

WINTERMAIL

EAA CHAPTER 25

MINNEAPOLIS / ST PAUL, MN

MAY 2015

EAA CHAPTER 25 FAMILY DAY



“Getting back to our roots”

Saturday, June 13, 2015 10 – 3 pm

(Rain or Shine)



- Pig Roast with pot luck appetizers and desserts
- Chapter member planes on display showcasing homebuilts
- Plane rides including Young Eagles rides for chapter family members
- Games

Special guest – Charlie Becker from EAA with the One Week Wonder



What do we need from you?

RSVP with # attending by June 1, 2015 to marypenningtonhoyt@gmail.com

Suggested donation of \$5 per person; \$20 for immediate family

Please let me know if you would be able to volunteer for the following: Ground crew for airplanes, setup hanger for lunch, clean up etc.

Riveting Without Power

By Phil Schaffer

Lately I have been working on my cowl for my Fisher Horizon 2. I made it from aluminum using a technique I picked up from an article by Budd Davidson. The cowl is made with several sections held together with rivets and screws. For rivets I am using Avex pulled rivets (same rivets as used in the Zenith homebuilts). For screws I am using 10-32 stainless machine screws and locking nut plates. Normally these nutplates are installed using solid rivets installed flush to the surface. I am just not very expert at this type of riveting, so I chose (Continued on page 6)

Picture 1—Nut plate held in place from behind with a 10-32 screw



Craig's "Flight Lines" P2

May Mtg/Apr Minutes/Trivia P3

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Saved by a Bell P4

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Call for Homebuilt Photos P5

Flight Lines



—from Craig Nelson,
EAA Chapter 25 President

The warmer, windy weather and green of May are upon us. The weather was great last Saturday and I had good fun flying several Young Eagles in the Kitfox. This May 2nd YE rally was in concert with “Girls in Aviation Day” which was held at Airlake Airport. We flew 53 kids. Thanks to Kris Olson, the pilots and ground crew who made this event such a success.

There were a lot of kids with smiles climbing out of airplanes. Our usual 3rd Saturday of the month YE Rally is May 16. Contact Kris if you can fly kids or assist with ground crew.

The Minnesota Pilots Association’s 2015 “Great Minnesota Aviation Gathering” (GMAG) is now history. Chapter 25 shared an exhibit booth with Anoka Chapter 237. The Pietenpol Builders Group brought their nearly completed fuselage and put it on display. It was a well attended event and we had some good conversation with visitors about who we are and what EAA is all about. Many thanks to all the members who helped get the fuselage down to the show and assisted in manning the booth.

Our “Back to Our Roots” Family Day celebration is a month away on June 13. Bring the family, enjoy a pig roast, and help us celebrate the rich history of our chapter. We are asking chapter members to fly in their aircraft and give rides. There is a particular focus on the homebuilders bringing their planes. Check out the flyer that has been sent out or EAA25.org for more details.

Our May meeting will not be at the BSAEC. The meeting will be a project visit up to Anoka-Blaine airport where we will look at a restoration of a BT-13 Vultee Valiant WWII trainer that Dale Johnson is working on. There is a grill available so we will cook and eat as usual but there is a slight change in timing for this visit. We will eat at 6:30 and start our meeting at 7:15. Bring a chair to sit on. We will be back at the BSAEC in June for a presentation on the Fairey Gannet by its co-owner and pilot, Harry Odone.

At a recent Board of Directors meeting we decided to try a different direction for fund raising this year. The usual raffle is not very popular and it appears that many chapter members purchase their allotted raffle tickets rather than sell them to others. Instead of a raffle, we have decided to create a special EAA Chapter 25 College Scholarship Fund and are asking members to donate to the fund an amount that is equivalent to buying raffle tickets. All monies donated to this fund will be used to fund our college scholarship activities. Our 2015 goal is to cover our scholarship commitments of \$2750. All donations are fully tax deductible since we are a 501(c)(3) tax exempt organization. Funding scholarships in this fashion will allow us to focus other income streams to cover our normal operating expenses. This new approach will be explained further in upcoming monthly meetings.

(Continued on page 7)

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ON FINAL



Minneapolis/St. Paul

Visit our website at eaa25.org

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This Month: Wed Evening May 20th—Anoka-Blaine Apt

Grill on at 6:30 pm, Meeting at 7:15 pm

Please bring something to share (meat and buns provided): deli salads, chips, cookies, utensils, soft drinks and water. We also need a couple volunteers to cook!

