



EAA Chapter 478  
***COCKPIT CHATTER***  
Lexington Park, MD August 2023  
**A Bronze EAA Chapter**



**EAA Chapter 478 Monthly Gathering**  
**August 15, 2023, 6:30 PM, 2W6 Terminal Building**  
**Conference Room**  
**Program: Review of AirVenture 2023 – Audience**  
**Participation required**

**In this edition of Cockpit Chatter**

**From The Top** – AirVenture as big as ever, Chapter Calendar is FULL!

**Board of Directors Meeting Minutes** – 1 August 23

**Treasurer Report** – Current Status

**Young Eagles Corner** - 30 Young Eagles Flown – John Attebury, Upcoming Events

**The Homebuilder's Corner** - Challenger II

**The Flying/Maintenance Corner** – Maintenance Induced Failure, AirVenture PIREP, Bay Bridge Airport NOTAM, Nyce Airport Official

**For Sale** – Free wire

**FROM THE TOP**

Tom Weiss, President EAA Chapter 478

EAA has published some statistics from AirVenture 2023, they are 677,000 total attendance, 10,000+ airplanes, 5,500 Volunteers, 1,400 Forums and Workshops, 848 Exhibitors, \$170M economic impact to the Oshkosh region. It is obvious, you can't possibly see everything but there is also something for everyone.

Note the NOTAM later in this issue pertaining to Bay Bridge Airport Runway closure.

We have a great opportunity in September for a fly-out event to see the first Air Force One aircraft. Planning is on-going, but for now save the date of Friday 29 September. More information is in the Up Coming Events section of the Newsletter.

The Chapter Calendar is very full for the next 2 months, hope you can attend these events and contribute to the success of the Chapter.

The Chapter is moving forward with planning a Chapter Build and Fly program. If you are not familiar with the Build and Fly program go to the EAA.org site and check it out. The Museum will host this event, we have Chapter volunteers and we have some interest from the local AMA chapter. We have received the aircraft kit from EAA, waiting for the electronics and other components. We have also ordered an additional airframe kit that has not arrived. This will be a great program, but the planning is critical to ensure it is educational and enjoyable for the Young Eagles.

We need a volunteer to provide a container for worn out aircraft tires that can be re-treaded. The container would be placed outside of Sid Wood's hangar as agreed to by 2W6 management. Not anything too elaborate, simply something with Signage and a lid to protect from the elements. It should hold about 20 tires. These tires can be recycled for \$5.00. This tire recycling effort is a fund raising opportunity for the Chapter. If you are willing to build a box or if a group of Chapter Members are willing to build a box, let me know.

There have been two significant updates to the Chapter Website (<https://chapters.eaa.org/ea478>) thanks to the hard work by Chris Moody. The first I mentioned above is the posting of the pictures from our Young Eagle Rallies. The second is we now have a "Donate" button on the page for general donations to the Chapter, this is different from the Chapter membership button. Membership through the website is \$21 per year, the donate button allow any amount to be entered. We have had several people ask how they can donate in the past and haven't had a good method, this should enable donations.



Donation QR Code for EAA Chapter 478

Enjoy the weather, I look forward to seeing you at an upcoming Chapter event.

## **UPCOMING EVENTS**

August Gathering – 15 August  
August VMC Meeting – 19 August  
Young Eagles Rally 2W6 – 1 September  
Picnic – 16 September  
Lawrenceville VA Young Eagles – 23 September  
Fly-Out to Bridgewater VA – 29 September

# EAA 478 Fly-Out to Bridgewater Aircraft

September 29<sup>th</sup> (Rain/weather date: Sept 30<sup>th</sup>)

Time: 10 a.m. – 12 p.m. (or more, please see below)

Location: 1402 Airport Road, Bridgewater VA 22812

Airport Code: KVBW

Dynamic Aviation in Bridgewater, VA extended an invitation to our chapter to visit the First Air Force One at KVBW. First Air Force One is the 501c3 non profit organization behind the restoration of President Eisenhower's Lockheed Constellation VC121A "Columbine II" based at Dynamic Aviation. Please see the attached link for more info on Columbine II and the restoration project: <https://youtu.be/wZ59hCefH8w>



The tour will give us the opportunity to:

- Tour the First Air Force One restoration project and learn about the history of this aircraft as well as their future plan for it once completed
- Tour their other vintage aircraft fleet including Miss Virginia C-47, T-6 Texan, Beech 18, and Stearman among others
- Enjoy local donuts and coffee

