



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

December 3, 2014

ACCIDENT SITE EXAMINATION SUMMARY

WPR15FA051

This document contains 4 embedded photos.

A. ACCIDENT

Location: North Salt Lake, Utah
Date: December 2, 2014
Aircraft: Robinson R44, N3234U
NTSB Investigator-in-Charge: Andrew Swick

B. SUMMARY

Examination of the accident site was conducted on December 3, 2014. All major structural components of the helicopter were located at the accident site. The wreckage was recovered to a secure location for further examination.

C. DETAILS OF THE INVESTIGATION

1.0 Accident Site Examination

Main Wreckage: N 40° 51.487', W 111° 55.410' – Elevation: 4,240 feet mean sea level (msl).

Examination of the accident site revealed that the helicopter impacted the top of a two-story building about 2,000 feet southwest of the approach end of runway 34 at Skypark Airport (BTF), Bountiful, Utah. A post-impact fire occurred that was concentrated at the main wreckage. The main wreckage had impact damage and was partially damaged by postimpact fire. The main rotor and empennage were found within the wreckage debris field. The wreckage debris field was about 880 feet in length and about 400 feet in width and on a 277-degree magnetic heading. The wreckage was recovered to a secure location for further examination.



Figure 1-Onsite Photo



Figure 2-Onsite Photo of Main Wreckage

A postimpact fire was found concentrated behind the cabin area. Track and balance tools were found in the cabin area. The engine remained attached to the fuselage and thermal damage was noted on the induction box and fan shroud. The engine mounting assembly had impact damage. The landing gear and bear paws separated from the fuselage and were found near the main wreckage. The mast fairing was crushed and remained loosely attached to the main wreckage. The main rotor drive shaft was loose from the transmission housing and internal components were visible in the housing. The swash plate pitch change linkage mounting hole was visible and appeared to be undamaged.



Figure 3-Onsite Photo of Main Rotor

The main rotor assembly was found near a parking lot about 188 feet from the main wreckage. The main rotor blades remained attached to the teetering hub and separated at the drive shaft near the teeter stops. The vertical drive shaft revealed evidence of mast bump. The empennage separated from the main wreckage and was found near a parking lot about 430 feet from the main wreckage. About 2 feet of the tail boom remained attached to the tail rotor assembly, vertical and horizontal stabilizers and the stinger. Several sections of the tail rotor drive shaft were found throughout the debris field. A large section of the tail rotor drive shaft pierced the roof about 90 feet from the fuselage roof entry on the same roof. Both pitch change linkages and transmission housing material were found throughout the debris field. Plexiglas sections were found throughout the debris field. A four-foot section of the main rotor blade tip was found in a retention pond and was furthest from the main wreckage. The wreckage debris path was oriented on an approximate heading of 277 degrees magnetic and was about 900 feet in length.



Figure 4-Onsite Photo of Main Wreckage

The main wreckage was removed from the building during retrieval efforts. Drive belts were unseated from both engine and drive sheaves. Rotational signatures were visible on the engine cooling fan. The instrument panel had impact damage and remained partially attached to the fuselage.

The helicopter was recovered to Air Transport in Phoenix, Arizona for further examination.