SALT LAKE CITY DEPARTMENT OF AIRPORTS

GENERAL AVIATION NEWS

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U42 AWOS OPERATIONAL

The SLC Airport #2 AWOS is back in service again. The AWOS frequency is 134.425 MHz.

You may call 801-562-0271 to monitor current weather at U42.

Or… the AWOS may be accessed online by visiting www.saiawos3.com/KU42/sai.html for a graphic display of current U42 weather.

TVY BEACON BACK IN SERVICE

The airfield rotating beacon at Tooele Valley Airport is back in full service. It now has a 1,000 watt lamp for effective night time airport locating.

TENTATIVE GA BBQ DATE SET

September 27, 2008 has been tentatively selected as the date for the annual SLCDA sponsored General Aviation Barbeque at Airport #2. This year it is scheduled to be held in Mark Losee's Alta Aircraft Maintenance hangar.

U42 CONSTRUCTION

The contract has been awarded for U42 utilities infrastructure construction. Part of taxiway A between Farrell Davis' hangar north to the intersection of A and B taxiways will be closed during construction. A NOTAM will be issued and it will be clearly barricaded and marked. Tenants in rows A, B, C, and D will have to taxi to and from their hangars via the access near the plane wash during the two month construction period.

AIRPORT SECURITY

The GA community has generally been proactive in taking comprehensive steps in recent years to ensure both the pilot population and the aircraft are secure. Keep up the good work.

We urge GA pilots to follow the Airport Watch message to lock aircraft, watch out for each other, and report suspicious activity at our airports.

SLCDA is in the process of installing new and more secure electronic CASS gates at U42 and TVY. Padlocks on manual gates have been replaced with re-keyed, hardened devices. With these upgrades we can deter unauthorized access.

Your awareness and compliance is our best line of defense. Secure your aircraft (even in your t-hangars) and Report all suspicious activity to Airport Police at SLC by dialing 575-2405, local police at TVY and U42 by dialing 911 or to federal authorities by calling 1-866-AIR-BUST or 1-866-GA-SECUR.

SAFE INSTRUMENT DEPARTURE SECRETS

By Bill Knight in AOPA Pilot Magazine

Two types of instrument departure procedures exist… the obstacle departure procedure (ODP) and the standard instrument departure (SID). Each type is runway specific and will assure terrain clearance if flown correctly.

The ODP is created to provide a flight path that avoids obstacles in the terminal area after takeoff. The SID is created at busier airports primarily to reduce pilot and controller workload by charting standard instrument routings out of the terminal area, but a SID also may provide a method of obstacle clearance.

The ODP is usually published in a text-only format that describes how to fly a flight path that will keep the aircraft safe from obstacles after takeoff. A few complex ODPs are published in graphical format. SIDs are always published in graphical format.

Jeppesen makes ODPs and SIDs less of a secret because it files them with all of the other instrument charts for your departure airport and all you have to do is use them. If an ODP has been created for your departure airport, Jeppesen publishes it on the 10-9A page or the 11-1 airport taxi diagram in a table titled "Take-Off & Obstacle Departure Procedure." If a SID has been produced for your airport, Jeppesen puts it on its own 10-3 page.

Pilots using NACO instrument approach books have to look in two different places for ODPs and SIDs. If your departure airport has an ODP, it will be listed at the front of the book, away from the instrument charts, in a section titled "Take-Off Minimums and (Obstacle) Departure Procedures." If a SID has been published, it will be filed with the instrument approach charts for your departure airport.

When an instrument approach is developed for an airport, the procedure designer conducts an obstacle analysis to determine whether there are obstructions in the terminal area that are a threat to departing aircraft. According to the

--SAFETY FIRST--

Do NOT Store Fuel or Operate Open Flame Devices or Heaters Inside of Hangars!

Aeronautical Information Manual (AIM), if an aircraft may turn in any direction from a runway and remain clear of obstacles, that runway passes what is called a "diverse departure assessment" and no departure procedure will be published.

While conducting the obstacle analysis, the procedure designer assumes that departing aircraft will cross the end of the runway at least 35 feet agl and climb to 400 feet above the airport elevation before turning. It also is assumed that the airplane will maintain a rate of climb that will produce a climb gradient of at least 200 feet per nautical mile.

