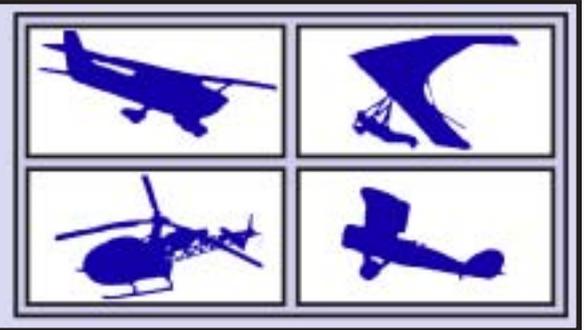


Oklahoma Aviator



Vol 18, No 2

Your window to Oklahoma Aviation...Past, Present, Future

February 2000

Angel Flight: People Flying People in Need

Have you ever thought about using your airplane and your piloting skills to help your fellow man? Check out Angel Flight, a group of men and women who believe in using their love of aviation to serve people - putting their money, time, and energy on the line.

Angel Flight, Inc. is a nine-year-old non-profit organization of pilots and other volunteers dedicated to serving the community by arranging free private air transportation for medical patients who cannot afford to use normal, commercial transportation. "Unlike some other volunteer pilot organizations, Angel Flight is totally volunteer," said Mac Swindell, Angel Flight board member.

Angel Flight will arrange free transportation within a 500-mile radius by air for any legitimate, medically related need or purpose. This service is available to any individual, medical agency, facility, service organization, health care organization, or auxiliary thereof.

Patients can be accompanied by one or two family members or support persons. Angel Flight patients are usually traveling for surgery, chemotherapy, dialysis, or other treatment. Angel Flight will also arrange transportation for people who are financially distressed, or who are in a time-critical situation due to their medical condition.

Doug Vincent and Steve Kern, both of Tulsa, founded Angel Flight in 1991. It was started with the help of Don Horton who reserved the name Angel Flight with the State of Oklahoma. The group started without any organization, structure, or volunteers. But because of great news coverage of their

maiden flight, volunteers began calling in.

In 2000, Angel Flight is still a 100% volunteer organization with no paid staff. The Tulsa office is donated, and there is an additional lo-

There is no "typical flight" for these pilots. Doug Vincent, Angel Flight founder says, "We fly many different types of flights. All of our passenger guests pull at our hearts. We fly children,

can go longer distances more quickly."

Angel Flight patients must be ambulatory and have the ability to ride in a small, non-pressurized aircraft that is not equipped for medical emergencies. When calls are received from patients needing an air ambulance or stretcher, they are referred to Mercy MedFlight out of Fort Worth, Texas. Calls received from outside our geographic area are referred to Air Care Alliance - a national organization of charity flying organizations like Angel Flight. "With Doug Vincent at the helm as CEO, it's an excellent organization," said Swindell. Angel Flight is a member of Air Care Alliance.

"We have also had commercial tickets bought and donated by volunteers, and ten flights donated by Big Sky Airways in Enid. We are so proud of the ways people find to help," said Vincent.

"Our volunteers are wonderful," said Vincent. "Everyone helps. The FBO's that give us fuel discounts, Lou Ann Gibson from the accounting firm of Hogan & Slovacek who does our taxes, and our treasurer/director Stephen Kern are all an important part in making Angel Flight successful. We have recognized Don Neville as the Volunteer of the Year. Don works tirelessly, giving personal attention to the patients and pilots alike. Alisa Vojvoda is our other coordinator, who also works tirelessly. Without these two and their efforts, we could not do what we do."

"We desperately need more pilots with airplanes. To fly a mission the PIC must have 200 hours and file an IFR flight plan. Pilots who do not have an IFR rating can

take an IFR qualified pilot along on the flight if they are both registered as volunteer pilots with Angel Flight. We also need ground volunteers. All volunteering is part-time and we can work around schedules. Our most pressing needs include someone knowledgeable in public relations; someone to help get the word out to rural areas; someone with secretarial experience to help organize our office; and someone to help with mission screening and coordination. If anyone is interested in volunteering please call us."

What are the organization's plans for the future or for expanding services? Angel Flight is willing to participate in the SAFE Haven program for relocation of spousal abuse victims and have contacted the Oklahoma emergency relief organization to offer services in times of emergency. "We are willing to help if there is a need for our services," said Vincent.

"On April 18th, we are having a free Flyin' Barbecue at Tulsa Riverside, an opportunity to meet our fellow pilots, recruit new pilots and other volunteers, and let people know about Angel Flight."

To receive services or to volunteer, please contact Angel Flight, Inc. at (918)749-8992 or fax (918)745-0879.



Left to right: Steve Eicenhour, St. Louis-based volunteer pilot, cancer patient Mark Williams, and Angel Flight Oklahoma volunteer pilot Mac Swindell. Swindell flew Williams from Oklahoma to St. Louis, and Eicenhour took over, completing the flight to Williams treatment in Ft. Wayne, IN.

cation in Enid. Approximately 6 active volunteers and 11 directors perform a wide array of functions to make the organization run smoothly. The Oklahoma corporation has pilots and board members from throughout Oklahoma and the surrounding states. Approximately 90 pilots are registered with Angel Flight, and they flew 38 missions in 1999. Some flew multiple missions and some only one. Yet the pilots who fly fewer missions are just as important to the organization as those who can be more active.

the elderly, and sometimes fly people home to die among family rather than far from home in a medical facility. Some of our patients and families become "frequent flyers" and some fly only one time. We fly children to Shriner's Hospital in Saint Louis, Shreveport, and Galveston. We fly heart transplant patients for follow-up treatment to St. Louis and many others to MD Anderson and the Mayo Clinic. The only difference in someone driving a friend to the doctor and what we do is that we use an airplane and



From Mike...

Want to know one thing I've learned in my long career as a newspaper editor?: publishing deadlines come around "right regular!" We did not get the January issue out as early as we wanted and thus, as I write this in mid-January, some of you are just now getting your subscription copies in the mail. Barbara and I promised ourselves that, over the next few months, we would gradually pull back the publication date far enough so everyone gets their copies in the first few days of the month. We're shaving a few days off the schedule with this issue.

Candidly speaking, getting the January issue published was a bit of a struggle. In the midst of the normal Christmas busy-ness, we were dealing with a bunch of brand new issues all at the same time: learning printing and publishing "lingo," finding a printer in the Atlanta area, learning our new page layout software, navigating complex postal regulations, dealing with capricious post office employees, worrying that we did not have enough content to fill the paper, and then finding out we had too much.

However, we got through it and, after a time of rest, realized we were pleased with the results. You, the readers, seemed to like it also and we



are grateful for your feedback. But for me the most gratifying aspect of our new vocation is the opportunity to talk with aviation people-to renew old friendships and form new ones. In some ways, I've always been a kind of loner. But, like everything else in life, I am changing, finding that airplane people are at least as interesting as airplanes, sometimes more so. I am thoroughly enjoying having an excuse to just listen and talk-after all, it is my job!

The preparation of this issue has gone a good bit better than the last one. We now have new knowledge, skills, and experience-a sort of "base camp" from which we can foray deeper into newspaper adventures. Funny, we knew we wanted to grow the newspaper, but perhaps in the bargain we are the ones who are growing. This could actually be fun!

From Barbara...



How does a pilot learn not to be afraid of talking on the radio? What do you do when ground or tower communications come through so fast or so garbled that you can't understand, much less repeat the transmissions?

The first time I clicked keyed the microphone to say, "Gwinnett ground, Cessna 6730Fox on the EAA ramp, taxi for takeoff, student pilot," I was sweating. Knowing I'd stumble all over my words, I had practiced aloud three times before I could bring myself to actually transmit. How could this short, simple message instill such panic in the heart of a professional woman who deals with the spoken and written word everyday? I give speeches. I teach seminars. I have never had stage fright in my life. Who knows where this unreasonable fear comes from - but it is real. Real enough to ruin my aviation fun if I don't overcome it.

Because of my own fear, my interest was recently piqued when I read an article on the subject in a national aviation publication. It stated that the problem was a common one. Whew! I thought I was the only tongue-tied person in the skies. The article described one veteran pilot who had such a fear of talking on the radio that he hadn't landed at a controlled field for thirty years! Because I don't want my fate to be similar, I've been surfing the net and investigating the market to see if there is anything that could help me overcome my fear.

I found a company called Epublishing that markets a product called COMM 1, which is a system designed to allow the student or accomplished pilot practice talking on the radio. Comprised of computer software, instruction manual, microphone, and headsets, the system encourages either VFR or IFR practice and provides corrective feedback. So, next month, look for a review of COMM 1. In the meantime, if any of you have tricks for overcoming radio fear - please send them in.

If I ever master the radio, I'll write another editorial and ask you all to celebrate with me. But don't hold your breath. For now it's still a struggle. "Ground, 6730Fox, let's take it to the barn. Thank you and good afternoon."

