Aviation Investigation Preliminary Report

Location:	Springfield, MO	**Accident Number:**	CEN26LA027
Date & Time:	October 21, 2025, 11:08 Local	**Registration:**	N74583
Aircraft:	ROBINSON HELICOPTER R22	**Injuries:**	2 Serious
Flight Conducted Under:	Part 91: General aviation - Instructional		

On October 21, 2025, about 1108 central daylight time, a Robinson Helicopter Company (RHC) R22 Beta II helicopter, N74583, sustained substantial damage when it was involved in an accident near Springfield, Missouri. The flight instructor and the pilot receiving instruction both sustained serious injuries. The helicopter was operated as a Title 14 *Code of Federal Regulations* Part 91 instructional flight.

The flight instructor had originally scheduled a cross-country training flight with the pilot receiving instruction, who was working towards obtaining his commercial pilot certificate. Prior to the flight, they obtained a weather briefing, and the terminal area forecast reported for high winds later in the day, so they elected to cancel the cross-country training flight. Instead, they decided to perform training maneuvers at the Downtown Airport (3DW), Springfield, Missouri, and so they could discontinue the flight if the winds approached their limitations. They decided to utilize the limitations listed in the RHC R22 Pilot's Operating Handbook and FAA-Approved Rotorcraft Flight Manual (from FAA Airworthiness Directive 95-26-04):

1. Flight when surface winds exceed 25 kts, including gusts, is prohibited.
2. Flight when surface wind gust spreads exceed 15 kts is prohibited.
3. Continued flight in moderate, severe, or extreme turbulence is prohibited.

After the completion of the first training session, they refueled the helicopter and checked the wind conditions. During the second training session, they began practicing autorotations from 1,000 ft agl to runway 29, including utilizing 30° and 60° entries. After four 30° and 60° entry autorotations were successfully performed, they decided to proceed with four 90° entry autorotations.

During the last autorotation, after the entry and the engine power at idle, the flight instructor told the pilot to "steer" multiple times and he even gave the cyclic a "nudge." The helicopter was oriented to about a 240° heading, while drifting past the runway centerline to the south.

The helicopter was drifting to the left and the flight instructor reported it was unable to turn to the right. The helicopter continued to travel to the south beyond airport property toward a public sports complex. The flight instructor initiated a flare. The helicopter impacted a grass field upright near trees in the public sports complex, and it came to rest on its left side.

The helicopter sustained substantial damage to the fuselage, the main rotor system, the tail cone, the empennage, and the tail rotor system. The wreckage was recovered from the accident site, and it was transported to a secure location for further examination.

The helicopter has a maximum gross weight of 1,370 lbs. At the time of the accident, the operator reported the helicopter weighed about 1,341 lbs. The flight controls are actuated through push-pull tubes and bell cranks; the helicopter is not equipped with a hydraulic system. The helicopter is equipped with a Lycoming Engines O-360-J2A reciprocating engine.

The closest meteorological reporting station to 3DW is the Springfield-Branson National Airport (SGF), Springfield, Missouri. SGF is about 7.90 miles to the northwest of 3DW. The following meteorological data was obtained from the automated surface observing system at SGF:

> At 0852, the wind originated from 290°, with a wind speed of 10 kts, and no gusts reported.
>
> At 0952, the wind originated from 300°, with a wind speed of 9 kts, and gusting to 17 kts.
>
> At 1052, the wind originated from 310°, with a wind speed of 11 knots, and gusting to 21 kts.
>
> At 1152, the wind originated from 290°, with a wind speed of 14 kts, and gusting to 26 kts.
>
> At 1252, the wind originated from 290°, with a wind speed of 20 kts, and gusting to 31 kts.

A review of meteorological data found some speed shear in the lowest 2,000 ft agl of about 15 kts above average surface magnitudes near 3DW for a time near the accident time. There were no signs of directional shear found.

RHC has published Safety Notice SN-32 High Winds or Turbulence in July 2025. This document discusses flight operations in high winds or turbulence and states in part:

Flying in high winds or turbulence should be avoided. A pilot's improper application of control inputs in response to turbulence or high winds can lead to a loss of control and/or create a dangerous low-g condition. The pilot must be aware of conditions that can be associated with turbulence, including convective activity, strong surface winds over terrain of varying elevation, mountain waves, and strong inversions.

Aircraft and Owner/Operator Information

Aircraft Make:	ROBINSON HELICOPTER	**Registration:**	N74583
Model/Series:	R22 BETA II	**Aircraft Category:**	Helicopter
Amateur Built:			
Operator:	So Fly Flight Training Academy, LLC	**Operating Certificate(s) Held:**	None
Operator Designator Code:	None		

Meteorological Information and Flight Plan

Conditions at Accident Site:	VMC	**Condition of Light:**	Day
Observation Facility, Elevation:	KSGF,1262 ft msl	**Observation Time:**	10:52 Local
Distance from Accident Site:	7 Nautical Miles	**Temperature/Dew Point:**	16°C /2°C
Lowest Cloud Condition:	Clear	**Wind Speed/Gusts, Direction:**	11 knots / 21 knots, 310°
Lowest Ceiling:	None	**Visibility:**	10 miles
Altimeter Setting:	30.12 inches Hg	**Type of Flight Plan Filed:**	NONE
Departure Point:	Springfield, MO (3DW)	**Destination:**	Springfield, MO (3DW)

Wreckage and Impact Information

Crew Injuries:	2 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Serious	**Latitude, Longitude:**	37.22076,-93.247713 (est)

Administrative Information

Investigator In Charge (IIC):	Hodges, Michael
Additional Participating Persons:	Nickolaus Orphan; FAA Kansas City FSDO; Kansas City, MO Thom Webster; Robinson Helicopter Company; Torrance, CA
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.