



EAA Chapter 478
COCKPIT CHATTER
 Lexington Park, MD July 2007



Monthly Chapter Meeting

Date & Time: Tuesday, July 17th @ 5pm - Social Hour and 6pm – Picnic Starts

Program: Chapter Summer Picnic – see below

Location: Attebury’s Hangar at Chesapeake Ranch Airport

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- [Executive Board Meeting Minutes](#) Minutes from the July 3rd Board meeting
- [Treasurer’s Report](#) – Check on our chapter’s financial health
- [Young Eagles Corner](#) – Nothing to report this month
- [Member’s Forum](#) - Meet one of our new members – Chris Moody
- [The A-1 Builder’s Corner](#) – Highlights of the 3rd work party on June 16th – see pictures
- [The Chapter Homebuilder’s Corner](#) – MLat!!
- [In the Chocks](#) –The editor’s final word – we have a classified section this time
- [Chapter 2007 Calendar](#) – know when things are happening and become involved!

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 Attebury*
- Vice President: *Paul Gambacorta*
- Secretary: *Tom Weiss*
- Treasurer: *Jim Byers*
- Committee Chairs and Chapter Advisors**
- Social Chairman: *vacant*
- Membership Chairman: *vacant*
- Program Coordinators: *Bob Miller*
- Young Eagles: *Don Gates*
- Librarian: *John Trybus*
- A-1 Construction: *Paul Gambacorta*
- Flight Advisors: *Steve Grohsmeyer*
- Technical Counselors: *Bernie Wilder, Skip Shepherd*
- Newsletter Editor: *Bernie Wunder*
- Board Members at large: *S. Wood, F. Drefs & D. Byrne*
- Web Editor: *Kyle Franzak*
- Chapter Web Address <http://www.eachapter478.org>

Next Meeting Program



EAA Chapter 478 Summer Picnic:

Date: Tuesday, 17 July 2007
Time: 5:00pm-Social Hour
6:00pm-Picnic starts

Location: Attebury’s Hangar
Chesapeake Ranch Estates

Directions: Highway 2/4 N, right on 497 (Cove Point) to right on Little Cove Point Rd, 1.8 mi to back gate, left on Crystal Rock at stop, right on Bunkhouse Road, right on Side Saddle, straight into airport.

Bring dish/dessert/something to share –
 chapter provides drinks & hot dogs/hamburgers!

- **CHAPTER MEETING MINUTES** - -

EAA Chapter #478 Monthly Meeting

June 19th, 2007

1. The meeting was called to order at 7:05 P.M.
2. Mr. Gambacorta ran the meeting in Mr. Attebury's absence.
3. The Chapter Picnic will be held on 17 July 07 at the Chesapeake Ranch Airport at Mr. Attebury's Hangar. The picnic will start at 5:00 PM.
4. An A-1 work party took place on 16 June with work on the wing panel brass reinforcing plates.
5. A presentation will be given to the Chapter in September on the Pros and Cons of the Chapter becoming a United Way member.
6. The Chapter is still waiting for the CAP to determine who will attend the EAA Air Academy this year.
7. The Young Eagle Rally that was held on 9 June resulted in 23 rides in spite of the cross wind conditions. Next Young Eagle's Rally will be held in mid August.
8. The Treasurer reported a balance of just over \$2500. Expected expense for the EAA Air Academy student is \$1000.
9. A draft video of the May Young Eagle's event was shown. The plan for the video is to show it on the Public Access TV Station which will help to publicize the Chapter and the Young Eagle's Program.
10. A review of the A-1 progress took place with a show n tell on a wing panel, tail boom struts and elevator actuating arm. A review of the history of the aircraft also was shown. Bernie Wilder provided a video of the flight of the Curtiss Museum's A-1 and showed detailed pictures of the A-1 aircraft in the Curtiss Museum.
11. Meeting adjourned at 9:20 PM