As stipulated in the header, the planned First Air Force One / Legacy Hangar tour is scheduled from 10 – 12. Dynamic Aviation (<https://www.dynamicaviation.com/>) specializes in a range of aviation services, including DoD work, so if there was interest from those who are planning to attend, I will see if Dynamic Aviation would be willing to expand the tour to include an intro to some of the other areas they're working and are involved in. Dynamic owns and operates 150 unique aircraft, including primarily Beechcraft King Airliners and DeHavilland Dash-8s but also the Boeing 737s and the legacy fleet. Dynamic Aviation specializes in a range of aviation services. They offer Intelligence, Surveillance, and Reconnaissance (ISR) solutions. They provide airborne data acquisition platforms for government and commercial customers and also



conduct public health and safety missions, including mosquito and vector control, aerial spraying, and environmental management. Their services encompass flight operations, maintenance and repair, aerial application, oil spill response, and more. Please let me know at Tuesdays meeting or email me at [keithking@verizon.net](mailto:keithking@verizon.net) if you would have interest in expanding the tour. (So check out [dynmicaviation.com](http://dynmicaviation.com), and let me know if there are other areas of interest.)



Subjectively, it is a scenic flight and beautiful location. My son lives close by, and I have flown there 2 times. It's about 120 nm, and except for getting around Dahlgren and Hill MOAs, it's a straight shot west.

If you are interested in the event, please let me know (email is [keithking@verizon.net](mailto:keithking@verizon.net) or call/text 240-587-1480.) I will need your Citizenship, First Name, Middle Name, Last Name and aircraft registration number. It would also be helpful to have your phone number and email address so I/we can communicate as the day gets closer.



Please let me know if you have any questions.

# **EAA CHAPTER 478 MEETING MINUTES**

EAA Chapter 478 Board Meeting Minutes  
August 1, 2023

1911 – Harriet Quimby takes her pilot's test and becomes the first U.S. woman to earn an Aero Club of America aviator's certificate.

Attendees: John Attebury, Don Byrne, Darryl Crawford, Bill Englehart, Paul Gambacorta, Keith King, Gabe Murray, Greg Stevens, Tom Weiss, Sid Wood, and Bernie Wunder

1. August Program – 15 Aug
  - a. John Shultz on his RV-14A build
  - b. Engine is on, nearly complete.
2. August VMC – 19 Aug – with YE
  - a. Fly first, VMC second for temperature.
  - b. Been having some no show issues.
3. September Program is the Picnic
  - a. 16 September at CRE
  - b. Setup and fly at 1400.
  - c. Eat around 1600.
4. October and November Programs
  - a. Bernie would like to give a presentation on AeroEducate workshop. This will be done in October.
    - i. AeroEducate is a K-12 program, sort of like scouts, but to get kids interested in aviation careers.
    - ii. Workshops for young eagles. Hands on.
  - b. Elections will be in November.
5. YE Rally 1 Sep 2W6 – 1600-2000
  - a. Friday evening rally
6. Lawrenceville YE Rally – 23rd September
  - a. Link for Young Eagles website is ready to go.
  - b. Lawrenceville, VA
  - c. Need to know the number of aircraft.
7. Fly Out to Dynamic Aviation – 29 September
  - a. Bridgewater, VA
  - b. Have a Connie (VC-121) there, Columbine II.
  - c. Friday or Saturday event?
8. MD50 YE, October 7<sup>th</sup>
  - a. CRE only pilots?
  - b. 0900-1300 tentatively?
9. Build and Fly Program Status
  - a. Still waiting on Tower Hobbies order
  - b. Airframe kit is in from EAA.
  - c. DO first program with kids next year, possibly in June as part of a summer camp.
  - d. Combine with Ryken camp in the future?
10. Fight Advisor – Joe Arvai
  - a. Needs to put together a resume, but seems more than qualified.
11. YE Coordinator for 2024
  - a. Additional coordinator/s will be needed.

