

JETSTREAMS

AHART AVIATION SERVICES

AHART AVIATION SRVC

186 Airway Blvd.

Livermore, Ca. 94551

TEL: 925.449.2142

FAX: 925.373.0944

ahart@ahart.com

www.ahart.com

June 2005

Despite the non-Spring like weather that we experienced this May, we have had many student solos and successful checkrides!

We have several changes in staffing this summer. First, I would like to welcome David Gregory, Steve McEachern and Spencer Thomas to our crew of flight instructors, as well as Justin Kirby who is working full time in the maintenance shop. Each of these guys brings new perspective and energy to our programs and we are excited to have them on board!

Beth Duff recently was certificated by the FAA for the chief pilot position of our Part 141 program. Beth will also act as chief pilot for the part 61 program so any and ALL questions should be directed to her! I would also like to congratulate Nenad Paleka who was offered a job as first officer for Mesa Airlines in December of 2004 and went off to ground school this month.

Happy and safe flying,

~Lysa Wollard

May Achievements

Ryan Williams

Solo

Nenad Paleka

Elgin Hittell

Solo

Peter Freund

Behrooz Parsay

Solo

Peter Freund

Danny Clauser

Solo

Ivan Szeto

Derek Sanders

Solo

Peter Freund

Derek Sellers

Private

Nenad Paleka

Rich Holada

Private

Neal Beuerman

Jim Beering

Private

Beth Duff

Robert Strawn

Private

Peter Freund

Tim Attoe

Private

James Hubbard

David Eimeral

Accelerated Instrument Rating

David Gregory

Marc Fey

Instrument Rating

Keith Breton

Patrick Mendes

Commercial SEL

Ivan Szeto

Tyler Goodwin

Commercial SEL Addon

Nenad Paleka

Paul Weihs

Commercial SEL Addon

Nenad Paleka

Bill Komanetsky

SingleEngin Sea Addon

James Hubbard

Spencer Thomas

CFI

Lysa Wollard

Beth Duff

CHIEF FLIGHT INSTRUCTOR

Part 141

CFI OF THE MONTH

Neil Beuerman

Altimetry and Density Altitude

by Terry Lankford

High temperatures at high altitude airports produce high density altitude. Surface temperature forecasts are not normally available, but maximum temperatures typically occur beginning by midmorning and continue through late afternoon. Arrival and departure times must be planned based on aircraft performance.

A typical scenario: A pilot attempts to takeoff from a relatively short runway, during midday, with an aircraft above maximum gross takeoff weight, using improper takeoff procedures. The aircraft accelerates and lifts off, and may initially establish what the pilot perceives as a positive rate of climb. However, the aircraft begins to settle because conditions exceeded the airplane's climb performance. With no runway remaining the airplane impacts terrain.

After calculating that the aircraft has sufficient performance for conditions, it's a good idea to determine an abort point on the runway. If the aircraft is not airborne *and* climbing out of ground effect, this point should allow the pilot to come to a safe stop on the remaining runway. Remember, aircraft performance data are based on brand new airframe and engine, and *perfect* pilot technique.

Normally, a pilot of a carbureted, fixed pitch propeller airplane should adjust the mixture, prior to takeoff, for maximum engine RPM. (Cessna recommends this procedure when density altitude reaches 3000 ft. However, always check the POH for your airplane for recommended procedures.)

A pilot of a non-turbocharged, constant speed propeller airplane will normally use the procedure above, except lean for maximum manifold pressure. Remember that manifold pressure will lower proportionally to density altitude.

An advantage of a turbocharged engine is the development of sea level power at altitude. Some manufacturers recommend leaning to smooth engine operation. Just because the its turbocharged doesn't relieve the pilot for calculating airplane performance!

On airplanes equipped with a fuel flow indicator, the pilot can lean to density altitude takeoff fuel flow. This setting is a rough estimate and smooth engine operation should always be maintained.