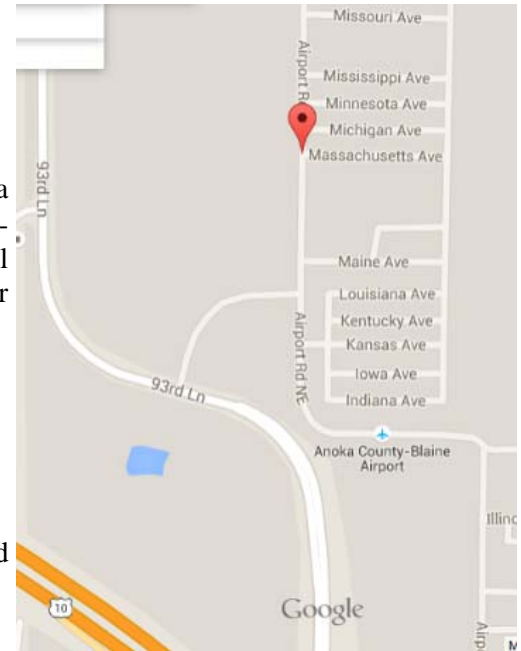
Program: Our May meeting will not be at the BSAEC. The meeting will be a project visit up to Anoka-Blaine airport where we will look at a restoration of a BT-13 Vultee Valiant WWII trainer that Dale Johnson is working on. There is a grill available so we will cook and eat as usual but there is a slight change in timing for this visit. We will eat at 6:30 and start our meeting at 7:15. Bring a chair to sit on.

May 30-31: Discover Aviation Days, Anoka Airport

Saturday, June 13th: Chapter 25 Family Day (See cover)

Wednesday, June 17: EAA Chapter 25 June Meeting

Saturday, June 20th: Young Eagles Contact Kris Olson, pilots/ground crew needed: 651-675-6826, ksimpson2@yahoo.com



EAA Ch. 25 Minutes of the April 15, 2015 Chapter Meeting

The meeting was called to order by President Craig Nelson at 7:00 pm at the BSAEC. Lt. Col. Lou Martin led us in the Pledge of Allegiance and then informed us that his hangar at Airlake is for sale.

Guests – There were no guests.

Homebuilt Honorary Wall Display - John Koser is working on a wall mount display of each airplane built by members. There are a few pictures up, but we know there are a lot more. John asked all members who have built airplanes to send him a digital picture of their airplane, ideally, a picture of airplane and builder. This is to celebrate member achievements.

MN Great Aviation Get Together by the MN Pilots Association – The Piet builders brought the Piet fuselage to the show for display and manned a Ch. 25 booth. On Friday night, Pres. Craig Nelson moderated a panel where 9 Chapters shared what they do to be successful.

Young Eagles – Kris Olson reported that 13 kids are scheduled for our event this Sat. (4/18). 75 girls are expected at the Aviation Careers for Women Day on 5/3. Pilots and ground crew are definitely needed for that event. A Young Eagles event is scheduled for 5/16. The Boy Scouts are planning a huge jamboree at the Buffalo Airport on May 29 – 31. They will be giving scouts an opportunity to earn their aviation merit badges. They are looking for Young Eagles pilots. Contact Kris if you can participate in any of these events. Ch. 25 earns credits to help send kids to EAA Aviation Camps for

Direction to May Meeting in Anoka

Take 35W North and take Exit 30 (Highway 10)
Take the next Exit
At the stop sign turn right onto 93rd Lane
Take the first right and approach the south gate
At the south gate drive close and the gate will open
At the stop sign turn left onto Airport Road
Go to Massachusetts Lane—first full row of hangars,
2nd hangar in (one row N. of Bolduc Av.)

every 10 Young Eagles kids flown.

Ch. 25 Annual Membership Renewals – To date, 30 of 131 members of record have yet to return their membership update forms along with their dues. Members that have not returned their form and dues are encouraged to do so as soon as they can. We are waiting for everyone to pay before we produce a roster. EAA 2015 picture calendars are still available for \$10.

(Continued on page 8)

Final Approach Trivia Quiz

By John Schmidt

Most aviation buffs have heard of ailerons, elevons or flaperons, words used to describe parts of an airplane. On what part of the airplane is a 'cloche'?

Answer on page 6

A Good Spare Part to Carry

By Patrick Hoyt

Many of the airplanes that we build and fly use Curtis style valves for "sumping" of the fuel tanks during pre-flight inspections. These valves are typically located at the lowest points of the fuel system, where water and debris will naturally collect and can be drained.