THE OKLAHOMA AVIATOR

Published monthly at
698 Rollingwood Drive
Stone Mountain, Ga. 30087
(770)381-6379

Founders

Joe Cunningham and Mary Kelly

Editors/Publishers

Michael and Barbara Huffman

Advertising Sales

Michael Huffman

The Oklahoma Aviator is published monthly. All rights reserved. Bulk Mail postage is paid at Stone Mountain, Georgia. Subscription price of \$10.00 per year may be sent along with other remittances to:

The Oklahoma Aviator
698 Rollingwood Drive
Stone Mountain, GA 30087
email:
ok_aviator@mindspring.com

Renewing Subscriptions

Postage for subscription copies is one of our biggest expenses. Our subscription rate of \$10.00 per year covers printing, postage, and a small amount of overhead cost.

After this issue, we will not be able to send newspapers to those whose subscriptions have expired.

Please take a look at the expiration date on the mailing label (it is really there this month!). If the date shown is already past, please complete the form below and send it along with a check for \$10.00 to renew for another year.

We sincerely appreciate your business!

Subscription Form

The Oklahoma Aviator
698 Rollingwood Drive
Stone Mountain, GA 30087

Name _____

Business Name _____

Address _____

City, State, ZIP _____

Email _____

World's Busiest Airports

Have you ever wondered which airports are the busiest? Recent airport traffic data indicates that, out of the hundreds of airports studied worldwide, the Atlanta airport (ATL) is the largest, as ranked by total passengers. The final 1998 data indicates that Atlanta served 73,474,298 passengers. Tulsa airport (TUL) came in 180th with 3,463,214 passengers and Oklahoma City airport (OKC) came in 183rd with 3,416,454 passengers.

Another way of ranking airports is by the amount of cargo carried annually, as measured in metric tons. In this category, the world's business airport is Memphis (MEM), carrying 2,268,975 metric tons. Atlanta was 18th, carrying 907,208 metric tons. Tulsa ranked 160th at 52,731 metric tons, and Oklahoma City ranked 165th, carrying 50,370 metric tons.

The final ranking method is number of aircraft movements, that is, the number of airplanes, regardless of their passenger or cargo loads, which moved in or out of the airport. In this ranking, Chicago (ORD) came in first with 896,110 aircraft movements, Atlanta was second with 846,881 aircraft movements, Tulsa 80th with 208,748, and Oklahoma City 109th with 162,103 aircraft movements.

Up With Downs



Earl Downs

Are You Current?

A while back I received a phone call from a pilot wanting to set up a flight review. We agreed on a time and date that he would fly to my home base, Cushing Municipal Airport, so we could start the review from there. As we talked, I went through my normal list of questions. I asked when his current review expired and he answered that he was about two months overdue, hence the need to get it done as soon as possible. Of course, this posed a problem because he was not legal to fly the airplane at all. I solved the problem by travelling to his location, but the misunderstanding did bring up the point of just what it takes to be legal to fly. Let's review the currency rules and see how they apply to you.

Your pilot certificate is issued without an expiration date (except for flight instructors). Although your pilot certificate never has to be renewed, there are several requirements you must meet to be legal to exercise your pilot privileges. These include possessing a current and appropriate medical certificate, having complied with the Flight Review, and meeting the minimum takeoff and landing requirements. Let's look at them one at a time.

Your medical must be appropriate to the type of flying you are doing. An Airline Transport Pilot (ATP) acting in the capacity of an ATP must have a First Class medical, which is good for six calendar months. A Commercial Pilot acting as a commercial pilot must have at least a Second Class medical, which is good for twelve calendar months. A Private/Recreational Pilot must have at least a Third Class medical which is good for thirty-six calendar months if you are less than forty years old or twenty-four calendar months if you are more than forty years old.

Here's the trick: The length of time a medical is good depends on how you are "acting," not on which pilot certificate you hold. An ATP or Commercial pilot can "act" or "exercise" the privileges of a Private Pi-

lot. In this case, his/her First or Second class medical would be good for the same period as a Third Class medical. A new pilot who intends to work his/her way up the ladder of licenses may well want to start with a First Class medical to make sure there are no problems. It can be used just like a Third Class medical.

The Flight Review is required under FAR 61.56. To act as a pilot in command (this includes solo), you must have completed a Flight Review within the previous 24 calendar months. We often call this the Biennial Flight Review (BFR). The regulations do list exceptions to this rule. For instance, airline, air taxi, and military pilots who are required to have flight checks every six or twelve months don't need the BFR. If you take a checkride for an additional license or rating, the checkride can count as a BFR. If you participate in the FAA Wings program, completion of a phase counts as a Flight Review. (If you don't know about the Wings program, check it out. It's a good deal!)

The Flight review must be at least 1 hour of ground training and 1 hour of flight training. Notice that I said "training." It is not a checkride! You and your instructor should work together to determine what type of training your review will include. The review can be performed in any aircraft in which you are rated. Type rated pilots, glider pilots, and flight instructors have some special requirements and exclusions that I am not covering.

You can meet the medical and Flight Review requirements but still not be legal to carry passengers unless you have performed three takeoffs and three landings within the preceding ninety days in the Category and Class of airplane you intend to fly. For instance, if you plan to fly a single engine land (SEL) airplane, the "three-in-ninety" must be in an SEL airplane. If you plan to fly at night (one hour after sunset to one hour before sunrise), the "three-in-ninety" must be at night. For night operations and for taildraggers, landings must be full stop.

Instrument rated pilots and student pilots also have currency requirements but I will cover these some other time.

Being legally current is required by the FAA, but it could also come into play if you need to file a claim with your aviation insurance carrier. Many insurance companies will void your coverage if you are flying in violation of the FARs.

Currency and safety go hand-in-hand. If you have any doubts about your currency or the required log-book endorsements, check with your instructor.

Any questions? Contact me at www.mimis@galstar.com



Barons of the Sky

Anyone who has been interested in aviation over the years is familiar with the names of its famous people.

Thoughts of famous historic aircraft or those currently in use can call to mind some of the men after whom they are named. The Douglas DC-3 or DC-10 brings to mind the man, Donald Wills Douglas. Pan American Airline's early Martin Clippers and the WW II B-26 remind us that all were named for a man, Glenn L. Martin. Bell helicopters bring to mind Lawrence Bell and Boeing jet liners recall the name William Boeing. Many other pioneers have also lent their names to America's fleet of aircraft.

These men have become known as the Barons of the Sky. At least that is what Wayne Biddle, in his book by that name, calls them.

Have you ever wondered who Donald Douglas really was? Or Glenn Martin, William Boeing, Jack Northrup, or Allan Loughead (changed to Lockheed)? The answer, of course, is that no one really knew them, for they were as complex a group of men as ever lived on this planet.

Highly intelligent, ruthless, farsighted, over achievers, brilliant, geniuses, lucky (dumb lucky in some cases), showmen, salesmen, industrialists, daring, pilots, engineers, and last but not yeast, visionaries were the labels used, one way or another, to generally describe them singularly or as a group.

Yet, in the end, in spite of all their expertise, most of the Barons lost the companies they had founded. Most of them died bitter and broken, having lost the final battle, doomed in some cases by staying in the game too long.

The historians of aviation originally treated the Barons very well, but revising history is currently in vogue and the once honored builders of a great aviation industry are now being called the originators of our current military industrial complex. They have even been referred to as "the dealers in death." It has been noted that the airplane salesman, Glenn L. Martin, sold an airplane in 1913 that ended up as the entire air force of a Mexican revolutionary by the name of Alvaro Obergon. Today, somehow, that incident is supposed to have some connection with the founding of the modern day Martin Marietta defense-contracting complex.

Regardless of their detractors, the Barons of aviation are American heroes who invented the aviation industry from scratch, starting with only an idea.

Read "Barons of the Sky." You will enjoy it!

OKC Mayor to Speak at Ok Pilots Assoc

OKLAHOMA CITY -- The Oklahoma Pilots Association announces that the Honorable Kirk Humphreys, mayor of Oklahoma City, will be the guest speaker at their dinner meeting on March 2, 2000 at the C.E. Page Building at Wiley Post Airport. Mayor Humphreys is an instrument-rated pilot and will discuss issues that affect flyers here in Oklahoma.

Kirk Humphreys was born and raised in Oklahoma City and is the city's thirty-fourth mayor. He attended Northwest Classen High School and is a graduate of the University of Oklahoma. He is President of Gibraltar Investments and Century Asset Management, Inc., and also serves on several city boards and commissions. Mayor Humphreys is a member of the Oklahoma Municipal League and is on the Board of Directors of Charter National Bank.

The OPA meeting is open to non-members as well as members, and a buffet dinner will be served prior to the mayor's presentation. Dinner tickets are \$12.00 and reservations may be made by calling Helen Holbird during the last week of February at (405) 942-6308.

This is a wonderful opportunity to meet the mayor of Oklahoma City and hear his thoughts on aviation in our great state!



Oklahoma City Mayor Kirk Humphreys

"Leveling off at 42,000 feet, I had thirty percent of my fuel, so I turned on rocket chamber three and immediately reached .96 Mach. I noticed that the faster I got, the smoother the ride. Suddenly the Mach needle began to fluctuate. It went up to .965 Mach -- then tipped right off the scale . . . We were flying supersonic. And it was a smooth as a baby's bottom; Grandma could be sitting up there sipping lemonade."

