

**NEW SECURITY GATE PROCEDURES U42**  
Effective February 1, 2010, all badge holders and tenants will be required to enter a PIN number in addition to a card flash to open the gates at South Valley Regional Airport. The PIN is the five-digit number you selected when you obtained your ID badge. If you do not remember your PIN, please contact the Airport Badging Office at 801-575-2423.

**SLCDA AIRPORT SECURITY AWARENESS**  
To ensure the security of the general aviation facilities at Salt Lake City Department of Airports' three airports, security procedures have been established which allow maximum authorized access while severely limiting unauthorized access. Failure to comply with these requirements not only compromises airport security, but can result in law enforcement action.

- Always wait for a vehicle gate to close before leaving the area.
- Doors and pedestrian gates that lead to secure areas must be secured or monitored; do not prop open.
- Vehicles must have appropriate company markings (readable from 50 feet) and an airport-issued ramp permit if driven outside leased areas.
- Never loan your ID badge to any other individual.
- All individuals must have in their possession an airport-issued ID badge and present it upon request.
- Guests and individuals not possessing an airport-issued ID badge must be under visual control of sponsors.
- When a badge is no longer needed, it must be returned to the badging office.
- Always secure your aircraft even in hangars.
- Maintain increased vigilance for and report;
  - Unknown/suspicious pilots and aircraft rental clients
  - Unknown/suspicious delivery personnel
  - Aircraft with unusual or unauthorized modifications
  - Persons loitering in vicinity of aircraft / facilities
  - Persons appearing to be under stress or control of other persons
  - Persons whose ID appears to be altered
  - Persons loading or unloading unauthorized or unusual payloads onto or off of aircraft
  - Immediately notify Airport Police if a vehicle / person follows you through a vehicle or pedestrian gate
  - For gate malfunctions, call the airport at 801-575-2401. At SLC wait at gate until airport personnel arrive

#### **TIE-DOWN TIPS**

By Don Cuenca in Piper Magazine

Recently, I had to deal with some tie down issues that made me consider how to best solve my challenges. As I evaluated the situation, I discovered five elements need to be considered to successfully secure your plane-position, chocks, straps/ropes, flaps/elevators and hangars.

#### **Safe Positioning**

I didn't like pushing my airplane back into its tie-down because just one slip on the wet tarmac would have set me on my rear end, and the airplane would roll away, dragging me with it toward a ditch. When my airplane was first delivered, there was only a temporary tie spot the airport authority offered me. It turned out to be sloped downhill, so I had to precariously roll my aircraft back into position, resting against the chocks, then tie down the wings and tail. If the plane were to roll away into the ditch, the tail would most certainly sustain damage.

As I contemplated my parking situation, I decided I really didn't like the precarious position the plane was sitting in. I was on the waiting list for a tie down more to my liking, so in the meantime, I bought a heavy paving stone to place behind one of the mains as a safety catch. Even then, as I stood back checking the plane, I noticed that the main tie-down ropes were angled toward the tail, such that a high wind could conceivably push the airplane over the chocks and stone and possibly allow it to roll toward the ditch-or at least half way, hanging on the ropes. This might not damage it as much, but it would take a tow of some sort to recover the plane from this position, as well as be embarrassing.

I didn't have to wait long, though, to move to my new tie-down area. I liked the new place better because it was on flat ground. However, due to where the tie-down's rings had been placed into the ground, the ropes also angled toward the tail here, so I parked the plane with the mains on the very back edge of the pavement, allowing the tie-down ropes to be vertical. I took the paving stone home and used it for something else, feeling that the tie-downs and the two by four-inch wheel chocks would be enough. Hmmmm,.. maybe not. Some experienced pilots recommend tying down aircraft with winds blowing across wings laterally while others recommend tie-downs with winds off the nose. The problem is winds off the nose can readily shift to strong winds off the tail. The more secure the ailerons, flaps, and elevators are the less damage that will be experienced.

#### **Chocks-the Higher the Better**

Effective chocks for long-term parking should be between three by three inches and half way up the wheel-the higher they are, the more leverage they have on the wheel if it tries to roll. You wouldn't think it would be such a big thing to have good chocks, but a quick look around the airport showed me that some of the chocks and ropes being used wouldn't do much to secure an

airplane. Forgetting to move my two by four-inch wheel chocks, I once just taxied right over them; chocks inadequate for long-term parking if you are able to taxi over them.

Again reviewing my parking setup, I thought good tie-down ropes and wheel chocks were all I would need-right? ...Maybe not. If a high wind came up, between 120 knots in a hurricane and 45 knots in a microburst, and was blowing directly at the airplane, the airplane would, in effect, be producing lift while tied down and that is not good for it.

First, you can imagine that the plane is not trimmed, and the gusts are going to repetitively pick it up as far as the tie-down ropes will let it and then drop it back down. The tie-down ropes may gain slack from the landing gear being compressed over and over.

