



EAA Chapter 478
COCKPIT CHATTER
Lexington Park, MD October 2024
A Silver EAA Chapter



EAA Chapter 478 Monthly Gathering
October 15, 2024

Hangar Visit with Rich Miller
Chesapeake Estates Airpark – MD50
950 Side Saddle Trail, Lusby MD
6-6:30 PM Social and Setup
6:30 PM Program Starts – RV-10 Review

Directions: Highway 2/4 North, right on 497 (Cove Point) to right on Little Cove Point Rd, 1.8 miles to back gate, left on Crystal Rock at the first stop sign. Right on Bunkhouse Road, right on Side Saddle, straight into the airport parking lot, Hangar will be on your right.

In this edition of Cockpit Chatter

From The Top – Elections and new YE Website

Board of Directors Meeting Minutes –

Treasurer Report – Current Status

Young Eagles Corner –

The Homebuilder's Corner - RV7 First Year

The Flying/Maintenance Corner – C175 Upgrade Update, Trip to Chesapeake VA

For Sale – Various aviation items, Challenger II Ready to Fly Project

FROM THE TOP

Darryl Crawford, President EAA Chapter 478

November is election time for the Chapter. The nominations are held in October to develop a slate of candidates for November. Chapter Officer positions that are up for election this year are the Vice President, Treasurer and the Secretary. Several Board members are completing their terms. Note that there is no limit to the number of Board Members that the Chapter can have, so any members who want to help steer the direction of the Chapter are welcome to be a Board Members. I encourage all of you to consider

volunteering to help lead your organization as either an officer or board member.

The Gathering this month will be hosted by Rich Miller at his hangar at MD50, he is close to finishing an RV10 and has a Stinson project in the hangar also, he may have others that I am not aware of. Come out and enjoy an evening at an airport.

We are starting to talk about if we want to hold a Build & Fly workshop next year. Looking for your ideas and for additional volunteers. Please let me know what your thoughts are and if you can help with the next event.

Be safe, and see you soon.

Donation QR Code for EAA Chapter 478



UPCOMING EVENTS

October Gathering – 15 October 2024 (Nominations)

October VMC – 19 October 2024

November Board Meeting – 5 November 2024

Nov VMC – 16 November 2024

Mini YE Rally 2W6 – 16 November 2024 (after VMC)

November Gathering – 19 November 2024 (Elections)

EAA CHAPTER 478 MEETING MINUTES

No Minutes this month

TREASURER'S REPORT

Submitted by Don Byrne

<u>EAA Chapter 478 Financial Report</u>	
Through 1 October 2024	
Fund	Amount
Petty Cash	\$34.40
Savings	\$439.00
Checking	\$22,462.41
Total	\$22,935.81

YOUNG EAGLES CORNER

Young Eagle Coordinators – Keith King, Paul Gambacorta, Greg Stevens

Editor's Note: I am posting an email that many of us should have received on changes to the Young Eagle website, please note the information about passwords and the section I highlighted.

I am thrilled to announce that the new version of Young Eagles online registration is now live! The new tool, EAA Chapter Events, can be found at EAACapters.org.

As a current user of YEDay.org, your profile has been migrated to the new tool. The new online software is directly integrated with your EAA.org account. Therefore, your credentials are as follows:

- Email: (Email)
- Password: EAA.org Password.

If you have forgotten your password, you can reset it by clicking "Forgot Password." This will reset your password for EAACapters.org and EAA.org as your profiles are now one and the same.

Once you have logged into the new tool, please click your name in the upper right-hand corner to review your profile for accuracy. You will notice that you can now list multiple EAA chapters that you are affiliated with.

Although the new tool is now live, EAA is already working on Phase 2 development. This next phase includes the following:

- Additional event types (Flying Start, Young Eagles Build and Fly, Young Eagles Workshop)
- Non-EAA member access to the tool
- Optional function to reserve seats for first-time fliers
- Cleaning up reporting functions
- Many more enhancements for the user experience suggested to EAA during beta testing

With the go-live of the new tool, I'd also like to update you on the shutdown timeline for YEDay.org.

- October 1 – Chapters cannot add new events to YEDay.org
- December 31 – YEDay.org will be decommissioned
 - YEDay.org will redirect to the new site
 - EAA will work with chapters with any existing events scheduled for January 1 or later

If your chapter has any events scheduled in YEDay between now and the end of 2024, you may finish those events out on [YEDay.org](https://www.yeday.org).

