



The Hagerstown Homebuilder

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From EAA Chapter 36 Officers and Members



Happy New Year to One and All

EAA CHAPTER 36

January 2012

2011-12 OFFICERS AND SUPPORT STAFF

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Chapter Meetings held the
1st. Tuesday of each month,
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Lounge, at the Hagerstown
Regional Airport.

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Happy New Year!!!

From the President January 2012



Happy Holidays to all and I hope everyone had a wonderful Christmas and New Year's with family and friends.

Now that 2011 is behind us we can look back on what was accomplished. We successfully held four fly-in breakfasts over the summer in Hancock. The Kit Fox project regained some steam in its rebuild to

the point where it can now be advertised for sale. Through the efforts of Ken Jones, he's managed to rekindle the registration paperwork back into motion through the FAA. This was a major hurdle that should make the sale of the Kit Fox more desirable. Although we didn't have our own fall fly-in this past year, we did make a hit with Young Eagle flights as participants in the Hagerstown Museums fly-in fundraiser.

Even though we've had a good year there are still many concerns looming. The few fundraising events are not enough to sustain the chapter's expenses, the hangar being our biggest one. Retention of it is very questionable for all of 2012. Projects and interest are waning as each year passes by. The recent Kit Fox project is a good example. Do you remember when it was received into the chapter and work started on it? It was back in the summer of 2007, almost 5 years ago now. We started to make pedal planes to sell or raffle off.

We managed one to the efforts of Jack Raun & Ed Schupp. The P-51 which was raffled off in 2010, it brought in enough funds to cover the material expenses for it and a Jungmeister pedal plane. It too has now stalled out.

Another project that was a big hope was the rebuilding of the J-4 Cub donated to the chapter by Tom Cozzoli. Unfortunately we were unable to retrieve more than just its frame and through Tom sold it as a donation to the chapter.

On the up side, there was enough funds gained through the efforts of Annette Murphy and Wal-Mart donations that we were able to send a youngster to the EAA Young Eagles camp in Oshkosh, Wisconsin. There are still enough funds and donations that were sending another deserving youngster this summer.

This year's hope, as in past years, is to rekindle the chapter with some other kinds of activities in order to maintain our chapter and the interest of its members. Any ideas that you may have, please bring them to our meeting night. Remember, the first Tuesday of the month at 7:30 with a social starting at 7:00. At last month's meeting there were only 7 members in attendance.

Fly safe & be safe,

Mark Hissey

President, EAA Chapter 36





Chapter Minutes

December 6, 2011

- Meeting called to Order at 7:40. (attendance - 7 members)
- November 2011 minutes read and approved with some minor revisions.
- November 2011 Treasurers Report read and approved.
- The Treasurer reported that Annette Murphy has once again submitted two requests to the Walmart Foundation for donations to the Chapter.
- The Treasurer also reported that he has received a \$125 donation from Staples in the form of 5 \$25 gift certificate cards for purchases from Staples. This donation was received in response to a request by Larry Murphy. Anyone who wishes to use them may buy them from Ken Jones. The Secretary will send a thank-you note to Staples.
- Ken Jones reported that he has made arrangements with the Mountain /Gate Restaurant in Waynesboro for the March Awards banquet. The date is March 10. We will begin arriving at 6:00 pm. The cost is the same as last year - \$20 for adults, \$12 for kids 12 and under. Call or Email Ken Jones with reservations. Don't worry - If necessary, reservations can be cancelled at no cost.
- Mark reported that honorary memberships were offered to Michael Mercer, John Zinkus and Alain Borel who helped at the last event by flying Young Eagles. Michael and John have accepted membership. No word from Alain.
- Mark reported that he will continue as President, as discussed in last month's minutes, but we still need someone as Vice President.
- Ken Jones reported he has been in further contact with the FAA concerning registration of the Kitfox project. Mr. David Baron at the FAA requested that we install the engine, cowling and prop, which has now been done. Photos in that condition were then sent to Mr. Baron who stated he would now authorize the registration when he receives a new request from the Registration Branch. He instructed us to send the new photos to the Registration Branch who will then send a new authorization request to him - at which time he can recommend authorization. He apologized for all the red tape. Such photos have been sent. We now waiting for final registration. We have complied with all FAA requests.
- Ken indicated he will begin advertising the Kitfox for sale as soon as the registration is received.
- Mark reported he is expecting a bill for hanger insurance from EAA National shortly. Last year's bill was for \$738. It may be a bit more this year.
- Mark reported that EAA National has now adopted a new plan for providing intro flights to adults - similar to Young Eagle flights - effective Jan. 1 2012. Details are not yet available.
- The members decided to have an impromptu covered dish Christmas party at Curtis Berry's house on December 17 starting at 6:00 pm. Mark and Sandy will send an Email to the members with details.
- Jay Kanagy reported he was unaware of any upcoming events in December and January.
- Curtis Berry reported he and Mark are planning to make some more Young Eagle flights this coming Sunday - for Boy Scout members - weather permitting.
- Meeting was adjourned at 9:35.