General Charles 'Chuck' Yeager, first supersonic flight

The Huffman Prairie Flying Field

[Editor's Note: On a recent trip to the United States Air Force Museum at Wright-Patterson AFB in Dayton, OH, we happened on an aerial photo of the airbase containing a reference to the "Huffman Flying Field," in relation to the Wright Brothers early flight experiments. The name struck an obvious chord, so we did a little research. We are always hopeful of turning up some long-lost rich relative who will adopt us but, alas, such was not the case in this endeavor. However, the results were interesting and are presented in this article.]

No doubt every aviator or would-be aviator knows at least a little about Wilbur and Orville Wright's history-making flights at Kitty Hawk, NC in 1903. Perhaps fewer people know that after concluding the Kitty Hawk flights, they returned to the Dayton area to continue their experiments. They were offered free use of a large pasture owned by Torrence Huffman, a Dayton banker. The pasture is now located within the boundaries of Wright-Patterson AFB, off the end of one of the runways. Wilbur described the site in a 1904 letter to Octave Chanute:

"...We are in a large meadow of about 100 acres. It is skirted on the west and north by trees. This not only shuts off the wind somewhat but also gives a slight downtrend. However, this matter we do not consider anything serious. The greater troubles are the facts that in addition to the cattle there have been a dozen or more horses in the pasture and as it is surrounded by barbwire fencing we have been at much trouble to get them safely away before making trials. Also the ground is an old swamp and is filled with grassy hummocks some six inches high so that it resembles a prairie dog town. This makes the track-laying slow work.

While we are getting ready the favorable opportunities slip away, and we are usually up against a rainstorm, a dead calm, or a wind blowing at right angles to the track."

The site did have several advantages, however. The Wright brothers could reach it using the Dayton, Springfield and Urbana electric railway, which had trolleys stopping at Simms Station, immediately north of the site, every 30 minutes.

Because Huffman Prairie did not offer the strong, steady winds that the Wrights had relied on at Kitty Hawk, in 1904 they developed a catapult launching device to help propel their

came a shelter for livestock.

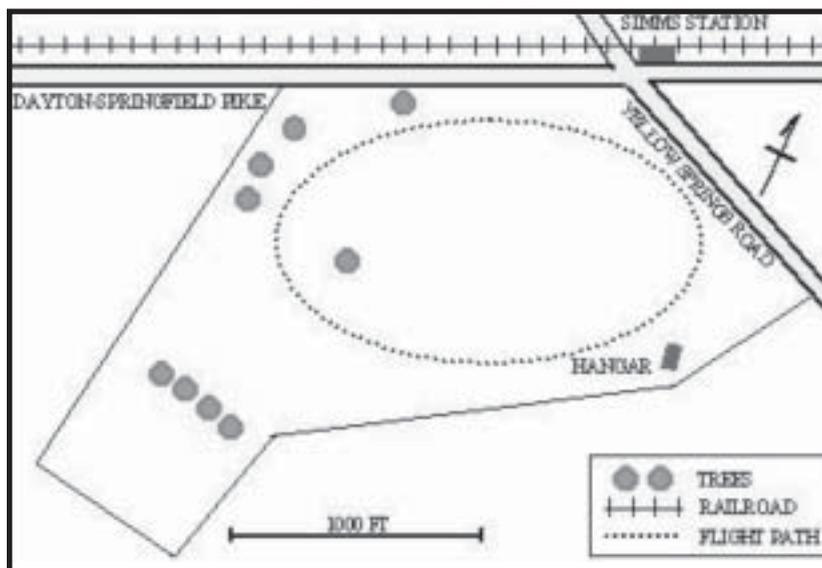
Wilbur and Orville Wright returned to the site in the spring of 1905 with a new aircraft, the Wright Flyer III, which they housed in a new hangar slightly closer to the Simms Station depot. With the improved aircraft, they learned to turn, bank, and fly figure-eights as well as circles. In the longest flight of the season, Orville remained aloft for 39 min, 23 sec on October 5, 1905, making 29 circuits of the site.

A forty-foot honey locust or "thorn" tree on Huffman Prairie Flying Field, the descendants of which still exist, inadvertently helped the Wrights solve the last major control problem

faced with their 1905 Flyer. The Wrights used the thorn tree as a pylon when circling the prairie, but were sometimes unable to roll out of the turn because the hip-cradle device used to control wing warping was ineffective. On September 28, 1905, Orville Wright found himself circling on a collision course with the locust tree, with its long, sharp thorns. In desperation, he discovered that by moving the forward elevator downward, the reduction in forces supplied just enough help to allow him to roll the airplane out of

the turn. Orville narrowly missed the tree that day and landed with a small branch impaling one of the airplane's struts. Solving of this last basic control problem allowed the Wrights to begin thinking about marketing their aircraft.

The Wrights did not fly at Huffman Prairie from 1906 through 1909 while they pursued a patent on their invention. In the spring of 1910, armed with new funds from selling their first airplane to the U.S. Army Signal Corps, the brothers built a new and much larger hangar on Huffman Prairie, to support test flying of the airplanes manufactured in the Wright brothers' new airplane factory in Dayton.



Map of Huffman Prairie Flying Field, after an original sketch by Orville Wright, 1904-1905

aircraft on take-off. This mechanism consisted of a derrick tower, used in conjunction with their basic monorail. The catapult employed a 1600-lb weight hooked to the front of the aircraft by means of a chain and pulleys and was the predecessor of catapults later used on aircraft carriers.

On September 20, 1904, Wilbur completed the first circle ever made in an airplane, a significant accomplishment and a major control breakthrough in the practical operation of their airplane. By December 1904, the brothers had made 105 flights, totaling about 50 minutes of flight time. They then removed all of their equipment from the site for the winter, and the hangar be-



Wright Flyer III over Huffman Prairie Flying Field- 1905

Wilbur Wright passed away of typhoid in 1912, and Orville sold the Wright Company in 1915. The School of Aviation ceased operations in the fall of 1916, but the hangar built in 1910 to serve it remained in place until the 1940s.

In 1917, Mr. Huffman's land was



Wright Flyer III at the 1905 hangar. Note that elevators had to be removed for the airplane to fit.

part of 2000 acres purchased by the Miami Conservancy District and subsequently leased to the U.S. Army Signal Corps for the creation of Wilbur Wright Field, a World War I school for pilots, armorers, and mechanics. This was the beginning of Wright-Patterson AFB. The Wrights' abandoned 1910 hangar remained standing on the prairie until World War II.

Besides its aviation heritage, the Huffman Prairie is now being preserved as the largest remaining tall grass prairie remnant in Ohio.



A view of the Wrights' monorail and catapult tower replicas-- the forerunner of catapults used on modern aircraft carriers.



A replica of the Wrights' 1905 hangar and the Huffman Prairie Flying Field monument.

Dynamic Propeller Balancing

By Doctor Dan
the Prop Man!



Vibration is a real enemy of any object that rotates, especially at high speeds and under heavy load. Examples of just a few of these objects are: kitchen blenders, grinding wheels, stone, gyros, turbine engines, automobile tires, and airplane propellers. Since this article concerns the latter, that's what we'll talk about.

Vibration in aircraft is always present and, although airframe-induced vibrations do occur, many of the significant sources of vibrations arise from the engine-propeller combination- what I call the "rotating package." Vibration can result in a wide range of problems from pilot fatigue to broken parts to propeller blade separation.

I always refer to vibration in three categories: light, moderate and severe (just like turbulence). Pilots generally notice severe vibrations but may miss light or moderate ones. If you fly the same airplane day in and day out, vibration levels are likely to increase gradually. Propeller mechanisms be-

come worn, paint chips off, and blades are filed to remove nicks. In my twenty years of experience, I have seen many cases where an airplane has been flying just fine, when vibration is suddenly noticed. Only after disassembly of the propeller is it discovered that the internal mechanism is damaged. In some cases, propeller blades are found to be in danger of separating from the hub. Ground and bench tests often do not find the cause of such problems, because they occur only under flight loads.

How can you detect out-of-balance conditions? The best way is lightly touching the yoke or glareshield in flight with the tips of your fingers; if you feel a little buzz chances are your engine/propeller combination (rotating package) is out of balance. One other common problem with constant-speed propellers is a vibration which occurs when blade pitch (rpm) is changed, but which quickly goes away. This problem is usually caused by internal corrosion of the pitch change mechanism or a lack of lubrication.

If you detect an out of balance condition, first try to eliminate non-propeller-related causes. Ask your A&P to check your engine mounts, ignition system, fuel system, and propeller security. If that does not solve the problem, turn your attention to the propeller. Check for proper propeller track, loose blades, deice boot security, grease or oil leaks, spinner/bulkhead cracks or repairs, and blade nicks. Finally, look for loose objects in the spinner; once, after pulling out my hair trying to balance a propeller, I finally found a dead sparrow inside the spinner! Have any blade nicks dressed by

a qualified technician. Only after you have done all the above is it time to check the propeller balance-- not before!

Balancing methods fall into two general categories: static and dynamic. Static balancing is done off the airplane, and involves mounting the propeller on an arbor or suspending it from a cable, and adding small weights where necessary to correct out-of-balance conditions. Anytime your propeller is overhauled or disassembled by an FAA-certified propeller repair station, static balancing is required before returning it to service.

