

APRON RECONSTRUCTION AT U42

Reconstruction of the apron east of the north hangar and south of the corporate hangars at South Valley Regional Airport estimated completion date is July 10th.

U42 PLANE WASH OPENS

When the apron reconstruction project is completed on July 10th, the coin operated plane wash at South Valley Regional Airport (U42) will reopen.

OPS/MAINTENANCE BUILDING REMODEL

The Operations and Maintenance Building (formerly the Alta Aircraft Maintenance hangar) at South Valley Regional Airport (U42) in West Jordan is being remodeled. The project is scheduled to be completed by the first week of November.

NEW AIRFIELD BEACONS AT U42 AND TVY

The airfield rotating beacon towers at South Valley Regional (U42) and Tooele Valley (TVY) Airports have been replaced with state of the art rotating beacons and new 40 foot high stand alone, single-pole towers that can be lowered to ground level for maintenance.



TVY Airfield Rotating Beacon

Report Bird/Wildlife Strikes

<http://wildlife.faa.gov>

or call Steve Jackson at 801-575-2401

D A...YOU'RE HIGHER THAN YOU THINK

by Gary Buscombe

Due to a natural phenomenon called "density altitude" (DA) your plane will just not perform as well at many intermountain airports during the hot summer months. Warmed air molecules expand, making the air "thin" and that will greatly affect your plane's performance. Density altitude is simply a measure of air density.

Hot...humid...high, or all three... What can a concerned pilot do? Anticipating a potential density altitude problem, a pilot should carefully check the plane's performance tables in the operating handbook to be certain the craft will have sufficient runway to lift off and climb to safely clear obstacles or mountainous terrain. Remember, standard air temperature for your computations is generally only 36 degrees Fahrenheit (2° C) in our mountain valleys, not the normal 59 degrees Fahrenheit (15° C) of sea level flying. That means any outside ambient air temperature over 36 degrees F will increase the density altitude at many intermountain airfields. However, pilot awareness and even concern must significantly increase when OAT is above 85 degrees F (30° C) because your aircraft simply won't perform as well as it does in cooler temperatures and at lower elevations.

Off-loading some baggage could help. It is estimated that a 200 pound (one adult) reduction in gross weight will buy 500 more feet of runway. Summer mornings are much cooler than afternoons in the mountains and smart pilots will begin their flights near sunrise just after their first shot of caffeine. Cold air is denser; the engine will develop its potential horsepower sooner and the wings will create the needed lift earlier at standard or cooler temperatures. Remember sunglasses, though, for eastbound journeys; the early morning sun may be blindingly bright in your eyes.

Taking on less fuel is another way to limit gross weight. When you figure that your takeoff might require 2-3 times your needed sea-level length of runway and your climb rate is about one-half, every pound of weight reduction helps. Lastly, you could always delay or cancel your flight and remain safely on the ground if conditions warrant it.

Don't underestimate or ignore the effects of hot temperatures combined with high humidity and high airfield elevations! **LEAN ENGINE FOR BEST PERFORMANCE!**

Also, intermountain airfields' AWOS (Automatic Weather Observation System) announce the density altitude during their reports when DA altitudes are greater than 1,000 feet more than the airfield elevation. So monitor the AWOS on the ground before takeoff, or when approaching the airport from the air.

The combination of full fuel tanks, passengers, baggage, 80-95+ degree outside air temperature (OAT), and a still-rich mixture setting is a scenario for potential disaster. Even distant obstructions must be taken into account on a high density altitude day at intermountain airports. Experiencing strong downdrafts is not uncommon after takeoff as you begin your climb out.

The hottest months at intermountain airports (June, July, and August) are the most likely time for pilots to encounter high density altitude challenges.

During these summer months some planes seem to take off normally, only to settle back down onto the runway. The pilot may cut the power, but unless there is plenty of runway left, the potential to run off the asphalt and into the dirt or even perimeter fences is very real; some have hit the runway so hard trying to abort that they blow their nose wheel tires.

The effects of higher-than-normal density altitude do not discriminate between single-engine planes and the more powerful twins. Loss of an engine on takeoff in a twin may not allow a plane to fly safely on one engine at high density altitude.

