

Bringing the stress level down

Safety

First

Continue recurrent training

Exercise good judgment

Maintain personal health

Maintain proficiency



by Felix Tormes, MD

Maintaining an aircraft becomes an overly burdensome obligation as an aircraft ages. Nonetheless, it's a common sight at many air shows to see well maintained 60 year old aircraft flying acrobatics. Absent corrosion of critical components such as wing spars, a well-cared for normal category airplane may remain airworthy decades longer than the pilot. Many of us who have "bonded" with a particular aircraft have been careful to practice preventive maintenance, thus amortizing over time the cost of keeping the aircraft in the air. This method is time proven and effective for airframe components. Avionics can be upgraded, often to the level of sophistication seen in new aircraft.

The same criteria is not applicable to powerplants. There is a philosophy, espoused by aviation writer Mike Busch, that argues against time-based replacement/overhaul, in favor of reliability-centered maintenance. (see <http://www.avweb.com/news/savvyaviator>). For example, overhaul of an engine that clicks over TBO but is not consuming oil, maintains good compression, and shows no evidence of undue wear by oil analysis and boroscope exam may not be the best strategy. Application of this maintenance concept led to large savings to airline fleets, and even though they were dealing with turbine engines, it can be demonstrated that reciprocating engines can also be managed this way. Prudent application of reliability-centered maintenance, discussed with your mechanic, can be factored into your risk management/cost equation to mitigate the economics of flying. Crunch time for us is the annual inspection, when your mechanic hands you the cost of repairs/replacement for the year. I have a personal pact with myself that at whatever point I can't provide *recommended*, not just required maintenance, the plane goes on the market. I had a near miss with that decision recently when the plane required an engine change. Had I been flying a twin, I would have been in deep kimchee. After installing a factory reman from Continental, fail-over mode for the motor went from attrition related failure to infant mortality failure. Within 40 hrs of flight time, the # 3 jug compression in a brand new cylinder went to 45/80, and the plane was back in the shop for an exhaust valve repair. New is not always better, and Busch may be right. You may want to review that web site.



Did you know?

The average number of FPA member logged flight hours is over 2,300

On another subject, I have a *Mooniac* friend at PNS who enjoys flying approaches, as do I. We typically shoot several approaches in his plane, land and go out again in mine. This has been, bar none, the best method of staying sharp in this area, all for the cost of fuel burned. Sitting in the right seat and watching a fellow pilot sweat can be just as fun and instructive as doing it yourself. PNS recently reopened RW 35/17 after an 18 month shutdown. We now have 2 runways 17/35 and 8/26 and eight IFR approaches. When 17/35 was out of commission, we lost the ILS and in the interim, I put in a WAAS upgrade into G 530. We recently went out on a great IFR day, with mild turbulence, no convective stuff, and a 900 ft ceiling, to do the re established ILS 17 approach. It was the first time I had flown an approach below a thousand feet in actual conditions after the WAAS upgrade, and I was glad there was another pilot in the right seat. There are nuances in the switch to WAAS that you want to know about before conducting an IFR approach to minimums. Here's a thought for you dear reader: fly *every* listed approach to home field under the hood or actual conditions to minimums, *including* the missed approach procedure to the hold. Then, if you find yourself returning home IFR, tired on Sunday night, you will know that whatever approach they throw at you, you've shot it before in the same airplane and with the same avionic stack. That will bring the stress level down one notch.

I will also take this opportunity to shamelessly plug the Pensacola Beach Dixie Meeting in April. We have a great meeting planned that you will really enjoy. Check out the particulars in the FPA web site (registration form on page 9) and put it on your calendar. And forget all that IFR stuff above. It will be VFR the day you get here. I promise.

Nil illigitimae corborandum