



Interagency Aviation Lessons Learned



No. IALL 10-01

November 12, 2009

Page 1 of 2

Subject: Aircraft Lessons Learned - Aircraft Pre and Post Flight

Area of Concern: All Aviation Activities

Distribution: All Aviation Users

Discussion: On July 27, 2009, a pilot flying a Cessna 185F, heard an unusual sound coming from the left landing gear box and thought that the shims, normally used with the landing gear, were loose. After the flight, an inspection by a local repair facility found not only damage to the landing gear box, but damage to the elevators and rudder fairing as well.

The landing gear box was cracked in the lower forward corner. The outboard hinge and spar of each elevator was cracked, compromising the structural integrity of the flight control, and the rudder fairing skin was cracked and buckled. The pilot said that he did notice the damage to the rudder fairing (oil canning) but didn't report it because he didn't think it was significant since it wasn't unusual if the aircraft was moved improperly. But he certainly didn't know how the other damage occurred.

Another pilot had flown the aircraft several times before this mishap. But he didn't notice any damage either and said that he didn't have an incident that would have caused any damage.





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Page 2 of 2

Just a few weeks prior, on July 8, 2009, a pilot had to make a precautionary landing on a lake (yes, the aircraft was configured with floats) when oil began to stream from his aircraft. Just prior to the flight, the aircraft was serviced and the oil was changed. When the servicing was completed, another pilot assisted in getting the aircraft ready for flight. Although both pilots looked the aircraft over, neither one noticed that the oil cap was loose. Fortunately the pilot was able to find a suitable landing area, establish radio contact, and get help quickly.

LESSONS LEARNED: The lessons learned are provided for future mishap prevention purposes.

Since we began tracking pre-flight issues reported to the SAFECOM system in 2004, there have been approximately one hundred incidents reported. Incidents ranging from starting an aircraft with the propeller/rotor blades tied down, to aircraft passenger and cargo doors not properly latched to fuel not properly checked or fuel/oil caps not securely installed.

Proper mission preparation and effective crew resource management (CRM) includes a preflight and post-flight of the aircraft by the pilot and a “look over” by all personnel involved in the flight. A pilot should never assume that a previous pilot did a thorough post-flight inspection. Ample time should be planned prior to the flight to conduct a thorough preflight. It is the responsibility of the Pilot-In-Command (PIC) to conduct a thorough pre and post-flight of the aircraft (351 DM 1.1E) and to ensure that all maintenance issues are brought to the attention of appropriate personnel. It is a violation of FAA policy to knowingly pilot an un-airworthy aircraft (FAR Part 91.7).

Had a proper post-flight inspection and a proper pre-flight inspection been conducted, damage to the one aircraft would have been found. Instead, lives were put at risk by flying in an un-airworthy aircraft. For additional information, see Interagency Safety Alert 06-03 “Duties Requiring Additional Attention to Detail.”

**A thorough preflight – Do it for yourself. Do it
for your passengers.**

/s/ John Mills
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