

## NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety Western Pacific Region

June 8, 2015

# AIRFRAME AND ENGINE EXAMINATION

WPR15LA177

#### A. ACCIDENT

Location:Dewey, AZDate:June 1. 2015Aircraft:Bell Helicopter Company 206-L4, N73AW, Serial #: 52115NTSB IIC:Albert Nixon

#### **B. EXAMINATION PARTICIPANTS:**

Albert Nixon Aviation Accident Investigator National Transportation Safety Board Federal Way, WA 98003

Jack Johnson Air Safety Investigator Rolls Royce Corporation Indianapolis, IN 46241 Mark Stuntzner Air Safety Investigator Bell Helicopter Fort Worth, TX 76118

Jeff Boatman Director of Operations Airwest Helicopters LLC Glendale, AZ 85307

#### C. SUMMARY

Examination of the recovered airframe and engine was conducted on June 8, 2015 at the facilities of Airwest Helicopters, in Glendale, Arizona.

#### D. DETAILS OF THE INVESTIGATION

#### **1.0** Airframe Examination

The main rotor blades had been removed for recovery. The helicopter's cabin and fuselage was intact, forward of where the tail boom attached. Flight control continuity was established with the cyclic and collective. Tail rotor continuity was established through the pilot pedals. The main drive continuity was established by turning the steel T/R driveshaft by hand and observing appropriate mast rotational movement.



Figure 1: Helicopter as view from the front.

The over-temp light on the TOT gauge, illuminated when power was applied. 385 lbs. of fuel was noted. Fuel pressure of the left, right, and both boost pumps was checked, and was in the normal operating (green range - about 11psi).

The tail boom was observed to be bent down aft of the intercostal support. Both horizontal stabilizer end plates were struck on the top and bent to the right. Additionally, the main rotor blades had dents and markings on the bottom of both blades. All the damage was consistent with a main rotor blade strike.



Figure 2: Right side view of tail boom damage.

### 2.0 Engine Examination

The engine's N1 was locked and the N2 rotated by hand, with some resistance. On the engine chip plugs, a lot of debris was observed. A determination was made to ship the engine to Rolls Royce, for a teardown examination. The engine was removed from the airframe and packed and sealed in a shipping container.



Figure 3: Front view of engine that has been removed from airframe.

Submitted by: Albert Nixon