Submitted by Tom Weiss - Chapter 478 Secretary

• **EXECUTIVE BOARD MEETING MINUTES-**

EAA Chapter #478 Executive Board

July 3rd, 2007

- Meeting was held at the museum and started at 1645. The Pres, John A., was slightly late and the VP, Paul Gambacorta., was very late. However, Dan Hammer, Sid Wood, Frank Drefs, Don Byrne, and Richard Van Natta began the meeting.
- The focus of the meeting was planning for the Chapter picnic. Richard Van Natta is the head of picnic planning.
 - The picnic will be held 17 July at the Chesapeake Ranch Airport in the clearing in front of John Attebury's hangar. Social hour will be held from 5-6 PM followed by food/eating from 6-8 PM. Socializing throughout.
 - Tables and chairs will be provided by Jim Byers, Ray Stinchcomb, and Frank Drefs.
 - Cooking will be provided by Dan, "The Grilling Chef" Hammer.
 - Paper products, dining utensils and drinks - water/soda will be scrounged up by Paul Gambacorta and Bernie Wunder. Key Boy, Paul G. will first check supplies at the St Mary's Airport air terminal storage closet.
 - Ice will be available but we need additional coolers. The ice should show up between 3 & 4 PM so please have your coolers available. Don Byrne and Paul Gambacorta volunteered additional coolers
 - Remember, the picnic is to bring a covered dish to share arrangement.

- The picnic is also an opportunity to reengage those closet EAAer's to support the local chapter. So put out the word. All we ask in return is for them to bring a covered dish. Please let Dan Hammer know how many additional people to grill for.

In other news:

- With the chapter picnic and Air Venture this month, no A-1 work party is planned. However, individuals working A-1 projects and need an extra set of hands, call Paul Gambacorta at 301-373-5790 (home), 301-757-0166 (work), or 240-538-2123 (cell).
- The August Chapter meeting will focus on safety. Dan Hammer, Safety Officer, will lead the presentation/discussion. Inputs are appreciated.
- Bernie W. and Sid W. have collaborated on a PRO/CON presentation for joining the United Way Charity list. We are planning to present this to the membership at the September chapter meeting.

Paul G. (from Dan H's notes)

- **Treasurer's report - Jim Byers**

Petty cash	\$563.31
Checking	\$1,393.35
<u>Savings</u>	<u>\$346.06</u>
Total	\$2,302.72



- **YOUNG EAGLES Corner**

The Young Eagles Coordinator – Don Gates

Web site: <http://www.young eagles.org>.

- **MEMBER'S FORUM**

{Editor's Note: One of the suggestions made for the newsletter is to publish a short bio on a chapter member to get to know each other better. This month is one of our new members – Chris Moody. Who will be in next month's newsletter??}

Chris Moody's Condensed Biography

- Grew up in the Washington metro area
- I was enlisted in the USCG reserve for 9 years on a small boat crew out of Curtis Bay Station near Baltimore for most of that time.
- Degree in Electrical Engineering from U of Md in 1979
- Worked for the Navy as a civilian at NSWC in White Oak MD (underwater acoustics) for 4 years after college. Working here I had the opportunity to be on a target ship that got fired at by Mk 48 torpedoes--sans warhead.
- I did flight training at Ft Meade flying Club and got my private license in 1979. I currently have about 550 hrs and an instrument rating I have yet to actually use. I wanted bad to fly in the MD ANG. I think I had it mostly worked out—except for the color vision part of the physical.
- Currently employed by MITRE Corp developing future surveillance and communication systems for FAA ATC modernization.

