



Aviation Investigation Final Report

Location:	Leghighton, Pennsylvania	Accident Number:	ERA22LA357
Date & Time:	August 3, 2022, 12:50 Local	Registration:	N45CA
Aircraft:	ROBINSON HELICOPTER R44	Aircraft Damage:	Substantial
Defining Event:	Dynamic rollover	Injuries:	1 Serious, 2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot explained that the accident occurred at the completion of a local flight that departed from a private residence. While landing from a hover to a “slight slope,” the pilot said he lowered the collective “too rapidly,” the helicopter “landed roughly” and that he raised the collective control to recover the landing. “At that point, I entered a dynamic rollover to the left in which I was unable to recover.” The helicopter came to rest on its side with substantial damage to the cabin and the tailboom.

The pilot reported there were no mechanical deficiencies with the helicopter that 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 recovery from a bounced landing on a slope, which resulted in dynamic rollover.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Descent rate - Not attained/maintained

Factual Information

History of Flight

Landing	Dynamic rollover (Defining event)
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Pilot Information

Certificate:	Private	Age:	66, Male
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 Waiver time limited special	Last FAA Medical Exam:	October 1, 2019
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	385 hours (Total, all aircraft), 315 hours (Total, this make and model), 95 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	ROBINSON HELICOPTER	Registration:	N45CA
Model/Series:	R44	Aircraft Category:	Helicopter
Year of Manufacture:	2012	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2242
Landing Gear Type:	Skid	Seats:	4
Date/Type of Last Inspection:	July 13, 2022 100 hour	Certified Max Gross Wt.:	
Time Since Last Inspection:	26 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1294 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	O-540-FIB5
Registered Owner:		Rated Power:	
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KABE,385 ft msl	Distance from Accident Site:	17 Nautical Miles
Observation Time:	12:51 Local	Direction from Accident Site:	129°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.03 inches Hg	Temperature/Dew Point:	29°C / 15°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Leghighton, PA	Type of Flight Plan Filed:	None
Destination:	Leghighton, PA	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious, 1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Serious, 2 None	Latitude, Longitude:	40.833888,-75.742222(est)

Administrative Information

Investigator In Charge (IIC):	Rayner, Brian		
Additional Participating Persons:	Nicholas Geiser; FAA FSDO; Allentown, PA		
Original Publish Date:	May 11, 2023	Investigation Class:	4
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=105669		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).