



Department of the Interior Lessons Learned

No. DOI LL 14-01

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Subject: Documentation of Maintenance Actions

Area of Concern: Aircraft Airworthiness

Distribution: All Aviation Activities

Discussion: Damage on the left wing of a contractor owned, bureau operated aircraft used for aerial supervision was discovered by the pilot early in one fire season and brought to the attention of the contractor maintenance personnel. The damaged area was inspected and determined to be airworthy by the contractor mechanic. After consulting with the contractor's senior maintenance and management personnel, the decision was made to "monitor" the damaged area. After transiting through an area of moderate turbulence a few months later, the pilot requested a "turbulent air" inspection. The inspection was completed and no additional damage was discovered. The aircraft continued to fly for the rest of the fire season with the pilots and contractor maintenance personnel "monitoring" the damaged area on the wing. At the end of the fire season, the aircraft was inducted into the contractor's winter maintenance program where other mechanics raised concern over the extent and location of the damaged area. After consultation with the manufacturer's Repair Design Office, the wing was determined to have suffered substantial damage which met the NTSB accident criteria.

None of the unscheduled maintenance inspections were documented in the maintenance logbook as required by 14 CFR Part 43.11 and the Exclusive Use contract. Had it been documented, it would have alerted pilots flying the aircraft to take special notice and most likely necessitated further inspection by qualified maintenance personnel that would have resulted in the aircraft's removal from service.

Pilots have a responsibility to conduct a thorough pre and post flight of an aircraft (14 CFR Part 91.3 and 351 DM 1.1E). Since the aircraft was deemed airworthy after the first and second inspection, pilots who flew the aircraft became accustomed to seeing the damaged area and didn't notice that the damage had progressed slowly over the season to the point where the aircraft was no longer airworthy.





DOI pilots flying fleet aircraft are responsible for reporting any discrepancy in accordance with 350 DM 1. Failing to document a discrepancy (especially one that involves the airworthiness of the aircraft) in order to meet mission requirements is inexcusable. DOI aircraft must be maintained to these standards to ensure safety and aircraft longevity. In the very near future, OAS Technical Services Division will be publishing OAS Special Emphasis Item (SEI) 14-03, *Aircraft Stewardship*. This SEI will outline specific responsibilities and reporting requirements for fleet aircraft. Additionally, proper documentation in the daily dairy helps to ensure visibility of aircraft issues.

The Moral of This Story

Pilots and aircrew – if you have any question about the airworthiness of an aircraft, **DON'T FLY IT**. Don't put your life and the lives of others in jeopardy if you are not 100% sure. If you fly an aircraft on a repetitive basis, approach each preflight as if it were a completely different aircraft. Don't become complacent in accepting an aircraft with visible structural damage just because it flew without any noticeable differences. Be sure to continue to question it if you're not completely satisfied with a maintenance decision and seek assistance from your bureau management or OAS.



Would you fly this aircraft?

/s/ Keith C. Raley

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