Many times, static balancing will produce what seems to be an acceptable level of vibration. However, dynamic balancing is often needed. Dynamic balancing is done with the propeller on the airplane and with the engine running. Thus, all parts of the rotating package are balanced as a unit. A vibration sensor is mounted to the engine and connected to the balance analyzer. A strobe target is attached and the engine is run at cruise rpm and power settings. A strobe light is used in conjunction with the balance analyzer to determine the location and amount of any additional weight required for dynamic balance. New weights are generally installed on the spinner bulkhead, in accordance with approved procedures. Normally, static balance weights on the propeller are left in place so that, if the propeller is installed on another aircraft, it will still be in a statically balanced condition.

Dynamic balancing has been around since the 1950s and was first applied to helicopter blades in 1967 by the Chadwick-Helmuth Company.

Chadwick-Helmuth balancing equipment is now specified in maintenance procedures by all major helicopter and turbine engine manufacturers, and is recommended for reciprocating engine/propeller combinations. Dynamic balancing recommendations have been incorporated into all Mooney aircraft maintenance manuals.

Dynamic balancing should be done after overhaul or disassembly of the propeller or engine, after any excess metal has been removed to dress out nicks & cuts, after any paint detail job, after any de-ice boot reinstallation, or after any repair to the spinner or spinner bulkhead. Dynamic balancing should also be done anytime a vibration is noticed. As a general rule, dynamic balance should be rechecked every 500 hours to stay within the limits for normal wear and tear of the propeller. Note: if it is necessary to remove a dynamically-balanced propeller, it is very important to reinstall the propeller, spinner, and spinner bulkheads in the same positions relative to one another and to the crankshaft.

Dynamic balancing can be performed by anyone FAA-certified for the procedure. FAA approved, calibrated equipment is required, along with an FAA approved procedures manual. Costs for dynamic balancing vary by aircraft type and by region, but the average price is \$150 per engine.

I have been dynamically balancing aircraft propellers since 1983 and have had excellent results and feedback from my customers. If you have any questions, feel free to give me a call at (918) 272-3567 or email me: PropDoc@aol.com.

Check Rides Tips: "Stress Rides"

I have decided to re-name check rides "Stress Rides"! Before I became an examiner, I really thought I had the market cornered on the non-fatal, but extremely uncomfortable disease diagnosed as "checkride-itis." A pilot applicant usually begins to experience somewhat mild symptoms from the onset of scheduling the exam, which become progressively worse with the approaching day. Some break out in hives, some go into defibrillation, but more common symptoms progress from mild but controlled anxiety, to nausea, and finally to lack of sleep within the last 24 hours of the scheduled



Nan Gaylord,
FAA Designated
Pilot Examiner

"event." I have often threatened to patent and sell a "check ride" pill which could be taken by all who await this ailment which afflicts pilot applicants.

Understanding that you are not alone (your examiner and all other certified pilots know what you are going through) should give you some solace. But let's also look at some practical things you can do to ease the stress.

1. Get a final stage check from another instructor before you or your instructor schedule your exam. A second opinion will not only uncover any items your own instructor may have missed, but it will be a great confidence builder for you to know that not one, but two CFI's have now said you are ready!

2. Be sure you have covered the ENTIRE pertinent Practical Test Standards yourself. Instructors are human and may have as-

sumed you understood something in it that you are still unsure of. You wouldn't think of taking a KNOWLEDGE test without first studying the appropriate sample tests. I suggest you go through the PTS with a red pen and put a question mark by everything you are unsure of. Sit down in an oral session well before the exam date and cover all of your questions with your instructor.

3. Have your application folder prepared several days in advance with all paperwork checked, in order, and signed. Check the appropriate regulation in Part 61 to be sure you meet all of the experience requirements. Use the Applicant's Practical Test Checklist in the PTS to check off your folder items. You can't imagine how much stress this will relieve just to know you are ready with that portion of the exam.

4. Meet or talk with the exam-

iner in advance if you feel it will help relax you.

Thorough and careful preparation nearly always results in a Temporary Certificate being issued rather than the dreaded "pink slip." On the contrary, a lack of preparation (whether it be knowledge, flight proficiency, or paperwork) nearly always concludes with a pink slip. Ideally, check ride day should be anticlimactic, with you feeling confident, and looking forward to the opportunity to "show off" and dazzle the examiner. I once had an Instrument applicant turn to me after engine shut down and say "I can't do any better than that!" - to which I responded, "You don't have to! Congratulations!" We examiners wish they could all end that way.

Living With Your Plane!

Gladys McCaslin of Lexington, Oklahoma knows all about living with airplanes. When Gladys was a new bride, her husband, Ben, built a grass strip and hanger on their property in



Gladys McCaslin with her C-172, at her hangar in Lexington, OK.

the desert near Edwards Air Force Base. The original strip was only 1,000 feet long. When Gladys began her flying lessons, Ben lengthened the strip to 2,500 feet. She began to live with her plane in 1951, and has been living with her planes continuously ever since.

Gladys was proud of Ben's runway building job. "When Ben built that first strip in California, he built our runway lights out of gallon cans and pint fruit jars. It was plenty bright enough to land at night," Gladys said. They lived there for twenty years, flying in and out of the homemade airfield. They then moved to Oklahoma to raise alfalfa. The alfalfa field was their runway, winter and summer. The McCaslins flew in and out of that flat, level field, barn-stormer fashion, until they moved to Slaughterville. The first thing Ben did when they got the new acreage was to build another runway. He fenced,

graded, and planted Bermuda grass on the 2,150 foot strip.

Gladys described the many planes she and Ben owned together during their 49 1/2 year marriage. A Baby Press Pursuit, a Cub Cadet, a Cessna 120, several Cessna 172's, and several Cessna 195's all graced their hangars over the years. The best airplane story, however, is the last one. Ben had purchased an 180-hp Lycoming O-360 to put in their 172, but died before he had the chance to install it. Soon after his death, Gladys had the O-360 installed, and she now flies the airplane - at 70 years old. "It's a good airplane," Gladys boasts.

Not satisfied with owning only one home on an airstrip, Gladys purchased a lot on Tenkiller Airpark and has recently finished building a lovely home there. She wanted to be closer to aviation and to her pilot friends, including

Jan and Charlie Perry and Barbara and Merrill Bumbaugh. Gladys says she knows of no other person who has lived with their planes for as long as she has. When asked what advice she would give someone who was considering moving to an airpark or purchasing property and putting in their own hangar and runway she emphatically said, "Tell them to go for it. Immediately!"

Gladys, who attends Oshkosh every year and many other flyins, is active in the Civil Air Patrol. But while she is very active in aviation, she also likes to be home at her airfield in Lexington. "I have such fun down here. When the kids from OU and the different schools come here to practice, I don't get anything done. I have to get my cup of coffee and go outside, sit down, and enjoy watching them."

Tenkiller Airpark

by Joe Cunningham

[Editor's Note: On the morning of his death in May 1999, Joe Cunningham worked on this article for the Living With Your Plane Association.]

I live on Tenkiller Airpark, a unique airport community. What makes it unique is that Tenkiller Airpark is a public airport surrounded by private home/hangar sites, perhaps the only such airpark in the state. The airport is owned by a public trust; the Cherokee County Airport Authority. Even though the airpark is basically self-sufficient, it does require cooperation from the county. We certainly have the necessary support through our county commissioner. This allows the airport to be a public airport, the only one on Lake Tenkiller. We have become an integral part of a statewide and nationwide system of airports. Approximately 50% of the traffic on the airport is transient, visitors to the lake who are not associated with the 25 airplanes based here.

You may be wondering how all this works; it works fine. The residents living adjacent to our airport like airplanes and airplane noise. Unlike most public airports, our residents don't complain about the noise, perceived dangers, or the types of developments going on at the airport. Also, chances are pretty good that the airport's Fixed Base Operator will get additional income in the form of fuel sales, maintenance work, and airplane and pilot supplies.

Additionally, the county receives increased revenue from taxes and fees. Most airport homes are larger than average, so property taxes are higher than on more conventional homes.

Also, many people who build on residential airparks are more mature in age and have higher disposable incomes. They spend more money in the community, but require less in the form of schools. They are usually good citizens, so the need for courts and jails is less.

What was a rarely-used airstrip seven or eight years ago has become a very popular airpark. Because of the increased traffic, grass on the runway was getting worn out. But the Oklahoma Aeronautics Commission installed a water sprinkler system. Now, when the grass begins to brown out during the late summer, the sprinkling system keeps it nice and green.

The turf runway is 2,600 feet long and is equipped with pilot-activated low-intensity runway lights and Visual Approach Slope Indicator (VASI) lights. The airport also has a rotating beacon and a lighted wind indicator. A fine terminal building with showers is available for use by fly-in campers. It has a flight planning area, a pilot's lounge, and a pilot shop. Tee-hangers provide hangar space for ten aircraft. Aviation fuel and oil are available. The Unicom frequency is 122.8 MHz.

Adjacent to the runway are 47 individually-owned homesites, all of which have been sold. Twelve homes and hangars have been built or are under construction. Twenty-five aircraft are based here.

One of our property owners, an airline captain, sitting on his deck watching the airplanes land said, "This is as good as it gets." He was really grinning.

