

# WIND IN THE WIRES



The Newsletter of Chapter 26, Experimental Aircraft Association ❖ Seattle, Washington ❖ Volume XVII No. 8 ❖ Aug 2009

## NEXT

### MEETING:

2<sup>nd</sup> Thursday of the  
Month  
Aug 13th, 2009  
7:30 PM

### LOCATION

Opportunity  
Skyway Bldg.  
6524 Warsaw St.  
S. (N.W. Corner of  
Boeing Field)

Chapter Web  
Page

[www.eaa26.org](http://www.eaa26.org)

## AUGUST MEETING

### Arlington and Oshkosh

Our August tradition continues...the meeting consists of photos and reminisces of the big shows of the summer: Arlington and Oshkosh! Please pick your favorites and put them on a USB drive, or SD card, memory stick, or XD card.



## FUTURE EVENTS

- Aug 14-16:  
Northwest Antique  
Aircraft Club Fly-In,  
Vancouver
- Aug 21-23: Wings  
Over Republic
- Aug 22: Sanderson  
Fly-In, Shelton
- Sept 5: Bremerton  
Blackberry Festival
- Sept 12-13: Oak  
Harbor Fly-In

### 2009 OFFICERS

President: Tom Osmundson  
253.239.6175  
dieselfume@dieselfume.com

Vice Pres: Ron Borovec  
425.488.8145  
ronborovec@verizon.net

Secretary: Don Davis  
425.822.3439

Treasurer: Tony Livic  
206.842.0754  
aglivic@hotmail.com

### PROGRAM CHAIRS

Tech Counselor: Jim Huber  
253.630.1689

Flight Advisor: Ross Mahon  
206.550.9526  
Rossair@aol.com

Young Eagles: **Volunteer Needed!**

Fly-Outs: Cecil Hendricks  
360.894.7144

Video Library: Steve Crider  
253.630.6114

Photo Records: Don Davis  
425.822.3439

Newsletter Editor: Ron Wanttaja  
253.833.7394  
Ron@Wanttaja.com

### PRESIDENT'S MESSAGE...

## Taking Advantage of Opportunities

This years BBQ at the Arlington Fly-In went well. A big thanks to Tom Staggs and Jason Hill from Chapter 1440 for leading the way (and buying food) as well as all the volunteers from 26, 84 and 1440 for setting up, grillin', and cleaning up.

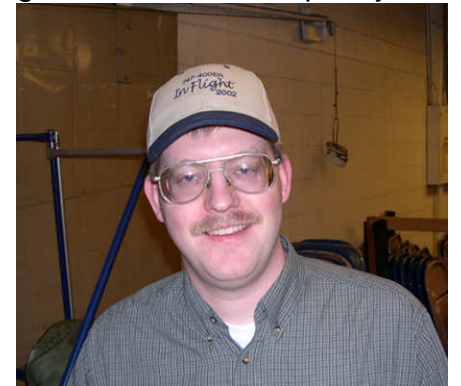
An opportunity presented to me is due to the current state of the 787 program and further delays. However, fortunate for me, orders to minimize overtime meant that scheduling vacation time was definitely authorized! Same goes for a few co-workers of mine, and pretty soon the opportunity presented itself to hop onboard an E33 Bonanza and a 95-55 Baron headed for Rockford for the Bonanzas to Oshkosh formation flight. This turned out to be quite the experience, with 137 Bonanzas and Barons in formation.

While at Oshkosh, another opportunity presented itself to get a guided tour of the A380 without waiting 3 hours in line. A few phone calls, and pretty soon my co-worker and I were bypassing the usual route onboard the airplane. Our test pilot tour guide was able to field several of our questions, but not all. The tour ended with a visit to the A380 flight deck.

Oshkosh was also a great opportunity to catch up with old friends, as well as make new ones. Another benefit of being on vacation that week was avoiding the 103 degree heat in Seattle for a week in Wisconsin that topped out at 82 degrees. The Gweduck flew in with a new paint job, and a stuffed animal version of a geoduck clam hanging in the cockpit, along with some new advertising logos (good enough to catch Harrison Ford's eye).

