EXPERIMENTAL AIRCRAFT ASSOCIATION

EAA CHAPTER 10

SEPTEMBER 2009

PRESIDENT'S REPORT FOR SEPTEMBER `09

Where has the summer gone? What is all this rain doing here now? Why are my yard's) full of mushrooms? When is the weather going to straighten up so we can enjoy some flying? If anyone has any answers to those questions, please call or E- Mail.

Meanwhile, we have a lot of great activities to look forward to. The unofficial get-together to replace the Tulsa fly-in is Sat. Sept. 19, at Claremore. Come visit and have a hamburger. The Airman Acre Bean Dinner is the next weekend, Sept 26. Gundy's Wing-Ding is Oct. 4 (Sunday 1 P.M.) and Skyhaven Air Park's (OK01)(also, my new home) "Brat Feed" is Sat. Oct. 10 at 11:00A.M. I hope you will all come and take a tour of my new house and hangar. Almost forgot the Reklaw fly-in is Oct 23-25.

I think our program this month will be Bob Merrill of Aircraft Specialty Services. They do machining, NDT, and inspection of Aircraft engine parts. Many of you probably know Bob and used their services. I'm sure he can answer any questions you may have concerning your engines.

My new #'s are as follows:

Cell 918-519-5846

E Mail JNYS1943@gmail.com

Fly safe.

John Nys

President EAA Chapter 10

COMING EVENTS

Postponed from 12 Sept until 7Nov will be the Wings Over Tulsa Spirit of Tulsa Fly-In @ Riverside Jones (See John Nys to provide support, help needed to provide Experimental Presence)

19 Sept. Fly-In @ Claremore Airport i2nd Annual Fly-In Includes Tulsa Fly-In @ Bartlesville due to runway resurfacing. Hamburgers/Hotdogs and door prizes are in order. Flea Market 1100-1300.

21 Sept. EAA Chapter 10 Monthly Meeting, Gundys

26 Sept. EAA Chapter 10 Pancake Breakfast 0730

26 Sept. Annual Bean Dinner, Airman Acres, Gather @ 0900, serving @ 1200

3 Oct, 1800, Ice Cream Social -Orchestra, Gundys

4 Oct 1300 Gundys' Wing Ding, EAA Ch. 10 Hangar

10 Oct, 00900—1300, Sky Haven, Brat Feast
10 Oct. Soap Box Derby Fly-In @ Sand Springs Pogue Municipal Airport.

17 Oct. Vance Air Force Base Civilian Fly-In, Site for information www.vance.af.mil/civilianflyin or Capt. Williams/Healey, Ph. 580-213-7233

24 Oct. Harvey Young Fly-In and Free Lunch, 5 gallons free AVGAS between 1000-1400 for Fly-Ins.

29 Oct. EAA B-17 Flights @ Riverside Jones, EAA Chapter 10 to support (This has been a superb

BOARD ACTIONS

John Nys requested that EAA Chapter 10 provide an Experimental Aircraft presence at the Wings Over Tulsa Spirit of Tulsa Fly-In, was 12 Sept but postponed until 7 Nov. due to WX. If we can get about 6 experimental aircraft with crews to fly in and stand by during this event it will be appreciated, foster support for general aviation and assist their efforts with the public. There will be war bird and other fly-bys. (Jim Gentry, Ph. 918-605-5093)

Please provide Jim or Marvin an e-mail so we can organize an e-mail alerting system.

Roof Repairs coming w/ cooler weather.

Who Brings Snacks?????

Please bring a snack to the membership meeting during the month that corresponds to the first letter of your last name as listed below:

January	A-C
February	D-F
March	G-H
April	I-L
May	Annual Picnic
June	M
July	N-P
August	Watermelon Feed
September	Q-S
October	T-V
November	W-Z

RECURRING CHAPTER 10 EVENTS

• 1st Monday of the month	Chapter business meeting at our hangar	7:00 p.m.
• 2nd Monday of the month	Newsletter folding session at our Hangar	7:00 p.m.
• 3rd Monday of the month	Membership meeting at our hangar	7:30 p.m.
• 1st Saturday after the 3rd Monday	Pancake Breakfast at our hangar	7:00-9:30 a.m.