Submitted by: Ken Jones

Chapter 36

News and Events

Happy Birthday

Jan. 2 – Betty Wright
Jan. 6 – Richard Wallace, Jr.
Jan. 20 – Ken Jones

Happy Anniversary

Jan. 1 – Robert Schemmerling



Wings and Wheels,

sponsored by The Hagerstown Aviation Museum, with the help of Chapter 36, was held on October 15 & 16, 2011 on the Hagerstown Airport. The weather was a little windy on Saturday, but picture perfect on

Sunday, which helped to make this event a huge success. Photos are available on the next page and our [website](#). →



Ed Schupp

has completed his RV, and he says that after an hour and ten minutes he had to

coax Craig Fuller to land. Many thanks to Jack Raun for his help and encouragement. Great Job, Ed. →

FAA Safety Team | Safer Skies Through Education

FAA Advises GA Pilots to Check for Fuel Contamination

November 15, 2011 – With winter beckoning, the FAA has issued a Special Airworthiness Information Bulletin (SAIB) stressing the hazards of water contamination of fuel tank systems to GA pilots, owners, operators, and maintenance and service personnel. The fuel tank system consists of all tanks, components, lines, fittings, etc. – from the fuel tank to the engine.

“Water may enter the fuel tank system via any penetration in the wing fuel tank and from moisture condensation inside the tank,” warns SAIB CE-12-06, dated November 2, 2011. “Water in the fuel may come out of solution, settle, and make its way to a drain location in the form of a blob, pea, or BB-shaped translucent mass found at the bottom of the sampler cup.”

News

WEBINARS: ALL ABOUT MAGNETOS

Maintenance expert and *EAA Sport Aviation* columnist Mike Busch, A&P/IA, presents an informational webinar about magnetos, including how they work, functions of key components, failure modes, preventive maintenance, preflight and in-flight mag checks, high-altitude misfire causes and cures, troubleshooting ignition problems, and more.

- Wednesday, January 4, 8 p.m.: [All About Magnetos](#) with Mike Busch (AMT credit)
- Thursday, January 19: [Emergency Bailout Procedures and Survival Equipment for Pilots](#) with Allen Silver (Wings credit)
- Friday, January 27: [A Chat With Air Racing Legend Bill Brennand](#) with Jim Cunningham

All webinars begin at 7 p.m. CST unless otherwise noted, and they require registration. To find out more about upcoming EAA Webinars and to register, visit the [webinars](#) page.



HOMEBUILT AIRCRAFT COUNCIL SEEKING NEW MEMBERS

Are you passionate about experimental aviation? Do you

want to help guide the direction of the homebuilt airplane community within EAA? Then you may be a candidate to serve on the EAA Homebuilt Aircraft Council, which is looking to fill three to four council positions in the coming months. Prospective members must be willing to travel to Oshkosh two or three times a year for council meetings, plus there may be other meetings and responsibilities occurring during EAA AirVenture Oshkosh. Read the [HAC charter here](#). If you're interested in serving as a member, complete the [online application form here](#). →



HINTS FOR HOMEBUILDERS: TROUBLESHOOTING A LEAKY CARBURETOR

A leaking carburetor is a serious threat to your safety and should be remedied immediately. Brian Carpenter shows us a common place to start your troubleshooting.

[Watch the video](#) →

FAA SAFETY BRIEFING NEWS UPDATE

It Can Happen to Anyone

Attention pilots: Runway incursions really can happen to anyone, which is why being vigilant is so important. Get some runway safety pointers from Master Pilot Bill Castlen's first-person account of his runway incursion at Hartsfield-Jackson Atlanta International, the world's busiest airport, in the November/December *FAA Safety Briefing* www.faa.gov/news/safety_briefing/2011/media/NovDec2011.pdf

Q & A: I am currently building an RV-12 as an experimental light-sport aircraft (E-LSA). What would be the process involved - and potential consequences - if I changed to experimental amateur-built (E-AB)?

Answer: You can change from building it as an E-LSA to E-AB at any time, provided you meet the major portion (51 percent) requirement - now and in the future. If you have not hired anyone to help you, and are building it yourself, you should have no trouble meeting this requirement. A consequence of building your RV-12 as an E-AB versus E-LSA concerns the repairman certificate; if you continue building it as an E-LSA, you'll have to take and pass [a 16-hour course](#) to obtain your repairman certificate, then apply to your local FSDO. Anyone who buys your plane in the future would also be able to take the course and do the same. Building as an E-AB, you'll be eligible to apply for the repairman certificate with FAA Form 8610-2, then meeting with your FAA FSDO, which would issue the certificate. Once the FAA issues the repairman certificate to you, the primary builder, no one else would be eligible to obtain it, and it is also non-transferable to any future buyer. Maintenance, repair, alterations, and modifications to the aircraft can be done by anyone for both E-LSA and E-AB, so that is the same. →

When Dual Can Equal Disaster

Every well-trained crew, or any competent instructor, always makes it absolutely clear who has the controls. Even pilots who have flown together for hundreds or thousands of hours always announce aloud, "You have the controls," and the other pilot responds, "I have the controls."