I appreciate all your patience during this transition period. Make no mistake, there will be hiccups, but the Young Eagles team is committed to developing a high-quality tool that will make your life easier as a Young Eagles volunteer.

EAA Digital Signature App - Important Note

During this transition period, your login credentials for the digital signature app will not change. They will remain the same as your [YEDay.org](https://www.yeday.org) login. When [YEDay.org](https://www.yeday.org) is shuttered, the login credentials will transition to match the EAA Chapter Events tool.

Young Eagles Flown by Pilot in 2024

Pilots	6/8	6/20	6/21	7/19	8/10	9/7				Other	Total
Joe Arvai					2						2
John Attebury			4		5						9
Robert Bray	5	2			4				1		12
Don Byrne	4	1		4	5	4					18
Dan Byrnes											0
Richard Byrnes	3				4						7
Ken Cahill						4					4
Darryl Crawford					1	6					7
Michael D'Errico	3				2				1		6
Egon Frech	5	2				5					12
Paul Gambacorta	5			6	2	7			3		23
Don Gates											0
Grant Miller											0
Chris Moody		2				5					7
John Nelson					2						2
Robert Jake Piercy											0
Charles Quandt					4						4
David Rivera											0
Marc Slavin					4						4
James Spencer	6										6
Richard Van Natta	3										3
Brian White					5						5
Benard Wunder	6	2	8		3						19
Total	40	9	12	10	43	31	0	0	0	5	148

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	164
2004	66	2024	148
2005	138	2025	
2006	97	2026	
2007	122	2027	
2008	51	2028	
2009	113	2029	
2010	156	2030	
2011	187	2031	
Total	1760	Total	2076
Grand Total		3836	

THE HOMEBUILDER'S CORNER

RV-7 first Condition Inspection

Submitted by Chris Moody

My second RV project received its Special Airworthiness Certificate in Sept of 2023 so the first Condition Inspection (CI) was coming up. I had obtained the Repairman Certificate for my previous RV-6. The Repairman certificate for an experimental amateur built (EAB) authorizes the holder to do the annual CI. It is good only for the single EAB listed on the certificate—so the original one was for N156CM. I needed another one for the new RV-7 (N667CM). In May, I submitted my application to the FSDO general email address but got no response or acknowledgement of receipt for some time. Eventually I was contacted by an Inspector. Once initial contact was made, I was able to schedule him with little delay and he was even willing to come to MD50. Actually, two inspectors arrived! They looked over my construction log and asked a few questions--certificate issued no problem.



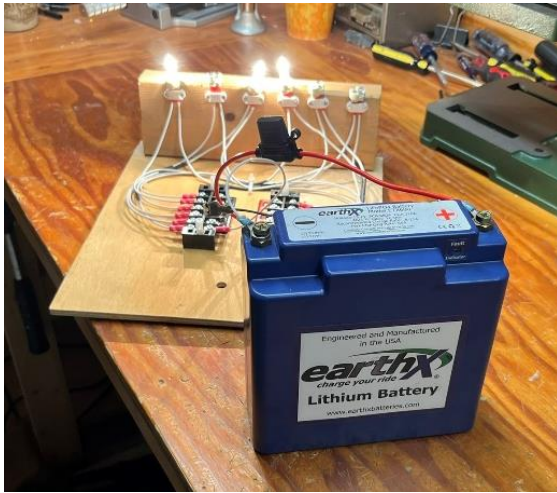
Inspection began with 100 hrs on the hobbs. Much of the time was spent generating an inspection checklist with a logical flow. Some of the new things to deal with that I did not have on the old RV6:

- cleaning the fuel injector nozzles
- servicing the propellor with grease (Hartzell Constant Speed)
- removing and cleaning the fuel filter which happens to be in the cabin (the firewall mounted gascolator I had previously does not seem to be common for Vans with fuel injection)
- timing check of the Sure Fly ignition (on one side only) which is a different procedure from a traditional magneto
- This airplane has a second standby battery, and I am now load testing both batteries as part of the CI to determine suitability for continued service.

I will digress some with respect to the electrical/batteries...

The idea of the battery load test is to make sure most of the advertised amp hour capacity of the battery remains available for powering the (one) electronic ignition and the avionics in the event of charging system failure. On charging failure, avionics load is switched over to 2 separate "Essential" Buses, one powered by each battery. Also, the Sure Fly ignition is hardwired to the main battery (not through the Master contactor) per the install instructions. The first photo is a picture of both batteries, and the second photo shows my load tester. Both batteries are Lithium of the Iron Phosphate type. This type is less energy dense than the Lithium Ion type but supposedly safer/more stable.