# **TREASURER'S REPORT**

Submitted by Don Byrne

<b><u>EAA Chapter 478 Financial Report</u></b>	
Through 30 June 2023	
<b>Fund</b>	<b>Amount</b>
<b>Petty Cash</b>	\$11.40
<b>Savings</b>	\$439.00
<b>Checking</b>	\$21,369.19
<b>Total</b>	\$21,819.59

## **YOUNG EAGLES CORNER**

Young Eagle Coordinators – Darryl Crawford/Keith King

**John Attebury is the first Chapter Member to fly 30 Young Eagles this year.  
Congratulations John.**

## **Young Eagles Update**

Submitted by Keith King

A couple quick notes and reminders. For the August 19<sup>th</sup> Young Eagle min-rally, we typically host the YE event after the VMC Meeting. But since we are in August, we are going to reverse that, and have the rally before the VMC meeting. We will have our pre-flight brief at 0800, so be ready to fly by then. And we will start flying Young Eagles at 0830 (until 1030). The VMC meeting will begin at 1100.

On September 23<sup>rd</sup> we will have a Young Eagle Rally at Brunswick County Airport (KLVL) in Lawrenceville, VA. We had a similar Young Eagle event at KLVL last year. It was a gratifying time, and they hosted us with some great food (breakfast and lunch), impacting some Weight and Balance calculations for the flight home. One of the best part of this event is the Young Eagles. They do not typically have this type of event in their area, so the Young Eagles, parents and County Officials were VERY appreciative. Tom Weiss got interviewed and the event made the evening news. If that does not convince you, the county will be making a \$1500 fuel contribution for the pilots. So please mark your calendars.



## Young Eagles Flown in 2023

Pilots	3/18	6/10	7/1							Other	Total
John Attebury	3										3
Scott Boas											0
Robert Bray											0
Don Byrne											0
Dan Byrnes											0
Richard Byrnes											0
Matt Carruthers											0
Michael D'Errico	2										2
Egon Frech	3										3
Paul Gambacorta											0
Don Gates											0
Robert Lightstone											0
Grant Miller	2										2
Chris Moody											0
John Nelson										1	1
Robert Jake Piercy											0
William Posnett											0
David Rivera											0
Ron Shippee											0
Ronald Surfield											0
Benard Wunder	2										2
Total	12	67	34	0	0	0	0	0	0	1	13

EAA Chapter 478 Young Eagles Total			
Year	Flights	Year	Flights
1992	6	2012	242
1993	54	2013	79
1994	44	2014	127
1995	79	2015	248
1996	89	2016	206
1997	90	2017	205
1998	47	2018	209
1999	23	2019	112
2000	113	2020	2
2001	94	2021	65
2002	90	2022	269
2003	101	2023	13
2004	66	2024	
2005	138	2025	
2006	97	2026	
2007	122	2027	
2008	51	2028	
2009	113	2029	
2010	156	2030	
2011	187	2031	
<b>Total</b>	<b>1760</b>	<b>Total</b>	<b>1777</b>
<b>Grand Total</b>		<b>3537</b>	



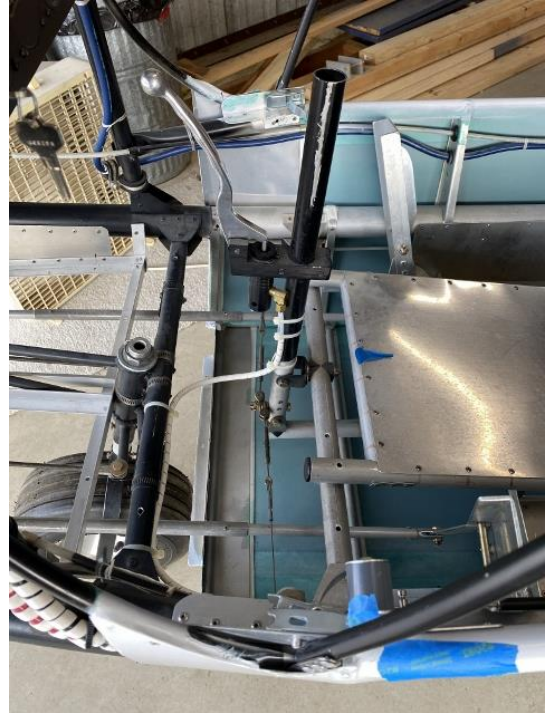
# THE HOMEBUILDER'S CORNER

## Challenger II Builder Report – August 2023

Submitted by Sid Wood

I am Building a Quad City Aircraft, Challenger II E-LSA 2007 Kit:

Moved the hydraulic brake tubing from the Elevator Push-Rod to the left side wall in the cockpit for better reliability and inspectibility. The service brakes are hand-operated, using a lever on the pilot control stick similar to a motorcycle. There is no differential braking. Steering on the ground is done by rudder pedals connected to the steerable nose wheel.



