

Brazos Area Recreational Flyers **Bragging and Gossip** EAA Chapter 983 Newsletter August 2006

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Visit us at: www.eaa983.org

Chapter 983 meets every second Saturday at 10:00 am in The Houseman Hangar. N.E. corner of the runway

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OSH 2006

It was another great Osh Kosh. A bunch of us flew up and a bunch of us drove up. Some camped, some dormed and some lounged in air conditioned comfort.

However you got there and wherever you stayed, the experience was the same; seeing new things, reuniting with familiar friends (both human and aircraft) and enjoying the common threads that tie us, airplanes, flying and friends.

Once again there were several from the Chapter who participated in the Venture Cup air race from Dayton to OSH. Jim Erskine, Debbie Dewey, Larry and David Henney and last (and I do mean *last*) Don Saint.

Larry and David, in their Lancair 360, were the fastest of the bunch, finishing 2nd in the Formula RG Class at 240.82 mph, just 13/100th of a mph behind the winner. Larry insists that a light shift anomaly caused by the wavelength of his red paint versus the white of the winner resulted in at least a 15/100th timing error. Huh? Jim and Debbie flew just this side of max and came in at 203.31, good for 4th in the Sport FX Class. Then there's Don. We've been reading in these pages for a couple of months about his upgrading to an IO-360 with high performance goodies everywhere. He'd been waiting for this race for a year, was running great and had just passed the 2nd place a/c when an exhaust stack broke and he had to land in Rockford. Luckily Dick Keyt, who was handling a support role, was there and over the next couple of days had Don and the Glasair back at OSH. Don's next race will be at the Big Country Airfest Race August 19th in Abilene.

As always our friends from Sky-Tec, Avery's, Plane Power and others were there in the display hangars. There's just so much to see and do. Like Don, none of us can wait until next year.



Bonnie and Murray Sloan, Sid and Karen Tucker, Mack Angel, Donna Berry, Connie Angel and Damon Berry

August 12th Meeting Programs

1. American Legend Aircraft Co.
2. FSDO – Self maintenance and LSA's
3. Amy Pinrata – EAA Air Academy

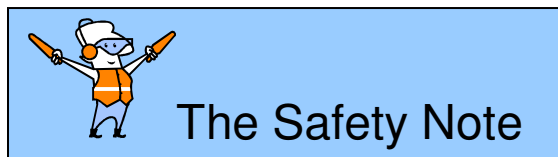
Chip's away so here's a synopsis of the programs for the next few months:

August 12th: Visit from the American Legend Aircraft Co. They hope to bring their Cub Replica and Stearman. FSDO inspector to speak on self – maintenance and LSA's.

Report from Amy Pinratana on her trip to the EAA Air Academy

September 9th: Meeting at Jimmy Matlocks ranch. Just a few miles East of the front gate on Fall Creek Highway. Drive or fly over (about 2000' grass). Focus will be on RC flying with demo's from several experts. Probably some hands on for interested folks as well, on Chips trainer.

October ?: Fall Fly-In



On your toes

Experimental aviation has changed tremendously in the last thirty years. It is no longer solely the realm of kitchen table designers, self taught mechanics and the parts scrounging builder. While all these categories are still populated by creative, talented and capable people, more of our hangars are filled with professionally designed, completely flight tested aircraft, built from brand new aircraft quality materials, using new engines and constructed by builders with experienced assistance and complete factory support.

The result of this is good, no, it's great. Structures don't fail, new parts don't fail, engines don't fail; all very, very good things.

Yet there is a drawback. 20, 30, 40 years ago when you climbed into an "experimental" airplane you took that word seriously. You expected the worst and hoped for the best. You knew or heard stories of serious inflight problems caused by failure, design limitations or human error. You were ready for the unexpected or at least tried to be. "What was that sound?" "Did you feel that?" "Is that pressure/temp/rpm right?"

We just may not be that vigilant anymore, but *&# still happens, even when you do things right.