I have measured the current draw on every item in the airplane with my clamp-on meter. I can set the load tester to simulate the current draw each battery would experience with all avionics still powered (but other loads like lights and pitot heat excluded). This arrangement will easily give a 1.5 hr combined battery endurance with each battery taking its share of the load. Any need for lights and pitot heat would of course reduce this time. The key to this working is a prompt alert upon charging system failure so that loads can be switched to the battery Essential buses. This involves turning 2 switches ON and the Master OFF. This allows the current draw from the Master contactor and the alternator field to be eliminated (saving over 3 amps!). However, flaps, boost pump, lights and pitot heat are unavailable in this “Essential” configuration. Under normal

conditions, all equipment is powered through the Main bus which is powered through the Master contactor. This main bus is isolated from the battery essential buses by a power diode (the black square in the upper left of the photo).

This first CI took me a while. Future ones should go faster as the inspection sequence gets refined.

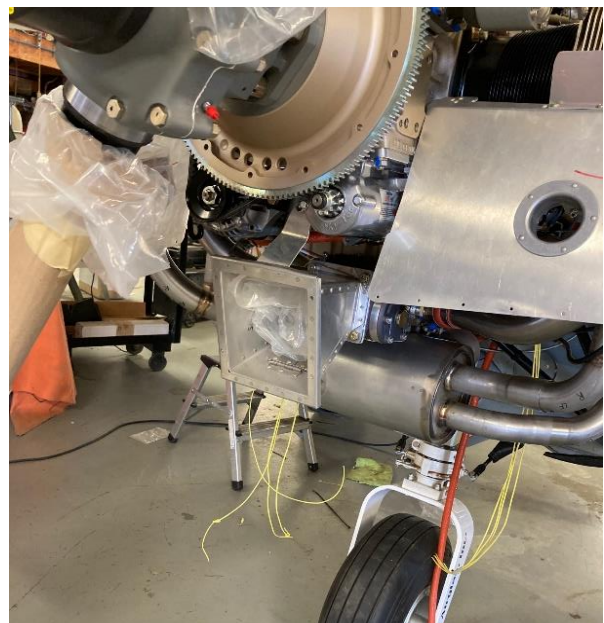


THE FLYING/MAINTENANCE CORNER

C175 Engine and Panel Upgrade

Submitted by Noel Fallwell

Editor's Note: This update is one of a Series Noel has provided, previous Newsletters will provide more background to this project.



The Cessna 175 "upgrade" has slowed down a bit. Photos 1 and 2 above, show the firewall forward stuff mostly finished. The prop is on, baffling installed, exhaust is on, heater box installed, and air induction box fabricated and installed. ALL according to the STC documentation. And herein lies a problem. The cowling doesn't fit the new larger engine that is installed (per the STC). The EGT and CHT probes have not been installed yet. No need to do this until the cowling fit solution is finalized.



The upper cowling appears to fit properly. On the other hand, the lower cowling doesn't fit at all. Photo 3 shows the inside of the lower cowling. Wooden bracing have been temporarily clamped in place to keep the cowling sides located where they need to be to fit around the new engine. The lower center section of the cowling needed extensive metal work. This can also be seen in Photo 4.

Photo 4 also shows the start of some fiberglass work to fabricate a turn-down lip to create a low-pressure area to help with the extraction of the cooling of the engine air flow. There had been reports of this engine configuration running hot, so this is being addressed here.

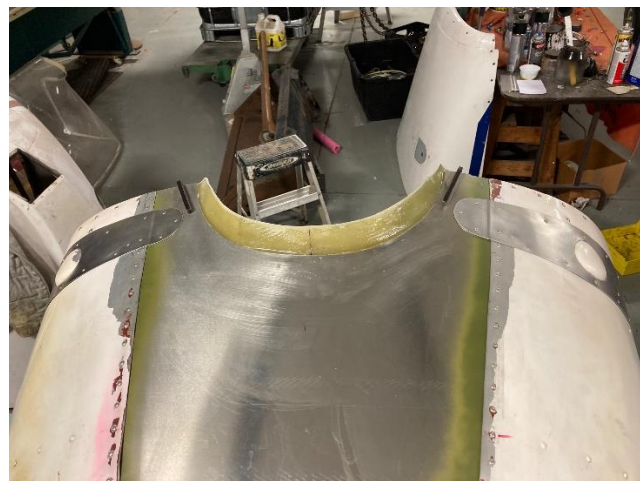


Photo 5 shows the finished lip. The aluminum lower cowling center section has been riveted and external doubters for the cowling attach support have also been riveted. At this point, we are awaiting new support isolators for the cowling. This existing cowling had cracks in the aluminum skin where the cowling attached to the brackets so this is fixed.