Brake handle and hydraulic tubing on the stick



The Rotax 503 engine had been removed to facilitate fabric covering and painting the fuselage. Re-installed the engine and connected the instrumentation and dual carburetors. Re-installed the mechanical oil injector pump without the pump's drive shaft; simply needed a convenient mount for the third cable on the three-way splitter for the dual carbs. My intent is to hand-mix the two-cycle oil with the alcohol-free auto fuel. I found that the throttle splitter functions much smoother when there is a spring load from the oil injector pump.

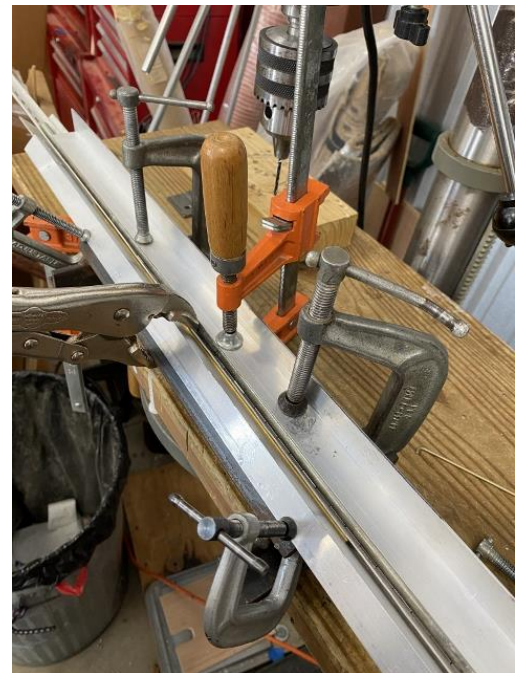
Rotax 503 mounted on the root tube at the firewall



Third cable from the throttle splitter connected to the oil injector pump.

After extended searching for a machine shop that had the capability and would not charge thousands to bend the leaves on the aluminum hinges to match the curvature on the Aileron and aft Wing Spars, I have proceeded to do it by hand. I made a simple jig using a home-made V-block, clamps, solid-rod stock and vise-grip pliers.

Next step in the hinge prep is to drill the holes for the 1/8-inch stainless steel pop rivets. I made another jig to hold the hinge to consistently drill the holes. This drilling jig also allows supporting the 6-foot lengths of aluminum hinge.



Hinge Leaf Bending Jig using Vise-Grips.



Hinge leaf Drill Jig. Note the uniformly spaced holes in the hinge leaf.

Additional sleep inducing details are recorded in the [EAA Builders Log Site](#)

# **THE FLYING/MAINTENANCE CORNER**

## **Maintenance-Induced Failure**

Submitted by Egon Frech

My 1979 Cessna aircraft came with the “troublesome” Lycoming O-320-H2AD engine, the first to be designed and built with the CAD-CAM method. It was considered troublesome because of early problems with camshaft wear, associated cam lifter spalling, and the single-drive Bendix dual magneto.

The camshaft issue did indeed cause me some trouble and expense, but that’s pretty much been resolved by Lycoming now, with the T-mod that’s installed automatically by Lycoming at overhaul. This engine’s camshaft is now no more prone to early wear than any of the other Lycoming camshaft, which, unlike the Continentals, have the camshaft located at the top of the engine, above the oil bath.

The magneto, on the other hand, has been trouble free except on two occasions, both caused by faulty maintenance. The first was the result of an airworthiness directive to check the drive coupling. Obviously, if that failed both magnetos would stop functioning. The shop at Gaithersburg dutifully executed the directive during an annual inspection, and we launched on a trip to Illinois. During the engine run-up for the return trip, something didn’t seem quite right. But it satisfied the numbers specified in the checklist, and we took off. But at altitude, it seemed that the power was a little off. You’d have to have flown the airplane many hours to notice the difference, and I checked both of those boxes. We landed at Cincinnati to have another look.

The mechanic there did a run-up and pronounced it OK. We went back out to the runup area to prepare for takeoff, and I convinced myself that it was not OK. Back to the mechanic. This time, he took the cowling off and found that one of the nuts holding the magneto to the engine had backed off about halfway, and the other was loose as well. The magneto had rotated slightly, and the timing was off a hair. I figure it would have fallen off the aircraft about the time we reached the West Virginia mountains. The Gaithersburg mechanic who had done the AD inspection had been interrupted in the middle of the procedure and had forgotten to torque the nuts. His shop paid for the expense.

