

# Speaker May 23

Scot Stambaugh reveals the 4 basic wiring plans from Bob Nuckolls for your plane. One battery, two batteries, standby alternator or not, all is elucidated. Design your electrical system so you never have to mess with circuit breakers or fuses in flight.

# **Upcoming Topics**

Dates and topics may will change!

June 27: Ron Robinson Visit the Middle East July 21: Chapter Picnic, 11AM, near Budget Aug 22/TBD: John LaNue Building the Vickers Vimy Sep 26/TBD: Scot Stambaugh Aircraft Wiring Basics/Tools Oct 24/TBD: Speaker needed – who? The Care and Feeding of Warbirds?

# A Word to the Wise

When EAA Chapter 393 sponsors an event, such as the B-17 visit or our Young Eagles events, we are responsible to ensure that we, and our guests, act safely and within the regulations. In particular, we must be aware of the airport movement areas (taxiways and runways) and the requirement that we be in radio contact and with permission from ATC (the Tower) before we enter these areas. In general, knowledgeable pedestrians (pilots and others with escorts) are permitted on the ramp, but only aircraft and official vehicles are permitted on the taxiways and runways. (And yes, this message was brought to you because somebody did something they should not have done...)

# Presidential perspective:

# B-17 Stop A Big Success!

The EAA's B-17, Aluminum Overcast, made a successful tour stop at Concord's Buchanan field on May 1 & 2. The chapter received some good publicity from the Contra Costa Times. 43 paid seats were flown in 5 flights. Hundreds of people walked around and crawled through it in the afternoons. Many pictures were taken. We even managed, with the help of Dick Sperling, our unofficial veteran's liaison, to arrange a free flight for 2 local WWII B-17 vets.



We also managed to recruit a new member or 2. (Which reminds me, does anyone know the whereabouts of the EAA recruiting materials we used at last August's airport day? They disappeared after the event and I suspect that they probably went home with one of our volunteers. I would like to reclaim them so we can use them at future events such as this. Please contact me if you can shed any light on this matter.)

We had a great turnout of 393 volunteers for the event. My thanks to the following volunteers, without whom we would not have been able to put on a successful event (hours): Bill McCoy (16); Brian Donovan (16); Scott Achelis (15); Tom Howard (12); Dave Walters (12); Ken Wiley (8); Harvard Holmes (6); Charles Hester (5); Peter Degl'Innocenti (4); Fritz Henshaw (4); Bill Reining (4); Jim Veatch (4); Chris Bristow (3); Keith Martz (3); Bruno Motta (3); Douglas Borchart (2); Frank Harvey (2); Ron Robinson (2); Phil Jenkins (2); and I mustn't forget: Linda McKenzie (31); Ken McKenzie (36); for a grand total of 190 hrs.

As a result of hosting this event the chapter was awarded 6 no cost seats on the B-17 flight to Truckee. Using my authority as president and tour stop chairman I gave seats to Harvard Holmes and Rick Lambert as thanks for long and continuing service to the chapter. The other 4 seats were raffled off among the volunteers based upon hours worked. The lucky winners of the remaining 4 seats on the hour-long flight were: Brian Donovan, Fritz Henshaw, Bruno Motta, and Dave Walters

The chapter provided a rental SUV for the return trip from Truckee. Louie Goodell had offered to drive up and pick them up in his minivan but an unexpected snowstorm made that impossible.

During the event there were 4 empty seats on local flights that the staff turned over to us. Two of these seats were given to Sterling and the remaining seats were given to Scott Achelis, 393's fly-out coordinator and Rhu Bigay, a longtime supporter of the Young Eagles program with his artwork donations.

The EAA operations people who travel with the B-17 said that we had a really successful stop and they would love to come back. To that end I have already submitted a request for next year. The president of Napa chapter, who has hosted this event for the last 4 years, says that they like to alternate weekend and weekday stops each year. So perhaps next year we might be offered a weekend event.

The bottom line for this event is not known yet but it looks like we will realize something over \$2000 for our participation. We'll know when we get EAA's check later this month.

In addition to the money we will receive from EAA operations we also received a cut from a local author, whom we gave permission to sell his book at the event. This amounted to an additional \$120.

This was a really large event for the chapter and even though I feel that overall it went very well, there are some improvements I would make for the next event. First, I would put more emphasis on ramp security and volunteer briefing. We didn't have as complete control of the ramp as I would expect in the future. This can be overcome with better signage and barricades along with additional, and better informed volunteers. Second, I would add colored vests for the volunteers, to make them more recognizable and official looking. While the vast majority of the public was very well behaved, it never hurts to have an extra level of authority. After all, we are there to see to it that the public follows the FAA/airport rules & regulations for everyone's safety. Third, we really need to have a place that the volunteers and the flight crew can relax and get some food and drink.