That's all for now.

Trip to Chesapeake VA

Submitted by Aaron Rouland

On Saturday, October 5, I flew Keith King's Cessna 150 from 2W6 to Chesapeake, VA (KCPK). It was a good thing I took off shortly after dawn when it was clear, as a low overcast layer came in later in the morning. There was good ground reference over Maryland and the Potomac, but as I flew south I found myself over a solid cloud layer

I had checked the weather at my destination CPK as well as the forecast at ORF, and they both were CLR or FEW before I took off, with a favorable forecast for the day. However when I checked the weather airborne, both were BKN or OVC around 3,000 feet. Hampton Roads Executive was the same. I was VFR, so I would have to find a hole.

I was not too worried, as I had taken off full of gas, and I figured the rising sun would break up the clouds somewhere. I killed some time by playing with the nice avionics which Keith recently installed, which provide excellent situational awareness, including ADS-B data. Having real-time weather was nice, since I was too high to get data via mobile phone and too far for AWOS.

I passed up a couple sucker holes and eventually found a wider hole northwest of Hampton Roads and descended through it, leveling off at 2,500. About that time, I was amazed to see an enormous tower off to my right side. I couldn't believe how tall it was. I was at 2,500 and it appeared to be reaching well over halfway to my altitude. I found out later it was one of many tall towers in the area, some over 1,200 ft. I generally think of towers as a non-issue above 1,000 ft, but this was a good reminder that there are exceptions.

I landed at CPK and met my oldest son, who is taking private pilot lessons at that airport. It's a nice airport - newer, with a long runway and no development surrounding it. I parked there for free, avoiding the landing fees at ORF. My son and I hopped into his car to attend the "Warbirds Over the Beach" airshow at the Military Aviation Museum in Pungo.

The museum is a special place. It consists of several hangars, full of warbirds from the WWII and WWI era, most of them airworthy. They only fly them on certain occasions, and this airshow focused on WWII. They have a huge grass runway adjacent to the hangars to support the flying.

They have other unique items, such as a WWII control tower that was shipped from England and reassembled brick by brick, and an authentic WWII hangar that was shipped from Germany



and reassembled, and which now houses a large number of German aircraft. They have a wooden reproduction WWI hangar packed with WWI era planes, some reproductions and some authentic. They have some interesting pieces of support equipment as well. Everything was open for viewing on Saturday, which is not always the case at the museum.

The grassy area where spectators watch the flying was packed with WWII reenactors, and period music played whenever the narrator was not describing the planes. This made for a classy event, which was nice since it was a bit expensive. My son and I walked through the hangars and around the warbirds parked on the grass. I was surprised to note that almost nothing had a display rope keeping people away, even in the crowded WWI hangar.



There were too many warbirds to describe them all. One that stands out in my mind is the P-39 Airacobra. Its unusual engine location and entry door make it quite different from the other fighters, and we had to stare at it for a while and imagine how the power gets from the engine to the propeller.



The flying began at noon and ended at 3:45. Just about everything flew except the Airacobra which aborted takeoff for a mechanical issue. During a break in the flying, they demonstrated a V-1 buzz bomb pulse-jet motor, running it on a stand at low power for over a minute until it glowed red.



After the show, we stopped at Pungo Pizza and Ice Cream, which was crowded but worth the stop. This set me back a few minutes on my return schedule. During the drive back to CPK my son mentioned that he is considering buying an airplane. I asked what kind of plane, and he said he didn't know, but maybe a Sonerai. I didn't know what to say. This is the same son who already has an unassembled Bensen gyrocopter in his garage. Some days it's just hard to tell whether you've succeeded or failed as a parent.

Happily, the weather was mostly clear on the return trip. I slid into 2W6 nine minutes after sunset, filled the tanks, and put the aircraft to bed. On the drive home I thought about how much nicer it is to fly an hour and 15 minutes than to drive four hours each way. I did the math and figured that if I had driven, I would have had to leave home at 5 a.m. and I wouldn't have gotten back until 9 p.m. Then I realized, I had actually left at 6 a.m. and I was getting home around 8:30 p.m. I marvelled at how much time I had spent saving time by flying.

One last thing I should mention is that, over the weekend, the museum collected emergency supplies for Hurricane Helene victims, and after the Sunday event they [airlifted them to western NC](#) in a C-47. It's just a

classy outfit and you should pay the museum a visit someday.