Recently, during an Airshow in Colorado, a performing aircraft's control stick came out of its socket, leaving the pilot with 2" of stub to fly. He did a good job of recovering control, getting the stick back into place and landing.

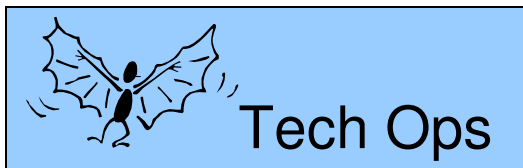
The post flight investigation found that during recent maintenance, which involved removing the stick, it had not been re-inserted completely into the socket, a mere difference of 1/2". The stick fit tightly, did not move when pulled and twisted and the locking pin was in place, everything seemed right.

Here we have a modern airplane, built of the highest quality materials, maintained in a conscientious and professional manner and still something got by. This pilots skills and a fortuitous aircraft attitude resulted in a happy outcome.

The point is: this is still "experimental" aviation. Even when we do our best, things will still get by. Listen to those sounds, have someone check your work, pay attention to those uneasy feelings and try to be ready for the unexpected.

Notices to Airmen

- ✓ Congratulations to Tom Eanes who received his IA (Inspection Authorization) to add on to his A&P.
- ✓ Thanks to Don Saint for sending in the "One second in the life..." article.
- ✓ Larry Henny's sons have had a terrific summer of mowing lawns thanks to a lot of you. Their college funds are bursting and are now closing things down a bit to find time for school.
- ✓ Next time you see Lee Clements, tell him how much you like his articles. Lee's been a regular contributor for several years now and is a talented writer. See this months "Pancake breakfast destinations".
- ✓ Don't forget the Abilene **Big Country Airfest** on August 19th. It's loads of fun, Abilene's easy to get in and out of and the regular fly-in / airshow stuff combined with an auto show make it one of the better local events.
- ✓ For those of you who can't get enough of my scribbling, read this newsletter twice. No issue in September but I will return rested and rejuvenated for October.
- ✓ Sorry for the late newsletter. OSH required putting things off till the last minute.
- ✓ Ever scare yourself in an airplane? Don Saint refers to those moments as "significant emotional events".
- ✓ Does anyone have anything to sell? Our classifieds are getting downright boring!
- ✓ This month's newsletter is the Marv Jensen appreciation issue. Each month Marv prints the newsletter in full and glorious color for only the cost of materials. This month he and Karen are gone so I went to the copier shop. We can't afford color. So, the next time you read that beautiful color newsletter, think of Marv and Karen and be sure to say something when you see them. Black and white was OK in 1951.



The pictures and idea for this month's Tech Ops come from the Waco Chapter Newsletter and its editor Mike McMains. An ingenious lever/cable method to raise the axle for removing RV wheels and brakes was debuted at the Texas RV Fly-In at Midlothian. I checked Doug Reeves' RV website to give a plug to the guys who are making this jack commercially but didn't see them. If you know who they are let me know and I'll get it in the next issue. I'm going to build one just as soon as the temps dip below 90 in the hangar and the welder doesn't look like such an evil, heat belching demon.



One Second in the Life of an Air Racer

The Unlimiteds go flashing through the racecourse, engines howling, air shearing, heat waves streaming. Four hundred eighty miles an hour is 8 miles a minute, and the elite racers take about 70 seconds to cover the 9.1 mile Reno course. If you could take a souped-up P-51 racer flying the circuit at Reno, slow time down, and examine just one second, what would you find?

In that one second, the V-12 Rolls-Royce Merlin engine would have gone through 60 revolutions, with each of the 48 valves slamming open and closed 30 times. The twenty four spark plugs have fired 720 times. Each piston has traveled a total of 60 feet in linear distance at an average speed of 41 miles per hour, with the direction of movement reversing 180 degrees after every 6 inches. Three hundred and sixty power pulses have been transmitted to the crankshaft, making 360 sonic booms as the exhaust gas is expelled from the cylinder with velocity exceeding the speed of sound. The water pump impeller has spun 90 revolutions, sending 4 gallons of coolant surging through the engine and radiators. The oil pumps have forced 47 fluid ounces, roughly one-third gallon, of oil through the engine, oil cooler, and oil tank, scavenging heat and lubricating the flailing machinery.

