

April 2006

Volume 33  
Issue 4  
[www.eea43.com](http://www.eea43.com)

IN THIS ISSUE:

March  
Meeting Minutes  
Page 2

Good Vibes...  
Page 3

Javelin Update  
Page 4

Homebuilt  
Certification Kit  
Page 5

FAA Seminar  
Page 5

Contact the  
editor:

Dave Bieseimer  
at 720-480-5825  
or by email at:

[dbieseimer@  
comcast.net](mailto:dbieseimer@comcast.net)



EAA MILE HIGH CHAPTER 43

Founded 1957

# MILE HIGH FLYER

The Official Monthly Newsletter of EAA Chapter 43



Photo by the editor

## HUGHES H-1 RACER (Jim Wright Replica)

The beautiful Hughes H-1 Racer replica was photographed at its first and only appearance at the Reno Air Races. The original H-1 was designed by Howard Hughes and Richard Palmer and was fabricated by Glenn Odekirk and his team. On September 13, 1935, Hughes flew the H-1 to a new world record speed of 352.322 mph in Santa Ana, California.

At race power settings, the Pratt and Whitney Twin Wasp Jr. radial engine that powered the racer could deliver 1000 horse power, but was normally rated at 700 hp at 8,500 feet. This milestone aircraft influenced the design of high performance aircraft such as the F6F Hellcat, P-47 Thunderbolt, and even the Japanese Type 0 (Zero), and the German FW 190.

Wright duplicated the design by carefully recording the measurements of the original H-1 in the National Air and Space Museum, since few of the original plans were still in existence. He was even able to find and install a duplicate of the rare P&W radial engine. Sadly, Jim Wright lost his life in the crash of this only flying replica of the H-1 Racer in Yellowstone National Park due to mechanical problems.

*APRIL MEETING - APRIL 8, 2006, 7:00 PM,*

***Jefferson County Airport Terminal building, Mount Evens Room (upstairs).***

Our program will be a panel discussion by our members (you!) on actual in-flight emergencies you may have experienced. This should prove to be an informative and lively (and potentially life saving) meeting!

## March Meeting Minutes

EAA Chapter 43 Minutes of Meeting 3/11/2006

Roger Newman, our chapter president, called the meeting to order at 7:00PM. The minutes of the past meeting of February 11 as published in the newsletter were accepted and seconded.

**Guests:** Chris Johnson, Lakewood; Stephanie Specht, Lakewood; Betsy Mekiel, Ocala, FL; Jennifer Elzi, Broomfield; Larry Earnshaw, Erie; Jim Simmons, Erie; Kyle Heckman, Littleton; Susan Blish, Aurora; and Elaine Sutton, Golden.

**Treasurer's Report:** Lynn Miller, our chapter treasurer, gave a report on our finances and mentioned it was the last chapter meeting to pay the yearly dues and still be on the new member roster. He also offered Chapter 43 logo patches for 2/\$5.00.

**Safety:** John Evens, our chapter safety officer, gave a report on propeller safety. There were 14 propeller-related accidents reported in 2003 of which 45% were homebuilts. Propellers can come to life when you least expect it. Propeller strike incidents average 2 per year. Don't put your body in the arc of the prop. Always treat a propeller as if the mag is HOT. Periodically check your mags and make sure that they do ground out. Slowly let your engine idle die down and kill the engine with the mag switch instead of with the mixture. Be sure to get some training before attempting to hand prop an engine.

**Progress Reports:** Reports were given by Paul Overdier on his Fisher Super Koala, Greg Hall on his Fisher Horizon I, Stephanie Wells, Gene Horsman on his Mercury, and Tom Tomlin on his Kitfox IV Speedster. Mary and Bill Mitchell now have a AcroSport II. Roger mentioned that if you need some help with your project, utilize our chapter technical counselors.

**Old Business:** Gene Horsman asked Stan Specht about paperwork for Ron Denight's Memorial Brick. Stan said he was getting a check from Treasurer Lynn Miller to send in before the March 31 deadline.

Bruce Handley, our chapter web master, mentioned if you are sending pictures for the web site, to keep them to 3-4 pictures. Contact Bruce for the details.

Bob Wilson received a nice thank you note from the Basset Hound Recovery group about the donation given to them in honor of Ruby Lanich.

**New Business:** Our last Young Eagles Rally was very successful. There were plenty of ground support and pilots; a total of 34 kids and 40 flights. Also Brian Cabebe has graciously stepped up and volunteered to take over the Young Eagles Coordinator position. Contact him at [bcabebe@earthlink.net](mailto:bcabebe@earthlink.net) to help out. He also mentioned June 10th is National Young Eagles Day. It will be a tight schedule with the Jeffco Open House and the B-17 in town at the same time.

