



# Aviation Investigation Preliminary Report

<b>Location:</b>	Mountain Home Park, WA	<b>Accident Number:</b>	WPR25FA114
<b>Date &amp; Time:</b>	March 19, 2025, 12:28 Local	<b>Registration:</b>	N23SD
<b>Aircraft:</b>	Bell 206B II	<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

On March 19, 2025, at 1228 Pacific daylight time, a Bell 206B II, N23SD, was substantially damaged when it impacted electrical cables and terrain near Mountain Home Park, Washington. The commercial pilot was fatally injured. The helicopter was operated as a Title 14 *Code of Federal Regulations* Part 137 agricultural flight.

According to the helicopter operator, the pilot had applied herbicide to a field near Dayton, Washington and was enroute to another area to be sprayed. At 1229, the Columbia County 911 dispatch center received an automated voice call from the pilot's cell phone indicating it had detected a crash, along with GPS coordinates for the location the crash was detected. When local law enforcement responded to the area, they found the helicopter's wreckage.

The accident site was located within a canyon that was about 1,000 ft deep, about one mile wide, and oriented generally north/south. Three electrical cables crossed the canyon near the accident site, supported by two steel electrical towers that were about 4,200 ft apart. One steel tower was located on the west edge of the canyon, and the other tower was about 500 ft below the east rim of the canyon. The southern cable displayed frayed wires, and the center cable was severed. (Fig. 1)



Figure 1: The electrical towers and cables, viewed from the east side of the canyon.

The accident site was situated on the east wall of the canyon, with the debris field below and north of the electrical cables. (Fig. 2) The helicopter main wreckage, which consisted of the majority of the fuselage, engine, and main rotor transmission, came to rest about 150 ft north of the wires on the east slope of the canyon. The front windscreens and chin bubbles were shattered. The left side of the nose and left forward door had separated and was found beneath the power cables. The right side of the nose section was fragmented and came to rest near the main wreckage.