The supercharger rotor has completed 348 revolutions, its rim spinning at Mach 1, forcing 4.2 pounds or 55 ft³ of ambient air into the combustion chambers under 3 atmospheres of boost pressure. Around 9 fluid ounces of high octane aviation fuel, 7843 BTU's worth of energy, has been injected into the carburetor along with 5.3 fluid ounces of methanol/water anti-detonant injection fluid. Perhaps 1/8 fluid ounce of engine oil has been either combusted or blown overboard via the crankcase breather tube. Over 1.65 million foot pounds of work have been done, the equivalent of lifting a station wagon to the top of the Statue of Liberty.

In that one second, the hard-running Merlin has turned the propeller through 25 complete revolutions, with each of the blade tips having arced through a distance of 884 feet at a rotational velocity of 0.8 Mach. Fifteen fluid ounces of spray bar water has been atomized and spread across the face of the radiator to accelerate the transfer of waste heat from the cooling system to the atmosphere.

In that one second, the aircraft itself has traveled 704 feet, close to 1/8 mile, or roughly 1.5% of a single lap. The pilot's heart has taken 1.5 beats, pumping 5.4 fluid ounces of blood through his body at a peak pressure of 4.7 inches of mercury over ambient pressure. Our pilot happened to aspire during our measured second, inhaling approximately 30 cubic inches (0.5 liter) of oxygen from the on-board system, and 2.4 million, yes million, new red blood cells have been formed in the pilot's bone marrow.

In just one second, an amazing sequence of events have taken place beneath those polished cowlings and visored helmets. It's the world's fastest motor sport. Don't blink!



Pancake Breakfast Destinations by Lee Clements

There are quite a few local destinations one can fly to for morning pancakes and the latest hangar talk. There's Granbury, Midlothian, occasionally Corsicana, and Hicks. Another lesser known destination is Heritage Creek (58TA), a few miles southeast of Decatur. Heritage Creek is an airpark community on a 3100 ft turf runway. It is also home to "Wild Bill's Pretty Good Pancakes." Wild Bill (aka Bill Goebel) hosts this open to all breakfast on the second Saturday of alternate months of good flying weather (next one should be September 9). On breakfast day, he converts his hangar into an 0800 to 1000 fly-in diner of sorts. Bill does all the cooking and if you get there early enough, there will be sausages to augment the pancakes. Coffee and OJ included for whatever you feel like dropping in the tip bucket. I've been there a couple of times and the crowds have varied from pretty small to pretty large. Fly-in planes from Cubs up to Twin Beeches and T-28s are not unheard of. Parking for "show" cars and bikes is also available for the ground bound. If you happen to know Bill (I know Bill from our college days as frat brothers – yikes!) you would know he is an ardent collector of all things aviation and ALWAYS has more projects underway than any rational person should be allowed. In his hangar, one will find an old airport beacon, a milkshake machine (considered a power tool), and a few display cases full of stuff like

a spark plug collection, instruments from many generations, odd tools, an F-111 flight manual and other assorted unique tech data. Hanging from the rafters are a Buhl Pup wreck that his father used to own (but didn't crash), a Peitenpol fuselage, sailplane parts and, again, "stuff." His J-3 project is pushed outside during the breakfast. I'm not advocating blowing off a chapter meeting, but if you're looking for a diversion, you might just try "Wild Bill's Pretty Good Pancakes."