The Living With Your Plane Association

LAKEWOOD, WA. -- The 2000 edition of the Living With Your Plane Association (LWYPA) directory of residential airparks is the largest and most complete compilation yet, according to Dave Sclair, founder of the organization.

"There are 397 airparks listed in our new directory," Sclair reported, an increase of more than 20 from the previous year. Additionally, the directory includes floor plans for more than 20 homes with integrated hangars.

The LWYPA directory was originated about 10 years ago as a project of the Flyer, a nationally distributed bi-weekly aviation newspaper. It evolved into the Association after Sclair made presentations at the EAA fly-in at Oshkosh on residential airparks. Now Sclair speaks annually on the pros and cons of airpark living at EAA gatherings in Oshkosh, Lakeland, Arlington, Washington, and the annual AOPA Expo.

The directory lists airparks alpha-

betically by city and state. Each listing includes runway length and surface, approach aids, contacts for the airport, latitude/longitude, its use as either private or public, identifier, etc. Residence information reveals the number of lots, available utilities, information about homeowners associations, contacts and other similar data.

"Interest in residential airparks has been steadily increasing," said Sclair, explaining that both developers and would-be residents contact him regularly for information.

Besides the directory, the LWYPA produces a quarterly newsletter and maintains a library of covenants, conditions and restrictions for airparks. Membership is \$50 a year. Contact Sclair and LWYPA by e-mail at daves@seanet.com, by fax at (253) 471-9911, or by mail at LWYPA, PO Box 30900, Lakewood, WV 98498. The telephone is (253) 471-9888 ext. 308.

Tenkiller Airpark Announces Joe Cunningham Memorial

COOKSON - The Tenkiller Airpark Property Owners Association recently announced the upcoming construction of a permanent memorial to Joe Cunningham at the Tenkiller Airpark. Says Fred Barrs, owner of Grassroots Aircraft Maintenance, "The memorial will consist of three flagpoles surrounded by rockwork and an aggregate patio surface, located on the runway side of the airpark office. A plaque

commemorating Joe's life and contributions to the airpark will be featured."

The project is being funded through donations, which may be sent to the Joe Cunningham Memorial, c/o TAPOA, 120 N. Muskogee Ave., Tahlequah, OK 74464

The memorial to Joe will join a similar memorial to his wife Mary Kelly, also located on the airpark.

Patty Wagstaff Crowd Overflows Tulsa Technology Center

TULSA - Late Friday afternoon January 14, Dr. Guy Baldwin commented to his friend, Joe Norton, "Joe, if this thing is a big failure, remind me never to do it again. On the other hand, if it is a big success, remind me never to do it again!" Little did he know...

Months before, Dr. Baldwin and others conceived the idea of inviting Patty Wagstaff to Tulsa to revive interest in the dwindling local EAA IAC Chapter 10. Ms. Wagstaff eventually agreed to come, largely because of her friendship with Monty Barrett, of Barrett Performance Aircraft, the builder of Patty's engines.

With that news, excitement and participation began to build. What was originally planned as a small, intimate gathering of Chapter 10 members got bigger and bigger. Volunteers at weekly planning meetings included: Mike Hastings; Debbie Black, Tulsa Air and Space Center; Mary Smith, Marketing Director for the Tulsa Airport Authority; Randy Harris and Tom Klassen, airshow performers; Scott Maher; David Hale; and Carl and Julia Clay. Television spots were aired advertising the event. Tom Culver and Rex Niver, secured the use of the Tulsa Technology Center for the event.

On the afternoon of the event, volunteers brought in a dazzling static display of aerobatic machinery, including: a P-51 Mustang, Sukhoi 26, Pitts S2B, Pitts S2C, Extra 300L, T-28, Stearman, Tiger Moth, Chipmunk, One-Design project, clipped-wing Cub, and a Rand KR-2.

When Patty and her friend Dale Snodgrass (himself a distinguished aviator) arrived, they were made to feel at home: volunteers had even come up with Patty's trademark pink plastic flamingos to decorate her room.

The evening began in the main hangar with book signings, drawings for rides in aerobatic airplanes, refreshments provided by Pfizer Pharmaceuticals, and facility tours. As the hangar began to fill, it soon became apparent that perhaps Dr. Baldwin had underestimated the attendance a "leettle teeny bit." One hundred copies of Patty's book, "Fire and Air" were gone in fifteen minutes, with the help of production line operated by Jennifer Wise, Dena Shaffer, Nan Gaylord, and Julia Clay.

The auditorium reserved for the official presentations quickly filled, overflowed to a second and then a third auditorium, into the cafeteria, and even into the halls, more than 1000 people in all. Luckily, the proceedings could be viewed in all areas via CCTV.

Charles Harris, of National Biplane

Fly-In fame, emceed the ceremony, which included presentations by Julia Clay (representing Sen. James Inhofe) and Glen Frick, representative of the national IAC organization. Tulsa Mayor Susan Savage welcomed Ms. Wagstaff and a proclamation by Gov. Frank Keating and State Sen. Charles Ford was read, proclaiming January 14 as "Patty Wagstaff Day."

Before Ms. Wagstaff's talk, a special award was presented to the family of Col. Calvin Bass, one of the original organizers of Chapter 10 and a long-time Tulsa pilot and aerobatics instructor. Unfortunately, Col. Bass, in poor health, had passed away just two weeks prior to the event.

Ms. Wagstaff spoke of her early days in aviation in Alaska, learning to fly in a Cessna 185 on floats before receiving her first aerobatics training from a woman instructor. Within five years she was into aerobatic competition very seriously. However, in describing her first competition, she admitted that, after her routine was finished, she put her airplane in the hangar "and hid" out of embarrassment.

All who met Patty Wagstaff were impressed with her down-to-earth grace, enthusiasm, and humor.

The weekend was capped off Saturday morning with an "intimate" breakfast (only 60 people!) at the Tenkiller Aipark in Cookson.



Left to right: Charles Harris, Patty Wagstaff, and Guy Baldwin

Robert Ragozzino Plans Round The World Flight in a Stearman

A flight around the world brings to mind names like Charles Lindberg, Amelia Earhart and Wiley Post. In early May of this year Robert Ragozzino's name may be added to this elite list of aviators. Ragozzino, who lives in Norman, is in the final stages of pre-

paring for a solo world flight in his 1942 open cockpit Stearman biplane. A solo circumnavigation has never before been accomplished in an open cockpit airplane. In 1924 a U.S. Army team with four special Douglas Aircraft, DT-2 biplanes referred to as "The World Cruisers" circled the world in 175 day with two-man crews. Only two of the planes completing the flight. In the early 1990's several pilots attempted solo biplane circumnavigations, but failed.



Robert Ragozzino

he was 4 years old and standing near a Stearman with its big radial engine roaring. Since that time he has been enthralled with biplanes and wanted to accomplish something special with a Stearman. The Stearman, which he purchased in 1993, became the vehicle to make his childhood dream become a reality. According to Ragozzino the world flight in a biplane is the "greatest adventure for a pilot, with earth, sky, wind, and the roaring radial engine."

Ragozzino's Boeing Stearman has been modified with 150 gal external and 130 gal internal fuel tanks and a 450 HP supercharged engine. These modifications will provide an endurance of 16 hours, a range of 1600 miles, and a cruising speed of 100 MPH. Ragozzino is scheduled to depart from Oklahoma City on May 2, 2000, fly eastward across the Atlantic, central Europe, the middle East, southern and southeast Asia, Japan, Russia, across the Aleutian island chain to Canada and return to Oklahoma. The total trip is estimated at 80 days and 230 hours of flight time.

Ragozzino has been a professional pilot for the past 19 years and has more than 7,000 hours in his logbook. As a warmup to the World Flight, he set a solo biplane transcontinental record in his Stearman in July 1998, flying from San Diego to New York in 18.5 hours,

besting his own record of 28.7 hours set two years earlier.

A Learning Channel program reviewing Ragozzino's flights will be aired during the week of April 26th as part of their "Extreme Machine" series. Robert is still seeking support for special equipment such as weather radar. Individuals interested in providing support or getting info may visit his web site at: www.stearmanworldflight.com. The website will follow the progress of the flight once it is underway. God

speed Robert Ragozzino - one of the new pioneers of aviation.

The author, J. Thomas Pento, is a single-engine commercial pilot with an instrument rating and 500 hours. He is a professor of pharmacology at the University of Oklahoma. As a freelance aviation writer since 1995, he has published many travel articles in various aviation journals. He maintains a "Fly-In Aviation" web site at: <http://moon.ouhsc.edu/jpento/>



Robert Ragozzino's round-the world 450-hp supercharged Stearman.



ASK THE DOCTOR

BY DR. GUY BALDWIN
Senior Aviation Medical Examiner
ATP, CFII-MEI



Dear Doctor:

I am 66-years old and I have a Third-Class Medical to fly my Piper Tri-Pacer. However, my knees bother me getting in and out of my plane. My doctor says that I have osteoarthritis. He wants to give me a new medicine called Celebrex. Can I fly with it?