The second occasion was just recently. I had sent the magneto to Quality Aircraft Accessories for an IRAN inspection in conjunction with the airplane’s annual inspection in February 2023. I hadn’t flown the airplane much after it came out of annual because I had back surgery in May, but I was planning to take my annual trip to Oshkosh. The airplane was all packed, the fuel tanks were full, and my friend Paul was aboard as we taxied to the end of 29 at St. Mary’s to take off for Oshkosh and fly in with the Cessnas to Oshkosh group arrival. When I did the engine run-up, the right magneto was dead. We did some troubleshooting and determined that the magneto was internally grounded. The trip was off. If I had flown an hour less since the annual, it would have failed over the mountains of West Virginia.

When we pulled the magneto off the engine to send it back to Oklahoma City for warranty, we discovered a slight burn mark on the shaft bushing of the right magneto. There was a matching mark on the top of the capacitor. The wire from the capacitor to the breaker points was devoid of insulation for about 3/8” along its midpoint. Conclusion: Somehow the wire had been pinched between the distributor and the capacitor when it was installed, and it had taken exactly 8.7 hours of tach time to fray the insulation enough for the spark to jump the gap. We put it back together with a spare capacitor, and I foolishly buttoned up the airplane before doing a run-up. Surprise! Now the No. 1 cylinder was dead on the right mag. After cleaning the seriously fouled spark plug and trying it again, the problem persisted. This time, when we pulled the distributor cap off, it was obvious that the nipple for the No. 1 spark plug lead on the right side had not found its way into its cup on the distributor during assembly.



The takeaway from this is that there's a reason mechanics don't like working on these dual magnetos. They're hard to work on and it's easy to make mistakes. As you're closing it up, there's no way to look inside and make sure everything is in its proper place. Perhaps the best thing to do if the magneto is still working properly is to leave it alone. It seems the risk of maintenance-induced failure is too high. Before all the fuss about 500-hour IRANs, I had an engine go all the way to TBO without ever removing the magneto, and degradation of the point gap is signaled by a timing change, which is always checked at the annual inspection anyway.

I showed the frayed capacitor wire to another mechanic and raised the issue of maintenance-induced failure. He smiled as he responded: "That's why you have two of them, So, if we make a mistake on one of them, you still have the other."

## PIREP AirVenture 2023

Submitted by Bernie Wunder

I made it through another AirVenture and it was a great week. I volunteered in the Homebuilder's Hangar with three others setting up exhibits, moving airplanes and facilitating forums.

I can go into more detail about the week at the Chapter meeting when we all review AirVenture 2023. But there is one story I would like to highlight. I started volunteering at AirVenture around 2010 pumping gas. One vehicle that stopped to get gas that year had a featured motivational speaker named Jessica Cox who was a pilot born without arms. Fast forward to 2023 and Jessica returned to the Homebuilder's Hangar with an exhibit of a project she and her husband were working on....a homebuilt airplane with controls flown solely by the feet. Throughout the week people stopped by to fly the simulator with their feet. She had college students helping her do the design work. Needless to say the media and everyone else also stopped by. I am sure that there will be stories about her in the upcoming Sport Aviation magazine. Jessica and company hope to be back next year.



2010 Picture



2023 Picture

# General Aviation Bulletin

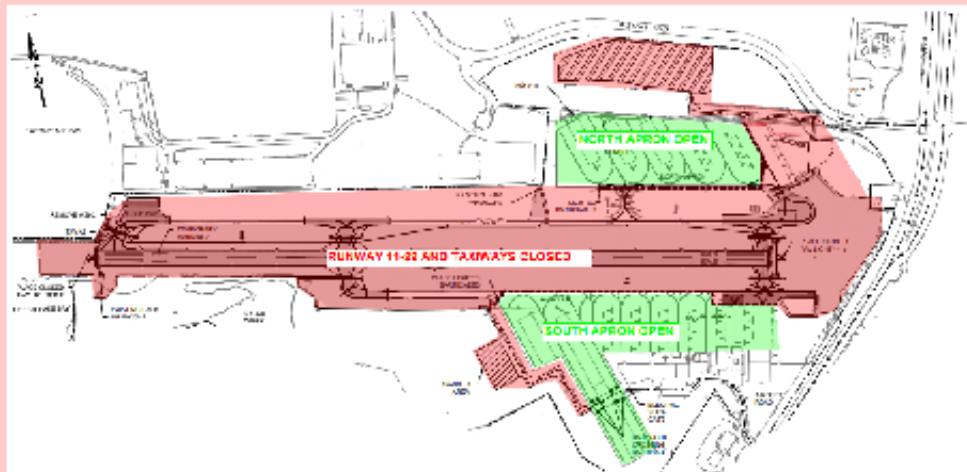
from the Office of Regional Aviation Assistance