FOR SALE

EAA Chapter 478 has received a donation of aviation supplies from Mr Steve Abbot. His wish was to sell these items and use the proceeds for youth programs in our chapter (workshops, build and fly program, etc.).

Here's a list if the items with a suggested selling price. If you think the price is too high, make me an offer. Details and purchases can be made by contacting Don Byrne at byrnehangar@comcast.net

David Clark H10-40 headset \$120

Stratus 2S ADS-B In \$ 300

Garmin GPS MAP 496 \$500

Life Raft, Survival Products Incorp 4 Person \$ 700

Champion Oil Filters CH48108-1 (QTY 4) (\$48.50 at AC Spruce) \$ 160

Aircraft Cover for Cirrus SR20, Bruce's Custom Covers \$ 200

Nose Tow Bar \$ 100

CHOC-IT Collapsible Wheel Chocks FREE

Twist In Tie Down Anchors (QTY 2) FREE

For Sale

Quad City Challenger II Clip Wing Special E-LSA, 2007 kit, Rotax 503 Dual CDI, Dual Carbs, Tuned Exhaust, 2.62 Cog belt PSRU, Wood 2-blade prop, Electric Starter, Kutzelman strobes, ACK 406 ELT, Stewart Systems Dacron Fabric and White Paint, Fiberglass Nose, Wing Tips and Wheel Fairings - Midnight Black,

Dual Throttle levers have Friction Lock. Dual Starting Enricher Lever. Electric Fuel Pump. Engine driven fuel pump. 10-gallon Fuel Tank. Electronic Fuel Gauge.

3rd Door Upgrade available, Quad City Fairing kit in the boxes, 503 never been run – still has preservation oil, assembled with all new rubber engine mounts, hoses, tubes and electrical wire.

Needs First Airworthiness Inspection, and ready for first flight. Hangar- M4 at K2W6 St. Mary's County Airport.

Go to [EAA Builders Log Site](#) search Zip Code 20619 and click Sidney Wood for pictures and construction log details.

\$19K

Sidney Wood

240-538-8465

smwood@md.metrocast.net

CHAPTER 478 CALENDAR OF EVENTS

date	Event
15-Oct	EAA Chapter 478 Gathering @ 6-8 pm @ Rich Miller's Hangar MD50
19-Oct	EAA Chapter 478 VMC and Mini YE Rally @ 9-12 am @ 2W6 Terminal
26-27 Oct	Golden Age Air Museum Open House @ Grimes 8N1 Bethel PA
27-Oct	Antique Wing & Wheels @ Van Sant Airport 9N1 Ewinna PA
5-Nov	EAA Chapter 478 Board Meeting 6-8 pm @ 2W6 Terminal
11-Nov	Veteran's Day Holiday
19-Nov	EAA Chapter 478 VMC Meeting 9-10 am; YE Flts 1030 am - 1230 pm @ 2W6 Terminal
22-Nov	EAA Chapter 478 Members Meeting @ 6-8 pm @ 2W6 Terminal
28-Nov	Thanksgiving Holiday
3-Dec	EAA Chapter 478 Board Meeting 6-8 pm @ 2W6 Terminal
7-Dec	Massey Aerdrome Fly In 10 am - 2 pm (ESTIMATE)
14-Dec	EAA Chapter 478 VMC Meeting 9-10 am @ 2W6 Terminal
17-Dec	EAA Chapter 478 Member's holiday Party 5-8 pm @ 2W6 Terminal
25-Dec	Christmas Holiday
1-Jan	New Years Day Holiday

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

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: *Darryl Crawford 2024-25*

Vice President: Paul Gambacorta 2023-24

Secretary:

Treasurer: *Don Byrne 2023-24*

Committee Chairs and Chapter Advisors

Social Chairman: John Reinert, Sid Wood,

Membership Chairman:

Program Coordinator: Paul Gambacorta

Young Eagles: Keith King, Paul Gambacorta, Greg Stevens

Flight Advisors: *Bill Posnett, Joe Arvai*

Technical Counselors: Sid Wood

Newsletter Editor: *Tom Weiss*

Web Editor: Chris Moody

Tool Crib Committee: Colin Cline

Board Members

Sid Wood 2024-25

Chris Moody 2023-24

Bill Englehart 2023-24

John Attebury 2023-24

John Reinert 2023-24

Greg Stevens 2023-24

Keith King 2023-24

Past President Tom Weiss 2024-25

Chapter Web Address

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