Second, with all this jerking, ordinary ropes might eventually become untied, leaving the airplane tied down by only one or two tie-downs, which would cause the airplane to be tossed around more even flipped over. The more or even flipped over. The last tie-down might eventually break or cause the airplane to weathervane and to crashing into someone else's. Sure the insurance would pay for it, but from the experience of some of my friends, insurance payouts can seem like a loan when you discover your payment rates have been adjusted upward, after the fact. So mixing inadequate tie-down ropes and inadequate chocks with high wind may not be a good thing.

#### **Ratcheting Tie-down Straps Add Security**

This then got me thinking about what would be best to tie the airplane down, so I calculated my plane's empty weight with fuel. My airplane typically sits there at about 1,500 pounds, so if it were hypothetically lifted off the ground with no wind, the three tie-down ropes would have to hold at least 500 pounds each. This would mean the rope knots would also have to stay tied, resisting the 500-pound weight. With gusting, the plane is also likely to bounce and jerk hard on the tie-downs, possibly making the strain on the tie-down ropes much heavier than weight of the airplane.

With this reality fresh on my mind, I purchased three ratcheting tie-down straps, each with a 1,500-pound breaking strength capacity rating and with a work rating capacity of 500 pounds each. I thought that ratcheted straps would be more than rope and knots. It is necessary to read the fine print because the straps have two ratings, a breaking strength capacity and a work rating capacity; the work capacity is usually one-third of the breaking strength. I also found that twisted nylon and twisted poly ropes, about three-fourths inch in diameter, have a work capacity rated for about 1,000 pounds. Of course, what type of knot used on the rope determines how well the rope holds the airplane in place. The FAA recommends a bowling knot, which is 65 to 75 percent efficient.

#### **Retract Flaps and Elevators**

It is also advantageous to leave the airplane in a low-lift configuration, which in most cases means making sure flaps and elevators are not down. For example, if the elevator is down, the curved surface could induce lift when the wind blows over it, lifting the tail.

Locking the yokes, according to the airplane's manual will help disrupt the possibility of wind developing lift on the elevators, thereby relieving the strain on the tie-down straps.

## ***HELPFUL POINTS OF CONTACT***

**For GA operational, facilities maintenance, aviation newsletter, airfield, and SLC Title 16 questions call:** Steve Jackson, SLCD General Aviation Manager, 801-647-5532 or e-mail at [steve.jackson@slcgov.com](mailto:steve.jackson@slcgov.com).

**For hangar lease and repair questions call:** Mike Rawson, Properties Management Specialist, at 801-575-2894 or e-mail at [mike.rawson@slcgov.com](mailto:mike.rawson@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, 801-575-2405  
at TVY or U42, 911 then 801-575-2405**

#### **Hangars-Not Always Fail-safe**

Hangars, on the other hand, can enclose an airplane, keeping it from the wind. However, hangars have their own problems. Metal hangars are rated for a certain wind speed. In Florida, for example, metal buildings less than 30 feet in height must have a design wind speed of 120 mph at peak gusts, so as long as the wind does not exceed the rating, the airplane should be protected. If you know very high winds are forecast, and you can't move the airplane, it may be a good idea to tie the plane down inside the hangar.

A microburst can also be a dangerous source of wind for your parked airplane. In the beginning, a microburst is typically less than a mile in diameter as it descends from a cloud base to 1,000 to 3,000 feet AGL. It is in the transition zone near the ground that the downdraft becomes a horizontal outflow extending 2.5 miles in diameter, resulting in damaging horizontal winds near 45 knots within a few feet of the ground. The wind continues to increase for the first five minutes, with the maximum intensity winds lasting two to four minutes, putting a strain on any tie-down or metal building. For more information, see the Airman's Information, Manual, 7-1-26, "Microburst."

Recent years have been rough for some airports. Observations of upside-down airplanes have been in the news due to the southern coast being pummeled by hurricanes. An airplane is a terrible thing to waste, but we have a chance to prevent some of it!

#### **ELECTRONIC GA NEWS**

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](mailto:steve.jackson@slcgov.com).

#### **UPCOMING EVENTS**

Leading

Edge Aviation Logan (LGU) - Leading Edge Aviation has a free breakfast in their hangar on the 2nd Saturday of each month from 8:00 am to 10:00 am. For more information about Leading Edge events, visit [www.leaviation.com](http://www.leaviation.com).

**The SLC FAA Safety Team** is sponsoring the following seminar presentations during January:

**5 Jan** "Winter Weather Hazards" Ogden Airport Terminal Bldg, 7:00 pm.

**7 Jan** "Winter Weather Flying" Gore Auditorium, Westminster College Campus, in Sugar House, 7:30 pm.

**12 Jan** "CFI Workshop #6, Takeoff, Landings, & Low Altitude Maneuvering – Aircraft Operational Limits", Kibbie Executive Terminal, SLCIA 6:00 pm.

**12 Jan** "Flying GPS & WAAS Approaches" CAF Hangar, Walker Field, Grand Junction, CO, 7:00 pm

**19 Jan** "CFI Workshop #6", UVU Student Center, in Orem 6:00 pm

Non-CFIs are also invited to attend the CFI workshops. Additional information on the presentations can be found at [www.faasafety.gov](http://www.faasafety.gov) under "events" or contact Dennis Seals, FAA Safety Program Manager at 801-257- 5056.