.
- Bob Gilbert is programming the Garmin avionics on the RV10 and expects to run the engine today.
- The Bearhawk is very close to flying.

- The VMC is likely to also start up, but no firm date given.

VP: Bob Dyer reported that tonight's speaker could not make it. Mike Howard agreed to make a repeat presentation on aviation fuel. Next month's speaker is Steve Moffitt from the CAP.

PRESIDENT:

- Bruce was able to update our website. He has included first flights dating back to 1928. He has a roster of the former

chapter presidents. He has history on Bill Durand and Walter Meyers from the old days of the chapter. Bruce would like for us to submit project photos for inclusion on the website.

- The Offutt AFB runway reopens on September 30th. Just a reminder that the tanker IFR pattern at Offutt takes them directly over Millard at 3,000' MSL (head up!).
- Bruce is taking his Nieuport to Dayton Ohio in October to be on display.

Calendar:

Sep 24 STEM/YE Day, Oracle Aviation
Oct 10 Chapter Meeting, 7pm, Oracle Aviation, Millard Airport
Oct 13 IMC Meeting, Oracle Aviation
Oct 15 Young Eagles, Millard Airport
Nov 14 Chapter Meeting, 7pm, **Oak View Mall Able Ace** facility

Old Business: None

New Business: None

Announcements:

- Bruce has two oil sample kits (\$30 value) he has donated to the chapter and is willing to sell them for \$25 each.
- The Nebraska City fly-in is September 18th.
- There were two drawings for prizes. The Chapter 80 T-Shirt was won by Tommy Ostlund; and the aircraft chocks by Jerry Mason.

Presentation:

Mike Howard had a repeat presentation on "What is Gasoline". Notable was that on 1/3 of 1% of refined gasoline is aviation fuel. Aviation fuel, due to the lead additives, cannot be flowed in the normal gas supply pipelines due to contamination of the non-leaded auto fuels - hence the high prices for Avgas. The FAA is testing unleaded Avgas and some is in use. There is a GAMI STC to

run 100 Octane unleaded fuels for certified aircraft. The STC costs \$100-\$1000 depending upon the aircraft. For aircraft using auto fuels, it is recommended to never use ethanol fuels due to the absorption of water.

Next Meeting: The next meeting is October 10th at Oracle Aviation, Millard Airport, at 7pm.

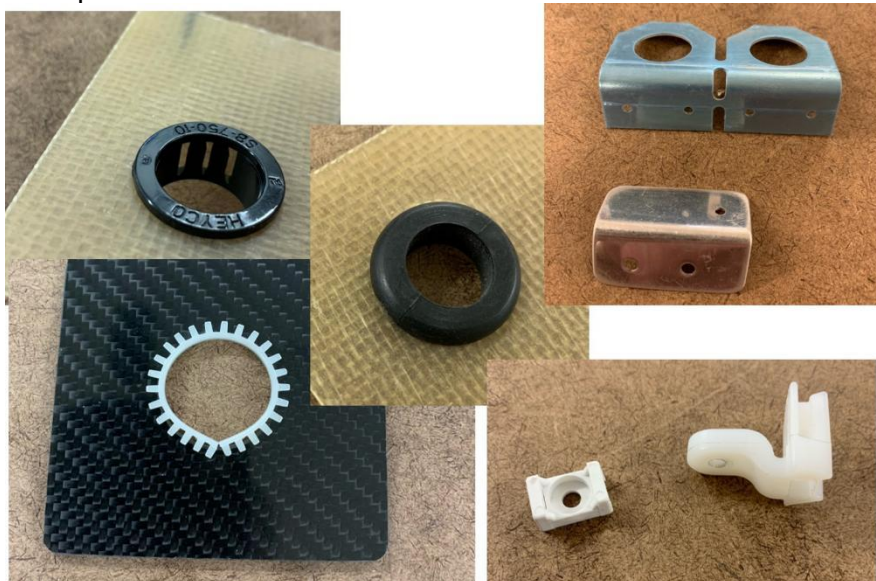
Technical Advisor

Protect Those Wires!

Bob Condrey

Most of us builders spend quite a bit of time and effort protecting wiring forward of the firewall because we KNOW that it's a harsh environment. That said, much of that same vibration makes its way through the rest of the airframe too! It's not uncommon to see wiring in a fuselage or wing that hasn't had quite as much focus. It's truly surprising how much things move over the course of a year between conditional inspections!