## W29 RWY 11/29 CLOSED

**When:** Aug 14 — Oct 27, 2023  
Oct 30 — Nov 10, 2023

**Where:** BAY BRIDGE AIRPORT (W29)

**What:** RUNWAY 11/29 AND TAXIWAYS CLOSED



**Rotorcraft may coordinate PPR with Airport Management**

For details call Airport Management at: 410-643-4364

**FLY SAFE**

**CHECK NOTAMS**

**FLY SMART**

For immediate release, please post / distribute.

No. 2023-04

Issue Date: August 9, 2023

**MOT** MARYLAND DEPARTMENT OF TRANSPORTATION  
MARYLAND AVIATION ADMINISTRATION



Nyce Airport is back! We were also issued our old identifier, MD84.

This scan is from the 15 Jun 2023 Baltimore-Washington TAC and it can now be found in the ForeFlight database.

It has taken a lot of time and effort to get the field re-registered, but the Maryland Aviation Administration (MAA) and the FAA people were very helpful, and I want to thank them very much.

Many of *yall* also helped me get this done, and I'm grateful to you as well! We consider Nyce Airport part of our family legacy after 67 plus years of operation.

We make every effort to keep the strip moved and open for use, but if you want to drop in just give me a call to make sure!

Pete

301-873-4131



## **FOR SALE/FREE**

### **Wire and Velco - Free**

I have a large quantity of Hook & Pile (Velcro) fastener material in various widths up to 2", mostly with sticky backing, but there might be some sew on also, I have not looked at all of it.

I also multiple reels of multi-conductor aircraft wiring in various gauges and conductor counts. I have not extensively looked at all of it but I think it is mostly 18 AWG.

All of this is new and was saved from the trash when a contractor was cleaning house. It is available from me, free, in the quantity you need for your project. Contact me at (240) 298-6158 for further information.

## **CHAPTER 478 CALENDAR OF EVENTS**

<b>Date</b>	<b>Event</b>	<b>Location</b>
<b>MAY</b>		
<b>JUNE</b>		

## **In the Chocks**

Thanks for all of the inputs this month, looking forward to seeing all of you at a Chapter event soon.

Build, Repair and Fly Safe.

Tom Weiss – Editor/President

*Cockpit Chatter* is published monthly by the Experimental Aircraft Association (EAA) Chapter 478 solely for the dissemination of information and ideas to the membership. Gatherings are held on the Third Tuesday of the month at 7:30 PM in the Patuxent River Test and Evaluation Museum. Membership is \$20.00 per year and requires an active membership in EAA. Any opinions expressed herein are strictly those of the author and do not necessarily reflect the opinions of the chapter or the Experimental Aircraft Association.

### Chapter Officers

President: *Tom Weiss 2022-23*

Vice President: Paul Gambacorta 2023-24

Secretary: Gabriel Murray 2022-23

Treasurer: *Don Byrne 2023-24*

### Committee Chairs and Chapter Advisors

Social Chairman: *Bernie Wunder, Sid Wood*

Membership Chairman:

Program Coordinator: Paul Gambacorta

Young Eagles: Darryl Crawford/Keith King

Flight Advisors: *Bill Posnett*

Technical Counselors: Sid Wood 2018

Newsletter Editor: *Tom Weiss*

Web Editor: Chris Moody

Tool Crib Committee: Colin Cline/Alan Tolksdorf

### Board Members

*Sid Wood 2022-23*

*Darryl Crawford 2022-23*

*Chris Moody 2023-24*

*Bill Englehart 2023-24*

*John Attebury 2023-24*

*Brian Link 2022-23*

*Jacqueline Link 2022-23*

*John Reinert 2023-24*

*Greg Stevens 2023-24*

*Keith King 2023-24*

### Chapter Web Address

<https://chapters.eaa.org/EAA478>