



MEMORANDUM FOR RECORD

Stephen Stein
Air Safety Investigator
National Transportation Safety Board
Office of Aviation Safety - Eastern Region

NTSB Accident Number: ERA15FA173
Aircraft Registration & Make/Model: N50KH; Bell 206 L-1 Helicopter
Accident Location: Saucier, Mississippi
Accident Date: March 30, 2015

The National Transportation Safety Board helicopter engineering division completed a review of the rotor blades and engine-to main transmission drive shaft. The engineer's observations were reported to the NTSB Investigator-in-charge on April 25, 2016, the results of which are included below.

"Both main rotor blades remained attached to the main rotor hub. One of the main rotor blades exhibited two chordwise bends along its span and its tip end was fractured and had separated from the blade. The leading edge of both main rotor blades did not exhibit evidence of damage consistent with high rotational energy. The afterbody and trailing edge of both main rotor blades exhibited multiple wrinkles along the blade span and was primarily heat distressed due to exposure to the postcrash fire. The main rotor hub remained attached to the main rotor shaft. The main rotor shaft exhibited impact marks from both main rotor flap stops.

The engine-to-main transmission drive shaft remained connected to the engine output flange, but the engine gearbox housing was consumed by the postcrash fire. The steel tail rotor drive output shaft (normally beneath the engine) remained connected on both ends via flexible couplings; the forward flexible coupling did not exhibit abnormal rotational damage and the aft flexible coupling exhibited slight openings between its laminates.

Both tail rotor blades remained attached to the tail rotor hub and exhibited evidence of heat distress due to exposure to the postcrash fire. The leading edges of both tail rotor blades did not exhibit evidence of damage consistent with high rotational energy."