



Aviation Investigation Final Report

Location:	Springfield, Missouri	Accident Number:	CEN25LA063
Date & Time:	December 21, 2024, 15:27 Local	Registration:	N3104U
Aircraft:	ROBINSON HELICOPTER R22 BETA	Aircraft Damage:	Destroyed
Defining Event:	Loss of control on ground	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The student pilot reported having completed one flight around the airport traffic pattern with a flight instructor in preparation for the student pilot’s first solo flight. They then landed near a fixed base operator at the airport, and the flight instructor exited the helicopter. The student pilot took off and practiced hovering, hovering taxi, and flew three airport traffic patterns before returning to the grass area at the airport for additional hover and hover taxi practice. The windshield began to fog during the additional practice, so the student pilot landed the helicopter to turn the blower fan switch on, but did not engage the collective friction or reduce the engine power. The student pilot said he had never used the blower fan switch, and it took a couple of seconds to locate, during which time the helicopter rolled right, and the main rotor blades contacted the ground. The helicopter came to rest on its left side.

The blower fan switch is located near the floor between the pilot’s legs. The helicopter was destroyed by its impact with the ground. The student pilot stated there was no mechanical malfunctions/failures of the helicopter.

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 control of the helicopter while turning on the blower fan switch after landing that resulted in a dynamic rollover sequence.

Findings

Aircraft

(general) - Not attained/maintained

Factual Information

History of Flight

Standing-engine(s) operating	Miscellaneous/other
Standing-engine(s) operating	Loss of control on ground (Defining event)
Standing-engine(s) operating	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Commercial; Student	Age:	62, Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Right
Other Aircraft Rating(s):	Glider	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	September 28, 2023
Occupational Pilot:	No	Last Flight Review or Equivalent:	January 20, 2023
Flight Time:	5300 hours (Total, all aircraft), 27.3 hours (Total, this make and model), 5100 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	ROBINSON HELICOPTER	Registration:	N3104U
Model/Series:	R22 BETA	Aircraft Category:	Helicopter
Year of Manufacture:	2006	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	4061
Landing Gear Type:	None; Skid	Seats:	2
Date/Type of Last Inspection:	October 24, 2024 Annual	Certified Max Gross Wt.:	1370 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1254 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed	Engine Model/Series:	O-360-J2A
Registered Owner:	On file	Rated Power:	145 Horsepower
Operator:	So Fly Flight Training Academy, LLC	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	SGF	Distance from Accident Site:	6 Nautical Miles
Observation Time:	14:52 Local	Direction from Accident Site:	270°
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:	30.33 inches Hg	Temperature/Dew Point:	5°C / -7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Springfield, MO	Type of Flight Plan Filed:	None
Destination:	Springfield, MO	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class E

Airport Information

Airport:	Downtown Airport 3DW	Runway Surface Type:	
Airport Elevation:	1375 ft msl	Runway Surface Condition:	Dry
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	37,-93(est)

Administrative Information

Investigator In Charge (IIC):	Gallo, Mitchell
Additional Participating Persons:	Nicholaus Orphan; Federal Aviation Administration, St. Louis Flight Standards District Office; Saint Ann, MO
Original Publish Date:	February 21, 2025
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=199464

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](#).