Sometimes debris can remain in the fuel tanks after construction, or can find it's way into a fuel tank by other means and after many hours of otherwise normal operation. If such debris is of sufficient size, it can foul a small O-ring, resulting in a "weeping" valve (photo 1 and 2).

Depending on the size of the debris, the "weep" can be significant, and if it's bad enough, your only choice is to either change the valve right then and there, or find a bucket...

Having had to deal with weeping valves in several airplanes, and having seen other deal with it, I have gotten into the habit of carrying a spare Curtis Valve and a small wrench (photo 3) in a ziplock bag, and having it on hand whenever I drain the sumps on my fuel tanks. Changing the valve is easy and quick, and can be done with minimal fuel loss if you are prepared.

After installing the new valve, the old valve can be cleaned, and the O-ring replaced (if needed), after which that valve becomes the spare.

Patrick Hoyt
N63PZ



Saved by a Bell from Steve Adkins

It was 1948. Minneapolis based Navy pilot, Lt. W. F. Levins was accused of pilot error. It was his second wheels up landing in a Corsair in ten months. The first wheels up landing was intentional when forced down by bad weather and low fuel. The second was when ferrying a plane to Minneapolis ... the landing appeared to be wheels-up. When an aircraft accident occurs, everyone wants to blame the pilot ... the FAA, Air Traffic Control, the mechanics, the airline, the aircraft manufacturer ... and in this case the Navy accident review board. "One board member asked me [Levins] why I didn't admit I had pulled the wrong handle and hope for understanding since I was so new to the airplane."

Two days after the accident, a new Ensign named Bell, arrived at NAS Minneapolis from overseas and was assigned to the engineering department. After one day, Bell met with the board, "Gentlemen, you have made a mistake." He pointed at the picture, "There is no way that the pilot of this Corsair could have retracted the gear upon landing. Look at the photo. Had the pilot retracted the gear upon landing (a common mistake), the tail

wheel would also have retracted as it is on the same system as the main gear." The locking pins had failed to slide in place. The board immediately reversed itself and Levins was restored to flight status ... saved by a Bell!

Source: Air Progress Aviation Review,
Volume 3/Number 4 Winter 1979, page 14



The evidence as to who was responsible for the belly landing is readily visible but none of us noticed it.

16 air progress aviation review

UND Scholarships Pat Halligan

Patrick and Sandy Halligan ventured to Grand Forks, ND for the UND Scholarship Award Ceremony and Aviation Banquet on April 18. During the scholarship ceremony Matthew Barry was awarded the Ken Dahlberg/EAA Chapter 25 Scholarship. Matthew is from Lakeville. A second UND student from the twin cities, Charlie Hill was awarded the Aircraft-Marine Ins. Kevin Gruys/EAA Chapter 25 Scholarship. Pat and Sandy sat with Matthew and his family for dinner and had time to visit with Charlie and his family after dinner. Not only were both students thrilled to be receiving financial assistance, but so were their parents and they let me know that, numerous times. UND handed out over \$267,000.00 in scholarship money to these very highly motivated and high achieving students from all over the world. Our chapter can be very proud to be in a position to help the next generation of aviation students.

Notes from Scholarship Recipients

I am writing this letter to formally express my sincere appreciation for being selected as the 2015 recipient of the Ken Dahlberg/EAA Chapter 25 Aviation Scholarship. I could not express my gratitude enough to be granted this opportunity to better pursue my dream of becoming a commercial airline pilot. As Benjamin Franklin once said, "An investment in knowledge pays the best interest." By investing in my future in aviation, I believe this scholarship will further assist in both literally and figuratively reaching new heights. I plan on using this scholarship to pay for my flight training, which one day will hopefully lead to a career at a legacy airline. I could not be more grateful for this opportunity. Thank you once again in helping me pursue my dreams.

Matt Barry

Thank you very much EAA Chapter 25 and Kevin Gruys for the generous scholarship. It will be very helpful as I train for my instrument rating next semester. I am very grateful for the help this scholarship will provide me.