So, if an opportunity presents itself, try to take an advantage of it! There are plenty of fly-ins on the calendar left to fly to this summer.

Oddball





### **FAA Issues New Advisory Circular for Vintage Aircraft**

In a move intended to help keep vintage aircraft safely maintained, restored and flying, the FAA has issued new Advisory Circular AC 23-27, Parts and Materials Substitution for Vintage Aircraft, dated May 18, 2009. The AC, created by the FAA's Small Airplane Directorate in Kansas City, Missouri, was a joint effort by the FAA in consultation with industry representatives including EAA and EAA's Vintage Aircraft Association.

The publication gives guidance to both owner/restorers and FAA aviation safety inspectors when collecting information needed for an FAA approval when parts or materials used in the original construction of the type-certificated airplane are no longer available, or newer, more appropriate materials are now common and would be more appropriate to be used when repairing or replacing components.

### **Homer Kolb Passes**

EAA extends its deepest sympathy to the family and friends of Homer Kolb, EAA 378, who passed away on Sunday morning, July 12, following recent heart surgery.

Kolb, 78, was the designer of the Kolb line of ultralight and light-sport aircraft. He attended EAA fly-ins beginning with some of the first fly-ins in Rockford, Illinois. He brought his first aircraft, an ultralight called the Kolb Flyer, to EAA Oshkosh 1980.

Kolb had been designing and building light airplanes since 1962, long before the term became fashionable. His first commercially available design, the Kolb UltraStar, was introduced in 1983 and quickly became a popular design.

### **Youth Programs Manager Opening at EAA**

EAA has an exciting new opportunity for an aviation enthusiast to help promote EAA's mission to share the spirit of aviation through developing and managing programs designed to encourage young people to learn to fly. The Youth Programs Manager will be responsible for planning, implementation and ongoing management of EAA programs targeted for young people, play a leading role in the development of new programs or program enhancements, and to develop and maintain relationships with other youth based organizations with the goal of recruiting young people into EAA's programs.

Qualified candidates will have a high degree of enthusiasm and energy level, and a deep passion for engaging young people in aviation. In addition, a minimum of three years of demonstrated program or project management experience, solid written and verbal communication skills, experience with a broad range of internet technology including social media, and proficient computer skills are required. A Bachelor's degree is typically required for this position. A combination of education and experience may be considered. Pilot certificate is desirable.

This is a full time position based at EAA headquarters in Oshkosh, Wisconsin. For consideration, submit a resume, cover letter and salary requirements to [hr@eaa.org](mailto:hr@eaa.org) or mail to:

EAA  
Attn: Human Resources  
P.O. Box 3086  
Oshkosh, WI 54903-3086

## Tach Attack

Eventually, I had to bite the bullet.

I'd been fighting tachometer problems in my Fly Baby since February. It started out as a major-league shaking of the needle. I'd pull the drive cable out, lubricate it, and the tach would work fine on the next flight and be back to its old tricks the flight after that.

And it got worse. Pretty soon, the tach needle would shake a while, then just drop down to zero.

That got to be the litany, for about six months. I'd make a change, and for the next flight or two, the tach would work perfect. Then the same problems reappeared.

I tried everything, from a new tach (actually, a borrowed used one) to a new tach cable. With everything else pretty much eliminated, the worst-case scenario was about the only one left: The tachometer drive on the back of the engine was bad.

An out-of-focus, grainy digital camera picture seemed to show the center drive section broken in half. Problem confirmed.

All right...now what?

My primary inclination was to get the tach drive itself fixed. But the tach drive is part of the oil pump idler gear, buried in the accessory case in the back of the engine.

I took a few moments to contemplate what that meant: To replace it, I'd have to remove the engine from the airplane, remove the starter, generator, and both magnetos from the back of the engine, then remove the entire accessory case to get at the oil pump gears. And, of course, reassemble everything, with a high preference to having things working

properly when I got done. And, frankly, I'm not really qualified to break down an engine that far. To have it done would probably run into a thousand dollars or more.

