Aviation Investigation Final Report

Location:	Lafayette, Colorado	**Accident Number:**	DFW08CA147
Date & Time:	May 17, 2008, 12:45 Local	**Registration:**	N6032C
Aircraft:	Dowell Vaughn Exec 90	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (partial)	**Injuries:**	1 None
Flight Conducted Under:	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

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

Factual Information

History of Flight

Maneuvering-hover	Loss of engine power (partial) (Defining event)

Pilot Information

Certificate:	Private	**Age:**	58,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	October 1, 2006
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	November 1, 2007
Flight Time:	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

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

Meteorological Information and Flight Plan

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

Airport Information

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

Wreckage and Impact Information

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

Administrative Information

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