



EAA Chapter 478
COCKPIT CHATTER
 Lexington Park, MD November 2013



Monthly Chapter Meeting

Date & Time: November 19th 2013 – 6:30pm

Location: Pax River Naval T&E Museum (22156 Three Notch Road, Lexington Park, MD)

Program: Hi Tech Flying/See flyer below

In this edition of the Cockpit Chatter:

- [Executive Board Meeting](#) – November 5th 2013
- [Young Eagles Corner](#) – Latest YE tally
- [Member's Corner](#) - Items for Sale/Some webinars to participate in
- [The Pax Museum/Curtiss A-1 Corner](#) – Decompression Night!
- [The Chapter Homebuilder's Corner](#) – Building a KR2 Cowl
- [The Flying Corner](#) – CGE Breakfast Flying Club
- [In the Chocks](#) – Homes with hangars for sale/still need a chapter webmaster
- [Chapter Calendar](#) – Know when things are happening and become involved!

NEXT CHAPTER MEETING

Cockpit Chatter is published monthly by EAA Chapter 478 solely for the dissemination of information and ideas to the membership. 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: *John Nelson*
- Vice President: *Bill Posnett*
- Secretary: *Joe Spelz*
- Treasurer: *Don Byrne*

Committee Chairs and Chapter Advisors

- Social Chairman: *vacant*
- Membership Chairman: *vacant*
- Program Coordinator: *vacant*
- Young Eagles: *Joe Spelz*
- Librarian: *vacant*
- A-1 Construction: *Tom Weiss*
- Flight Advisors: *Bill Posnett*
- Technical Counselors: *Bernie Wilder, Skip Shepherd*
- Newsletter Editor: *Bernie Wunder*
- Board Members: *S. Wood, T. Weiss, C. Moody, E. French, J. Test, J. Attebury*

Web Editor: *vacant*
 Chapter Web Address


<http://www.478.eaachapter.org>




The Leader In Recreational Aviation



*Brownies & Ice Cream
At The Break*



Chapter Video Program



Builder & Flying Reports!

EAA Chapter 478 Chapter Meeting
Flight & Debriefing Tools/Builder Reports/Chapter Video
Meeting Date: 19 November 2013
Time: 6:30pm
Location: Patuxent River Naval Air Museum
<http://www.478.eaachapter.org>

➤ MONTHLY CHAPTER MEETING

October 2013



Chris Moody gave a great presentation on his West Coast flying tour with his wife June in their RV6 – basically following the Oregon Wagon Trail. If you missed the meeting, you missed a great program!

EAA Director's Meeting 5 Nov 2013

Attendees: POS, Bernie, Don, Tom, Sid

General:

Fly-out Reports

Don & Tom discussed the resent events. We thought that a brief presentation at the Nov meeting to create interest would be appropriate. Don will present.

Budget report

No change since last month.

Elections

By laws state that aboard is selected in July to offer candidates but that was not done. Vice President, secretary, and 2 board members are due. Need to nominate and vote on.

Builder Reports

Sid and Tom will briefly talk at Nov meeting.

Refreshments for November Meeting

Don and Bill have for Nov.

Christmas Party

Possible date of 17 Dec, in place of normal December meeting, at museum was discussed. Chapter would supply meat and drinks. Volunteers would bring other stuff. Need to develop plan at next board meeting and get the word out so people can make plans.

Other

Museum has lost funding and now may need to charge for use. Bernie thinks we will be grandfathered.

Program for November Meeting

Budget Report: Don

Fly out Report: Don

Builder reports: Sid and Tom

Cloud Ahoy Demo: Bernie

IPAD Demo: Don

EAA Video: Bernie will review and offer if time is available.

Treasurer's report submitted by Don Byrne

- Here are the finances through the end of September 2013:
Checking \$2891.18
Savings \$438.98
Petty Cash \$445.28

Total \$3775.44 (\$1500.00 dedicated to A-1 Display Fund)



➤ **YOUNG EAGLES CORNER**

The Young Eagles Coordinator – Joe Spelz

We had to cancel the CRE Airport Open House on Columbus Day weekend due to weather and then our attempt at a reschedule on Veteran’s Day weekend was cancelled due to lack of aircraft and personnel assets. Next YE event will be next June at 2W6.