To calculate density altitude you just need to know current pressure altitude (PA) and temperature. For temperature, you look at the thermometer in your airplane. For pressure altitude, set the window in your altimeter to 29.92. Whatever value it reads is pressure altitude (let's say 5,470). Easy! Now determine density altitude with this formula: $DA = PA + [120 \times (OAT - ISA \text{ Temp})]$

Hey, before your eyes glaze over, use the pressure altitude (PA) you just determined and the OAT in degrees Celsius read off your aircraft thermometer (OAT gauge). Let's say it's a balmy 35 °C today and ISA Temp is always 15 °C at sea level. To find ISA standard temperature for a given altitude, here's a rule of thumb: double the altitude, subtract 15 and place a negative (-) sign in front of it. (For example, to find ISA Temp at 10,000 feet, we multiply the altitude by 2 to get 20; we then subtract 15 to get 5; finally, we add a negative (-) sign to get -5.)

So, in the example above: density altitude = PA of 5,470 + $[120 \times (35 - 5)]$

Working out the math, the density altitude is 9,070 feet.

Enjoy Safe Summer Flying!

SLCDA GA NEWS ELECTRONIC OPTION

If you would like to receive the Salt Lake City Department of Airports' monthly general aviation newsletter by e-mail, send a request including your current e-mail address to: steve.jackson@slcgov.com.

HELPFUL POINTS OF CONTACT

For General Aviation operations, facilities maintenance, aviation newsletter, airfield, and SLC Title 16 questions contact: Steve Jackson, SLCDA General Aviation Manager, (801) 647-5532 or e-mail at steve.jackson@slcgov.com.

For hangar lease and repair questions: Matt Jensen, Airport Property Specialist at (801) 575-2957 or e-mail him at matthew.jensen@slcgov.com.

For aviation security questions call: Connie Proctor at (801) 575-2401.
For gate access problems call: Airport Control Center at (801) 575-2401.

For emergencies call: at SLCIA, (801) 575-2911
at TVY or U42, 911 then (801) 575-2911

For additional GA information call the GA Hotline: (801) 575-2443.

UPCOMING EVENTS AND NEWS

Leading Edge Aviation at South Valley Regional Airport (**U42**), West Jordan and at Logan – Cache Airport (**LGU**) hosts multiple events each month including breakfast fly-ins, dinners, and classes. For more information about Leading Edge events, visit: www.leaviation.com.

Skypark Airport (KBTF) in Woods Cross, Utah will host a monthly hangar breakfast at the airport on the third Saturday of each month throughout the summer. The FBO will offer self serve fuel discounts during the breakfast.

Thunder Over Utah, with the U.S. Navy's Blue Angel flight demonstration team is scheduled at the St. George, UT Municipal Airport (**SGU**) July 25th – 27th. Visit <http://thunderoverutah.com/> for more information.

Historic Wendover Airfield (ENV) will host its annual air show on September 5th and 6th. This year's show will go on with or without military support! It will feature a number of WW II aircraft along with ground exhibits, WW II re-enactment groups and some other fun activities. On Friday, September 5th, aircraft rides will be available. With a donation to the museum, rides can be arranged in a PT-17 Stearman, T-6 'Texan', CJ-6 'Nanchang' and possibly other vintage aircraft such as a B-25 'Mitchell'.

Saturday, September 6th will be the day of the air show flight demonstrations with ground exhibits, a car show, motorcycle ride and lots more! RV camping will again be offered on the east side of the ramp. For additional information visit <http://www.wendoverairbase.com/airshow>.

EAA 23, the Utah Chapter of the **Experimental Aircraft Association** will not hold a monthly chapter meeting in July. The next meeting will be held August 8th at the Civil Air Patrol Building at Salt Lake City International Airport.

Contact Shawn Crosgrove at shawn.crosgrove@msn.com or (801) 568-2571, or visit the EAA website at <http://www.eaa23.org/> for more information.

JULY FAA PILOT SEMINARS

Upcoming activity and seminar information is available at: www.faasafety.gov under the "Activities, Courses & Seminars" tab or contact Rick Stednitz, FAA Safety Program Manager at (801) 257- 5073.