



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

December 16, 2015

ACCIDENT SITE EXAMINATION SUMMARY

WPR16FA040

This document contains 6 embedded photos.

A. ACCIDENT

Location: Superior, Arizona
Date: December 15, 2015
Aircraft: N74317; Airbus Helicopter AS350B3
NTSB Investigator-in-Charge: Andrew Swick

On December 15, 2015, about 1723 mountain standard time, an Airbus helicopter, AS350B3, N74317, was substantially damaged when it impacted terrain while maneuvering near Superior, Arizona. The helicopter air ambulance (HAA) was registered to Air Methods Corporation and was doing business as Native Air Ambulance, under the provisions of Title 14 Code of Federal Regulations Part 135. The commercial pilot, and flight nurse sustained fatal injuries and the flight paramedic sustained serious injuries. Visual meteorological conditions prevailed and a company visual flight rules (VFR) flight plan was filed for the flight. The cross-country flight originated from the Phoenix-Mesa Gateway Airport (IWA), Mesa, Arizona, at 1705 with an intended destination of Globe, Arizona.

According to the operator, the aircraft had transported a patient from the Cobre Valley Community Hospital, Globe, Arizona to the Baywood Heart Hospital, in Mesa, Arizona. The flight originated from their base in Globe Arizona with a planned return to their base at the conclusion of the operation. After transporting the patient, the helicopter was repositioned to IWA for refueling. It subsequently departed IWA for the return flight to its base in Globe. The flight was being tracked by satellite at the company's national communication center, AIRCOM, in Omaha, Nebraska. The company's operations control center (OCC), located in Denver, Colorado, was flight monitoring the flight on their Flight Management System. At 1723 mountain standard time, satellite tracking of N74317 was lost. AIRCOM notified the OCC and a search was conducted by a company aircraft. The wreckage was located as a result of an aerial search at about 2054.

B. PARTICIPANTS

Andrew Swick-NTSB IIC
Bob Hendrickson-FAA-FSDO
Kenneth Nettles-FAA-FSDO
Dennis McCall-Air Methods
Jim Caryl-Air Methods
Seth D. Buttner-Airbus Helicopters
Manny Figlia-Airbus Helicopters
Bryan Larimore-Turbomeca USA

C. SUMMARY

Examination of the accident site was conducted on December 16, 2015. All major structural components of the helicopter were located at the accident site. The wreckage was recovered to a secure location for further examination.

D. DETAILS OF THE INVESTIGATION

1.0 Accident Site Examination

- Main Wreckage: N33°25.816, W-111° 8.582' – Elevation: 5,035 feet msl
- IWA was about 31 miles on a magnetic heading 254 degrees from the accident site.
- Native 5 Home Base, Globe, AZ, was about 18 miles on a heading of 86 degrees from the accident site.
- The last location of the helicopter in flight was about 1 mile west from the accident site at an altitude of 5,089 feet.

The accident site was located on a northwest facing slope of a ridgeline, near a saddle, and surrounded by mountainous terrain at an elevation of 5,035 feet mean sea level (msl). The surrounding peaks, about 1 to 1.5 miles from the accident site, ranged from about 5,700 to 6,000 feet msl. The debris field was about 330 feet in length on a magnetic heading of about 230 degrees. The last known flight path was identified to pass through the saddle area in the top right of the Figure 1 below.