Charles Hills

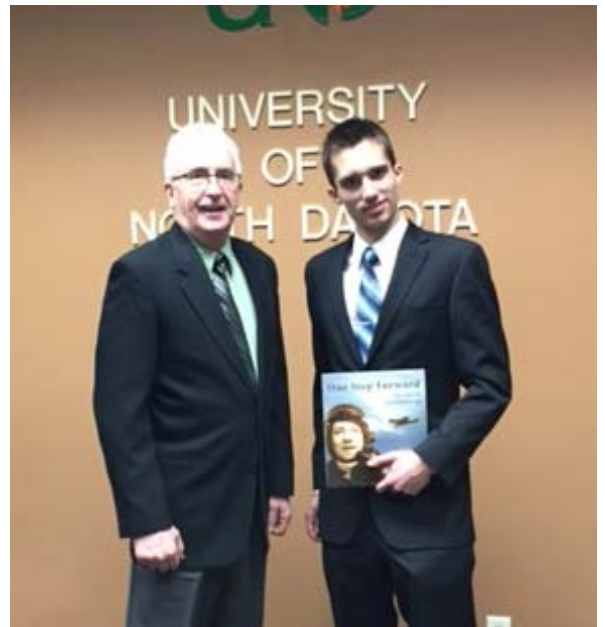
Call for Homebuilt Photos

So far, I have about 20 8x10 images hung at BSAEC, but the communications have dwindled. I am willing to continue this project, but have to have images from builders with first flight date in order to do so. I've asked for electronic images so far, but have also worked with a few folks to borrow their snapshots, scan them, and use image processing to improve and enlarge them.

If you want your homebuilt aircraft photos displayed along with the rest of us, you need to get them to me! Email is best, but USPS mail is also fine for photos, if they are of decent quality.

Thanks.

John Koser jfkoser@comcast.net



Pat with Matt Barry



Pat with Charles Hills

Riveting Without Power *(from page 1)*

to use the Avex rivets instead. It is not as elegant as the flush mount, but it works on my plane.

When I got into the final construction I had to turn quite a few of those 10-32 screws. By the time I was about done, I noticed that I had developed some pains in my hands, pains that did not seem to be going away any time soon. So when it came time to install the final panel, I decided to purchase a pneumatic rivet puller, which I found at Harbor Freight. To make this story a little shorter, let's just say that the damn thing did not work and I am going to send it back.

Without a power tool, I set about finding a way to install the remaining 16 rivets using the hand rivet puller. What follows are the steps I took to get the nut plates in the right spots.

After I formed the panel, which covers the underside of the cowl, I drilled holes large enough to hold a #8 screw, which I use as my "clecos". When these were all in place, I then drilled all the holes to 3/16". The next task was to install the nut plates. Since I use 1/8" rivets the nut plate attachment holes had to be drilled to 1/8" from their original size.

To place the attachment holes, I attached the nut plate on the outside of the surface using a 10-32 screw from behind (picture 1). Then I drilled through one attachment hole (1/8") (picture 2).

After inserting a rivet into the new hole, to keep the nut plate from rotating (picture 3), I drilled the second hole. Then I removed the nut plate and replaced it to its permanent location and held it in place with an AN3 bolt and set the rivets in place as well (picture 4). Now I was ready to pull the rivets.

So how to manage the considerable force required to pull the rivets manually? I had some leftover tubing and channel, so I used that to extend the reach of the rivet puller, thus lessening the force required (picture 5).

The final result is shown in picture 6, which includes a 10-32 machine screw and neoprene lined washer which will hold the panel in place.



Answer to Final Approach Quiz (See page 3)

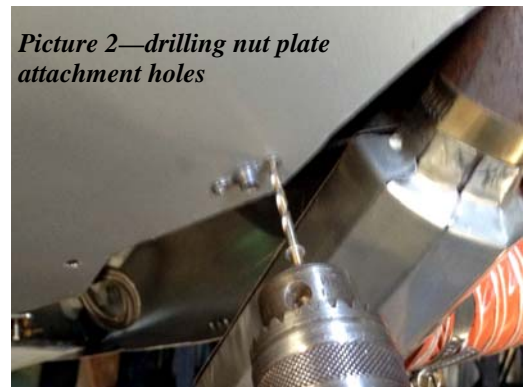
Found on, among other early aircraft, the 1909 Bleriot Type XI, the "cloche," named after a lady's hat style of the period, was a bell-shaped housing on a control stick, used for controlling wing-warping.

http://www.vintage-aerodrome.com/images/Bleriot_XI.pdf

<http://www.pbs.org/wgbh/nova/bleriot/tour-nf.html>

<http://thinkexist.com/dictionary/meaning/cloche/>

<http://www.wordnik.com/words/cloche>



Picture 3—ready to drill 2nd rivet hole



Picture 4—ready to pull the rivets



Picture 5—rivet puller with extension handles



Picture 6—nut plate riveted in place and ready for use





Stuff for Sale/Wanted

Wanted: Your dusty old VFR instruments for my Pietenpol project. Please contact Ned Lebens 952-567-3329 or nlebens@gmail.com

For Sale: Ellison EFS-2 Throttle Body Injector
don schlais <d.schlais@hotmail.com> 763-479-8228

For Sale: Aviation Books. Oldies, classics, some brand-new, some autographed. Inexpensive! Cutting down my library. I can e-mail a listing. Noel Allard. nallard@unitelc.com.