If the obstacle analysis identifies obstructions that pose a hazard, the procedure designer has four options to choose from to create a safe flight path:

- Establish a climb gradient steeper than 200 feet per nautical mile;
- Establish a steeper-than-normal climb gradient with increased takeoff minimums that allow the pilot to visually remain clear of the obstacle;
- Design a specific departure route; or
- A combination or all of the above.

When the FAA defines aircraft climb requirements, whether for aircraft certification or instrument procedures, most times it states those requirements as a minimum climb gradient expressed in feet per nautical mile instead of a minimum rate of climb expressed in feet per minute. That's because the FAA knows that to clear obstructions, altitude must be gained over horizontal distance.

Many ODPs and SIDs specify a minimum climb gradient that must be met to safety clear obstacles. Because air-craft-climb instrumentation is calibrated in feet per minute, preflight planning should include converting the required climb gradient into a required rate of climb. The key variable in this calculation is the aircraft groundspeed during climb.

Jeppesen makes the conversion process simple. Anytime a SID or ODP includes a minimum climb gradient, published nearby will be a table that shows the required rate of climb when a minimum climb gradient and groundspeed are cross-referenced.

NACO also publishes a rate-of-climb table, but there is only one in each volume of approach charts. Pilots must flip over to that table and consult if for the required rate of climb when a departure procedure includes a minimum climb gradient. The NACO table does provide a more detailed range of groundspeed than Jeppesen.

Tables aren't the only way to convert climb gradient to rate of climb. An E6B flight computer makes it easy work. Place the E6B's speed index under your expected climbing groundspeed on the outer scale. Then find the climb gradient on the inner scale and read the rate of climb required on the outer scale. This method has the advantage of a more exact calculation than is possible with a table.

After converting a few gradients into rates of climb, you'll realize what an impact wind has on an airplane's climb gradient. For once, a headwind is a good thing and a tailwind is bad because the higher the groundspeed, the higher the required rate of climb gradient.

Pilots may fly an obstacle departure procedure without specific clearance from air traffic control. In fact, ATC expects that departing pilots will adhere to it unless a controller has issued an alternate departure procedure. Once ATC starts issuing radar vectors or clears the aircraft off the ODP route, ATC takes on responsibility for terrain clearance, but it is assumed that the aircraft will climb at a gradient of at least 200 feet per nautical mile. At 100 knots groundspeed, this equates to a little more than 300 feet per minute.

Don't stop flying the ODP just because you hear the term "radar contact." ATC does not assume terrain clearance responsibilities until controllers actually issue radar vectors or clear the flight off the ODP route. And any ATC-issued heading or clearance off the ODP route may include restrictions to assure terrain clearance.

Flying a SID on an IFR flight plan requires a specific ATC clearance, but all other departure-procedure pilot responsibilities remain.

If the weather is such that the pilot can see and avoid obstructions, then it is not imperative that he fly the ODP, unless it is part of his ATC clearance.

A pilot departing IFR from an airport without a published instrument approach procedure need to review a sectional chart before departure because there will be no preplanned ODP for him to consult. Unless obstructions in the airport area can be avoided visually, the pilot will have to make his own obstruction analysis from the sectional. In some cases, it may not be safe to depart IFR if visual separation from terrain or obstruction cannot be accomplished. Nearby terrain or obstructions may be the reason there is no instrument approach published.

HELPFUL POINTS OF CONTACT

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

For hangar lease and repair questions call: Mike Rawson, Properties and Contracts Specialist, at 575-2894 or e-mail at mike.rawson@slcgov.com.

For aviation security questions call: Connie Proctor at 575-2401.

For gate access problems call: Airport Control Center at 575-2401.

For emergencies call: at SLCIA, 575-2405
at TVY or U42, 911 then 575-2405

For common General Aviation information call the GA Hotline: 575-2443

UPCOMING EVENTS

Leading Edge Aviation in Logan (LGU) holds a monthly breakfast on the 2nd Saturday of every month 8:00 a.m. – 10:00 a.m. in the hangar. Leading Edge also operates a facility at Salt Lake City International Airport. They'd enjoy seeing you there!

Air Center of Salt Lake, the FBO at Airport #2, has started up its summer Fly-in and Barbeque again. Dave Coats invites everyone to get a little flight time, see Utah's great scenery, and come eat some great food and visit with pilot friends and family at their West Jordan hangar the first Thursday of each month between 5:00 and 7:00 p.m. all summer long. For more information on this event visit www.aircenterofsaltlake.com .

Happy Independence Day!