

EAA Chapter 974 Newsletter

EAA Chapter 974

March 2007

Hogan Field (KHAO)
Hamilton, OH 45015

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The Prez Says

Elizabeth Szoke, Chapter President

Well it sure was a great turnout for our chilly March meeting! I have to thank Kent again for the use of his terribly expensive equipment and his ingenuity with the screen stand (that is what we are all about right?). Barry can't seem to let go of the Hanger Master duties as he offered to make a more permanent screen hanger device for the wall. But Bill is sure coming through. He bought a light switch for the storage closet after Linda and I lost track of the current one! Speaking of Linda... lets hear it for the homemade brownies! And we cannot forget the *cheese-its* staple. I have to admit the hot chocolate is a welcome addition and seems to be going faster then coffee (do you think that is what brought out the junior members?).

I have to thank all of you for your help with our organizational initiatives. (I seriously dumped on a few of you... Bob, Linda, Andy, Kent, Brett, to name a few; thanks! As our chapter grows, we need to put more tangible resources in place. It is hard to continually depend on the same folks to run events and planning as we grow into a more complex and diverse group. I would hate for them to get burned-out and enjoy the club less. We need to make sure we are meeting the needs and expectations of all, new and experienced. ...And remember, if you want to volunteer I would love to have you help; but we are here for you no matter what.

Now we come to Brett; I may be biased but I thought the presentation was extraordinary, if somewhat over my head. It was a little more then an introduction to electrical design but I think we can all see what it takes to build our planes and it is no simple task whatever the level of detail. As with all of our presenters and other chapter resources I think we are exceptionally blessed with skilled, enthusiastic, and dedicated members. It drives home the spirit of EAA. It is more then a hanger-rat club; it is a fraternity of close friends that welcome all.

Sincerely,
Elizabeth Szoke

Board Meeting Minutes

Kent Forsythe
Chapter Secretary

No report

Meeting Minutes

Kent Forsythe
Chapter Secretary

Meeting was called to order on March 4, 2007. Location of the meeting was the EAA974 hanger at HAO. President Elizabeth Szoke presided over the meeting.

Attendance

- 29 club members (attendees found on last page)
- 1 Guest
 - o Dick Moore

Reports

- Secretary's Report
 - o Club By-Laws were scanned in and now exist as a Microsoft Word document. Elizabeth Szoke will review and apply changes for previously voted items as needed.
 - o During the April meeting, the secretary will be on vacation. We will need someone to fill in for that meeting.
 - o Secretaries report accepted by the members
- Treasurer's Report
 - o Just paid hanger rent for six months.
 - o Treasurer's report accepted by the members
- Tech Counselors' Reports
 - o No activity by the tech counselors this month.
 - o Note: anyone needing a tech counselor can go onto the website and request help.
- Young Eagles Report
 - o Three kids have signed up on the website.
 - o We may have a boyscout group interested in flying. (Note: Boy Scouts must be flown in certified aircraft).
- Hanger Master's Report
 - o A new light switch has been purchased for the hanger.
 - o Work will commence to stop water from coming in under the hanger door.
 - o Barry Fear continues to work the insulation issues.
- Web Masters Report
 - o There has been increased activity at the website since the last meeting.
 - o Thank you to Bob Dombek for the new website pictures.
- Librarian's Report
 - o None
- Chapter Historian's Report
 - o The new hard drive is up and running.
- Presidents Report
 - o None
- Project Reports
 - o None

Announcements

- Sun & Fun: We have two pilots/planes going to Sun & Fun that have space for those wishing to share costs. For information please contact one of the following:
 - o Charles Less will be flying his Velocity.
 - o Brian Charlton will be flying a Cessna 172

- Lunken Airport Days are April 27th and 28th. Free Hotdogs.
- Moraine 'Sunday Funday' is May 6th.
- Lots of events have been added to the website calendar.

Old Business

- None

New Business

- Elizabeth Szoke distributed work to various members of the club for tasks that were needed. Among the tasks were:
 - o Update chapter calendar – Brett Ferrell
 - o Write chapter charter – Jerry Brainard
 - o Updated copies of all forms – Kent Forsythe
 - o Update list of pilots (and emails) for young eagles events – Brad Payne (I believe)
 - o Document procedures for events we put on – Linda Brainard
 - o Materials for library – Bob Dombek
 - o Find out about EAA rings – Charles Less

Program

This month's program was review of Brett's electrical design and implementation on the Velocity. An impressive display of engineering was seen by all.

Member Attendees

- | | | |
|--------------------|--------------------|-----------------------|
| 1) Ankerstar, Brad | 11) Forsythe, Ron | 21) Parker, Ray |
| 2) Brainard, Jerry | 12) Forsythe, Kent | 22) Payne, Brad |
| 3) Brainard, Linda | 13) Graumlich, Tom | 23) Raney, Dave |
| 4) Briggs, John | 14) Hogan, Tom | 24) Robertson, Lester |
| 5) Burkhardt, Bob | 15) Hurd, Doug | 25) Schwinn, Ed |
| 6) Charlton, Brian | 16) Jones, Ken | 26) Shaw, Robin |
| 7) Conn, William | 17) Kurtz, Paul | 27) Szoke, Elizabeth |
| 8) Dombek, Bob | 18) Less, Charles | 28) Taylor, Mark |
| 9) Fear, Barry | 19) McClary, Terry | 29) Wilemski, John |
| 10) Ferrell, Brett | 20) Moore, Dave | 30) |
| 31) | 33) | 35) |
| 32) | 34) | |

March Chapter Meeting

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Our March meeting featured Elizabeth and I discussing the power distribution design philosophy for our Velocity, as well as some of the details of how we built it.