Flight Lines (From page 2)

Finally, congratulations to Matthew Davidson and Brett Fredricks who are both receiving Chapter 25 Scholarships to attend EAA Air Academy this summer. Matthew has attended and spoken to use at previous monthly meetings. Brett is a 12 year old from Farmington who has received several Young Eagle rides over the past few years and has a strong interest in aviation. Funding for these scholarships is provided by EAA credits that we receive by flying kids at YE rallies.

I hope to see you Wednesday at Anoka/Blaine Airport.

Congratulations to Mankato State University Aviation students Christopher Plasek and Coby Enochson who each received \$1000 scholarships sponsored by Aircraft & Marine Insurance Co. and EAA Chapter 25. Both gentlemen are upperclassmen and are completing flight training to become professional pilots. Pictured above is myself, Coby, and Kevin Gruys (Aircraft & Marine Insurance Co.) at the Mankato State University Aviation Banquet where the scholarships were awarded.



Both gentlemen are upperclassmen and are completing flight training to become professional pilots. Pictured above is myself, Coby, and Kevin Gruys (Aircraft & Marine Insurance Co.) at the Mankato State University Aviation Banquet where the scholarships were awarded.

Next Chapter Meeting: Wed, June 17th

Young Eagle Events: June 20th

contact Kris Olson (see p2) if you can volunteer

Aircraft Insurance and Hangar Insurance



Aircraft & Marine Insurance Agency, Inc.

Contact: Kevin Gruys at 952-890-1124
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Minnesota Pilots Association
 12000 Elm Creek Blvd. Suite 350
 Maple Grove, MN 55369

EAA Chapter 25 March Meeting Minutes

(Continued from page 3)

Ch. 237 at Anoka is looking for volunteers to work on a B-52 restoration project on 5/6 and 6/6.

Trevor Norman solicited help from members wishing to work on a KR-2 in Shakopee.

Oshkosh – Peter Denny said he will set up Camp Wallaby in the west woods for Ch. 25 members. If you wish to participate you need to pay camping expenses in advance.

Ch. 25 Upcoming Events – The May 20th Chapter meeting will be a visit to the restoration project Dale Johnson is working on at Anoka Co. – Blaine Airport. There will be a short business meeting starting at 6:15 pm followed by a tour at 6:30 pm. Bring folding chairs.

Sat. 6/13 is Ch. 25 Family Day from 10 am – 3 pm rain or shine. We are having a pig roast with pot luck appetizers and desserts. Members are encouraged to fly-in the airplanes they have built. There will be plane rides and games for all ages. Special guest will be Charlie Becker from the EAA One Week Wonder. Suggested donations are \$5 per person, \$20 for immediate families. RSVP to marypenningtonhoyt@gmail.com with the number attending by June 1.

The 6/17 Chapter meeting will be a presentation about a Fairey Gannet project occurring in New Richmond, WI.

Food Coordination – Gary Steinar has agreed to coordinate. We are going to try having Ch. 25 provide the food with members making a strong donation to offset expenses. Gary will be soliciting volunteers to help cook.


Finances – Gordon Duke, Treasurer, reported that we have \$12K in checking and \$10K in savings with manageable normal liabilities, so the Chapter finances are in good standing. Gordon has prepared an analysis of Ch. 25 finances that he will report to the Board.

Presentation – Stein Brock, President of Stein Air, gave a presentation on the new FAA requirements regarding ADSB. ADSB is an FAA scheme allowing airplanes to track each other independent of radar. The FAA proposal is to require that all airplanes be equipped with an ADSP output by 2020. He recommended that pilots wait to comply with the regulations. Four years is a long time, given the rapid pace of legal and technological changes.

Respectfully submitted,


Kim V. Johnson, Secretary and Membership Coordinator

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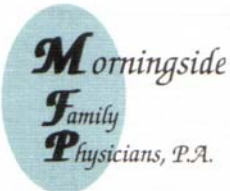
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