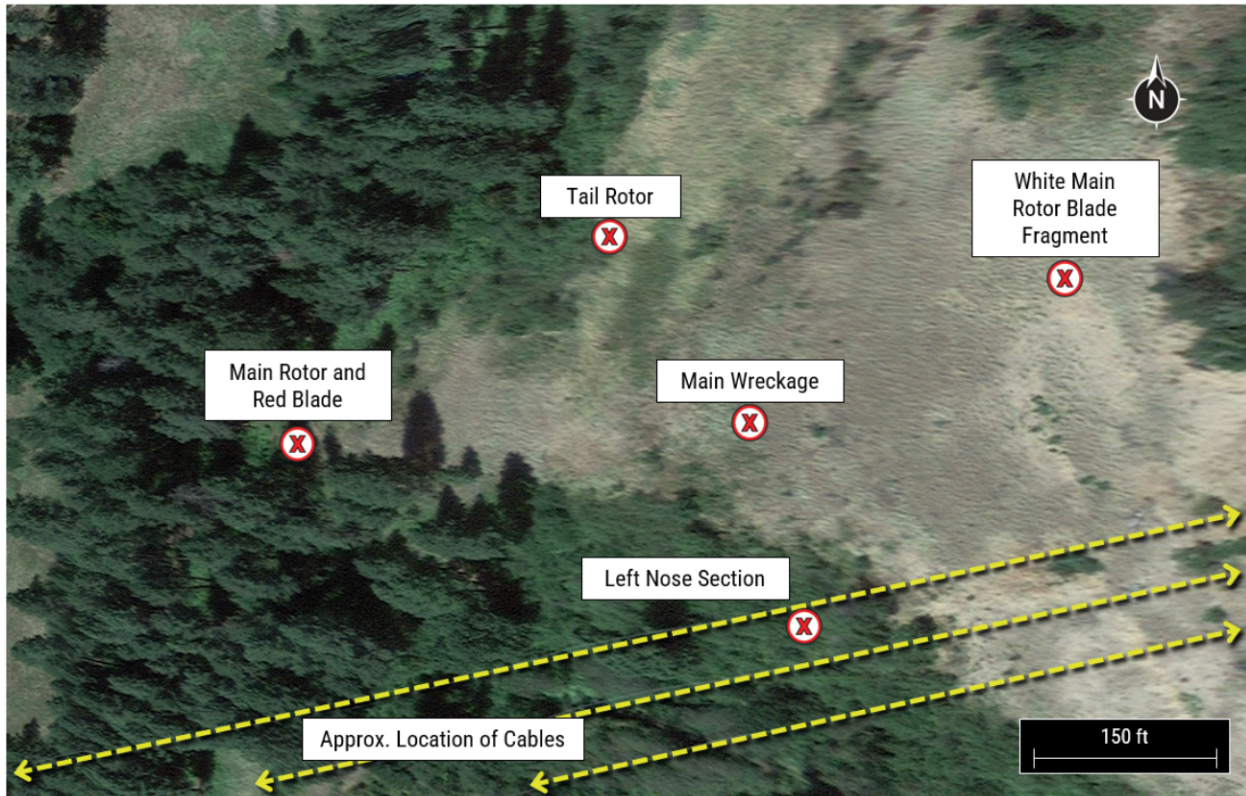


Figure 2: The helicopter wreckage distribution.

The wreckage was recovered to a secure facility for examination. Control continuity was established between the cyclic and collective controls to their respective servos, though multiple impact separations were observed. Damage precluded continuity determination between the tail rotor and torque pedals.

Impact signatures were observed on the left nose section and fuselage consistent with contact with an electrical cable. Damage consistent with cable tearing was observed along the aft frame of the left chin bubble, extending aft through the forward lower door frame to the aft left cabin doorframe. (Fig. 3)





Figure 3: Tearing on the lower left fuselage. The inset depicts the area of damage on a model, with the damage area shown in the blue box.

The tail rotor drive shaft was fractured in multiple locations. The shaft displayed rotational scoring and torsional twisting at a separation about 18 in aft of the fuselage. The engine oil tank displayed rotational scoring consistent with contact with the forward short shaft. The right stabilizer had fragmented into three sections, with scoring found on the upper surface. The fragments of the right stabilizer were crushed and deformed.

The engine remained mounted to the fuselage. The fiberglass induction filter housing was fragmented. The compressor inlet blades displayed foreign object damage, including leading edge nicking and aft curling, and fragments of fiberglass were observed within the compressor. The first stage of the compressor rotor could be moved by hand. The last turbine rotor stage was visible through the exhaust manifold but could not be rotated by hand. The engine displayed no evidence of pre-impact damage, fire, or mechanical malfunction. The engine to transmission drive shafting was fractured at the KAflex® coupling fingers forward of the freewheeling unit.

The roots of both main rotor blades remained attached to the rotor hub. The red blade was found intact at the accident site and was buckled throughout its span. The bottom surface of

the blade displayed an approximate 18 in long area of parallel striations consistent with a cable strike that began at the leading edge and extended about 5 in aft.

The white blade was found fragmented at the accident site. An approximate 3 ft section of the blade remained attached to the hub. Multiple fractures were found in the outboard blade section, and the trailing edge was separated. On the upper surface of the blade was approximate 2 ft area of striations, consistent with cable strikes to the leading edge; these striations began about 1 ft inboard from the tip of the blade and extended to the blade trailing edge. A section of the blade trailing edge about 18 in from the hub was not located.

The sun's position at the time of the accident was about 43° above the horizon on an azimuth of 169°.

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Bell	<b>Registration:</b>	N23SD
<b>Model/Series:</b>	206B II	<b>Aircraft Category:</b>	Helicopter
<b>Amateur Built:</b>			
<b>Operator:</b>	NORTH WIND AVIATION LLC	<b>Operating Certificate(s) Held:</b>	Agricultural aircraft (137)
<b>Operator Designator Code:</b>			

### Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	VMC	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KALW, 1205 ft msl	<b>Observation Time:</b>	12:53 Local
<b>Distance from Accident Site:</b>	15 Nautical Miles	<b>Temperature/Dew Point:</b>	14°C / -4°C
<b>Lowest Cloud Condition:</b>	Clear	<b>Wind Speed/Gusts, Direction:</b>	13 knots / None, 170°
<b>Lowest Ceiling:</b>	None	<b>Visibility:</b>	10 miles
<b>Altimeter Setting:</b>	30.15 inches Hg	<b>Type of Flight Plan Filed:</b>	
<b>Departure Point:</b>		<b>Destination:</b>	Mountain Home Park, WA

### Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Fatal	<b>Latitude, Longitude:</b>	46.236369,-117.93526

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Whitaker, Kathryn
<b>Additional Participating Persons:</b>	Todd Pryor ; Federal Aviation Administration; Spokane, WA Matthew McLuckie; Bell Helicopters; Fort Worth, TX Ryan McDonald; North Wind Helicopters; Entiat, WA
<b>Investigation Class:</b>	<a href="#">Class 3</a>
<b>Note:</b>	