In closing, I wish to acknowledge the contributions of Sterling Aviation, who generously provided the use of their facilities, thereby allowing us to put on this event. I wish to thank Larry Rohrbacher, who rearranged much of Sterling's ramp to accommodate our operation. His flexibility and patience over those 4 days was nothing short of amazing.

And finally I want to thank the good folks at the Buchanan field airport office who provided additional stanchions & rope as well as showing great restraint and understanding when we failed to maintain adequate security.

Thanks to everyone involved and I look forward to repeating this event for many years to come.

Fly Outs Revitalized by Scott Achelis Our May 26 destination is TBD. LSA seminar at Columbia is under consideration http://lightsportairplaneswest.com/Calendar. htm Send your ideas to EAA.393.flyouts@gmail.com

## Young Eagle Events by Dick Sperling

Pat Peters coordinated the Young Eagles event on May 5<sup>th</sup>. His son Tracy and daughter-in-law Bridget did the coordination and printed the certificates. There were 18 Young Eagles and several pilots to fly them. Pat Peters was there with his Cherokee, Harvard Holmes brought his Mooney, Bob Belshe brought his Lancair, Tony Tiritilli brought his Cherokee, and Richard Roberts brought his Bonanza.

The next Young Eagles event is scheduled for June 9<sup>th</sup>, "International Young Eagles Day" according to EAA Headquarters! Dick Sperling will be coordinating this event. Thanks to Pat Peters for coordinating the last one. Subsequent YE events are on August 25, and October 6.

## New Membership Activities by Bill McCoy

I have several ideas for membership drives, for the board's consideration at the next Board Meeting. In the mean time I suggest to all of our members to use the old, tried and true, "Arm's Length Method." If a person gets to within an arm's length of you, lay your hand on his shoulder or shake his hand and tell them about EAA 393, and what a great time and adventure they can have by coming as your guest to our next meeting.

We'll have more events this year for guests and future members, as well as some exciting events for our members.

#### EAA 393 General Meeting April 25, 2007

Ken McKenzie welcomed new members and asked for announcements.

### Announcements

Ken McKenzie called upon Dick Sperling who presented Pat Peters with a plaque recognizing Pat's many long years serving as our Young Eagles Chairman.



Dick also gave brief stories of a couple of B-17 crewmen that he hoped would attend the B-17 event. He also mentioned a local police officer that has written about his father, who was a tail gunner in a B-17.

Ken described the sign-ups available for the B-17: 2 slots for selling merchandise, 2 assistants to help load/unload passengers, and 3 slots for security during the tours. A question about turnout revealed that Concord had no advance reservations! Most of the media coverage will occur Thursday and Friday from Hayward, before the B-17 gets to Concord.

Ken recommended that members express their opinions on the FAA funding proposal to their congresspersons. See the AOPA and EAA web sites for explanations of the issues and points to cover in your letters (real letters, not emails).

Bill McCoy was introduced as our new membership chairman. He expressed his thanks to Bob Belshe, the outgoing membership chairman, for his service and noted that he was a low time pilot and honored to be involved. He hopes to increase our membership by 70% in the next year. He has already gotten EAA Chapter 393 publicity through sponsoring the MTZ auto repair racing team in Concord. He hopes to take some video of our activities so he can show people what we're doing.

### Presentation

Scot Stambaugh began the presentation on riveting. He had a handout on rivet spacing. A question about the hardness of the bucking bar was answered with the comment that it didn't matter much as aluminum is a soft metal. Scot introduced a variety of riveting tools, including the gun, the bucking bar, countersinking tools, and dimpling tools. The concept of "back riveting" was introduced. The use of a rivet squeezer was illustrated; there are lots of dies (tips) to go with the rivet squeezers. Scot illustrated the use of a rivet gauge to make sure there is enough material, and the gauge to make sure it's squeezed enough.

Scot reviewed the numbering system for rivets. The first number gives the diameter in 32nds of an inch, and the dash number gives the length in 16ths of an inch. He noted that to get the correct fit, rivets come in half sizes, and a rivet cutter can also be used to cut the rivet to the length needed.



Dimpling is usually done with a squeezer to press the halves of the dimpling die together. Sometimes, a pop rivet style tool is used for dimpling – then the dimple die must have a shaft that comes through the other die. You can dimple metal up to 0.032" thick. In fact, countersinking is not recommended on metal less than 0.040" thick. Bruce recommended that you heat your metal a bit, and then it will form better. It just needs to be hot to the touch. Countersinking or dimpling is needed for flush rivets.

Bruce began the demonstrations by noting that the rivet must be a snug fit in the hole. Then test the gun with a piece of wood. Place the gun against a piece of wood and squeeze the trigger gently until the gun begins to tap the wood softly. A full trigger press is usually too strong. As the rivet gets deformed ("set"), you can press the trigger harder to drive the rivet down to the correct thickness. You should develop a rhythm so that each rivet takes 3 seconds or so to drive. This is especially important when you are working with a partner. With a rhythm, you both know what to expect.



