

U42 AIRFIELD LIGHTING UPGRADE

Lighted advisory signs on the airfield at South Valley Regional Airport are being replaced/upgraded. The project should be completed by February 15.

Replacement will occur during daylight hours and the signs will be fully lit again prior to sunset each day.

We anticipate minimal disruption to ground taxiing traffic during the month. Appropriate NOTAMs will be posted as required.

FROSTED

Be aware of frost accumulations on your uncovered ramp tied-down aircraft when temperatures and dew points drop below freezing. When your aircraft's skin assumes an outside air temperature (OAT) below freezing temperature, that's when deposition takes place... a process where a gas turns directly into a solid and... water vapor in the air turns directly into frost.

Depositional frost is a fuzzy, whitish layer of ice crystals that can seriously deteriorate the lift of an airfoil. That's why all traces of frost must be removed prior to take off. Frost may also form on cold-soaked aircraft that fly into warm moist air, or when they pass through air that is supersaturated with water vapor.

Frozen dew is a type of frost that happens when dewdrops are subjected to subfreezing temperatures. Frozen dew is common after rain drops from a fall or winter cold front passage are subjected to the subfreezing temperatures of the advancing cold air.

Frost may appear benign but it can often be deadly... take frost accumulations on lifting surfaces seriously.

To best anticipate and properly prepare for frost, check the local AWOS for temperature and dew point information before you turn in for the night. Then allow plenty of time to thoroughly remove all frost and traces of melted ice on lifting surfaces prior to departure. Never use ice scrapers or hammers to chip ice from your aircraft's wings or propellers.

If you can make arrangements to move your aircraft into a heated hangar for an hour or so or if you can delay your take off until a time after the sun is high enough to melt the frost from your wings chances of a safe take off and flight are increased significantly.

U42 AWOS phone is 801-562-0271
TVY AWOS phone is 435-882-6648

THE HAZARDS OF AIRCRAFT ICING

By Eric Simmons in *Ezine On-line Magazine*

Many people who fear flying only comprehend the hazards of icing condition involving airplanes taking off. Icing can be a hazard for aircraft in flight too. When it comes to icing, you should always have respect for it. The FAA always emphasizes having a "clean" airplane. That has been hammered into the brains pilots since their first days in flight school. Basically, having a clean airplane means having no ice, snow, or frost adhering to the airplane. Airlines make sure that all ground personnel receive yearly training on how to properly deice the aircraft prior to take off. Only experienced ramp personnel are allowed to deice aircraft. Communication is very important. They are trained on applying the solution at the right temperature; the proper de-ice mixture ratio; and where to apply it on the aircraft.

Airline pilots are trained to make sure they depart the gate only with a clean airplane, and if there is any doubt they will get the airplane deiced anyway. Usually in the cockpit both pilots take time to physically check to see if there is any ice on the airplane. Sometimes flight attendants or ramp personnel will be the first to notice it, and bring it to the pilots' attention. Departing with a clean airplane is a collective effort with everyone working together as a team to ensure a safe flight. But, ultimately it is the captain's command responsibility.

Once you are airborne, icing problems don't just go away. Most turboprop and jet powered aircraft have anti-icing systems to prevent ice build up on certain critical parts of the aircraft. For example, they usually will have engine anti-ice to prevent ice build-up in the engine intake. There are wing anti-ice heaters on jets to melt ice from the wings. Turboprops often have boots that inflate like a balloon to break off ice on their wings. Other features are windshield anti-ice, fuel heat to prevent ice build-up in the fuel lines, and anti-ice that heat certain external probes that feed aircraft instruments. Airplanes that have all of these features are approved to fly into icing conditions.

But, just because you are approved to fly into icing conditions does not mean pilots will remain at an altitude in prolonged icing conditions unnecessarily. Always want to try to get out of icing whenever feasible. Icing degrades aircraft performance and aerodynamics so there's no incentive to stay in it. Staying in icing conditions produces drag, and makes the airplane heavier thereby wastes fuel unnecessarily. Furthermore, for airplanes not approved for icing conditions this could be very dangerous. Most general aviation single engine type airplanes and some light twin engine airplanes are not approved for flight in icing conditions.

Flights in visible moisture such as clouds, rain, drizzle, and in the right temperature range between plus 6 degrees Celsius and minus 15 degrees Celsius will probably accumulate ice.