Multiengine pilots must consider that airport density altitude may exceed inoperative engine ceiling. For example, the Piper Seminole has a single-engine ceiling of only 5000 ft. under standard conditions. Density altitude, especially in the summer, can often exceed this value!

Climb and cruise performance are also affected by density altitude. An aircraft with an advertised service ceiling of 13,100 ft is based on standard conditions. A run-out engine, poor leaning technique, exceeding gross weight, and the possibility of turbulence and downdrafts further decrease performance. Some have mused that you can walk across the Rockies and Sierra Nevada on the wreckage of Cessna 172s and Piper Cherokees. You can't fool Mother Nature!

Gain the required altitude prior to reaching a pass or crest of the mountains, and with sufficient room to make a comfortable course reversal—approach the ridge at a 45° angle. If you're above the crest, the terrain beyond will appear to be descending in relation to the crest of the mountains.

Descents are normally not a problem; don't forget to enrich the mixture, if required. Use the same indicated airspeed for high density altitude approach and landing. But, remember ground speed will be higher, resulting in a longer ground roll. Multiengine pilots, especially, should know density altitude prior to landing. If a go-around should be required the pilot should know if the airplane is above its single-engine ceiling.

The Flying Gourmet

by Jim Jellison

I gave up a long time ago trying to justify to others why I fly. What it all boils down to is having fun, sharing something you love, and living your life to the fullest. We aren't going to be walking this earth forever so you better enjoy it now and not wait until it's too late. Along this line of thinking, I rented the Mooney for a short flight and overnight stay in Oakdale. Why did I chose to fly when I could have driven over there in an hour and a half? Well, it wouldn't have been as much fun and my wife and I would have missed the opportunity to share a beautiful flight with two friends.

Larry and Carol picked up my wife and I at our house in Pleasanton and drove us to the airport on Saturday morning. We were off to meet two other couples in Oakdale and ride the Sierra Railroad dinner train. It was quite hectic getting off the ground and out of Livermore's Class D airspace. Saturday, mid-morning, on a nice day, is just too crowded for me. It seemed that we had just barely established a cruise at 5,500 ft when it was time to begin our decent into Oakdale. The flight had been smooth and Carol, our one concerned passenger, had decided that this wasn't such a bad way to travel after all. After a short wait on the ground at Oakdale, the taxi arrived and off we went for a 2.2 mile ride into town to the Ramada Inn where we were staying. Once we arrived we met up with the other four and explored the Oakdale Cheese Factory. We learned how gouda cheese is made, enjoyed some samples, and spent some quarters feeding the farm animals (sheep, goats, and lamas) out back.

The Sierra Railroad is an actual working railroad which runs some 49 miles up into the Sierra foothills, the passenger run is much shorter. The train offers a four course meal as well as a great selection of beer and wines. There were five choices of entrée for dinner included swordfish, steak, pork chop, garden pasta, and chicken. Among us we sampled four of the five and they were all delicious. Although it isn't as fancy as the Napa Valley Wine Train if you enjoy the clickity clack of a train ride while sharing a fine meal with friends then this may be for you. We boarded about 4:15 PM and were back at the station around 7:30 which left time for a gathering at the Almond Lounge, next to the Ramada, and some karaoke. If you're going to sit in a karaoke bar you have got to be drinking since the music seems so much better after you have had a few beers. We found the locals very colorful, as I'm sure they found us. If you happen to get Robin as your taxi driver you might want to ask if her partial plate is fitting better (it was killing her Saturday afternoon).

Oakdale airport, O27, is 43 nautical miles from Livermore on a course of 070 degrees. Sierra Railroads web site is www.sierrarailroad.com and the number for the Oakdale Taxi is (209) 869-5552.

Private Pilot Ground School

Ahart Aviation is very pleased to announce that the Summer Private Pilot Ground School will begin on Tuesday June 28th and be held every Tuesday and Thursday from 6:30 PM to 9:30 PM for 8 weeks. The ground school will cover the Private Pilot Jeppesen Materials, the Federal Aviation Regulations, Flight Planning, Navigation and Weather interpretation thoroughly preparing students for the Private Pilot written exam and oral exam.