Signed, John C., Meeker, Oklahoma

Dear John:

First let's talk about your osteoarthritis (OA). Almost 40 million Americans have arthritis. Of that group, 21 million have osteoarthritis (OA). OA is an acquired, noninflammatory musculoskeletal disorder that results from cartilage breakdown without adequate regeneration or "growing back." It usually hits the joints of the fingers, hip, knees, and the neck and low back. For many years, we have used nonsteroi-

dal anti-inflammatory drugs (NSAIDs), such as Motrin (ibuprofen) and Naprosyn/Alleve (naproxin). However, not all people can take them due to the side effects. Among the many side effects, the ones associated with the gastrointestinal tract are the most bothersome, such as heart burn, vomiting, or more serious injuries such as abdominal ulcers and bleeding. It is estimated that 16,500 deaths occur yearly in the U.S. due to NSAIDs.

Recently, new modes of therapy have been introduced, such as the Cyclooxygenase-2 (COX-2) specific inhibitors, Celebrex (selecoxib) and Vioxx (rofecoxib). Your medicine, Celebrex, being the first. Presently, these two medications are indicated for osteoarthritis and rheumatoid arthritis. Basically, they have similar outcomes as the NSAIDs with much fewer gastrointestinal side effects. The way the FAA handles new medicines is similar to the way I practice medicine: we both move cautiously for the first year. I did call a friend of mine, Doctor Steve Carpenter, at the FAA and found out that the year wait on the two medicines above ended in November 1999. In December 1999 they were approved. So have your doctor prescribe it and enjoy your Tri-Pacer. Thanks.

Respectfully yours, Guy D. Baldwin, D.O.

Kid's Corner

In this section, we will print childrens' aviation questions, with answers by young men and women from Explorer Aviation Post 2951 in Oklahoma City. If you are fourteen or under and have an aviation question, please send it in. The Explorers will answer it for you.

1. How old do you have to be to become a pilot? Colin Thon, age 10

To be a student pilot, you must be at least 16 years old. You must be in good health, and be able to read, speak, and understand English. To earn a Private Pilot License, you must be at least 17 years old. *Answer by Kristin, age 16.*

2. What was the first aircraft to break the sound barrier? Colin Thon, age 10.

Charles (Chuck) Yeager over Muroc Dry Lake, California on October 14, 1946. It reached 700 mph (Mach 1.06) at 43,000 feet. *Answer by Kelly, age 14.*

3. Are there any physical limitations that would keep a person from becoming a pilot? A group of homeschoolers from Sautee, GA.

Special doctors known as Airmen Medical Examiners administer three categories of physical examinations to pilots. To be any kind of pilot, you must be able to hear a whisper from three feet away, have no history of ear disease or psychosis. If you are colorblind, you must be able to differentiate between the colors of white, red, and green.

To earn a Student or Private Pilot License, you must pass a Third Class medical exam, in which you must have at least 20/40 vision with or without corrective lenses.

Commercial and instructor pilots must pass a Second Class medical exam. Airline pilots must pass a First Class medical exam. Physical exams are good for a certain time period and then must be renewed regularly. *Answer by Daclesha, age 15.*

State Park Airstrips: A Half Century of Aviation and Recreation

by Ron Stahl, Oklahoma State Parks, Resorts, and Golf

The first seven Oklahoma State Parks were built in the 1930's by the Civilian Conservation Corps, the depression-era agency that gave young men work and America a wonderful legacy of public works projects. The state parks had a multi-level purpose. The first was to preserve significant and unique natural attractions for future generations. The second purpose was to provide recreational areas. A third reason was to boost the economies of certain areas of the state by promoting tourist activities in those areas.

During the 1950's, the emphasis shifted to state lodges and Oklahoma's lodges were built with those same objectives in mind. The building of the lodges necessitated new approaches to customer service. Amenities such as swimming pools, tennis courts, cocktail lounges and restaurants became important.

The next logical step was resort airstrips. That's why the Oklahoma Department of Tourism and Recreation eventually built airstrips at five facilities, Lake Murray Resort Park near Ardmore, Lake Texoma Resort near Kingston, Western Hills Guest Ranch near Wagoner and at Arrowhead and Fountainhead Resorts on Lake Texoma. Of those original five landing strips, four are active today. The landing strip at Western Hills was closed in December 1997, when it was determined the cost of renovation was more than the benefit of keeping it open. But Western Hills benefits from airports in nearby Wagoner and Tahlequah.

Of the remaining four, the most active airstrip is at Lake Texoma Resort Park. On some weekends, as many as 30 planes will use the strip. Park Manager Greg Snyder says they come for various reasons. "We have a lot of golfers who fly in on the weekends to play one or both of our two courses," he says. "We also have people who fly

in for lunch at the lodge restaurant." Texoma also benefits from the popularity of striper fishing at the lake. Texoma's airstrip will accommodate aircraft up to King-Air size.

The story is a little different at Lake Murray Resort Park in Ardmore. While Texoma's airstrip has maintained steady traffic over the years, usage of the Lake Murray airstrip has declined over the past few years to the point where only three or four planes a day on weekends is the average. Again, the main users are golfers and resort guests.

Airstrips at Arrowhead and Fountainhead on Lake Eufaula were originally built to support the state-owned lodges there. After the state divested itself of the lodges, air traffic declined. Still, the strips are in proximity to the state parks and other activities on Lake Eufaula and sometimes receive heavy volumes of traffic, especially on summer weekends and holidays.

With the growth of general aviation in Oklahoma and the proliferation of local airports, it's unlikely that the Oklahoma Tourism and Recreation Department will build any more airstrips. Most state parks and resort properties are near enough to municipal airports that flying golfers, campers, fishermen, and lunchers can always find a place to park. Beavers Bend Resort Park at Broken Bow in southeastern Oklahoma is a good example.

The existing runways at Oklahoma State Parks and Resorts have served their purpose for almost 50 years, bringing aviators and parks together. Whether it's golf, camping, fishing or just a quick lunch, generations of flyers have found recreation and relaxation only a short flight away.

Here is some information on Oklahoma Tourism and Recreation Department airstrips that you can use. We hope to see you soon.

Oklahoma's State Park Airstrips: Pertinent Data

AIRSTRIP	LAT LONG	ELEV (FT)	DIST FROM CITY	RUNWAY INFO	LTS	RADIO	FUEL	ATTENDED
Arrowhead (91F)	35-09.26E 95-37.22W	851	3W	15/33 3500' Asphalt	MIRL, VASI	CTAF 122.9	No	No
Fountainhead (0F7)	35-23.34N 95-36.10W	670	6N	18/36 3000' Asphalt	MIRL	Unicom 122.8	No	No
Lake Texoma (F31)	33-59.57N 96-38.55W	693	4E	18/36 3000' Asphalt	MIRL	Unicom 122.8	No	7 Days
Lake Murray (1F1)	34-04.51N 97-06.4W	817	2E	14/32 2500' Asphalt	LIRL VASI	Unicom 122.8	No	No

Joint Education Program Fills Jobs at Altus AFB

ALTUS - Five students graduated from the Southwest Technology Center's Aviation and Aerospace Technology program in ceremonies held November 19, 1999 at Altus AFB. Completing the 1,200 hour program were Mike Brown, Altus; David Fite, Paul Giddens, and Chris Holt, all from Mangum; and David Shaffer, Altus.

During the training program, they received training in aircraft painting, sheet metal, electricity, non-destructive testing, welding, blueprint reading, air-

Force installations on how it operates."

Echoing Bradley's comments, Dr. John Martin, Superintendent at the SWTC, said "The cooperative program with the Base is very unique and probably not found at very many locations across the country. We are certainly proud of these graduates and the opportunity they have for a rewarding career in aircraft maintenance and most especially working with the A-team at Altus AFB."

Reprint permission- Altus Times.



Graduating from the Aviation and Technology Program at SWTC November 19 were, kneeling from left to right, Phillip Giddens, Mangum; David Shaffer, Altus; David Fite, Mangum; Mike Brown, Altus; and Chris Holt, Mangum. Attending the ceremony were Altus AFB A-Team members, standing from left, John Beattie, Robert Nantz, Sam Kinnamon, Richard Snelling, Mike Bradley, Robert Barber, T.O. Hilley, Carl Martin, and Robert Bagg. Standing at far right is SWTC aviation instructor Tony Scott.

craft drawing, and wood and fabric work.

While in training at the SWTC, they also participated in an apprentice program at Altus AFB called "Grow Your Own Aircraft Mechanic Program." The program, operated by the A-Team at Altus AFB, afforded the students the opportunity to learn Air Force maintenance procedures while earning a salary. The A-Team is responsible for aircraft maintenance at the base.

"This is a one of a kind training program in the Air Force and we are certainly proud to be a part of it," said Mike Bradley, Director of Maintenance for the A-Team.

"We started this cooperative training program with the Southwest Technology Center because we were having difficulties filling some of our aircraft maintenance positions and we thought a program of this nature would help with our recruiting efforts. And, at the same time, we wanted to provide an opportunity for people living in southwest Oklahoma to obtain employment at Altus AFB. This program has been so successful, we are constantly getting requests from other Air

SPARKS AVIATION CENTER

TULSA INTERNATIONAL AIRPORT

HANGAR 23

918-835-2048

Unicom 122.95

24-Hour Service



Jet A



100LL

Courtesy Van
Rental Cars
Catering
Restaurant
Hangaring

New Home of

**AUTOPILOTS
CENTRAL** INC

Autopilots
Avionics
Instruments
Maintenance
Interiors

Phone: 918-836-6418

FAX: 918-832-0136

TULSA'S FRIENDLY AIRPORTS

•TULSA (TUL)
INTERNATIONAL

•Jones/Riverside
(RVS)

TULSA AIRPORT AUTHORITY

OOA Member

Rogers County's new residential airpark is



"...Beyond the American Dream."