These procedures come from the hard-learned lessons that somebody must always be in control, but two can never be in control effectively and safely at the same time.

I was reminded of this when my Baron was at Mayday Avionics in Grand Rapids this week to find and fix a problem with the automatic trim in my autopilot. The autotrim had been intermittent for some time, but had now finally quit functioning. A total failure is always so much easier to fix than an intermittent.

Autopilots fly an airplane exactly as we humans do. Both see an error in the desired flight path and move the controls to correct the error. Both the human and autopilot have a feedback loop. Sensors – eyes or electronic – see a deviation from the desired attitude, course, altitude, or whatever, and move the controls in a way that corrects the error. The airplane responds and the loop is complete when our sensors detect the error being corrected.

The big difference is that autopilots have only a single loop for each control and that loop cares about nothing else, while the human brain can maintain the flying feedback loop and also consider dozens of other factors. That versatility gives the human the edge when it comes to being a manager, but the 100 percent concentration on a single task makes the autopilot a more precise pilot. For a human to fly an ILS, for example, with the same routine precision as an autopilot, total concentration is required. That's why in crew flying the pilot on the controls at critical times does nothing but fly while his crew mate handles radios, callouts, and overall situational monitoring.

The other way humans and autopilots are alike is that neither has the strength to control the airplane – at least not in every situation – without the aid of a trim system. When either type of pilot feels the controls pulling or pushing away from the desired flight path the solution is to adjust the trim until the pressure is gone.

The big difference – and potentially dangerous difference – between a human pilot trimming and an autopilot trimming is that the autopilot doesn't know what is causing the force on the controls, while the human should. When the autopilot pitch servo senses force on the controls it adjusts the trim until the force is removed. Most autopilot pitch servos have an internal spring that allows for a certain amount of out of trim force. When the force becomes too high the servo twists on its spring and electrical contacts close powering the trim servo to move the pitch trim system. Simple, and effective.

The potentially dangerous aspect is that the pitch servo and its spring don't know if the force is caused by air loads, or if the human pilot is pushing or pulling on the controls. If the autopilot is engaged and flying, and the human pulls back on the controls, for example, because he doesn't like what the autopilot is doing, the pitch servo feels that as a need for nose-down trim. As long as the human pilot keeps pulling, the servo will twist on its spring and call for more nose-down trim.

Autopilot servos have a clutch that we humans can easily overpower so an autopilot can never take the airplane away from you. But the pitch trim system can overpower a human if the autotrim runs it to its limits. Too many pilots have pulled or pushed on the controls with the autopilot engaged until the trim system overpowered the human. Many pilots believe that the autopilot has great strength and that they are fighting the autopilot to the death, when it's really their pushing or pulling that is causing the trim to run and possibly creating an unrecoverable situation.

Avoiding any potential problems with autopilot trim systems is as easy as remembering that only one pilot can fly at the same time. If you don't like what the autopilot is doing, don't "help" it, disengage it and take over. It's exactly the same as transferring the controls from one human pilot to the other. What was wrong with the KFC 200 autopilot in my airplane? After I described the way the system would not autotrim during the preflight test, or in flight, but the normal electric trim worked fine, Mayday's Bob Weber knew that almost certainly the problem was in the pitch servo. Bob had it out of the tail in a few minutes and found the contact switches inside that power the trim servo had worn. In a short time he had them replaced and my autopilot is happily trimming itself as it must to function properly.



Your aircraft must undergo a re-registration process sometime between January 31, 2011 and October 31, 2013. The precise date for re-registering your aircraft is determined by the month of its last registration (see table below).

The feds are running significantly behind in processing the re-registration applications. Thus, if you wait until the last month to re-register, your airplane could be grounded for several weeks or more while the federal pencil-pushers get around to completing the re-registration process. Keep in mind that there are no more temporary or "pink slip" registrations.

More importantly, if your current registration expires, your airworthiness certificate is technically no longer valid. Thus, flying without a current registration not only is a violation of federal law, you could find your insurance void as well!

The Schedule of Aircraft Re-registration

If your certificate was issued in this month (of any year)	Certificate expires	Re-registration required
March	March 31, 2011	Nov. 1, 2010, to Jan. 31, 2011
April	June 30, 2011	Feb. 1 to April 30, 2011
May	Sept. 30, 2011	May 1 to July 31, 2011
June	Dec. 31, 2011	Aug. 1 to Oct. 31, 2011
July	March 31, 2012	Nov. 1, 2011, to Jan. 31, 2012
August	June 30, 2012	Feb. 1 to April 30, 2012
September	Sept. 30, 2012	May 1 to July 31, 2012
October	Dec. 31, 2012	Aug. 1 to Oct. 31, 2012
November	March 31, 2013	Nov. 1, 2012, to Jan. 31, 2013
December	June 30, 2013	Feb. 1 to April 30, 2013
January	Sept. 30, 2013	May 1 to July 31, 2013
February	Dec. 31, 2013	Aug. 1 to Oct. 31, 2013

FAA Final Rule Link: <http://www.federalregister.gov/articles/2010/07/20/2010-17572/re-registration-and-renewal-of-aircraft-registration>