

January 21, 2014

Re: hard landing at Still Waters Farm

The property owner met me at KBHM and we flew from there to his farm in Pell City, AL to look over his newly installed alarm system and get pictures of the farm. We toured the property before landing discussing how we could take pictures and then landed uneventfully. I got his camera from the chin area and talked about how I would fly around the borders so he could get the photos he desired. We departed & flew the plan returning to the previous landing spot. While descending into the confined area approximately 25-35' AGL (concentrating on the obstacles on either side) there was a "snap/pop" with an immediate "over-revving" from the engine. The aircraft started descending and due to the undulating ground below I could only extend our flight slightly forward to the intended level spot. Within 3 sec. or so we were touching down hard having used all available rotor speed. The engine was still running with no rotor motion, I cut the magnetos off to kill the engine, turned off the battery switches and after asking if he was okay (he said yes), we exited the aircraft. Pulled the fuel shutoff and we walked to his house.



/ Jeff E Milam

Date: 01/21/14 @ 1437L
Investigation Report Rotorcraft Accident N93067
NTSB# ERA14LA099
Porter C. Mayberry
PMI- FSDO-09

The Alabama FSDO received the following initial information from SDF ATC on 01/21/2014:

N93067 DEPARTED BHM AIRPORT ENROUTE TO PLR. FLIGHT FOLLOWING WAS TERMINATED. AIRCRAFT WAS REPORTED TO HAVE MECHANICAL PROBLEMS COULD NOT SUSTAIN FLIGHT

Rotorcraft N93067

Myself and inspector Alewine arrived on scene at approximately 0800 on 01/22/2014. We located the helicopter in a field at 7146 Dry Creek Road, Pell City Alabama. Initial review of the situation revealed the helicopter sustained an extremely hard landing and appeared to have stuck the ground right side first due to the right skid plate being bent and the helicopter fuselage resting on the ground. A three foot section of the main rotor was detached and the same rotor blade was split from the leading edge about 10 to 12 feet toward the mast. The rotor was wooden with a fiberglass covering and a metal leading edge. The opposite rotor showed no signs of damage. The tail rotor and part of the tail boom were found resting approximately 40 feet away. The helicopter had fuel. The engine oil dipstick revealed oil at the bottom of the stick (this was due in part to the angle in which the rotorcraft came to rest). Electrical wiring seemed normal with no indication of burned or chaffed areas. There was collective continuity as well as cyclic. The throttle linkage was connected to the carburetor and revealed continuity as well. The main rotor, when rotated, turned the tail rotor drive shaft. A section of the tail rotor drive shaft was located approximately 180 feet away about 12 feet up in a tree. We could not ascertain tail rotor pedal control due to the tail rotor section departing the helicopter on impact. (Based on the indicator marks on the main rotor, upon impact the main rotor struck the tail boom near the center and severed it from the helicopter). There was no indication from the pilot of any issue with the flight controls and our inspection would verify the flight controls were operational at the time of the crash. Approximately two hours after being on site the helicopter owner, Jeffery Milam showed up and we gathered information from the logbooks and also verified his credentials. After discussions with the NTSB, the rotorcraft was released to the owner with the following instructions: While he was allowed to relocate rotorcraft to another location, the engine, clutch, and transmission were not to be touched by anyone. I informed him this was part of an ongoing federal investigation due to a possible airworthiness concern. I informed him I would be in touch and would let him know what action the NTSB would require. All pictures were forwarded to Todd Gunter of the NTSB on 01/23/14. **END**

Porter C. Mayberry
PMI-FSDO-09



U.S. Department
of Transportation
**Federal Aviation
Administration**

Alabama & Northwest Florida
Flight Standards District Office

1500 Urban Center Drive, Suite 250
Vestavia Hills, AL 35242

January 23, 2014

Inspectors Statement for Rotorcraft N93067 accident in Pell City, Al

On 01/22/2014 I was assigned to assist FAA IIC Porter Mayberry, in the investigation of Rotorcraft N93067 which had crash landed in Pell City, Al on 01/21/2014. Inspector Mayberry and myself arrived on scene at 0800 01/22/2014.

The rotorcraft had made a hard landing and had sustained substantial damage including a section of the tail assembly torn from the rotorcraft located 38 feet from the rotorcraft to the right. Also of interest was the location of the tail rotor drive shaft section, found 180 feet away and 12 feet up in a tree. I assisted by taking photos of the rotorcraft and the surrounding accident site, constructing the accident diagram and searching and documenting the debris field, which extending nearly 200 feet in a southeast direction as depicted in the site photos and accident diagram.

At about 10:00 am, the pilot and owner of N93067, Mr. Jeff Milam arrived to provide his statement. During this time IIC Mayberry and myself reviewed his statement, documented his certificates and medical and reviewed and documented his maintenance logbook for N93067. Mr. Milam stated that he had flown over from BHM with Mr. Gunter, a passenger and the owner of the property where the rotorcraft had crash landed, to take aerial photos and show the property owner the new security system that had been installed by Mr. Milam.

He went on to state that during their second landing at about 25 to 35 feet AGL he heard a "Pop" and the engine then rev'd really high and they started dropping to the ground. Both the pilot and passenger sustained minor injuries and only the passenger went to the hospital to be checked out. During our conversation with the passenger, he said he was only bruised and was home resting. As we wrapped up the site investigation, IIC Mayberry received the OK to release the rotorcraft to the owner with the condition that he notifies the FAA and NTSB of the location of N93067 and that no maintenance can be done to the engine or drive mechanism without prior notification to the FAA and NTSB, so that it can be witnessed.

Kevin L. Alewine
Asst. Principal Maintenance Inspector



RECORD OF CONVERSATION

Todd Gunther
Air Safety Investigator
Eastern Region

Date: January 23, 2014
Person Contacted: Jeffrey Milam (Pilot)
NTSB Accident Number: ERA14LA099

According to Mr. Milam, his passenger was a customer of his that he had put in an alarm system for. His customer had some property of approximately 100 acres.

On the day of the accident he flew the customer from BHM out to the property and then flew around it, while the customer took photographs. He then landed on the customer's property and then took off again so he could take some more photographs. During the second flight, as he attempted to land at the same spot he took off from, he heard a "Pop," and "the engine raced away." He immediately "pulled collective," but he was close to the ground, and the helicopter "touched down hard," and one of the wooden main rotor blades, struck the tail.

About flight 15 hours before the accident, he had the engine replaced. The helicopter had originally had a Franklin 6V-335 engine in it which was getting "tired." In June of 2013 though, he bought a Franklin 6V-350 from a mechanic in Brewton, Alabama who then removed the old engine for him and installed the new one.

When asked if he had done any upgrades to the drivetrain, or upgrade or replace the clutch during the installation, Mr. Milam advised that he did not believe so.

When asked if the mechanic had filed an FAA form 337, he stated that "I do not know if he did."