The number of Young Eagles flown at the 15 June 2W6 event for the individual participating pilots was as follows:

John Attebury – 5 Bernie Wunder – 3 John Nelson – 4 Al Griffin – 2 Scott Mellinger – 6 Dan Hammer – 7 Kristin Farry – 5 Alan Wirth – 4 Jim Davis – 2 Chris Moody - 4
Don Beard – 5 Ed Harvey – 6 Jake Piercy – 3 Jeff Test – 2 Egon Frech – 6 Don Gates - 4
Kevin Warren - 4

So at this rate we might not have anyone get their 10 for the year! {Editor}

➤ **MEMBER’S FORUM**

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FOR SALE:

From: Emory, Christopher W DR, CIV Emory <christopher.w.emory@navy.mil>
Sent: Wednesday, October 23, 2013 11:42
To: Spelz, Joseph CTR VX-20, 5.1.3
Subject: VW engine, Sterba Prop, Ellison TBI for sale

Joe,

I have a few experimental aircraft items I would like to sell. Not sure if the local chapter has a newsletter or ad space or ad time during meetings...

I have a Great Plains 2180 with about 5 hours on it. It was previously on a KR-2 I owned and sold separately and the engine is currently full of oil ("pickled"). There are a handful of miscellaneous parts that go with the engine. <http://greatplainsas.com/sc1gblock.html>

I also have a Sterba prop; I don't remember the dimensions off it right now but it would be appropriate for a Sonerai-2 or KR-2 or similar.

The last item an Ellison model EFS-2.

<http://www.ellison-fluid-systems.com/prod-efs2.shtml>

I would appreciate it if you could forward this on to anyone that may be interested or let me know how to get it into the local chapter's ad space if that exists.

Thanks,

Chris Emory

Cell: 540-558-8111

Webinars: Free to all aviation enthusiasts

November 19: [EAA Aviation & Non-Aviation Accidental Death and Dismemberment Insurance Plan](#) - Presenter: Bob Mackey

November 20: [Prepare for Your Checkride, and Pass](#) - Presenter: Larry Bothe

November 26: [LSA and Experimental Maintenance: Who Can Do What](#) - Presenter: Prof. H. Paul Shuch

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➤ **THE Navy T&E Museum/A-1 BUILDER'S CORNER**

The Pax River Navy museum has been holding different events to attract visitors to the museum.



Bimonthly there are “Meet the Airplanes” events to learn about the different Navy aircraft on display. On November 14th the first “Decompression Night at the Museum” was held along the lines of when folks use to go to the Flight Deck Lounge at the BOQ after work to unwind. The A-1 replica was lit up in all its glory and a festive night was had by all. There was great food, wine and beer to enjoy (our EAA chapter had about 8 partakers). It was the first time that museum volunteers who had attended the Safe Alcohol training participated in an event to sell alcohol.

Now for the not-so-good news. The museum is no longer a formal Navy museum, meaning that the Navy will no longer be paying the monthly utilities for the museum (~\$40K/yr). It does free up the facility to charge for other services to try and make up the loss. More details to follow. It appears that construction of the new building will begin in the next few weeks, so there is some exciting times coming in 2014 as to museum facilities. The annual membership and sustaining contributions drive is going on now. The museum relies solely on memberships, private donations, corporate donations, grants, and other proceeds to maintain the museum. Individual memberships start at \$50. So please consider donating either time and/or money to the museum and help out keeping the history of local Navy aviation going.

➤ **THE CHAPTER HOMEBUILDER'S CORNER**

Building a cowl for a KR2 aircraft takes a lot of ingenuity and patience...just ask Sid Wood ☺



KR-2 N6242 Modification Status by Sid Wood

As previously reported, the new cowl for my KR-2 is under construction. The old cowl would no longer fit due to moving the engine 2 inches forward from the plans location. Calculations indicate a much better CG for the move.