Fred Abrams will be teaching the class and brings with him years of experience as a professional pilot and professional ground school instructor. The cost of the class is \$300 and as always once you have paid for the class you may take it as many times in the future as you would like at no additional charge. A course outline and syllabus will be available on our website and at the front desk early next week.

To register for the class please call the front desk at 925-449-2142 or use the schedulepointe system online.

Private Pilot Ground School

After the Emergency

by Robert Goldman

Smoke in the cockpit or a fire in flight are some of the scariest scenarios that we can face as pilots. We practice pulling the power to simulate losing an engine, but simulating a fire in flight is pure pretend when your instructor says something like, “oh look, your right fuel tank is on fire, what would you do?”

As three of us were flying from Livermore, CA (LVK – Northern California) to Bermuda Dunes (UDD – Palm Springs area), pretend became real.

First, the dash-mounted GPS gave us a message of “internal failure – turn off unit” which was annoying but not too bad as we brought out and fired up (maybe not the best choice of words) the portable unit. Then, at eleven thousand feet on an IFR flight plan, 60 miles from our destination, Comm1 bit the dust. We raised Joshua Tree Approach on Comm2, took our licks for being offline for 25 miles and soldiered on. I think we were briefing the approach when our rear-seat passenger pointed out smoke coming from the upper-right side of the panel. Not wisps, not flames, but somewhere in between—enough for us to vent the cabin soon thereafter.

We read about it, we train, we teach and I reached over and turned off the master switch and radio master. The smoke stopped. It was dark.

We were now about 35 miles from our destination and I fired (must come up with a better word) the radio back up to declare an emergency. Funny thing. We’ve all practiced the call and discussed it and we know how it makes people sit up and take notice, but nobody mentioned that you’d have to wait for a break in the other transmissions to do it. You think, it’s your emergency and you can just make the call. Finally, after fifteen or twenty seconds, I was able to declare and tell approach that we were going dark and would use our handheld GPS to get to the airport.

Many things were working in our favor: a CFII at the controls and a student in the right seat with about 40 hours plus a calm wife/passenger in the rear seat (who hopefully will fly again). I’d been to the airport about 10 times, with night landing experience. Joshua Approach notified the airport and it was busy, alive and prepared. Everybody, presumably, stayed out or was kept out of our way.

Long story short: we landed and followed airport personnel to parking near the maintenance facility.

Before we were out of the airplane, we were told the FAA/Approach wanted to speak to us. The trouper-of-a-

passenger needed to be on solid ground (I don’t think she kissed it). I had to deal with the line personnel, reassure my parents who were there to pick me up that we were fine, call the maintenance person, call the FBO owner, give a report to the FAA, unload the plane, check-in with the airport and thank them. It was a crazy ½ hour, combined with adrenaline and a host of emotions. It involved lots of decisions that were completely foreign.

Advice? Take a minute to catch your breath, be polite to those pulling you in different directions and prioritize.

We did nothing wrong except have things fail on us, but if it were a grey area, you might want to think things through and then call the FAA back. Deal with the people and passengers before dealing with the plane.

So, I finally got to say, “mayday, mayday, mayday” and the paperwork was—as advertised—non-existent, while the assistance was professional, first-rate and thorough. Things sometimes happen in an airplane and there is no place for panic; panic can’t land an airplane. Nervousness...fine. Concentration...you bet. Triple-checks...go for it. Stiff drink afterwards...priceless.

Using all available resources and working together, the three of us learned a valuable lesson just by having the experience and while I hope I never have another emergency, if I do, I’m confident it will be a lot easier to deal with.

Accelerated IFR Ground School

Back by popular demand is Fred Abram’s Accelerated Instrument Ground School which will be held on June 10th, 11th and 12th from 8AM to 5PM. This course is designed to thoroughly prepare instrument students for the Instrument Written and Oral exam and flight instructors for the Flight Instructor Instrument exam.

The cost of the course is \$400. Please sign up via schedulepointe or call the front desk.