



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	Glenwood Springs, CO	<b>Accident Number:</b>	CEN11CA213
<b>Date &amp; Time:</b>	03/01/2011, 1040 MST	<b>Registration:</b>	N74816
<b>Aircraft:</b>	ROBINSON HELICOPTER COMPANY R44 II	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Dynamic rollover	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## Analysis

The pilot refueled his helicopter and was performing a takeoff from an area near the airport's fuel pumps. As the helicopter began to lift, the pilot allowed the helicopter's tail to remain in a low attitude. As a result, the aft end of the left skid contacted the ground and the helicopter experienced a dynamic rollover. The helicopter came to rest on its left side, resulting in substantial damage to the fuselage and tail boom. The pilot reported that there were no pre-impact mechanical malfunctions or failures that would have precluded normal operation.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper takeoff procedure, which resulted in a dynamic rollover when the left skid contacted the ground.

## Findings

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Personnel issues	Aircraft control - Pilot (Cause)
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## Factual Information

### History of Flight

Takeoff	Dragged wing/rotor/float/other Dynamic rollover (Defining event)
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### Pilot Information

Certificate:	Private	Age:	51, Male
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With Waivers/Limitations	Last Medical Exam:	01/27/2010
Occupational Pilot:	No	Last Flight Review or Equivalent:	02/15/2011
Flight Time:	134 hours (Total, all aircraft), 18 hours (Total, this make and model)		

### Aircraft and Owner/Operator Information

Aircraft Manufacturer:	ROBINSON HELICOPTER COMPANY	Registration:	N74816
Model/Series:	R44 II	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	10982
Landing Gear Type:	Skid	Seats:	4
Date/Type of Last Inspection:	02/11/2011, 100 Hour	Certified Max Gross Wt.:	2500 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	486 Hours	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	IO-540
Registered Owner:	244 Charlie Delta LLC	Rated Power:	205 hp
Operator:	244 Charlie Delta LLC	Air Carrier Operating Certificate:	None

## Meteorological Information and Flight Plan

Observation Facility, Elevation:		Observation Time:	
Distance from Accident Site:		Condition of Light:	Day
Direction from Accident Site:		Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	5° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	Light and Variable, Variable	Visibility (RVR):	
Altimeter Setting:		Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Glenwood Springs, CO (GWS)	Type of Flight Plan Filed:	None
Destination:	Carbondale, CO	Type of Clearance:	None
Departure Time:	MST	Type of Airspace:	

## Airport Information

Airport:	Glenwood Springs Municipal (GWS)	Runway Surface Type:	
Airport Elevation:	5916 ft	Runway Surface Condition:	
Runway Used:	N/A	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

## Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None		

## Administrative Information

Investigator In Charge (IIC):	Timothy LeBaron	Adopted Date:	07/21/2011
Additional Participating Persons:	Tanya Glines; Federal Aviation Administration; Salt Lake City, UT		
Publish Date:	07/21/2011		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=78499">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=78499</a>		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report.