- June is my wonderful and tolerant wife of 24 years. June recently retired from the Howard County school system after 30 years of teaching first graders.
- I am embarrassed to say I started on my RV-6 back in 1988. But I haven't given up. I am ready for firewall forward stuff. June has been a real sport about the airplane pieces all over the house.
- We lived in Silver Spring for 20 years and we recently moved to Lusby. I have a hangar with a C-140 in it at the Ranch Club and we now live in Drum Point. Being able to put many RV airplane pieces in the hangar has made June happy.
- I have always liked biking and in 2002 I had the opportunity to take some time off to ride my bike from Virginia to Oregon. It took me just over 2 months. I started and ended the trip alone but met many folks along the way doing exactly the same thing since it was a published bike route. It was a great experience and I am glad I took the time to do it.



Chris Moody and His C-140 at the last Young Eagle Rally

- **The Chapter Builder's Corner**

This article has been excerpted from the April 2007 Avionics magazine by Sid Wood.

Multilateration sounds like something you did in high school math, but have long since forgotten. But no, you didn't, and no you haven't. Multilateration, MLat, is the latest thing coming down the pike in air traffic control technology, and it's picking up speed. MLat promises to eventually replace most, if not all, of today's transponder tracking ATC secondary surveillance radars (SSR). MLat is claimed to be cheaper, less maintenance, more accurate and works where radar has problems.

MLat works by monitoring transponder replies with three or more passive receivers and calculating the position of the aircraft with high-speed computers at a central site. The receivers are set at known locations in the coverage area; the area could be just at the airport for a control tower or spread out hundreds of miles for regional ATC coverage. The computers use time-of-arrival replies tagged with the four-digit ATC assigned reply code. Obviously, the MLat system will not track or even detect aircraft that do not have a working transponder.

Another problem with the basic MLat system is the need for interrogators to trigger the aircraft

transponders to reply. The conventional ATC radar systems all have interrogators that do that now. For the non-radar cases the MLat designers are using a small number of active interrogators that may be co-located with the MLat monitors.

Have you ever wondered why it takes ATC controllers 15 or 20 seconds to call out ‘radar contact’ after you start squawking an assigned reply code? It’s not because they have to look all over their scope to find your code. The ATC radar antennas take 4.8 seconds to make a 360-degree sweep. The ATC computer needs 3 sweeps to confirm your reply code. Then, the computer sets the target and code on the screen and flashes this new return until the controller touches the screen to acknowledge it. MLat provides updates every second. The higher MLat data rates provide a smoother and more accurate progression of targets across the controller’s screens, instead of the “jumps” of those swept by radar. Accuracy of the MLat is 25 feet. SSR has a resolution of about 800 feet. Currently, ATC separation distances are in terms of miles depending on in route or terminal areas. The controllers just don’t have enough accuracy on their SSR displays to reliably permit closer traffic separation.

The FAA is in process of deploying the ADS-B (Autonomous Dependent Surveillance – Broadcast) system. Your present transponder can report in the ADS-B system, but if you don’t output Mode S based on GPS, the ADS-B receivers cannot display your position. Of course if you do not have an ADS-B display in the cockpit, you don’t know where any other aircraft are located either. ADS-B and your present transponder will work quite nicely with MLat. (Do you have any idea what the Mode S code is for your aircraft?)

Aviation authorities in 25 countries have purchased MLat systems for special case ATC solutions and for evaluation. The FAA is evaluating the system, but has not put it into their current budget plans. A typical SSR costs about \$3 million to install and about \$20,000 annually just for the antenna to maintain. Overall, the FAA recognizes that retaining the 150 surveillance radars in the continental United States could cost well over \$1 billion in operations and maintenance costs per year. The MLat system would provide the same or better service for about \$100 million. Your tax dollars at work, or not.

p.s. My aircraft Mode S code is 52023667 and N6242 is still a pile of parts, some assembly required.