HOMESITES WITH RUNWAY FRONTAGE, PLEASANT AREA, OOLOGAH SCHOOLS
See members.aol.com/AvianCntry then call Dirk DeRose at 918-637-1143

Southeastern Oklahoma State University



For information contact:

Dr. David Conway
Director and Chair

Department of Aerospace
Southeastern Oklahoma State University
Box 4136 - Durant, OK 74701

1-800-435-1327

Fax 580-924-0741

www.sosu.edu/bus/aero/index.html



Department of Aerospace

Bachelor of Science Degree
Professional Pilot Options

Aviation Management
with Options Available

BUSINESS • SAFETY
SECURITY • MAINTENANCE

The Ultimate Picker of Nits

By Randy Harris



Way back in July of the last century, I wrote a riveting essay on the statistical foundations of airplane design for our local EAA chapter newsletter. In retrospect, I should have gone to the Mall, seized the clerk in the Body Piercing Boutique and loudly insisted that he nail a pair of 14 karat gold, diamond studded posts into both of my eye lids. The response to either of the above would have been similar, "Whoa, get a grip, old dude!"

Even though aircraft design is based entirely on the premise of managing statistical engineering risks, which makes interesting reading, too many stories about accident statistics can be nauseating. Let's make a pact, right now, to inform the aviation magazine publishers that we wish them to dispense with anymore stories about accident statistics.

There is a growing trend in aviation publications to print articles which incorporate accident statistics as the foundation. The stories are getting old and, even more importantly, they're scaring away young people. You should be especially concerned if your retirement nest egg consists entirely of a 1947 V tail Bonanza; you're going to need for these kids to be interested in buying your airplane. Forget pointing out that they are only half the age of the airplane; emphasize the fun they could have logging onto the Internet at 10,000 ft., experiencing the ultimate in satellite "connectivity." (This may be Greek to you, but today's kids will

spend huge amounts of their parents' money in pursuit of "better connectivity." My spell-checker, like you, has no idea what this word means.)

Aviation publishers and editors have the best intentions of ensuring our safety, but have they lost sight of their true goal - promoting aviation? I personally feel that this is yet another thing we can blame on computers and, specifically, the Internet. Writing about aviation is really hard work and, until recently, required the writer to go flying or at least visit with someone who could relate a good flying story. Today, with everything being published on the Internet, including big databases of accident statistics, writers are inclined to take the easy way out. Just a few mouse clicks along with some creative sorting, and presto, instant article. Of course this practice is justified in the name of safety. Like everyone else, I'm a huge fan of reviewing safety, but writers also need to convey something fun and enticing about flying.

Most every pilot I know has a great time flying, even if he or she is doing holding patterns at RVS for the 286th time this week. We're not doing it to cheat the statistics; we're out there making a fun time of simple tasks, like keeping airspeed within one knot on final approach. Yet, we let professional aviation writers drone on and on with these "scared straight" articles. I'm getting turned off, especially since I haven't determined a single solution to preventing a fellow pilot from buzzing the field at fifty feet in a Putter Coupe and trying to perform a barrel roll. Second only to picking up my smelly socks, refraining from this type of behavior is one of my wife's cardinal rules. I won't do that because I'm more afraid of her than the outcome of that barrel roll.

We must put fun back into the flying stories intended for future pilots. You too can help. No matter how you color your flying stories to future throttle jocks, whether you're buzzing the field, ripping up the pattern, or (the old stand by) turning gas into noise, make your tale exciting so we don't lose this important generation of flyers by moaning endlessly about statistics.

See, we managed to entertain everyone who read this article without referring to a single statistic. However,

statistically speaking, 75% of your wives will snicker at the above paragraph because they are thinking to themselves, "My husband can turn gas into noise without ever leaving the couch". When you are through wondering why the wife is laughing, help me figure out how to keep these ear-ringing backs from scratching my corneas.

Aero Service of Oklahoma Haskell Airport

Maintenance, Inspections, Repairs
Roger Kimball
A&P AI, 25+ Years Experience

918-686-3328
PO Box 777, Haskell, OK 74436

EXPERIENCE TRUE TEXAS HOSPITALITY!



Gainesville, Texas
Unicom 123.0 AWOS 118.375

100LL- \$1.69 Weekdays
\$1.64 Weekends
Jet A- \$1.50 (Self-Service)

- Open 24 Hours- 7 Days/Week
 - ATTendant on call after 5:00 PM
 - Major Credit Cards Accepted Including Multi-Service & Acard, CAA, Phillips Into-Plane & UAir Discounts
 - DIN WX Satellite System
 - 5 Mins to Outlet Mall
 - 18 Hole Golf Course
 - Conference Room
 - Courtesy Cars (3)
 - Pilot Lounge
- 940-668-4565 940-665-6884 Fax
www.gainesville.tx.us/GVAirindex.shtml
email: ???

CLAREMORE MUNICIPAL AIRPORT

On the 060 radial of Tulsa VOR, 7 miles East of Claremore off Hwy 20

100LL: \$1.75/gal, weekend \$1.55/gal
Jet A: \$2.05/gal- cash, check, BP card
Unicom/CTAF: 122.9
Hours: M-F 0800-1700
S&S 0700-1900

Tel: 918-343-0931 Fax: 918-343-1619

Private and commercial building sites, transient hangar and tiedowns, rental cars, pilot supplies, and DTN computerized weather

5000 FT. HARD SURFACE RUNWAY
GENERAL AVIATION AIRPORT WITH
FBO & PILOT'S LOUNGE
AFFORDABLE HANGAR SPACE AVAILABLE

(918) 476-6090

MidAmerica Airport

LOCATED IN MIDAMERICA INDUSTRIAL PARK • PRYOR CREEK, OK
Choice Industrial Sites



**Sand Springs
Pogue Airport**

Air BP
Jet A, 100 LL
Volume Discounts • GPU

5,800 ft. Runway
Courtesy Car & Rentals
Conference Room
DUAT • DTN Weather

Convenient To Downtown Tulsa, Area Industries & Recreation
Long-Term Ground Leases Hangars Available

Phone (918) 246-2605

SOUTHWEST AVIATION SPECIALTIES, LLC

8803 Jack Bates Avenue
Riverside/Jones Airport (RVS)
FAA CRS #S30R818N

FlightSafety® Trained Mechanics and Pilots on Staff

- *Precision Aircraft Maintenance
- *Airframe and Exhaust Welding
- *Aircraft Sales and Consulting
- *Complete Airframe & Engine Repair
- *Full Avionics Sales and Service
- *All Major Brands Avionics Dealer
- *Custom Metal Panel Work

Reasonable and competitive rates on all services

918-298-4044
24-Hour On Call Service

Oklahoma Aviator

Classifieds

FOR SALE AVGAS FOR \$1.70 A GALLON

(subject to change)

Available Self Service Only
24 Hours a Day at
GOLDSBY'S DAVID J. PERRY
AIRPORT
New Identifier 1K4 (Prev. OK-14)

Phillips, Master Card, VISA,
Discover, Diners Club
International, Carte Blanche, and
American Express cards
are accepted.

We also have open T-hangars
for rent.
Call Vergie @ 405-288-6675.

HANGAR FOR SALE

Seminole Municipal Airport (H45)
60 x 50 engineered steel building with
sliding folding doors- office with heat
& air, restroom and closet- contact
Jim Goff, days 918-486-8411 or
nights 918-279-1110

AIRCRAFT APPRAISALS

AeroSpecs offers NAAA Certified
Aircraft Appraisals, market analysis,
log and records research, etc. Li-
censed mechanic and pilot, 30 years
of total aviation experience. Our
appraisals are accepted by financial
institutes nationwide. Proof of value
for insurance purposes. Lee
Compton (918) 342-0820 or (800)
742-6710 Email:lee@aerospecs.com
http://www.aerospecs.com

RNL, INC. 405-947-3361

FAA-PMA APPROVED FOR THE FOLLOWING:

BEECH	P/N	LIST	PRICE
TAIL LENS ASSY	002-44033-23U	\$99.00	\$45.00
TOW PIN	60-820029-1	\$35.00	\$16.50
TOW PIN	35-825106	\$60.00	\$20.00
BUSHING PIN	35-820062	\$200.00	\$25.00
SHIMMY DAMPER ROD	35-825148	\$659.00	\$250.00
SHIMMY DAMPER KIT	35-82514-2R		\$429.00
CESSNA			
TORQUE LINK SPACER	0543047-1	\$24	\$12
TORQUE LINK KIT- MOST CESSNA SINGLES			\$51.50
ALTERNATOR CONTROL UNIT	C11005-0103		\$125.00

1-DAY TURNAROUND ON MOST VOLTAGE REG \$50.00

RNL, INC
P.O. BOX 12224
OKLAHOMA CITY, OK 73157
Email DPerry70@aol.com Fax 405-947-8343
Open M-F 8AM-4PM CST
Call for info on other FAA-PMA Approved Items

BARRETT AIRCRAFT MAINTENANCE

Gainesville Municipal Airport
Gainseville, TX
Annuals, Pre-Buy Inspections,
Maintenance and Repairs on
Recip & Turbine-Powered Aircraft
15 years Experience
Brad Barrett, A&P, IA
Call 940-668-2009

Cushing Flight Service

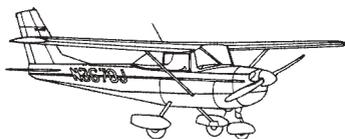
Cushing Municipal Airport

Air BP 100LL & Jet A \$1.75/Gal

Dusk to Dawn Pilot-Controlled
Runway Lights- Unicom 122.8
Open 7 Days 8AM-5PM
Hangar Space Available

Call 918-225-6979
Pager 888-479-5253

Have You Dreamed... of Living With Your Plane?