Cowl construction started with a 4 by 8-foot sheet of extruded Polystyrene insulation foam 2-inches thick from Lowes. About 3/4 of that was sawed into blocks and hot-melt glued onto the fire wall and engine. Items like the new oil cooler, oil filter and fuel pump were covered in the process. The corners of foam that stuck out

were sawed off. Next came the roughing with a Dremel sander and rasp to get the approximate shape. Sanding with 60 grit paper brought the shape down to the interior size of the new cowl. About one third of the foam was removed during the shaping process. All engine parts and accessories remained under a minimum of quarter inch of foam to allow sway space under the finished cowl.

The artistic challenge was getting the minimal frontal area and maximum streamlining while maintaining left/right symmetry and keeping all parts under foam. Form definitely followed function in this case. The final shape more resembles a Thorpe T-18 cowl than a KR-2.

The next step was “hard shelling” to provide a smooth rigid surface for the wet fiberglass lay-up. The hard shell consists of epoxy resin mixed with micro-balloons applied to the foam. After the epoxy cures, sanding gets rid of tool marks and excess micro to bring the surface to final shape. The micro makes sanding easier and still maintains rigidity. The white micro makes the whole thing look like icing on a cake.

Further steps will be waxing the micro to prevent the wet fiberglass lay-up from adhering to the plug and will make separation possible. Other items are cutting the top and bottom halves of the cowl apart, fitting attaching hardware and painting. So, there’s a lot more to do.

Meanwhile, what do you do with the old cowl? I had posted on the KRnet that I was making a new cowl. One of the “lurkers” on the net sent me an email, saying he wanted it for his now flying KR-2. Turns out he has the same configuration as my KR-2 and he figures my cowl will fit his KR-2 with minimal adjustments, wart bumps and all.

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➤ **THE FLYING CORNER**



Breakfast at Cambridge (CGE) by Tom Weiss

{This was the scene just after takeoff from Chesapeake Ranch Airport looking toward Lake Lariat and Pax NAS}

- The last two weekends members of EAA Chapter 478 arranged an early morning flight for breakfast at Cambridge MD. An email came out on Friday announcing the intent to fly to



Cambridge for breakfast and asked for input on who was flying and if the people flying had an empty seat or if a member who did not have an airplane wanted a ride. Both weekends I threw my name out in cyberspace saying I would like to go with anyone that had an open seat. And both weekends I received several offers for a ride to Cambridge. A flyout for breakfast is a good chapter activity that members can take advantage of to improve the connection with other members. More members should take advantage of opportunities such as this one as a way to become

more involved in the Chapter. Sharing airplane rides, airplane knowledge, tools and helping other members with projects are some of the key benefits of being involved in an EAA Chapter and more of the 478 members should take advantage of opportunities such as flyouts to make the connections necessary to either receive or supply these benefits.

- Now on the real reason I wrote this. This past weekend Stan Sweiker offered me a ride to Cambridge in his Cessna 195. Stan is a tremendous ambassador for antique and classic

airplanes and his 195 is the Cadillac of the general aviation fleet of the post war era (Stan's 195 is a 1952 model). For anyone who does not know what the 195 looks like, it is a taildragger, has a cantilever high wing, radial engine and seats 5. I call the 195 the Cadillac for several reasons such as it having crank down windows like a car, it has great heat from a 100LL fired heater (it was 32°F at takeoff) with a fan that really keeps the airplane warm. It has a 755 cubic inch engine, so you guys feeding Lycoming 320s, think about feed a 755. It has controls for oil coolers, electric flaps, dual retractable landing lights, three axis trim, a constant speed prop and nice leather seats. Hence my designation of the Cadillac of 1950's airplanes.