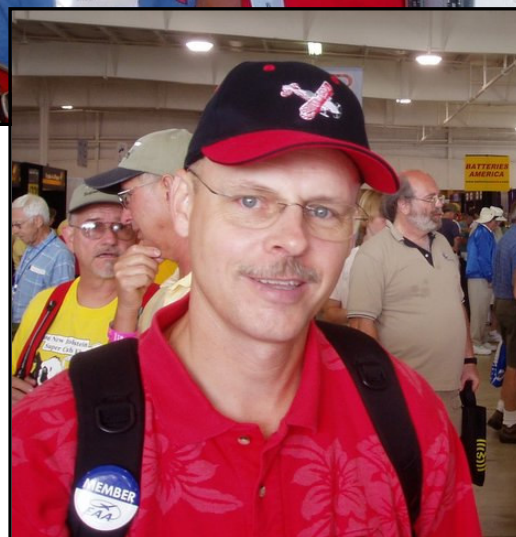
Different Strokes

Here's a look at Chapter member Bill Eslick's engine instruments on his RV 6 powered by a Mazda rotary engine. I won't go into the operation, just point out some of the switches and gauges you may not be used to seeing on your Lycoming/Continental inspired panel.

Center; the EIS engine monitor has additional readouts for coolant temps both in and out of the coolers. To the right of the throttle; the mixture **rheostat**. Upper right; The blank face is a fuel/air mixture gauge. Below that; the engine controller panel which controls ignition timing, fuel mapping and fuel flow rates for the injectors. Five switches at bottom; from the left:

Emergency Power, selects a hard wire direct from the battery to the engine controller. Emergency Pump, also selects a hard wire to a standby fuel pump. Two Disable switches for channels A and B injectors and finally the Disable switch for the ignition coils. There is also a "Low oil quantity light on the left panel which operates off an oil level sensor in the Mazda's oil pan. It's interesting to note that when Bill offered the engine parameters at cruise he said "21 inches manifold pressure and 5350 rpm" When I asked him how fast the prop was turning at that point he had to go find a chart because it's a number he just doesn't use. (2450 rpm)





Just a few chance meetings at the Worlds Greatest Fly-In. Osh Kosh 2006.

From left to right: The next Charles Lindberg. The group that keeps Kelly's Bar solvent for the rest of the year: Donna and Dave Christman, Gary Green and Gary Bricker. Rich Chiappe. Don Saint and Bill Eslick. Claudia and Martin Sutter. Doug Crumrine.

CLASSIFIEDS

Pilot Avionics PA400-3BL. 4place, portable intercom. \$75 (New \$175). Damon Berry famber@charter.net 817 573-3444

48" Work bench sheet metal brake \$85. Almost new Craftsman Shop Vac, the big one w/all the attachments \$85. Contact Damon at famber@charter.net or 817 573-3444

Exxon Elite Aircraft Oil. I am now a distributor. It sells for \$48.00 per 12 quart case. It has the best ratings for both wear protection and corrosion prevention. I am donating the profits from sales to the Dennis N. Polen educational foundation. Contact Dick Keyt 817-279-7590 flykeyts@charter.net

1944 PT-19. 1070TT, 325 SMOH, Electrical system, starter, Garmin GNC 300, GPS/COM. Mode C, Canopy for all weather flying, Ceconite 101 in 1991, All logbooks and support equipment. Flies like a Cub! \$69K Tom 817 579-1850

RV6A Full IFR, 240TT, 30 TTSN on 180HP Ly-Con engine, under warrantee until 12/06. Garmin stack, 430, audio panel, Txp, S-Tec 20 autopilot. \$86K Tom 817 579-1850

Miracle Truss Hangar. 51' x 48' x 14' Cost \$15,000. Includes 5 steel trusses & hardware, 2 manuals, slab plan, lumber spec sheet. Call Doug Crumrine 817 573-1220

Hydraulic Wing Jacks (3) with lock collars for low wing airplane. All 3 for \$375. althouse@charter.net

Calendar of Events

August 12	Chapter 983 Meeting	Housemans hangar (OTX1)
12	Cowtown Warbirds	Meacham field (FTW)
19	Big Country Airfest	Abilene, Tx (ABI)
September 9	Chapter 983 Meeting	Housemans hangar (OTX1)
October 21	NewBraunfels Airshow	New Braunfels, Tx (BAZ)
20-22	Safety & Fly/Splash In	Cedar Mills, Tx

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