Roger suggested we purchase 2 3x5 banners with EAA Chapter 43 on one and Young Eagles on the other for \$170. They would be displayed at events and rallies. The attending members voted to have them made.

Minutes continued on **page 4**.

## Good Vibes, Bad Vibes

By Dave Bieseemeier

**M**aybe it is time for a little discussion on engine and propeller vibration. After having performed propeller dynamic balancing for several years, I have drawn a few conclusions about balancing and vibrations that are felt in the airframe during flight.

You may have read articles concerning the benefits of dynamic balancing of propellers, namely longer airframe and avionics life, as well as increased comfort in the cockpit. There are other factors that contribute to a lack of engine smoothness besides the prop balance though that can be addressed during the construction and maintenance life of the aircraft. Dynafocal engine mounts dampen much more engine/prop vibration and will result in much less cockpit vibration than conical mounts, a choice to be made during the design phase of the airplane.

New aircraft engine components are carefully balanced at the factory to ensure smooth operation and reduced vibration. The parts that rotate, primarily the crankshaft and the big ends of the connecting rods are dynamically balanced. The parts that reciprocate (go back and forth) - the connecting rods, pistons, wrist pins, and wrist pin plugs are weighed on sensitive scales to matched weights, usually to within a gram or two, or even less. It is important that matched weights be maintained when the engine is overhauled. Propeller dynamic balancing **will not** compensate for vibrations caused by out of tolerance reciprocating masses.

Worn or out of adjustment ignition components can cause rough engine operation that can be felt as vibration, as can plugged or partially plugged fuel injector nozzles and intake manifold leaks. A four cylinder EGT instrument can be a great troubleshooting aid in such cases.

Other causes of vibrations not correctable by dynamic balancing might be caused by exhaust system components touching the airframe, such as at the firewall. The exhaust pipe becomes a rather long arm, and any movement of the engine is amplified through that length and can cause a significant vibration felt in the cockpit. And speaking of engine movement, hard contact between cooling baffle metal parts and the cowling can also be felt in the cockpit. In short, try to isolate the engine from the rest of the airframe as much as possible.

Propellers that are badly out of **static** balance will be difficult if not impossible to **dynamically** balance. Constant speed propellers that are improperly assembled with blades that are not within tracking limits will also cause vibrations that cannot be balanced out.

## FOR SALE

**Aircraft wire and ring terminals. All wire is Mil-spec. sizes range from #4 to #22.**

**Email Art Schwarz for a list & pricing.**

**[ajsrv@christian.com](mailto:ajsrv@christian.com).**

**March meeting minutes, continued.**

On June 8th, the B-17 will arrive at Centennial and do media flights. On June 9-10-11 rides and tours are available. Rides for 30 minutes for \$399 and for EAA members \$359. When it leaves on June 12th they will be heading to Oshkosh with room for 6 passengers.

A drawing will be held for the volunteers and you would be responsible for your transportation home.

Roger suggested the chapter purchase one ticket for a ride and raffle it off to someone in the chapter. It was approved.

More information will be obtained about the Jeffco Open House on June 10th.

Lynn Miller brought in some artwork utilizing propellers made into lamps with hand painting on them.

Mike Gugeler brought up the Erie Town fair on May 20th. It would be a good advertisement for the chapter if we participated in it.

The annual picnic in May will be at Bob Wilson's hanger.

Lynn Miller put forth a motion that a portion of the chapter funds be used for an investment to earn interest. It was approved by the members present.

Greg Hall received a call from Jim Loyd suggesting a program for us on "Engine Out." Members who have experienced this would share their memories. This will be our next program. John Evens would present the correct procedures for that experience.

Dean Cochran adjourned meeting at 7:44PM.

Our program was a narrated slide presentation by Stan Specht. It was a 21-day, 10,000-mile cross-country adventure to Nome, Alaska and return.

## ATG JAVELIN UPDATE

**A**VIATION TECHNOLOGY GROUP, INC., our guest presentation at our February meeting, announced that the flight test performance envelope for their Javelin Personal Jet has been expanded to include landing gear cycling while maneuvering between 135 and 180 kts., and handling and stability qualities in maneuvers with flaps extended 10°. In addition, upgrades to the landing gear and a new canopy contour have been incorporated.

Additional upgrades are scheduled to include modifications to the flap, control and Pitot-static systems. Further flight test will verify the prototype's predicted field and climb performance data.

## HOMEBUILT CERTIFICATION KIT

EAA's new **Amateur-Built Aircraft Certification Kit** includes everything you need to register and certificate your new experimental amateur-built homebuilt aircraft. The 15-page, step-by-step Certification Guide walks you through the entire process - from getting an "N number" to the aircraft inspection, and provides samples of how to complete each required form. This should help simplify obtaining these required documents and help reduce delays in the final inspection caused by missing or incomplete paperwork.