With a little creativity and scrap, most builders



can make clips and mounts easily enough. Be aware though that there are a number of commercial products readily available. Shown are snap bushings, rubber grommets and "caterpillar" edge grommet to protect wiring & tubing where it passes through a hole. All of these are available in a multitude of sizes for different material thicknesses and hole sizes. Vans Aircraft sells premanufactured aluminum

mounts for snap bushings and cushioned (Adel) clamps. Many people aren't aware that Van's will sell parts to anybody, you don't have to be building a RV. There are also nylon mount bases for zip ties; these can be used to secure wiring bundles, tubing or conduit. There are also nylon mounts specifically meant for ribs & bulkheads that have a flanged lightening hole!

While it probably wouldn't take much time to find a power wire that is shorted to the airframe and keeps blowing fuses or popping a circuit breaker, it can take a very long time to track down a problem that is being caused by a signal wire intermittently shorting to another wire or the airframe, or even a piece of tubing with a small hole worn in it.

→Koehler's Korner→



I've been doing a lot of maintenance on the Mooney this past month, including replacing the vacuum driven Attitude Indicator with a modern electronic version, redoing the main

instrument panel mount system, and replacing all the fuel tank drain valves, which will be the topic of discussion for this month.

All aircraft fuel tanks are required to have a system in place to remove any water or solid contamination that gets in them. Water can come from a leaking fuel cap or condensation as the temperature rises and falls through the day. Water in your fuel can ruin your whole day, so it must be removed. Fortunately, water is heavier than avgas and jet fuel and does not mix at all with avgas, assuming there is no alcohol in the avgas. Water takes a long time to come out of jet fuel which causes other issues that we are not going to cover here. So from here on, we will only discuss avgas systems.

Each fuel tank in an aircraft must have a low point, usually called the sump, in which water can settle. The fuel pickup for the engine will be slightly higher in the tank, so as to avoid sucking in this water. The lost volume of the tank is accounted for in the "unusable fuel"

which is actually included in the empty weight of the aircraft. Each one of these sumps must have a drain valve system in it. These drains come in a variety of shapes and sizes and used to be made by several different companies. Several years ago, there was consolidation in the field, and now two companies have emerged having bought out most of the others that provided valves for GA. The two are Curtis and Saf-Air, which actually make some valves that are direct copies of each other, such as the old F391 series of valves.

Curtis is noted mostly for their brass barbed valves that operate with a quarter turn of the two pins or ears on each side. These are very common on gascolators and older Piper products, such as Cherokees. Saf-Air, on the



other hand, tends to specialize in low profile (some call flush) valves that require a pin pushed up in the center to actuate them, such as this picture of the underside of my Mooney's wing shows.

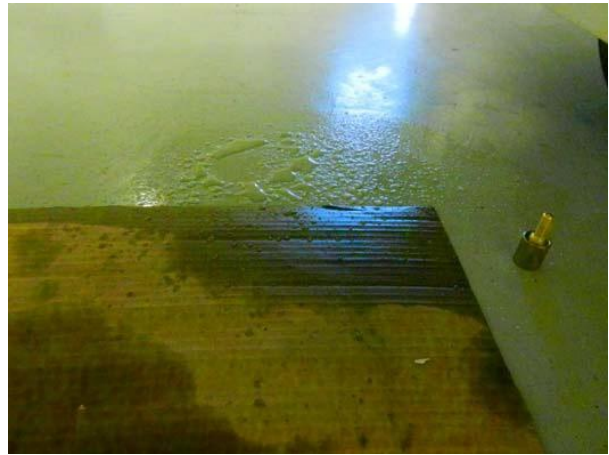
The spot to the right of the valve with the four rivets is the old really flush valve that was permanently riveted in the tank from the inside, making it impossible to replace without opening up the tank. As a product improvement from Mooney many years ago, the removable valve was installed that you see here.

The easiest way to remove a valve is with a ratchet wrench and appropriately sized socket. This picture shows tools and a can of "EZ-Turn" grease, also known as fuel-resistant grease. It is a good practice to butter the threads and sealing o-rings on the valves prior to installing them with the EZTurn. The standard sample cup is also in this picture in the next column.

To actually change a valve, all you have to do is unscrew the old one and replace it with the new (greased) one. If the tank is empty, it is a piece of cake. If the tank has fuel in it, you have two choices, drain the tank, or do what is referred to in the industry now as the "Indiana Jones Maneuver" where you quickly unscrew the old valve, and then quickly insert the new one, letting some fuel escape in the process. If you are reasonably quick, put your finger over the hole when both valves are out, and have everything ready to go, you will spill about a pint or so of fuel, much of which goes down your arm and burns when it hits the more tender areas of the armpit!