SHUTTING THIS WIND TUNNEL SHOULD BE A BREEZE, BUT ITS FANS WON'T BE SILENT BY BARRY NEWMAN

When the Langley full-scale wind tunnel opened, the first aircraft tested in the gale of its giant fans was a Navy biplane, the Vought O3U-1 Corsair. That was in 1931.

The last aircraft the tunnel will test in a gale from those same fans will most likely be the Boeing X-48C, a delta-shaped wing that could someday redefine the flying machine. That's happening now.

Boeing has reserved test time until Sept. 4. Then the wind tunnel's landlord -- the National Aeronautics and Space Administration -- intends to demolish it. That should please anyone who dislikes decayed monstrosities.

The tunnel stands at the eastern edge of Langley Air Force Base on the banks of the Little Back River, where engineers have used it to gauge the wind's effect on objects for 78 years. It measures 434 feet by 222 feet. To let air rush freely on the inside, rust-streaked girders prop up asbestos-cement walls on the outside.

NASA, moving out of aircraft and into spacecraft, leased the tunnel to Old Dominion University in 1995. Its Langley Research Center has a budget to tear the tunnel down this year, so it will. "The agency," says Tim Marshall, head of NASA'S aeronautics testing office, "has elected to focus its abilities on things that are strategically more important to the nation."

But Old Dominion's wind-tunnel crew and others want to keep the old fans spinning -- and national strategy is exactly why.

The university has been using the tunnel for teaching aeronautics, and to test a few NASCAR stock cars. NASA doesn't care about NASCAR. It prefers its smaller, faster tunnels for experiments on supersonic combustion ramjets and the like.

That's NASA's mission, Old Dominion's scientists say, but they've found that the tunnel is a perfect fit for another mission that's more down-to-earth -- making trucks more aerodynamic, for instance.

The Langley Full-Scale Wind Tunnel was like an opera house -- where all the arias were about flight. It was a symbol of American prowess, where the great figures of aeronautics-from Orville Wright to Howard Hughes-gathered to advance aviation. Now it's on the brink of demolition. Barry Newman looks back at some of the tunnel's historic tests.

Rick Wood, a NASA researcher, also owns a private company that helps trucks fight wind to save gas. He came up with the "miniskirt," a crosswind-deflector that he tested on a truck in the tunnel, calculating the ease of the wind's passage over it. The easier the passage, the less gas trucks use.

"You need a large enough tunnel to turn the truck sideways," he says. "You have that tunnel. Until it dies, why not let us get in there and try to reduce energy consumption?"

There's another thing beside the chance to blow air on trucks that Mr. Wood and others will miss about it: the romance.

Most wind tunnels are tight sleeves where the action is hidden from view. This tunnel's central hall is like a darkened opera house where all the arias are about flight. Two 35-foot propellers loom at one end. Driven by 4,000-horsepower motors, they suck air into long, flanking corridors that calm turbulence and funnel the air at 75 miles an hour, through a huge nozzle at the hall's opposite end.

Facing the wind this day was a model of the X-48C with a wingspan of 20 feet. Three struts held it in a spotlight on the test platform like a diva on stage. (continued next page)

LANGELY WIND TUNNEL (CONTINUED)

Boeing's project manager, Dharmendra Patel, watched from a catwalk above. "Early days of aviation," he said, as a drip from the roof dropped on the head. Then the props revved up again and the whole building rumbled.

Wind-tunnel history begins with a memo from Leonardo da Vinci: "As it is to move the object against the motionless air, so it is to move the air against the motionless object."

The Wright brothers built a 6-foot tunnel in their bike shop to amass wing-lift data for their 1903 takeoff. Gustav Eiffel built two tunnels in France. In 1922, a physicist named Max Monk built a bigger one at Langley Field. Like all the others, it could accommodate nothing but small-scale models.

That's why the U.S. built the full-scale tunnel. It was the world's biggest in 1931. Whole airplanes fit in it. And it became a symbol of American air prowess. In a group portrait taken inside during a 1934 aircraft conference, you can pick out Orville Wright, Charles Lindbergh and Howard Hughes posing under a P-26A Peashooter.

With war on the way, the Navy sent a new Brewster Buffalo into the full-scale tunnel. "It was a dog of a fighter," says Joe Chambers, who joined the tunnel staff in 1962 and stayed 35 years.

