



National Transportation Safety Board Aviation Accident Data Summary

Location:	Broomfield, CO	Accident Number:	DEN07LA132
Date & Time:	08/01/2007, 1635 MDT	Registration:	N568TD
Aircraft:	Bell 206B	Injuries:	2 Minor, 2 None
Flight Conducted Under:	Part 91: General Aviation - Business - Sightseeing		

Analysis

According to the pilot, this was his sixth sightseeing flight of the day. He had just landed and three passengers disembarked. Three other passengers boarded the helicopter. As the pilot brought the throttle to full rpm and increased torque, the helicopter turned left about 15 degrees. Approximately 3 inches of opposite pedal was used to bring the helicopter back to its original heading. The pilot continued to increase torque and as the skids started to come off the ground, the nose pitched up rapidly and the helicopter rolled to the right. The left skid was about 3 inches off the ground during the yaw. The right skid never left the ground. Full forward and left cyclic had no effect. The pilot then lowered collective and tried to roll off the throttle. The helicopter rolled right until the main rotor blades contacted the ground. A piece of main rotor blade struck a nearby hangar. The pilot reported no control anomalies and a subsequent examination revealed no discrepancies. FAA's "Rotorcraft Flying Handbook" (FAA-H-8083-21) defines "dynamic rollover" as "the tendency of a helicopter to continue rolling when the critical angle is exceeded, if one gear is on the ground, and the helicopter is pivoting around that point."

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
The pilot's failure to maintain control of the helicopter, resulting in an inadvertent dynamic rollover.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: TAKEOFF

Findings

1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2: ROLL OVER
Phase of Operation: TAKEOFF

Findings

2. (C) DYNAMIC ROLLOVER - INADVERTENT - PILOT IN COMMAND

Pilot Information

Certificate:	Airline Transport; Flight Instructor; Commercial	Age:	60
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane; Helicopter
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Helicopter; Instrument Airplane
Flight Time:	17867 hours (Total, all aircraft), 106 hours (Total, this make and model), 16246 hours (Pilot In Command, all aircraft), 46 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N568TD
Model/Series:	206B	Engines:	1 Turbo Shaft
Operator:	Rotors of the Rockies	Engine Manufacturer:	Rolls Royce
Operating Certificate(s) Held:	On-demand Air Taxi (135)	Engine Model/Series:	250-620B
Flight Conducted Under:	Part 91: General Aviation - Business - Sightseeing		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	BJC, 5670 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	Broken / 20000 ft agl	Wind Speed/Gusts, Direction:	8 knots / , 60°
Temperature:	33° C	Visibility	30 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Broomfield, CO (BJC)	Destination:	(BJC)

Airport Information

Airport:	Rocky Mountain Metropolitan (BJC)	Runway Surface Type:	
Runway Used:	NA	Runway Surface Condition:	
Runway Length/Width:			

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 Minor, 1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:	39.908889, -105.117222		

Administrative Information

Investigator In Charge (IIC): Arnold W Scott

Adopted Date: 09/27/2007

Investigation Docket: NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

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