



Aviation Investigation Final Report

Location:	Salt Lake City, Utah	Accident Number:	WPR22LA157
Date & Time:	April 16, 2022, 13:30 Local	Registration:	N3297Q
Aircraft:	ROBINSON HELICOPTER COMPANY R44 II	Aircraft Damage:	Substantial
Defining Event:	Dynamic rollover	Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The flight instructor of the helicopter reported that, while conducting hover training about five ft above ground level, with the student pilot at the flight control, the helicopter began drifting to the right and the right skid contacted the ground. The helicopter subsequently exceeded the critical roll angle and experienced a dynamic rollover to the right. The helicopter sustained substantial damage to the tailboom. The flight instructor reported that there were no preaccident mechanical failures or malfunctions with the helicopter 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 student pilot’s failure to maintain lateral control and terrain clearance while hovering, and the flight instructor’s delayed remedial action which resulted in a dynamic rollover.

Findings

Aircraft	Lateral/bank control - Not attained/maintained
Personnel issues	Aircraft control - Student/instructed pilot
Personnel issues	Delayed action - Instructor/check pilot
Aircraft	Altitude - Not attained/maintained

Factual Information

History of Flight

Maneuvering-hover	Dynamic rollover (Defining event)
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Flight instructor Information

Certificate:	Commercial; Flight instructor; Military	Age:	43, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Helicopter; Instrument helicopter	Toxicology Performed:	
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	March 28, 2022
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	February 9, 2022
Flight Time:	(Estimated) 1384 hours (Total, all aircraft), 75 hours (Total, this make and model), 1349.5 hours (Pilot In Command, all aircraft), 180 hours (Last 90 days, all aircraft), 127.6 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Student pilot Information

Certificate:	Student	Age:	42, Female
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 3.6 hours (Total, all aircraft), 0.5 hours (Total, this make and model), 3.6 hours (Last 90 days, all aircraft), 3.6 hours (Last 30 days, all aircraft)		

Passenger Information

Certificate:		Age:	Male
Airplane Rating(s):		Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	3-point
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	ROBINSON HELICOPTER COMPANY	Registration:	N3297Q
Model/Series:	R44 II	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	None	Serial Number:	10178
Landing Gear Type:	Skid	Seats:	4
Date/Type of Last Inspection:	March 24, 2022 100 hour	Certified Max Gross Wt.:	2500 lbs
Time Since Last Inspection:	19.9 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4195.9 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed	Engine Model/Series:	10-540-AE1A5
Registered Owner:	UTAH HELICOPTER LLC	Rated Power:	260 Horsepower
Operator:	UTAH HELICOPTER LLC	Operating Certificate(s) Held:	Pilot school (141)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KU42,4603 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	13:35 Local	Direction from Accident Site:	189°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 10000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	6 knots / 17 knots	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.77 inches Hg	Temperature/Dew Point:	17°C / 5°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Salt Lake City, UT	Type of Flight Plan Filed:	None
Destination:	Salt Lake City, UT	Type of Clearance:	VFR;None
Departure Time:		Type of Airspace:	Class G

Airport Information

Airport:	South Valley Regional Airport U42	Runway Surface Type:	
Airport Elevation:	4606 ft msl	Runway Surface Condition:	Dry
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	40.619556,-111.99288(est)

Administrative Information

Investigator In Charge (IIC):	Gutierrez, Eric
Additional Participating Persons:	Paula A. Behrend; Federal Aviation Administration; Salt Lake City, UT
Original Publish Date:	July 20, 2022
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=104961

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](#).