Since our aircraft is all-electric, and fairly complicated, it's a good example of at least one way of handling these issues. We discussed power redundancy through multiple alternators, as well as an "Emergency" (or as Bob Nuckoll's would say, Endurance) Bus. The Endurance bus immediately isolates the flight-critical components from the rest of the aircraft (even the master) through a direct switch-breaker connection to the battery bus, and isolated with a power diode.

Other topics include flight system redundancy, performance, and reliability considerations. For example, we installed dual electronic ignitions on our engine for performance and efficiency. We used to alternators to improve reliability (versus a vacuum pump), and will have 2 fully independent flight

systems, and independent (from the EFIS) enunciation of all critical warnings.

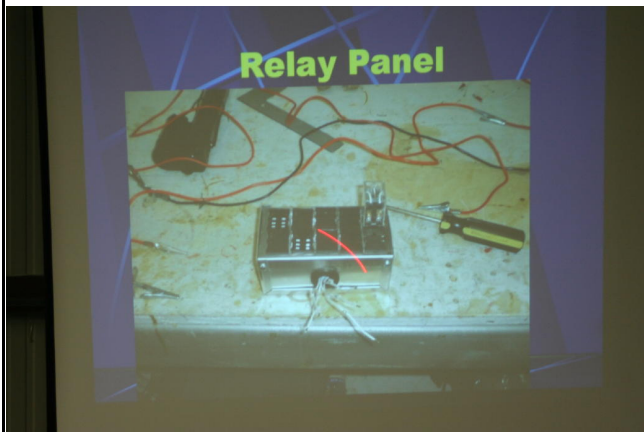
Also discussed where noise considerations, such as installing current limiters on the firewall for the alternator, rather than bringing that noise source onto the circuit breaker panel, and ground loops (no, not that kind). We covered a lot of ground, but hopefully we didn't move too quickly, nor bore too many folks. I handed out schematics at the meeting, but you can check them out online if you wish at top of [this page](#).



A warm day drives me to go shirtless.... and, man oh man do I love PowerPoint



There's my coat! Walking folks through the electrical goodies.



A laser-pointer in motion tends to stay in motion.... out 'roll your own' Relay box



Not a bad crowd at all for March!



Direct from the Artemis Center, this wing seems to be causing quite a back-up....



Ken does another wonderful job of 'split-the-pot'

Raptors Return

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F-22 'RAPTORS' RETURNING TO EAA AIRVENTURE OSHKOSH

The Lockheed F-22 "Raptor," one of the world's most advanced military jets, will be center-stage during EAA AirVenture Oshkosh 2007, "The World's Greatest Aviation Celebration," at Oshkosh, Wisconsin. Two of the airplanes will arrive at Wittman Regional Airport with an aerial performance on July 26 and at least one aircraft will fly an aerial demonstration each afternoon on Friday through Sunday, July 27-29. At other times, the F-22s will be parked on the AeroShell Square showcase ramp for public display.

[\(read more\)](#)

Flight Instructor Refresher Clinic

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"Flight Instructor Refresher Clinic"

Topic: Various topics over 16 hours leading to Flight Instructor Certificate Renewal

On Saturday, April 21, 2007 at 8:00 AM

Location:

Ann Arbor Airport Terminal
801 Airport Drive

Ann Arbor, MI 48108

Select Number:

GL2314180

This is a two day seminar held April 21st and 22nd, from 8:00 a.m. to 5:30 p.m., that meets the requirements set forth by the FAA for Flight Instructor Certificate Renewal. Instructors whose Certificate expiration date falls in April, May, June, or July may use this seminar for renewal. Instructors whose Certificates have expired can use this seminar as a refresher prior to taking the Re-Certification Checkride. CFI candidates can use this seminar to prepare for the oral portion of the Initial Checkride.

To view further details and to register for this event, [click here](#).

Roger Bacon Dies

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CARBON-FIBER PIONEER DIES AT 80

If you are flying an airplane that uses carbon fiber, you owe a great deal to physicist and materials scientist Roger Bacon, who died in late January in Oberlin, Ohio. While working at Union Carbide in the 1950s, he discovered graphite "whiskers" that were far stronger than steel, according to a *New York Times* report. He later made fibers by heating rayon to 3,000 degrees Celsius, resulting in a material that resists heat and won't expand when heated. It was used in aerospace and defense applications. He directly supervised later research for the Amoco Corporation using advanced carbon fibers that were used in spacecraft and Navy satellites.

**EAA AIRVENTURE OSHKOSH 2007 TO HOST U.S. AIR FORCE 60TH ANNIVERSARY
COMMEMORATION**



For more than a half-century, some of aviation's most amazing innovations and top developments have come from two places: the U.S. Air Force and the annual EAA AirVenture fly-in convention. The USAF will make the 55th annual edition of EAA AirVenture, "The World's Greatest Aviation Celebration," a major stop during its 60th anniversary commemoration, as it brings its "Heritage to Horizons" showcase to Oshkosh July 23-29 at Wittman Regional Airport.