



# Aviation Investigation Final Report

---

<b>Location:</b>	Lafayette, Colorado	<b>Accident Number:</b>	DFW08CA147
<b>Date &amp; Time:</b>	May 17, 2008, 12:45 Local	<b>Registration:</b>	N6032C
<b>Aircraft:</b>	Dowell Vaughn Exec 90	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of engine power (partial)	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

---

## Analysis

The private pilot stated during a telephonic interview that he was hovering in an open field adjacent to the airport, when he began to lose rotor RPM. He landed briefly to investigate why the helicopter was not flying properly. He then decided to hover taxi back to his hangar and was trying to keep the nose of the helicopter pointed into the wind. While hovering with a slight right crab over a freshly plowed field the helicopter settled, the right skid contacted the soft terrain, and rolled onto the right side. The pilot stated that the loss of rotor RPM was the result of the loose engine oil cap that sprayed engine oil on the main rotor system drive belts. The helicopter main rotor blades, tail rotor blades, fuselage, and tail boom were substantially damaged. There was no post-crash fire and the pilot reported no injuries. Weather was reported at the time as winds from 020 degrees at 7 knots, visibility 30 miles with few clouds at 7,000 feet and a temperature of 72 degrees.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper in-flight decision to continue flight after experiencing a loss of rotor RPM. Contributing to the accident were the pilot's low level of experience in helicopters and the leaking oil from the engine oil filler cap.

## Findings

<b>Personnel issues</b>	Decision making/judgment - Pilot
<b>Personnel issues</b>	Total experience w/ equipment - Pilot
<b>Aircraft</b>	Recip eng oil sys - Damaged/degraded
<b>Aircraft</b>	(general) - Damaged/degraded

## Factual Information

### History of Flight

<b>Maneuvering-hover</b>	Loss of engine power (partial) (Defining event)
--------------------------	---

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	58, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	October 1, 2006
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	November 1, 2007
<b>Flight Time:</b>	1635 hours (Total, all aircraft), 30 hours (Total, this make and model), 1 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Dowell Vaughn	<b>Registration:</b>	N6032C
<b>Model/Series:</b>	Exec 90	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	VXH01
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	Unknown	<b>Certified Max Gross Wt.:</b>	1500 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	750 Hrs at time of accident	<b>Engine Manufacturer:</b>	Rotorway
<b>ELT:</b>		<b>Engine Model/Series:</b>	RI 162
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	150 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KBJC,5673 ft msl	<b>Distance from Accident Site:</b>	7 Nautical Miles
<b>Observation Time:</b>	11:48 Local	<b>Direction from Accident Site:</b>	204°
<b>Lowest Cloud Condition:</b>	Few / 7000 ft AGL	<b>Visibility</b>	30 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	7 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	20°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.29 inches Hg	<b>Temperature/Dew Point:</b>	20°C / 3°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	ERIE, CO (48V )	<b>Type of Flight Plan Filed:</b>	Unknown
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Erie Municipal Airport KEIK	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	5130 ft msl	<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	40.017223,-105.079719

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Latson, Thomas
<b>Additional Participating Persons:</b>	Christopher A Lang; FAA, FSDO; Denver, CO
<b>Original Publish Date:</b>	June 30, 2008
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=68036">https://data.ntsb.gov/Docket?ProjectID=68036</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).