This is what my arm looked like after doing two valves. The outboard tanks were dry. The Avgas washed all the oils from my skin and left it clean and very dry. An immediate shower felt good. Turned out spilling some "fuel" out of one of the sumps was a good deal, as it had water in it. Here is the floor under that sump after the valve change:



You can see the beads of water on top of the spilled fuel. If you have not seen it before, here is a sample cup with about 30% water in it.



Note that the water is dirty, indicating bad things growing in it, and perhaps the result of corrosion in the tank.

Here are the valves, as removed and new, from one wing.



These valves, which are part of the old F391 series, originally made for cars, are made from 1144 steel and then cadmium plated, so they will corrode in the presence of water. Originally, the inner valve could be removed with a clip, and a new o-ring installed, but as you can see, the new ones are crimped and

the inner o-ring cannot be replaced in the field. This is true for most fuel drain valves now. Good news is that both companies make compatible versions for around \$20. My old valves are at least 10 years old.

Note that these valves are straight threaded and have a sealing o-ring at their base. Some valves are pipe threaded and will require a fuel proof thread seal (EZ-Turn will work). Be very careful to not over tighten the valves to get them to seal. I have had to replace a cracked tank fitting on two planes and both

were major repairs involving opening the tanks, riveting, and new, expensive, tank sealant.

Hope this little maintenance tip helps you maintain your plane and keep it safely flying.

Keep building, flying, maintaining, learning and having fun.

Dick 09/2022



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.



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Photos! STEM/Young Eagles



Girls Inc.



Left: Tommy Ostland
Below Right: Dave Segar
Below Left: Mike Bink



Photos! (cont.)



L to R: Ward Combs, Robert Graham, Bruce Mundie

R: Tony Holmes



L: Ron Hansen

Below: Bruce Mundie



Photos! (cont.) EAA 80 Picnic!



Upcoming Webinars

[On a Short Leash – Maintenance Costs](#)

Qualifies for FAA WINGS credit and AMT credit. .

10/05/22, 7 p.m. CDT

Mike Busch

[The Treasures of Pioneer Airport, Part 2](#)

Museum Webinar Series

10/11/22, 7 p.m. CDT

Chris Henry and Ben Page

[Oil Changes as a Diagnostic of Engine Health](#)

Qualifies for FAA WINGS and AMT credit.

10/12/22, 7 p.m. CDT

Bill Ross

[Tax Exempt Basics](#)

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

Patti Arthur

[When the Engine Goes Silent](#)

Qualifies for FAA WINGS credit.

10/19/22, 7 p.m. CDT

Larry Bothe

[Guidance for Using Young Eagles Online Registration and Digital Signature](#)

10/25/22, 7 p.m. CDT

David Leiting

[Avoiding Loss of Control](#)

Qualifies for FAA WINGS credit.

10/26/22, 7 p.m. CDT

Catherine Cavagnaro

[Real-Life Breakdowns](#)

11/2/22, 7 p.m. CDT

Qualifies for FAA WINGS and AMT credit.

Mike Busch

[Using AeroEducate in an Education Environment](#)

11/3/22, 7 p.m. CDT

Paul Maloy, AeroEducate Program Manager
and Danielle Schmick, AeroEducate Educator

[Past Aircraft of the Collection](#)

Museum Webinar Series

11/8/22, 7 p.m. CDT

Chris Henry and Ben Page

[Talk to the Tower — Communicating in Controlled Airspace](#)

Qualifies for FAA WINGS credit

11/9/22, 7 p.m. CST

Prof. H. Paul Shuch

[EAA Ray Aviation Scholarship – 2023 Update](#)

11/15/22, 7 p.m. CST

Christopher Gauger

[ForeFlight IFR Pro Tips](#)

Qualifies for FAA WINGS credit.

11/16/22, 7 p.m. CDT

Gary Reeves

[Flying the World's Fastest Airplane, the SR-71](#)

11/22/22, 7 p.m. CDT

Phil Soucy and Ed Yeilding

[Hosting a Young Eagles Rally – Advanced Best Practices](#)

11/29/22, 7 p.m. CDT

David Leiting

[When Data Doesn't Look Right](#)

Qualifies for FAA WINGS and AMT credit.

12/7/22, 7 p.m. CST

Mike Busch

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

NEW MEMBER APPLICATION FORM

CONTACT INFORMATION

NAME:

EAA #:

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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:

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EAA80 MEMBERSHIP
C/O RICHARD KOLKMAN
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FOR MORE INFORMATION:

MEMBERSHIP@EAA80.ORG
WWW.EAA80.ORG
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