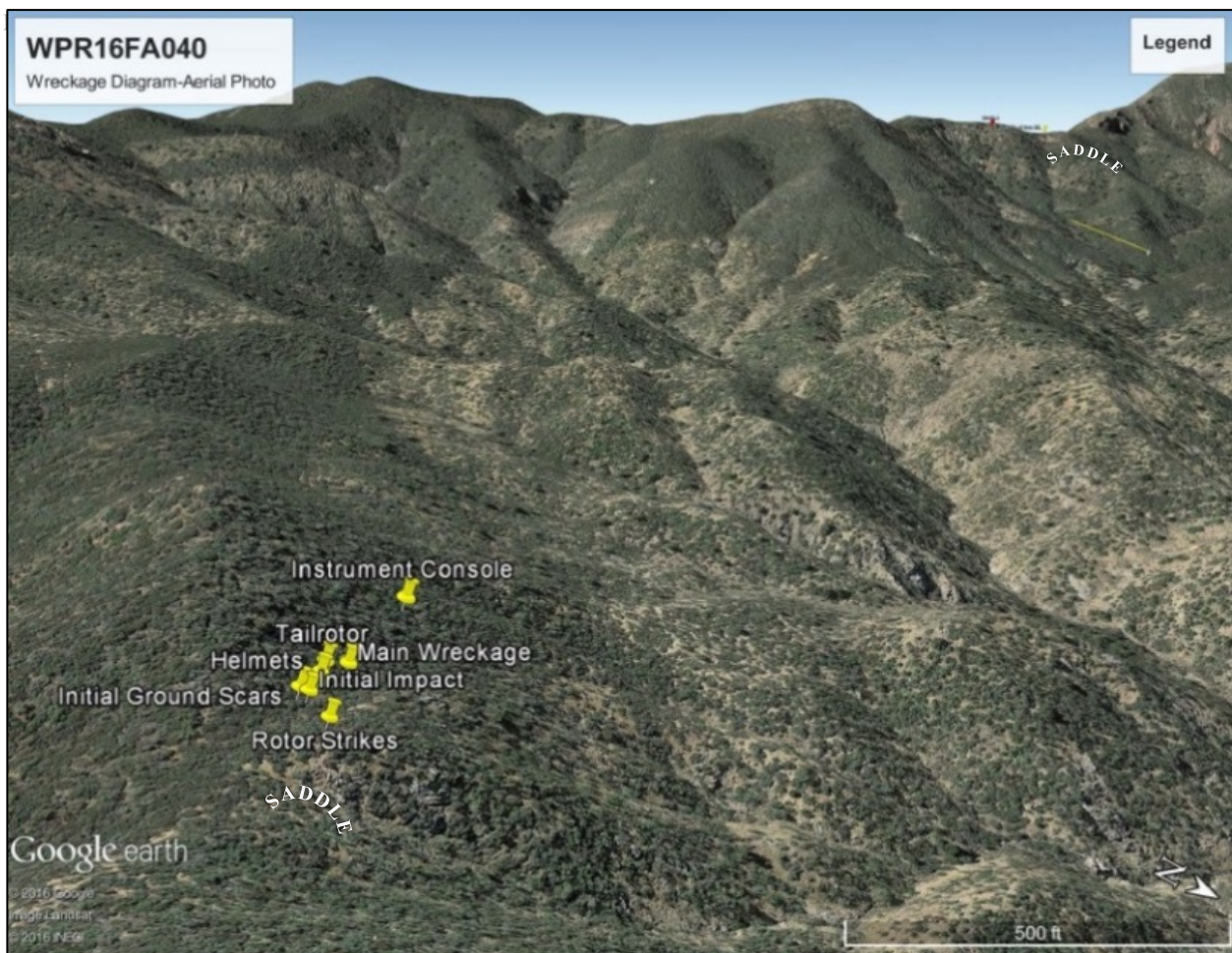


Figure 1-Accident Site and Surrounding Terrain

The first identified point of contact (FIPC) were multiple cuts through two bushes that were about two feet apart, and located uphill from one another. The bushes were evenly cut at an angle of about 45 degrees to the horizon. Downhill of the two bushes; were four divots cut from the soil, about 18 inches in length to about 12 inches wide and about 3 inches deep and all span a length of about 20 feet. The multiple cuts in the bushes and divots were consistent with main rotor strikes. Paralleling the span of divots, about 12 feet uphill, were two bushes with broken branches and a red lens cover. The red lens was later identified as the red lens from the lower side of the fuselage. Surrounding this area were fragments of rotor blade material.



Figure 2-First Identified Point of Contact (FIPC)