I started looking into the possibility of an electronic tach. It was mostly disappointing. Most installed a transducer on the engine tach drive...which I figured wouldn't work in my case, since they probably would have the same problems with my damaged drive head. Others connected to a Bendix or Slick magneto...neat option, but I have Eisemans.

Finally, I noticed the "Tiny Tach" on the Aircraft Spruce web page. Seemed pretty good...got its signal by wrapping a wire around a spark plug cable. From the description, I wasn't completely sure which model to buy. But when I went to the manufacturer's web page, I found they had a universal "Commercial" model that also updated faster than the standard units.

<http://www.tinytach.com/tinytach/commercial.php>

Only \$65, so I went ahead and ordered one. It had both a tach function as well as an hourmeter and two service timers. It didn't need ANY other connection other than to wrap the sensor wire around a spark plug cable. It has a built-in battery.

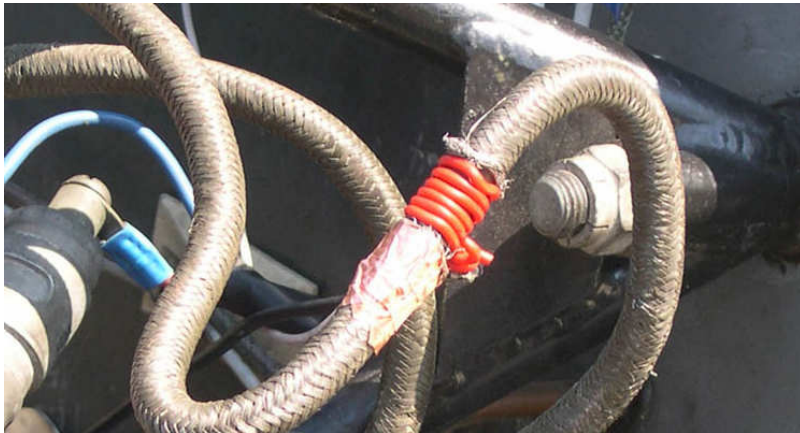


## Tach Attack (Continued)

When it came in, I went to the airport and tried a temporary installation. No go...tach read zero. I suspected the shielding on the tach cables, and a call to the tach vendor confirmed it. The tech recommended peeling the shielding back near a plug, but I didn't want to run my tach wire out into the slipstream.

One of my spark plug wires is about 9" too long, and a previous owner had wrapped up the excess and tie-wrapped it to the engine mount. I figured I'd modify the wire there, so if I botched it, there'd still be enough cable to connect to the mag. So I picked at the shielding with a toothpick to make some openings, then carefully plucked away at it with an exacto knife. A few minutes work, and I had a 1" long section of cable free of the braid.

The tach instructions said to wrap the red wire around the cable 3-4 times. The tachometer worked, but the idle was erratic. A couple extra turns made idle reading more stable.



I made a mount for the Tiny Tach from some leftover 1/8" plywood. I could have just used a flat sheet to attach behind the panel, but I ended up with a "sandwich" construction where the outer face was circular with the diameter just less than a standard instrument hole. I felt

this gave a lot nicer look to the installation....it looked more like an instrument sitting "in the hole" than just a flat sheet behind

One thing I had to do was plug off the old tach cable port on the back of the engine. Aircraft Spruce had a cap for Lycomings that had the same thread sizes, so I took a chance that it'd fit my Continental.

It did, but the hardest part was safety-wiring it in place. The cap sits between the generator and the right mag, and there aren't any good places nearby to connect the safety-wire to. I finally settled on a fitting eight or so inches away, and fed in a long piece of safety wire through pre-drilled holes in the end of the cap.

I was wiggling the wire around, trying to curve the other end back around, when I heard a crackling sound. I stepped back and saw smoke rising. The loose end of the safety wire had flipped up and had shorted a +12V terminal to ground!

My arm shot out and I grabbed the wire. Bad move. It was a 0.032 stainless steel wire with about 20 amps flowing through it. I turned it loose and grabbed a pair of pliers.

Problem solved...but now I had a nice little burn-blister across the last joint of my middle finger.