HELPFUL POINTS OF CONTACT

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

For hangar lease and repair questions contact: Mike Rawson, Properties Management Specialist, at 801-575-2894 or e-mail at: 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**

There are some exceptions when you could still get icing conditions in slightly colder conditions such as flying through cumulonimbus type clouds. But generally, it's difficult to pick up icing when below minus 20 degrees Celsius. If you are flying in clear blue skies, you will not get in flight icing. Icing is measured on a scale from light, moderate, and severe. Any aircraft that is approved to fly into icing condition will generally not have a problem in moderate conditions.

But, you will probably want to change altitude soon to get out of icing conditions as soon as possible. Severe icing can cause a lot of problems for any airplane, even those approved for flight in icing conditions. Basically, it means ice accretion is continuously making the aircraft's anti-ice systems ineffective.

Severe icing is more of a problem at lower altitudes, but a quick change in altitude will usually get you out of it. At the higher flight levels where most commercial jets fly, it's generally too cold to pick up icing. If an aircraft in severe icing doesn't change course, or altitude soon it could be in real danger. Fortunately, severe icing condition doesn't happen often.

There are basically two types of in flight icing. Rime ice is formed when super cooled water freezes on contact with the airplane's wings. Rime ice looks granular... it is opaque white with entrapped air. The other type is clear air ice. Clear air is a glossy form of ice a little harder to notice visually. It's a slow freezing of large super cooled water droplets. It forms a sheet of ice.

Regardless of the ice form there are some clues that trained pilots could notice when they are picking up icing in flight. When pilots fly into visible moisture most pilots instinctively look at the temperature gauge in the cockpit to see if they are in the temperature range to get icing. One big clue is the metal rod on the windshield wipers during flight in conditions conducive to icing because ice will begin to visibly build on them. Also, you may notice a slight decrease in your airspeed. You may also experience a harder time maintaining altitude.

Finally, one last icing condition that is dangerous to all aircraft is freezing rain. This is another rare type of icing. Most general aviation aircraft are not approved to fly in freezing rain. Generally, the best thing to do is to avoid areas of freezing rain, or cancel the planned flight. Freezing rain makes anti-icing systems ineffective.

Captain Simmons is a MD-80 pilot for a major air carrier with over 20 years experience. To learn more, please visit website <http://www.flyinganxiety.com>.

GET INVOLVED

Believe it or not... YOU CAN MAKE A DIFFERENCE!
American aviation is a very energetic and dynamic environment that is subject to the scrutiny and questions of all outsiders, the media, and the general public. You can help. Your input is vital to the health and well-being of general aviation. There are many citizen concerns; noise, crashes, encroaching housing near airports, and educating the public just to name a few.

What's the answer? GET INVOLVED no matter what your interest in aviation is; there is a group addressing that interest. Being involved means that you have the collective power that comes with being associated with the aviation affiliate group to which you belong.

For more information about local aviation organizations, visit www.aopa.org www.uaoa.org, www.eaa23.org www.uqaa.org or www.utahbackcountrypilots.org

ELECTRONIC GA NEWS 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

UPCOMING EVENTS AND NEWS

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

Skypark Open House Bountiful (BTF) is scheduled for June 4 2011 from 9:00 a.m. to 3:00 p.m. Food, activities, and aircraft displays are scheduled. More information will follow in subsequent issues.

2011 Wendover Air Show Wendover (ENV) - This year's Wendover Air Show is scheduled for June 25. For more information, visit www.wendoverairbase.com.

LOCAL FAA PILOT SAFETY SEMINARS

CFI and Pilot Workshops for February:

CFI Workshop #2 Technically Advanced Aircraft/ GPS - Preventive Maintenance for Pilots.

Feb 4 - 8:00 a.m. - Westminster College, (SLC) Kibbie Executive Terminal

Feb 17 - 6:00 p.m. Dixie College, Udvar/Hazy Building, St. George

Feb 23- 8:00 a.m. Utah State University, Flight Operations Building, Logan Airport (LGU)

Other Safety/Educational Meetings:

Feb 16- 6:00 p.m. Cedar City Airport (CDC) - Sphereone Aviation

Feb 24 - 7:00 p.m. Spanish Fork Airport (U77) - Monthly Safety Meeting

Feb 28 - 7:00 p.m. Utah State University - MACA (Mid Air Collision Avoidance) Briefing by Hill AFB

Non CFIs are also invited to attend the CFI workshops.

Information is available at www.faasafety.gov under "events" or contact Dennis Seals, FAA Safety Program Manager at 801-257-5056.