



TVY ILS UPDATE

The new Instrument landing system at Tooele Valley Airport has been installed and fully flight tested. The FAA informs us that the approach is scheduled to be published in the April 2008 approach plate edition.

TVY APRON EXPANSION

The north apron (near the Skydive facility) expansion project commenced on March 24th. The expanded apron will increase the number of ramp tie-down spaces and will accommodate business jet parking. Since the self-serve fuel island will be relocated to the east, effective immediately 100LL fuel is not available at Tooele Valley Airport. We anticipate providing 100LL fuel again when the system is again after the first week of May.

TVY BEACON OTS

The airfield rotating beacon at Tooele Valley Airport remains out of service. Parts are on order but repair is estimated to be still several weeks away.

CURRENT U42 CONSTRUCTION

You may have noticed the excavation on the south east corner of the airport. That construction is a retention pond expansion project under the direction of West Jordan City. It will not impact aircraft or airport operations and is expected to be completed in May.

MAINTAINING AIRWORTHINESS

By Steven W. Ells in AOPA Pilot Magazine

Aircraft maintenance technicians are required to complete documents providing detailed instructions for continued airworthiness (ICA forms) when a major repair or alteration form is submitted for a field approval. Maintenance manuals (especially the manuals covering newer aircraft) contain many suggestions for maintaining airworthiness.

Some tasks in maintaining airworthiness are well understood. Everyone knows that all internal combustion engines need regular oil, oil filter, air filter, and spark plug changes. These periodic services and changes increase dependability. Most everyone also understands that keeping an airplane clean cuts down on wear and corrosion. But other continuing airworthiness tasks aren't as obvious.

The reason for continued airworthiness is to reduce the likelihood of component failures, unscheduled breakdowns, and delays. The consequences of ignoring or putting off

continuing airworthiness tasks can vary from inconveniences to life-threatening events.

Involved owners collect data from various sources to determine parts replacement times. Some of the sources that help owners establish the component replacement guidelines for their airplane are the experience of other owners of similar airplanes, the experience of maintenance technicians, especially technicians who work where the airplane will be based, and the manufacturer's maintenance manuals, service bulletins, and letters.

Preventive maintenance always costs less in the long run. This is not immediately apparent because setting up a comprehensive maintenance schedule requires that new owners be willing to spend some money almost as soon as the prop stops after the flight home. This cash will be used to conduct in-depth inspections of some highly critical components. The goal of this step is to establish starting times on the airplane component replacement schedule.

The first dollars should be aimed at critical components, starting with the engine. Magnetos should be overhauled or exchanged every 500 hours. This is because of the wear of internal components and the fact that spark power drops as the components wear. Losing a magneto during a hot and heavy takeoff will really get your attention.

Most aircraft hose manufacturers recommend that owners replace every flexible hose on newly acquired used aircraft (especially critical firewall forward hoses such as those used to transport the engine fuel and oil) unless maintenance records or date tags attached verify that the hoses have been replaced within the past five years. Landing-gear, brake, and retractable-landing-gear-system hydraulic hoses also need to be checked.

Maintenance manuals recommend that these hoses be replaced every five years, but unless the hoses are routed very close to high-temperature components, such as turbocharger or exhaust systems, this is pretty conservative. A more common interval is at engine change or 1,000 hours, whichever comes first.

Turbocharger installations require additional maintenance. If proper cool-down procedures are followed and peak turbine inlet

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temperatures are not exceeded, the components should make it to the 1,000-hour mark without any problem. But the check valves in the oil feed and return hoses should be overhauled or replaced at 1,000-hour intervals.

Wire-type mixture, alternate air, and carburetor heat controls are easy to ignore. A common rule of thumb says to change all engine controls at each engine change or overhaul. It's so much easier to ensure that the controls are routed correctly and free of kinks and twists if the engine is out during control installation.

Remote-mounted oil coolers accumulate a surprising amount of carbon. If the maintenance records don't show that the cooler was refurbished at the last engine overhaul, plan on flushing the cooler, or sending it to a cooler repair station to be cleaned.

Propeller governors should also be changed or overhauled at each propeller change or overhaul.

Propellers require regular maintenance and it's cheaper-and a lot of safer-to send them in every five years for a tune-up than it is to wait. If these intervals are extended, there's a greater chance of having to pay big bucks to replace major internal parts that are rusted beyond repair.

Today's dry-type pneumatic pumps-vacuum and pressure-are both a blessing and a curse. They're good because their use eliminates paraphernalia such as hoses, oil return lines, and air-oil separators that are required with wet-pump installations. That's countered by the fact that when a dry pump fails there's rarely any warning. And the odds of a failure go up as the hours in use increase. Therefore, dry-pump health should be monitored with a wear port if the pump has one or should be replaced at the manufacturer's suggested intervals, which can vary from 500 to 800 hours.

Carburetors and fuel control servos should always be overhauled concurrently with major engine overhauls, or at the equivalent number of hours since last overhaul.

Exhaust system heat exchangers... the part of the system that looks like a muffler-have a finite life. It's smart to send the entire exhaust system to an exhaust repair station during engine overhaul. At the first sign of deformation of the flame tubes or cones, remove the part and send it in for repair.

Massive electrode-type spark plugs have an effective life of 300 to 400 hours if they're serviced and rotated on a regular basis. Fine wire-type plugs make more sense over the life of an engine since studies have proven that they're more economical in the long run and resist fouling better than the cheaper massive electrode-style plugs.

Following these steps will significantly reduce the number of maintenance-related delays and will save money in the long run.

Pneumatically driven gyroscopic instruments...the artificial horizon and directional gyro work best and last longest when the airplane is flown regularly. With daily usage these instruments last 1,500 to 2,000 hours before an overhaul is needed. Gyros of under-flown aircraft usually don't last as long because of bearing lubrication migration that takes place while the gyros are at rest.

Central gyro system filters and relief valve garter-style filters should be changed every 500 to 100 hours, respectively.

Seat belts and shoulder harness assemblies that are faded, are missing TSO tags, are more than 10 years old (the date of

HELPFUL POINTS OF CONTACT

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

For hangar lease and repair questions call: Mike Rawson, Properties Management 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

manufacture is printed on the tag), or have broken or missing stitches may not be capable of maintaining rated strength and should be replaced.

Fire extinguishers should be checked for a proper service date, and serviced if necessary.

Tires are also affected by ultraviolet light. This damage can be detected by a close inspection of the sidewall and tread area for cracks and thin spots. Pilots sometimes mistakenly rationalize that the main landing-gear tires and tubes take all the abuse so it's OK to keep flying with an aged nose tire. When cracks appear it's time to start looking for a new tire. Always buy a new tube when the new tire is purchased.

Fuel bladders (even those manufactured of the latest multi-ply nitrile rubber) also have finite lives. It's not that unusual for a bladder to last 20 years, especially if the airplane has been hangared. But check the maintenance records for the age of these components and if they're more than 10 years old, they're moving toward retirement.

Maintaining continued airworthiness is an ongoing job that requires knowledge, diligence, and persistence. The payoff for following through with discipline is the confidence that comes with knowing that your airplane is well maintained, dependable, and safe.

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!

Utah General Aviation Association (UGAA) has scheduled a Fly-in to Smiley Creek, ID campground for June 15 (Father's Day Weekend) for more information visit their website at www.ugaa.org.



--SAFETY FIRST--
Do NOT Fuel or Start Aircraft
Inside of Hangars!