## Tach Attack (Continued)

I wrapped the area on the spark plug with copper tape to restore the shielding, and in turn wrapped it in electrical tape for a bit of durability. Finally, the loop of spark plug wire was tied back the way it had been, against a tube of the engine mount with tie-wraps.

A test flight produced very nice operation. There's still a bit of instability at low power settings, but once the RPM crosses 1000, the tach is rock-steady. The copper tape shielding is working great; no ignition noise is audible.

Since it's connected to the left magneto, "Mag checks" for that mag are by ear only. When the mag switch goes to "R", the tach goes to zero...it can't register if the magneto isn't firing.

I don't see this as much of a drawback. I've been less concerned with the actual RPM drop during a mag check than with rough running, instead. I figure that any real problem will manifest itself as missing and stumbling, rather than hitting 155 RPM on a mag drop.

In any case, I own a small handheld tach, and will use it at annual time to make sure things are hunky-dory.

Probably the biggest issue is that the battery isn't replaceable. When it goes bad, you're expected to replace the whole tach!

But when the tach itself sells for just \$65, that's not a big problem...and the battery is good for five to eight years.



### **Round-the-World Record Pilot CarolAnn Garratt Speaks at Museum of Flight on Aug. 25**

In December 2008, pilots CarolAnn Garratt and Carol Foy flew a small, single engine airplane around the world in a record time of eight and half days. It was the second global trip for Garratt, who flew around the world in 2003 to raise awareness and donations for amyotrophic lateral sclerosis--ALS, or Lou Gehrig's Disease--after her mother suffered and died from ALS. The 2008 flight was also for ALS awareness. Garratt will speak about her journeys and what inspired them in a presentation at The Museum of Flight on Tuesday,

Aug. 25 at 7 p.m. in the William M. Allen Theater. The airplane she flew on both trips--a Mooney M-20J--will be on view outside of the Museum all day. Admission to the program is \$10 for Museum non-members and \$5 for Museum members.

The 2008 flight was certified as the U.S. record by the National Aeronautics Association in January 2009. The Federation Aeronautique Internationale certified the flight as the world record on March 16, 2009.

### **Renton Airport Runway Work Continues**

This summer, they resurfaced most of Runway 15/33 at the Renton Airport. The runway is completed, but there are some additional closures.

The second phase of the construction is beginning on the Monday, August 10, 2009. This second phase involves grooving the asphalt and concrete to create better traction for aircraft during inclement weather.

The City did not approve any night work for this phase of the project; therefore, the runway will need to be closed for short periods during the evenings and weekend as follows:

The runway will be closed from August 10, 2009, to August 21, 2009, on each weekday evening from 4:00 pm local time to 11:00 pm local time.

During the weekends of August 15-16 and 22-23, 2009, the runway will be closed all day, from 7:00 am local time until 11:00 pm local time.

### **Auburn Taxiway Construction**

Major taxiway construction began June 1 at the Auburn Airport. They are converting the two current parallel taxiways to a single, wide one.

Flights departing or arriving are advised to check NOTAM services for current taxiway closures, intersection closures, taxiway realignments and displaced thresholds.

Personnel and heavy equipment will be operating throughout the AOA (airport operations area) from 0700 until 1900 local. Pilots are expected to communicate their intentions for all movements and limit touch and goes and time spent on the runway. There will be times that back taxiing on the runway will be necessary.

There will be a large amount of earth work which will create dust and loose dirt/asphalt exposed with personnel working in close proximity.

For a diagram showing the changes, see:

<http://www.s50wa.com/taxiwaymap.pdf>

## **On the Wreckord**

### **Recent Homebuilt Accidents from the NTSB Web Page**

Long-EZ - Florida: The engine lost all power during cruise and the pilot made an attempt to land in a field. He overshot the field and hit a power line. A cursory examination of the wreckage by a Federal Aviation Administration (FAA) inspector revealed that the fuel tanks were breached, and fuel spillage was noted in the surrounding vegetation. The FAA inspector planned to further examine the engine after wreckage recovery; however, the wreckage was recovered to an unsecured auto salvage facility and "worked on" by one of the airplane owners, without the FAA inspector's permission. A subsequent examination of the engine by the FAA inspector established compression and valve train continuity, and no mechanical anomalies were noted.