The certification kit includes all forms, experimental sticker (in black), data plate, and a convenient placard decal sheet. Cost for EAA members is \$12.99 plus shipping. The kit is also available for non-members for \$19.99 plus shipping. To order, call EAA Membership services at 800/JOIN EAA (564-6322) or let your fingers do the walking on your keyboard at: <http://shop.eaa.org>.

## FAA SEMINAR

**"COMMUNICATION IS THE KEY"**

**Topic: Operations and Communications at a Towered Airport.**

On April 8, 2006 at 9:00 AM (The same day as our meeting, same room).

Location: Jeffco Airport Terminal Building, 11755 Airport Way, Broomfield, CO 80021

Learn effective communications from a controller's perspective and what controllers expect of pilots for expeditious and safe operations.

Register on line at: [http://www.faasafety.gov/SPANS/event\\_details.aspx?eid=10176](http://www.faasafety.gov/SPANS/event_details.aspx?eid=10176)

Please support the businesses below to thank them for sponsoring our newsletter!

Dine In **BARNSTORMER** Take Out  
**RESTAURANT**  
 Daily Mon-Sat  
 Specials 7am-3pm  
 Sun 7am-2 pm  
 Phone (970) 336-3020  
 FAX ( 970) 352-5347  
 Linda Belleau, Owner  
 Located At The Greeley/Weld County Airport.  
 We Sell Bison Meat By The Pound or Bulk  
 E-Mail [JLBELLEAU@AOL.COM](mailto:JLBELLEAU@AOL.COM)

Lonnie Hilkemeier 303-665-3267  
**SPECIALTY FLIGHT**  
  
**TRAINING, INC.**  
 lonnie@specialtyflight.com  
 President, Master/Gold Seal CFI, MEI  
 FAA Aviation Safety Council  
 Mountain Flight Proficiency

## EAA Mile High Chapter 43

### Chapter Officers

|                |              |              |
|----------------|--------------|--------------|
| President      | Roger Newman | 303-280-9140 |
| Vice President | Greg Hall    | 303-424-4216 |
| Vice President | Stan Specht  | 303-232-8474 |
| Secretary      | Bob Young    | 303-466-6902 |
| Treasurer      | Lynn Miller  | 303-666-8233 |

### Volunteer Officers

|                      |                     |              |
|----------------------|---------------------|--------------|
| Technical Counselor  | Bob Green           | 303-659-5829 |
| Technical Counselor  | Dave Biesemeier     | 720-480-5825 |
| Technical Counselor  | Pat Claar           | 303-424-0170 |
| Flight Advisor       | Bill Mitchell       | 303-427-4025 |
| Flight Advisor       | Mike Gugeler        | 720-890-0552 |
| Newsletter Editor    | Dave Biesemeier     | 720-480-5825 |
| Young Eagles Coord   | Brian Cabebe        | 303-657-5649 |
| Member Data Base Ed. | Gene Horsman        | 303-279-5782 |
| Web Master           | Bruce Handley       | 303-494-5412 |
| Safety Officer       | John Evens          | 303-420-2724 |
| Refreshments         | John & Roxie Jewell | 303-466-2600 |

Disclaimer: Be aware that as always, in past, present, and future, any communications issued by Experimental Aircraft Association Chapter 43, regardless of format, and/or media used, which includes, but is not limited to, this newsletter and audio/visual recordings, is presented only in the context of a clearing house of ideas, opinion, and personal experience accounts. Anyone using ideas, opinions, information, etc., does so at their own risk. Therefore, no liability is expressed or implied by the Experimental Aircraft Association Chapter 43, or any of its members. Any event announced and/or listed herein, except as noted, is done as a matter of information and does not constitute approval, sponsorship, control, or endorsement of said event.

This newsletter is published by Chapter 43 of the Experimental Aircraft Association for the use, education, and enjoyment of the members and others to whom it is provided. No claim is made for technical accuracy of material presented. Editorial content is the opinion of the contributor and does not reflect the position of Chapter 43 or the Experimental Aircraft Association. Submission of articles, comments, or inquiries for publication in the newsletter are encouraged. Meetings are normally held on the second Saturday of each month at 7:00 P.M. The place is determined each month.

**Mile High Flyer**  
EAA Mile High Chapter 43  
Gene Horsman  
Data Base Editor  
210 Lookout View Ct  
Golden CO 80401

FIRST CLASS



**NEXT MEETING - APRIL 8, 2006, 7:00PM,  
Jefferson County Airport Terminal building, Mount Evens Room.**