



# Aviation Investigation Final Report

<b>Location:</b>	Hendersonville, North Carolina	<b>Accident Number:</b>	ERA24LA169
<b>Date &amp; Time:</b>	April 7, 2024, 09:20 Local	<b>Registration:</b>	N381RS
<b>Aircraft:</b>	SNYDER ROBERT L CHALLENGER II	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Unknown or undetermined	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The private pilot departed with a tailwind from a 3,075 ft-long grass runway, climbed to about 150 ft above ground level (agl) at a speed of 41 miles per hour (mph) (the airplane's stall speed was 37 mph), and initiated a left turn. The pilot said that during the turn, the engine rpm dropped, and he was concerned about colliding with powerlines and a motor park. Instead, he chose a 3 ft round table located on the back patio of a private residence as a target to "buff" the impact. The pilot said he lowered the nose and rolled the airplane left and "slipped" the airplane between the tall trees located in the backyard of the residence and impacted the table/patio, resulting in substantial damage to the left wing. Once the airplane was recovered from the patio, the pilot test ran the two-stroke engine on the airframe under the supervision of a Federal Aviation Administration (FAA) inspector. The engine started and ran at a high and low power setting. No mechanical deficiencies or malfunctions were noted during the engine test run that would have precluded normal operation at the time of the accident.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

A loss of engine power for undetermined reasons.

## Findings

**Not determined**

(general) - Unknown/Not determined

## Factual Information

### History of Flight

Initial climb	Unknown or undetermined (Defining event)
Emergency descent	Collision with terr/obj (non-CFIT)

### Pilot Information

Certificate:	Private	Age:	67,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
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 None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 22, 1993
Flight Time:	298 hours (Total, all aircraft), 125 hours (Total, this make and model)		

### Aircraft and Owner/Operator Information

Aircraft Make:	SNYDER ROBERT L	Registration:	N381RS
Model/Series:	CHALLENGER II	Aircraft Category:	Airplane
Year of Manufacture:	2004	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	CH2-1003-2381
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	June 18, 2023 Condition	Certified Max Gross Wt.:	960 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	510 Hrs as of last inspection	Engine Manufacturer:	Rotax
ELT:	Installed, not activated	Engine Model/Series:	503DCDI
Registered Owner:	On file	Rated Power:	55 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:	KAVL,2163 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	09:54 Local	Direction from Accident Site:	325°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.17 inches Hg	Temperature/Dew Point:	7°C / 0°C
Precipitation and Obscuration:			
Departure Point:	Hendersonville, NC	Type of Flight Plan Filed:	None
Destination:	Hendersonville, NC	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class E

## Airport Information

Airport:	HENDERSONVILLE 0A7	Runway Surface Type:	Asphalt
Airport Elevation:	2084 ft msl	Runway Surface Condition:	Dry;Vegetation
Runway Used:	15/33	IFR Approach:	None
Runway Length/Width:	3075 ft / 40 ft	VFR Approach/Landing:	None

## Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	35.3187,-82.461

## Administrative Information

Investigator In Charge (IIC):	Read, Leah
Additional Participating Persons:	Chad Spoon; FAA/FSDO; Charlotte, NC
Original Publish Date:	May 29, 2024
Last Revision Date:	
Investigation Class:	<a href="#">Class 4</a>
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=194045">https://data.nts.gov/Docket?ProjectID=194045</a>

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](#).