- What I intend to convey is the care it takes during operation to ensure a long life of a radial engine airplane that is 60+ years old. First is the engine preheat. Stan had the engine plugged in when I got there, I am assuming the heater was in the oil tank which by the way holds 5 gallons of oil. When he started the engine, the oil temperature was already at 70°F. The next step in getting ready to fly, besides the normal preflight inspection, is to pull the propeller through for about 8 revolutions, this insures that any oil that has leaked down into the bottom cylinders is pushed out through the exhaust valves into the exhaust manifold (hence the blue smoke on start up of a radial engine). This prevents Hydraulic Lock which happens when the engine is cranked with the starter and oil in the bottom cylinder combustion chambers can't be compressed, something has to give and typically this is the connecting rod that bends. This would be bad! Next step is engine start, since it is cold the oil coolers are closed and the engine needs to be primed. The engine has a carburetor and has a primer just like Lycomings, but the primer is huge, probably a 9" long stroke. Another interesting technique is to start the engine with the propeller control all the way out which is full course pitch. Stan explained that the course position is where the prop has the minimum amount of oil in it, thereby ensuring that the maximum amount of oil from the oil pump goes to the engine and in particular the critical master rod. There are two ignition systems on the engine, one magneto and one electric, so there is no impulse coupling on the magneto and the engine is started on both ignition systems. Once started, Stan kept the engine running with the prop in full course until the oil temperature got up to about 90°F at a low idle of about 600 rpm. Once the prop control was moved forward to the full fine pitch position the idle rpm increased to about 800 rpm, but the engine seems to like either idle setting. Taxing the airplane is difficult due to the limited forward visibility, the pilot can only see down the left side of the cowling, can't see anything at all directly in front or to the right side. Stan has installed a convex mirror on the right side so he can see in front of the right side of the airplane when taxing. The runup is conducted like most airplanes but with a keen eye on oil temperature before starting the run up. Checking both ignition systems, carburetor heat and cycling the propeller several times completed the runup. Taking off downhill at Stan's farm shows that the 195 is still a Cessna at heart and it flies like one, just a big one. I noticed Stan starts to decrease rpm by pulling the prop back almost as soon as we crossed the fence at the departure end of the runway, most Lycoming operators wait until much later in the climb to do this, but then again we were pretty light and the air was cold, so the climb was good. We climbed to 2500' for the ride over the bay, the air was smooth and clear. Cruise indicated about 155 mph and with noise cancelling headsets, conversation was easy and pleasant. In cruise Stan uses a little bit of carburetor heat and said his target is 70°F intake temperature for better atomization of the fuel. Due to the cold temperatures, the oil coolers remained closed during the entire flight, did I mention how good the heater works!

- We had 6 airplanes show up, and 5 arrived within 5 minutes of each other, with the sun low in the east and a little fog in the Cambridge area, seeing the other airplanes in the pattern was not



easy, but fortunately everyone was announcing on the radio their positions and keeping track of everyone that way

worked well. We had a good breakfast, for anyone who has not been to breakfast at Cambridge, the omelets are very large and the food is good.

- For the return flight, pretty much do all the same things to get ready for takeoff including pulling the prop through. Taxi at Cambridge on the long paved taxiway really shows the forward visibility challenges and the care that needs to be exercised to ensure the area in front of the airplane is clear. Landing back at Stan's farm is more like an aircraft carrier landing, power on approach right at stall speed, landing up hill and getting on the ground at the right speed within the first 100 feet. Of course Stan has done this hundreds of times and is a master at it. He did not need a lot of brake to stop using about 80% of the runway.
- Thanks Stan for the opportunity to ride in such a beautiful airplane and for the education on how flying was done in the post war era. I look forward to the next flyout and hope that other Chapter members will take advantage of these opportunities to get to know other members of the Chapter.

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➤ **IN THE CHOCKS**

HOMES WITH HANGARS FOR SALE AT CRE AIRPORT (MD50)
 More info at <http://www.airporthomes4pilots.com> or call 443-624-5548



MD50 Airport: It is 50' wide x 2500' long, paved, and lighted

HELP WANTED----- Chapter Web Administrator Needed!

Thanks everyone for contributions to the newsletter.

Build and fly safely!
 Bernie
 Chapter 478 Newsletter Editor/ Chief Scribe

➤ **EAA Chapter 478 2013/14 Calendar**

DATE	EVENT
November 19 th 2013	EAA Chapter 478 Meeting – 6:30pm at Museum
December 3 rd 2013	EAA Chapter 478 Board Meeting – 6:30pm at Museum
December 17 th 2013	EAA Chapter 478 Meeting – 6:30pm at Museum
January 7 th 2014	EAA Chapter 478 Board Meeting – 6:30pm at Museum
January 21 st 2014	EAA Chapter 478 Meeting – 6:30pm at Museum