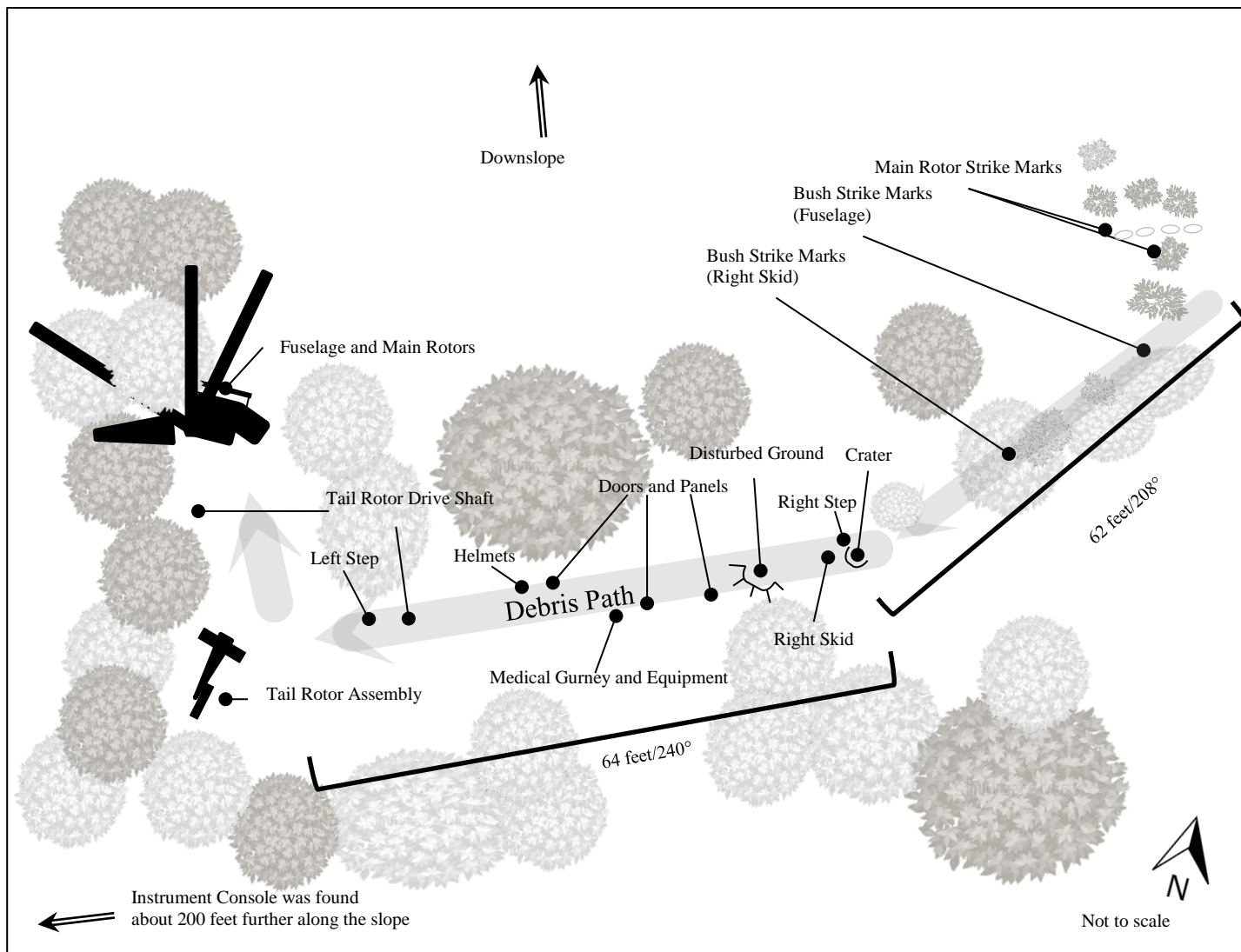


Figure 3-Wreckage Diagram

About 62 feet from the main rotor strikes, along the debris field, was a small clearing and a shallow elongated crater that measured about 1 foot in width and 3 feet in length. In this clearing were large broken branches and the helicopter’s right step and forward right toe skid. Another few feet from this area, was an area of disturbed ground consisting of large rocks and vegetation. The clearing continued level along the slope for 64 feet until reaching the tailboom assembly. About midway along the clearing, the helicopter doors, right side engine cowling, broken interior paneling, gurney, and medic bag were found. About 5 feet further were two helmets identified as belonging to the flight nurse and flight paramedic. About 10 feet from the helmets was the helicopter’s left step and forward left toe skid. The tail rotor assembly and a section of the tail boom separated just forward of the horizontal stabilizers and was uphill from the clearing. The right horizontal outboard end was crushed. The vertical stabilizer lower surface was crushed upward and to the right. The drive shaft was exposed and had separated about 5 feet from the gear box. The drive shaft fairing separated from the tailboom. The tail rotor blades were undamaged and had light rotational scuff marks near the tips.

The main fuselage and remaining tail boom was located northwest, about 40 feet downslope from the tail rotor assembly. The fuselage came to rest on its right side exposing the cabin area. The cabin roof was found in sections near the fuselage. The forward cabin floor had separated and the remaining fuselage forward of the forward skid mounting legs, was bent upward about 30 degrees. The pilot remained in the pilot's seat which remained attached to the fuselage. The floor structure and the pilot's seat rails were buckled and distorted.



Figure 4-Main Wreckage (Looking Downslope, Northwest)

The rear cabin modular seating system consisted of a single seat on the left, and two seats on the right, separated by a medical equipment console. The modular seating system separated from the rear cabin wall and was located below the fuselage. The two right seats remained attached to the lower horizontal support bracket. The two right seats were found near the right skid, upslope from the flight nurse's onsite location. The seat bottoms separated from the seat backs near the hinge locations. Both seat buckles were unlatched. The single left seat separated from the rear support brackets. The single left seat bottom, cushion and leather cover was found near the main rotor hub and its seatbelts, which were unbuckled, and taugth around a portion the main rotor head. The flight paramedic's onsite location was downhill about 4 feet from the single left seat bottom location. The single left seat back was found near the main rotor head and remained attached to the seat belts.



