



Aviation Investigation Final Report

Location:	Moab, Utah	Accident Number:	WPR23LA009
Date & Time:	October 8, 2022, 10:00 Local	Registration:	N874BB
Aircraft:	BELL HELICOPTER TEXTRON CANADA 505	Aircraft Damage:	Substantial
Defining Event:	Dynamic rollover	Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, he was initiating a landing to a ledge. As the landing skids contacted the ground, the pilot felt the helicopter settle tail first. Startled by this, he abruptly raised the collective, unaware that he was holding forward cyclic input. As power was applied, the rear skids lifted off the ground first, creating a nose low attitude. The helicopter subsequently rolled over onto its right side substantially damaging the fuselage. The pilot 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 pilot’s loss of helicopter control during landing, that resulted in a dynamic roll over.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Lateral/bank control - Not attained/maintained

Factual Information

History of Flight

Landing	Dynamic rollover (Defining event)
----------------	-----------------------------------

Pilot Information

Certificate:	Private	Age:	52, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	December 6, 2021
Occupational Pilot:	No	Last Flight Review or Equivalent:	April 12, 2022
Flight Time:	(Estimated) 1326 hours (Total, all aircraft), 141 hours (Total, this make and model), 937 hours (Pilot In Command, all aircraft), 19 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Pilot-rated passenger Information

Certificate:	Private	Age:	Female
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 Unknown	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 1502 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL HELICOPTER TEXTRON CANADA	Registration:	N874BB
Model/Series:	505	Aircraft Category:	Helicopter
Year of Manufacture:	2019	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	65233
Landing Gear Type:	None; Skid	Seats:	5
Date/Type of Last Inspection:	September 26, 2022 Annual	Certified Max Gross Wt.:	3680 lbs
Time Since Last Inspection:	10 Hrs	Engines:	1 Turbo shaft
Airframe Total Time:	318.6 Hrs as of last inspection	Engine Manufacturer:	Saffran
ELT:	C91 installed, activated, aided in locating accident	Engine Model/Series:	Arrius 2R
Registered Owner:	On file	Rated Power:	451 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:	KCNY,4551 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	09:53 Local	Direction from Accident Site:	317°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots / None	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.33 inches Hg	Temperature/Dew Point:	18°C / 4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Gateway, CO (7C01)	Type of Flight Plan Filed:	None
Destination:	Moab, UT	Type of Clearance:	None
Departure Time:	09:00 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	38.568455,-109.54944

Administrative Information

Investigator In Charge (IIC):	Cornejo, Tealeye
Additional Participating Persons:	Kent Gibbons; Federal Aviation Administration; Salt Lake City , UT
Original Publish Date:	January 26, 2023
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=106108

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](#).