- **The A-1 Builder’s Corner**

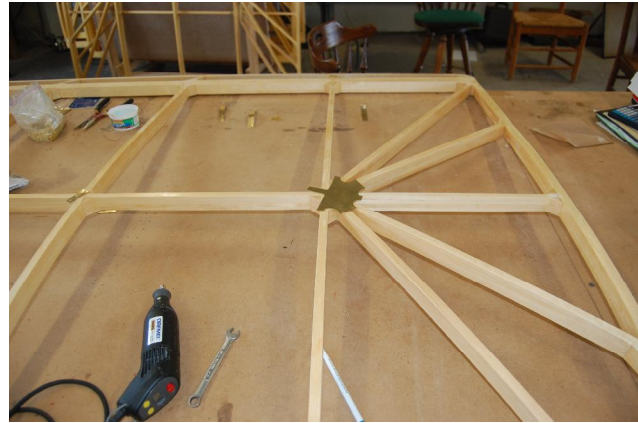
Here are some pictures from the A-1 work party on June 16th. Primary work was to put brass on the wing panels. Bernie Wilder showed up with the A-1’s horizontal tail, but someone forgot the sealer ... We also had a surprise visitor – Greg Stevens, a chapter member who lives over at Salisbury, MD flew his C-172 into the CRE Airpark.



Bernie Wilder is building the A-1 horz tails



Eastern Shore Chapter Member Greg checks it out



There is always some kind of story about the A-1 construction behind these photos



Must be the A-1 Brain Trust at work :)

Greg Stevens C-172 at CRE

- **The Classified Corner**

I have a VJ-24 (Volmer Jensen) for sale cheap. Solo 24 hp engine runs great. Project with a lot of materials: bent ribs, fabric, paint, jigs, prop, reduction drive, plans, letters, etc. Any interest call or email. Thanks.

--
Kurt F. Nielsen
nielsenk@comcast.net
703-963-2294

T-hangar L-4 at 2W6 currently has Bill McDonald's C-172 there now. A small experimental could share the space with the C-172. L-4 has a box end for additional space.
Contact Sid Wood, 240 538-8465, or Bill McDonald, 410 326-3525

There are at least two houses with hangars at the Chesapeake Ranch Estates airport for rent and/or sale. If interested, I can put you in touch with the appropriate person to show them to you – Bernie at 443.624.5548

- **IN THE CHOCKS**

I hope to make it to Oshkosh this year, but I have not solidified my plans. I know Sid Wood and Frank Drefs will be there. Maybe next year we should try to coordinate a Chapter 478 dinner night/get together like I remember we use to do .

Appreciate the inputs I received for this month's newsletter. Keep those stories, pictures and tidbits coming. See you at the picnic on Tuesday.

Fly and build safely.

Bernie

Chief Scribe & Newsletter Editor

EAA Chapter 478 2007 Calendar	
July 17 th , 2007	EAA Chapter 478 Summer Picnic; 5pm-social - 6pm eat; CRE
July 23 rd – 29 th , 2007	Oshkosh { http://www.eaa.org }
August 7 th , 2007	EAA Chapter 478 Board Meeting; 5:45pm; Navy Museum
August 21 st , 2007	EAA Chapter 478 Monthly Meeting; 7pm; 2W6

Misc Stuff!

Instrument Procedures Handbook Now Available

Notice Number: NOTC0903

The latest edition of the **Instrument Procedures Handbook** is now available!

This handbook provides the most up-to-date guidance on how to operate safely within the National Airspace System.

http://www.faa.gov/library/manuals/aviation/instrument_procedures_handbook/

AOPA Close to Home ~

FAA TO CHECK INTO PROBLEMS WITH PATUXENT VOR RADIALS

Problems with the Patuxent VOR radials (288 through 296) have made the Runway 29 VOR approach to St. Mary's County (Maryland) Regional Airport unusable. Several pilots contacted AOPA, worried that the VOR might be decommissioned. AOPA spoke with an official at the FAA's Eastern Flight Procedures Office in Atlanta, and the FAA is aware of and will check into the problem. The spokesman said that the VOR is not slated for decommissioning. The FAA also is planning to add a precision GPS (LPV) approach for Runway 29 but did not release a date for that. (A nonprecision GPS approach is in place for Runway 29 now.)