Here's Your Chance!

Three-quarter acre lot on
Tenkiller Airpark for sale.

\$18,000

Call 404-229-9123 or
770-381-6379 for details

Introductory Offer

Annual Inspection- \$200.00
(On fixed-gear single-engine aircraft;
others will be higher)
Some conditions will apply. We are
Tulsa based.
Call 918-834-7215

GRASSROOTS AVIATION MAINTENANCE



FRED BARRS
A&P/IA Pilot

Tenkiller Airpark
(918) 457-3539

FAA Medical Certificates

John C. Jackson, D.O.
410 Cherokee, Wagoner, OK 74467

Office: 918-485-5591 FAX: 918-485-8455
Wagoner Community Hospital: 918-485-5514
email: formula@ionet.net

Oklahoma Baptist Men



Aviation

To meet the needs of people while sharing the
love of Jesus Christ

For more information call 405-942-3000 ext 337.



Make your hours
really count.

Volunteer pilots receive rich rewards.

To learn more about how you can help someone in
need, contact Angel Flight.

www.angelflight.com

918-749-8992

Lloyd Stelljes

Steel Clear Span Buildings
Construction Management



8501 Highway 271 South, Suite C
Fort Smith, Arkansas 72908
Phone 501-646-0747 FAX 501-649-3435
Toll Free 888-572-3322
(888-LSB-3322)

Mini Storage Buildings- Aircraft Hangars

The Right Approach



Certified Repair Station QNAR051K
Fort Smith Municipal Airport

Ft. Smith
NORTHWEST
ARKANSAS
AVIONICS, INC.
NORTHWEST ARKANSAS
AVIONICS, INC.
5404 AIRPORT BLVD.
FORT SMITH, AR, 72903
(501) 648-3001

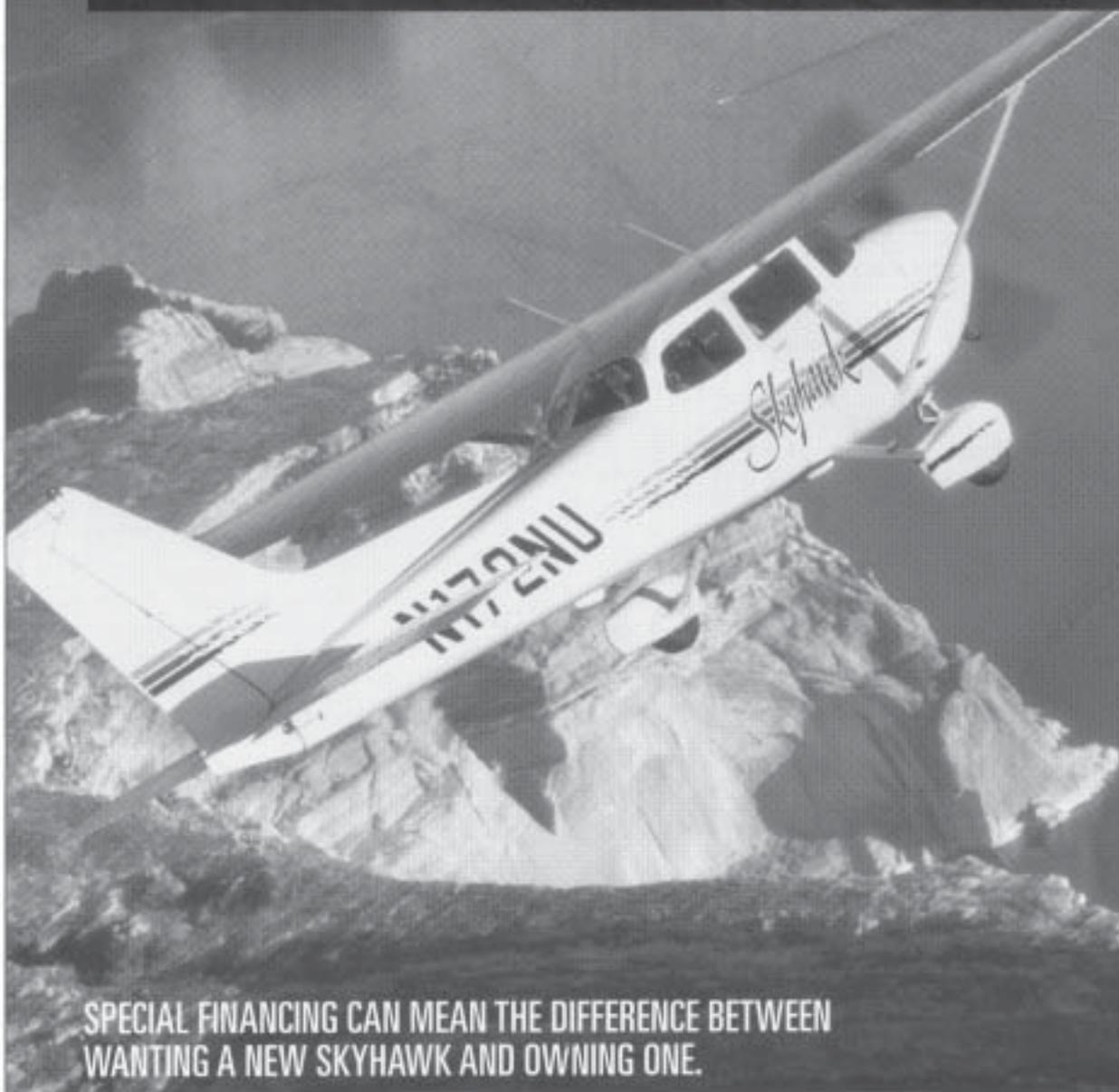
Mark Your Calendar!

Friday-Saturday May 19 & 20,
2000. Cox Field, Paris, TX
Millennium Flyin-In/Drive-In
Festival with Warbirds, Antique
Cars, Exciting Events, Displays
and Seminars.

Contact Bill Strathern,
VOX 903-737-0834
FAX 903-737-9178

Business Cards

Amount to something. For next to nothing.



SPECIAL FINANCING CAN MEAN THE DIFFERENCE BETWEEN WANTING A NEW SKYHAWK AND OWNING ONE.

You've wanted a new Cessna Skyhawk since you first laid eyes on its sleek, rugged frame. You've dreamed about the performance of its quiet, fuel-injected engine. Imagined taking the controls and scanning your state-of-the-art avionics. You've even pictured yourself in the luxurious, fully reclining pilot's seat.

Now, flexible finance programs from Cessna Finance Corporation make it possible to own one — without payments that cramp your active lifestyle.

And they're offering special future trade-up options that make moving to a higher performance Cessna Skylane or Stationair a breeze.

So stop dreaming about a new Cessna Skyhawk. Now it's possible to own one. Call today to select the Skyhawk that's a perfect fit for your lifestyle — and your budget.



Christiansen Aviation, Inc.

"Oklahoma's Single Engine Cessna Headquarters"



Taildragger Instruction,
Rental and Sign-Offs
150 hp PA12, Gundy's Airport
@Owasso, \$55/hr
or 10 hr block \$50/hr
Mark Lippert, CFI
Call 918-592-2150 or
Pager 918-672-7420

GREEN COUNTRY AVIATION, INC.
Aircraft Rental

Piper Cherokee 140 (PA28-140)
\$42 per hour
\$38 per hour 10-hour block time
Gundy's Airport
918-695-1707
918-692-9184 (Pager)



FAA-Certified Repair, Overhaul,
And Dynamic Balancing
Over 20 Years Experience
*Dynamic balancing half-price with
overhaul or major repair.*

Remember!
If it shakes don't delay!
Call Dr. Dan Today!

in Owasso, OK
Phone# (918) 272-3567
FAX# (918) 272-7664
email: PropDoc@aol.com

Speed Craft Interiors

Aircraft Upholstery
Gundy's Airport
Owasso, OK

Call 918-272-9863

John & Jane Fisher Owner/Opr.

Be a better Pilot! Sharpen skills, broaden aviation knowledge and break bad habits by training with Earl C. Downs, ATP, CFII, A&P. Antiques, classics, modern aircraft. Taildragger training in 1946 Champ. Flight reviews, ground training. EAA Flight Advisor. Thirty-eight years experience in flight and ground training.

Be the best you can be!
Golden Age Aviation, Inc,
Cushing, OK.
918-225-7374 (Home & Office)