Bruce noted that if you anneal the rivets first, then they will be easier to drive with less deformation of the metal being riveted. He noted that old, hard rivets can be like nails! Heat the rivets up to 750 to 790 degrees Fahrenheit for 15 minutes, then quench them in ice cold water. They will start to get hard again in 24 hours or so. Keep the rivets in a refrigerator or freezer to keep them soft longer.

When you rivet, the length extending beyond the hole should be 1½ times the diameter of the rivet. Sometimes we use tape to hold rivets in place. You can also hold the metal together with Clecos. One trick is to lightly drive the rivet to hold the skins together.

Rivet guns come in 2x, 3x and 4x sizes. Don't get the big one! Get the size you need. Spend good money on your rivet gun – a good variable trigger is very important. A good one will be much easier to use than a mediocre one. Get an airflow regulator from Aircraft Spruce – it goes between the hose and the gun and allows you to regulate the air flow. It looks like a small valve – it does not have a gauge. Get lots of practice before you begin work on your project.

We took a break and then we all got to try out the rivet gun and the bucking bar.

# **EAA 393 Fly Out to Calaveras County** April 28, 2007

A whole gaggle of us went to the Fly In at Calaveras County Airport. We enjoyed the cars, planes, demonstrations, pancake breakfast and other food. Attending were: Harvard and Sara Holmes (Mooney); Bob Belshe with Harry Heckman (Lancair 235/320); Ron Robinson with Tom Howard (Glasair I RG); Ken and Akiko Wiley (Glastar); Bill Black and his wife (Harmon Rocket); and Gary Stofer and his family (Stinson). We didn't get pictures of everybody, but here are a few.



Harvard and Sara parked on the Taxiway.



Ron Robinson's Glasair I RG



Gary Stofer's Stinson



Bill Black's Harmon Rocket

# EAA 393 Board Meeting

May 1, 2007

Ken McKenzie reported that the B-17 event was going well. There were three flights today (May 1), and they expected at least two more tomorrow. The Chapter might get as much as \$2000 for our share of the income from the event. There will be six seats for the flight to Truckee for Chapter members from among the volunteers. There was some discussion about how to get back. Ken determined that the Chapter would cover this expense from our share of the income. We got one new member today.

We reviewed the speaker schedule for the next few months. The speaker for May is still up in the air, with a Plan A and a Plan B. The June speaker will be Ron Robinson, who will present his slides from a trip to the Middle East.

Secretary/Treasurer Louis Goodell reported that we have \$1528.36 in the checking account and \$2638.92 in the savings account.

Louis also reported that the company where we get our name badges is downsizing and their response to badge purchases has been slow.

## Views from the B-17

May 3, 2007 Harvard Holmes

I got to ride the B-17 from Concord up to Truckee. It was an awesome trip. Takeoffs and landings are done seated, but for most of the flight you are free to roam around.



On the ramp, ready for boarding.



Seated for takeoff.



Here's a view looking back at the mothball fleet. Once we were airborne, we climbed steadily up to 7,500'. Over the central valley, the weather was clear, but we could see clouds over the Sierras in the distance.



The B-17 is definitely a warplane, with exposed bulkheads and systems.



Nobody is going to sneak up on us!



Crawl down this hatch to the nose.



The nose has the view! Sierra clouds...



As seen from the nose... Thanks to our Donors and Sponsors





We went down through a hole in the clouds and skimmed the snow covered mountains.



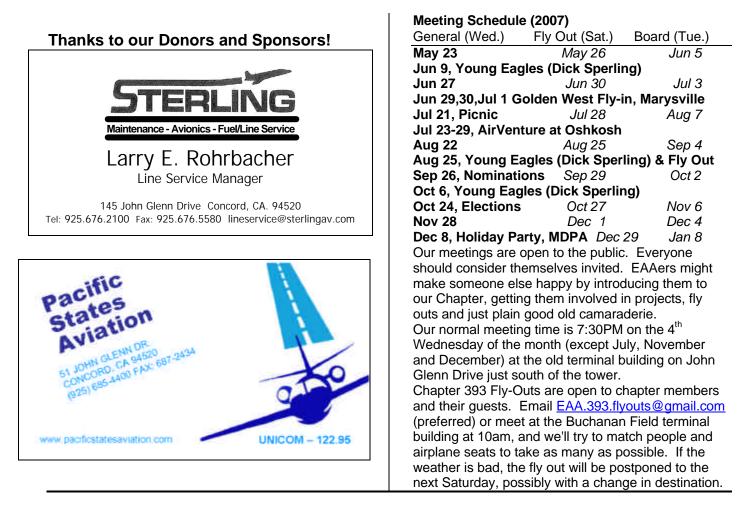
Truckee airport: All too soon, it was over!

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