Searey – Florida: The airplane departed normally from the lake. While climbing through about 50 feet above ground level, and approaching a tree line surrounding the lake, the airplane began an uncommanded roll to the right. The pilot utilized full aileron and rudder authority however was unable to control the roll. The airplane continued to roll until it impacted the water. The pilot had approximately 220 hours of flight experience in the accident airplane. Post accident examination of the airplane by an inspector with the Federal Aviation Administration revealed no pre-accident mechanical problems, the wings and fuselage exhibited signs of impact damage, and flight control continuity was confirmed on all surfaces. Weather observations in the vicinity of the accident site reported winds out of the west and southwest at 10 knots or less. The pilot reported no mechanical malfunction prior to the accident.

Lancair - Illinois: The pilot landed with 4 to 5 gallons of fuel on board following a 4.5-hour cross-country flight. After landing, the pilot made numerous attempts to locate fuel in order to continue the flight so that his passenger could be at work in the morning. The pilot left a note and money after having siphoned fuel from another airplane parked at the airport. After about 2 hours and 45 minutes on the ground, the airplane took off again. Impact marks indicate that the airplane stalled during the takeoff, impacting the terrain with the left wing prior to catching fire and coming to rest inverted. The accident occurred at night as the airplane was departing on the second leg of a cross-country flight. Calculations show that the airplane was slightly over the maximum gross takeoff weight and the center of gravity (CG) was slightly aft of the aft limit at the time of the accident. A pilot of another single-engine airplane, who landed a few minutes after the accident airplane landed, and who took off about 30 minutes later (which would have been about 2 hours before the accident) reported that he had to wipe a "slight frost buildup" off of his wings and tail with a towel prior to takeoff. The investigation could not determine whether the slight frost, slight overgross condition, or slight aft CG contributed, either individually or in combination, to the aerodynamic stall of the airplane. Additionally, several people reported that it was not uncommon to see deer on the airport property and one person reported seeing many deer on the runway earlier in the day prior to when the pilot landed; however the investigation could not determine whether deer were present on the runway at the time of the accident.

## Marketplace

Crest Airpark home for sale by owner: \$580,000. Prime Location, Center Runway View. Extra Large 0.71 Acre Lot, 3+ full bedrooms and 2.5 baths, 2,218 Sq Ft living area above grade + downstairs hangar and extra rooms. Open floor plan, extensive remodel in 1999 New HVAC, Wiring, Plmb, Insln. Master bedroom with large walk-in closet. Great view of Mt. Rainier and runway activities. Home 253 631 8818, Cell 206 423 8240 Photos and details at <http://airporthome.typepad.com/airport-home-for-sale/>

RV-10 Tail Section for sale: 95% complete). Skip Feher 425 677-5335

Condo T-Hangar at Olympia Regional Airport, Washington for sale. Hangar Number I-5, 1620 Sq. Ft., 44 ft 4" wide door opening - electrically operated bifold door. Two years old with epoxy sealed floor. 110/ 240 volt , 60 amp electrical service on separate meter. \$89,500. Mike and Arlene Dougherty, 253-880-6690.

Zenair 601 HDS Project for sale: Firewall back, including fairings, LR fuel tanks, and lights. Price negotiable. Terry Wilson, 206 522-4006.

Former EAA member Keith Klinck recently passed away and his wife Helen has his Smyth Sidewinder project up for sale. This is a 1960's vintage design, all metal, tricycle gear configuration somewhat similar to an RV-6. The project has a completed fuselage and many other component parts and aluminum sheet. For more information call Ron Klinck at 425.739.0715.

For sale: Tires – 15/6.00-5, 6ply, 2 tires, 2 tubes. Brand new, unused, with yellow tag. These are retread tires that are heavier duty than standard – With deeper treads and harder rubber they'll last longer than new. \$125 for the set. Ross Mahon 206.550.9526 or Rossair@aol.com