Figure 5-Main Wreckage, Looking Upslope, Southeast

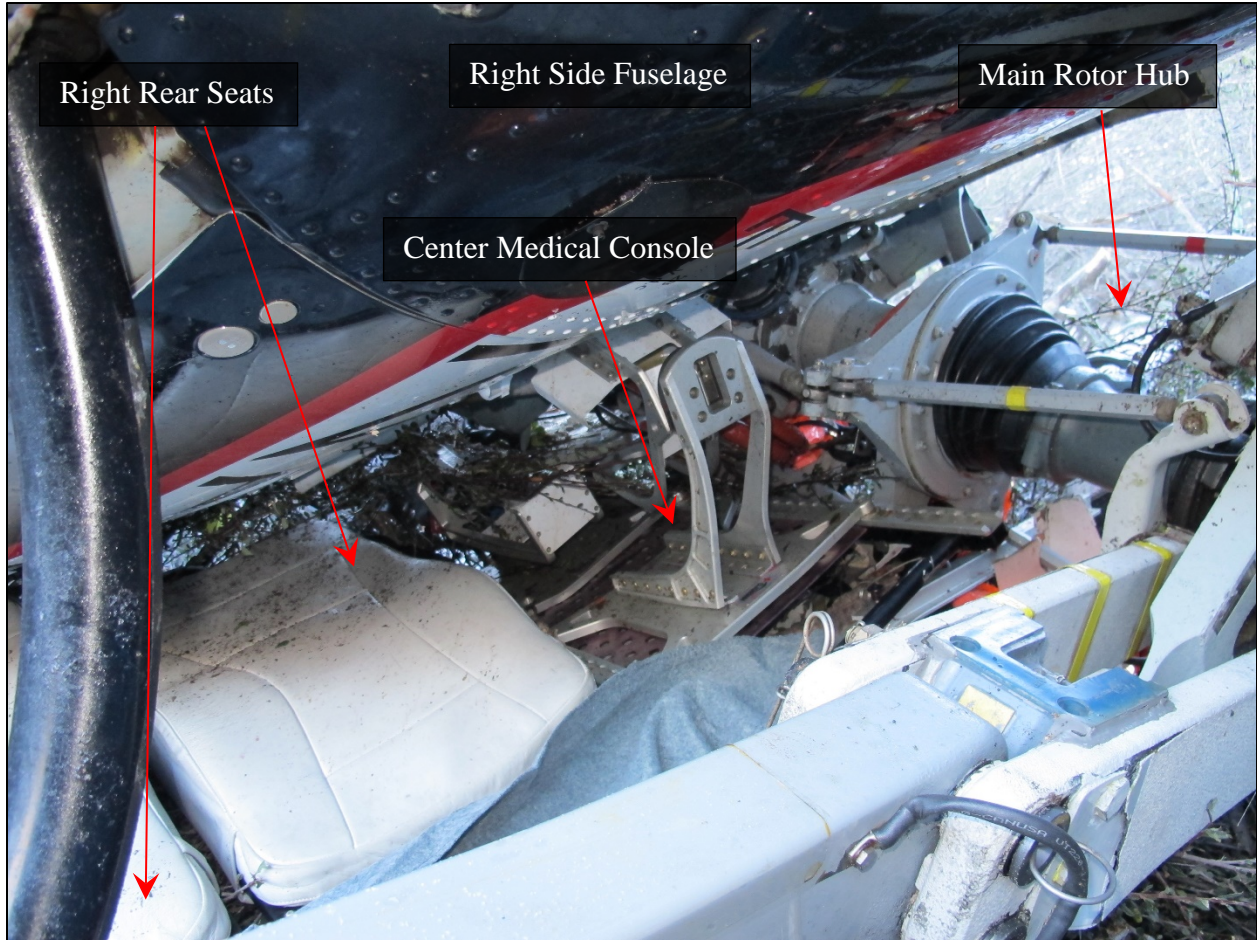


Figure 6-Main Wreckage (Looking Upslope, East)

The engine was exposed and was separated from the main and tail rotor drive shafts. The main rotor hub and blades remained attached and were located below the fuselage. The blades had deformation and delamination from the mid-sections to the tips. The yellow main rotor blade was frayed at the tip. The tail boom, forward of the horizontal stabilizer was partially attached to the fuselage. The fuel tank's right side was visible and intact. Fuel leaked from the right rear access panel during the onsite examination. The ground downslope of the main wreckage was saturated in fuel. The engine remained attached to the fuselage and was crushed and distorted at the exhaust. The instrument console separated from the cabin area and was found during the wreckage recovery about 200 feet further down the debris field in the top of a tree.

The wreckage was recovered to a secure location for further examination.

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