The Buffalo's every joint and rivet was taped over to smooth the surface of the fuselage. Strip-by-strip, the tape was then peeled off and, each time, the plane was retested until each cause of wind resistance was isolated and cleaned up. The Buffalo was redesigned and its speed rose by 50 mph. Soon the tunnel was streamlining every U.S. warplane.

"It wasn't what the tunnel was built for," Mr. Chambers points out. It was built for a much earlier technology -- to iron out wind resistance on the wings of biplanes. But the full-scale tunnel goes with the flow.

After the war, new full-scale airplanes got too big to squeeze into it. So the tunnel tested bits and pieces of anything that came along -- submarines, parachutes, even the Mercury space capsule. In 1985, it was added to the National Register of Historic Places.

Ten years later, it was deactivated as "obsolete capability." Then began a long official meditation on what to do with it.

"We looked at everything," says Cheryl Allen, NASA's demolition chief at Langley. Thought was given to making it a museum, but Langley is a secure base. Bringing visitors in by boat was an idea, but in 2003 Hurricane Isabel swamped the tunnel and eroded the shoreline; boats were out.

Finally, NASA began getting ready to call in the wreckers. Handing the tunnel over to Old Dominion, rent free, was a temporary time filler, in NASA's view. Old Dominion sees it differently. While the fans blew gales at the X-48C, Bob Ash, an aeronautics professor at Old Dominion, was in his flood-stained basement office, watching Mr. Wood, the NASA researcher, draw pictures of fuel-efficient trucks on a chalkboard.

"We're leaving with great sadness," said Prof. Ash, who runs the university's wind-tunnel enterprise. He and Mr. Wood wanted to keep accumulating data to persuade someone -- at the Department of Energy perhaps -- that the country needs a full-scale wind tunnel for trucks. "The full-scale tunnel's future lies in testing land-based objects," Prof. Ash said as the building rumbled.

Old Dominion is still hoping for a reprieve, possibly via Congress. But as NASA's Ms. Allen explains it, operating the tunnel for ground-tethered science is impossible. The Air Force owns the real estate, she says. NASA's tenancy derives from a handwritten 1919 land grant mandating its use for "the advancement of flight." The Air Force is unlikely to build anything else on the property; it's a flood zone. But Ms. Allen says the base could always use another parking lot.

Back cover: A P-26A Peashooter in the wind tunnel from the archives.

Reprinted from the Wall Street Journal, 26 Aug 2009.

GLOVES AND THINGS BY TERRY BOSWELL, COL., USAF

In January `83 I was given command of the 425th TAC Fighter. Squadron. Since this was such a premier assignment I departed Langley AFB, VA on short notice after telling Judy to sell the house and bring the boys on when she could. (Four months later I did go back, helped her pack and drive out to Williams AFB, AZ.) From notification to clearing the base and driving out only took four days. The 425th was responsible for qualifying international students in the F-5E/F.

My arrival occurred late on a Friday. After unpacking my truck I drove down to the squadron about 0200 and found it standing wide open. A quick walk thru determined nothing appeared to be amiss so it was locked.

Since it was Saturday morning I found some breakfast about 1000 before driving down to the squadron area. Upon walking in a pleasant lady inquired if she could help me. Turned out she was my secretary. She was most concerned with my comment about finding the building open earlier. Miss Kathie proved that a helpful lady is worth every nickel she is paid.

Because my arrival was out of cycle nothing had been planned for my qualification in the F-5. During the first week there was plenty of walk around time to become acquainted with both operators and maintainers. One thing troubled me. Many of the instructors (IP's) were flying without gloves. Gloves are necessary for finger protection in a fuel fed fire. Air Force flying gloves have leather faces and nomex backs because leather shrinks in a fire. I began planning a method to get the IP's into their gloves without issuing a direct order. Here is how this game plan came to fruition.

The next morning I rode a `66 BMW from the BOQ to the squadron, a mere 200 yards, and parked it in the Commanders space. Once in the squadron I took off my helmet, boots, gloves and leathers so all could see.

On Friday the wing commander, Col. "Dangerous Dan" Sherlock came over from Luke AFB and presented the squadron colors during an official change of command ceremony. The previous commander departed two months before my arrival. I did not know one soul in the organization with the exception of Dangerous Dan who was a Duce (F-102A) pilot when I joined the 509th Fighter Interceptor Squadron in the Philippines in mid `66. He did not remember me which was a blessing and no one else knew me either.

Before I made my prepared remarks there was an opportunity to explain a few things about my background. The first comment involved using seat belts. In `63 when I was graduated from the Air Force Academy my first car was a VW bug. Ten dollars was added for seat belts which were not yet mandatory. I dropped a simple statement, "do not argue with me about using seat belts because my mind is made up."

The next comment concerned riding motorcycles. Pointed out that I enjoyed riding them but they were dangerous so I wore all the protective equipment possible including gloves, boots, leathers, and helmet. Further, my riding was restricted to day time hours on out of the way roads with lesser amounts of traffic. Another simple statement was dropped, "Don't argue with me about wearing helmets because my mind is made up."

I next stated that in this squadron we wear gloves when we fly. From that point other goals and objectives were detailed.

The next Monday morning I was positioned on the vantage point before the first launch. A salute was initiated as each F-5 taxied passed. If the return salute displayed a hand without gloves I simply held my hands up in a motion to signifying donning gloves. Before the week was out every pilot was taxiing with his gloved hands over his head when I was around. This plan worked beyond my wildest expectation.

Better to win with forethought than the brute force of rank and authority! I did not want to remind anyone of my rank and authority if persuasion would get the pilots in their gloves!

CHAPTER 10 CLASSIFIED ADS

FOR SALE BY OWNER Glasair I/II RG, 300 hrs TTAF, Lycoming O-320 70 hrs SMOH, Lightspeed electronic ignition, High compression pistons, Large rudder, Dual sliding canopy, Panel mount GPS, xponder, intercom and more, New 3 blade MT propeller, New custom interior, Extended wing tips 80% completed, Ready for your paint, $55,000 See at Gundy's (O38), Owasso, OK Contact Mark Fridley @ 918-274-3574 or rmfridley@cox.net

Franklin Aircraft Engine Model 4AC171 60 HP. $3^{7}/_{8}$ bore x $3^{3}/_{8}$ stroke 6/2 C.R., s/n 2052, $1^{7}/_{32}$ venturi, Eisenman magnetos, complete, No log book, $1000, Contact Ken Smith 698-4129.

Lycoming O-235-0 T.C. 223, 100 HP, 2600 RPM, SM 1571-15, Two magnetos, no carburetor, otherwise complete., No logbook., $1,000 Contact Ken Smith 698-4129.

Lycoming O-290-D2 135 HP, T.C. 229, no magnetos, has vacuum pump, engine damaged at L/H magneto mount area, L/H crankcase broken out, accessory case broken out, data plate is titled Lycoming Aviation Engine, No log-book, $1,000 Contact Ken Smith 698-4129

1946 Aeronca 7AC, Continental A65, 6078 TT, 167 TSMOH, LSA qualified, new struts, wing spars, and cover, Millennium cylinders, 32K firm 918-371-2001

Acreage for Sale: 2.5 Acres with 330' of Runway frontage, Airman Acres Airfield, Collinsville, OK. Sets on dead end road. No covenants. Secluded area. Build exactly what you desire. $67,500 Darren 918-857-2728.

INVENTIONS WE CAN'T IMAGINE LIFE WITHOUT PRESSURIZED A/C BOEING 307(FIRST COMMERICAL PASSENGER A/C. 1937

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Note: For security purposes, you must remove the "9" from the front of the listed e-mail address to make it valid.

EAA CHAPTER 10 MEMBER APPLICATION/RENEWAL FORM
DUES ARE $25.00 PER YEAR - JANUARY 1ST TO DECEMBER 31ST

Name_____
Co-pilot/Spouse _____
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Home Phone _____
Work Phone _____
National Membership # _____

Aircraft owned _____
_____
Projects/% complete _____
_____

Bring this form to next meeting or mail to:
EAA Chapter 10 Treasurer
P.O. Box 1985
Owasso, OK 74055

EAA Chapter 10

P.O. Box 1985
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We're on the web!

eaa10.org

NEXT MEETING: SEPTEMBER 21, 2009 @ 7:30

WHO BRINGS THE SNACKS: Q — S