



Aviation Investigation Final Report

Location:	Liberty, South Carolina	Accident Number:	ERA23LA387
Date & Time:	September 29, 2023, 08:10 Local	Registration:	N557JM
Aircraft:	JOHN W MOLL Vans RV-7	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Flight test		

Analysis

After completing a successful landing, the pilot of the tailwheel-equipped airplane applied engine power to begin the takeoff. During the takeoff roll, the airplane began to veer right. The pilot applied left rudder to correct; however, the airplane veered left and exited the left side of the runway. The airplane impacted the precision approach path indicators light system resulting in substantial damage to the left wing and left horizontal stabilizer. The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane 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 failure to maintain directional control during the takeoff roll which resulted in a runway excursion and substantial damage to the left wing and left horizontal stabilizer.

Findings

Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Takeoff	Loss of control on ground (Defining event)
Takeoff	Runway excursion
Takeoff	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Private	Age:	66,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	5-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	May 31, 2023
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	July 31, 2023
Flight Time:	151 hours (Total, all aircraft), 4 hours (Total, this make and model), 53 hours (Pilot In Command, all aircraft), 4 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	JOHN W MOLL	Registration:	N557JM
Model/Series:	Vans RV-7	Aircraft Category:	Airplane
Year of Manufacture:	2023	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	70912
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	June 15, 2023 Unknown	Certified Max Gross Wt.:	1800 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	0.7 Hrs at time of accident	Engine Manufacturer:	Aerosport Power
ELT:	Installed, not activated	Engine Model/Series:	IO-360-M1S
Registered Owner:	On file	Rated Power:	180 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:	LQK, 1014 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	08:15 Local	Direction from Accident Site:	338°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.13 inches Hg	Temperature/Dew Point:	13°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Liberty, SC	Type of Flight Plan Filed:	None
Destination:	Liberty, SC	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class G

Airport Information

Airport:	PICKENS COUNTY LQK	Runway Surface Type:	Asphalt
Airport Elevation:	1013 ft msl	Runway Surface Condition:	Dry
Runway Used:	23	IFR Approach:	None
Runway Length/Width:	5002 ft / 100 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:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	34.813474,-82.698247(est)

Preventing Similar Accidents

Understanding Flight Experience (SA-040)

The Problem

Aircraft have different flight characteristics, performance, and systems. Pilots may have many hours of experience, but their experience specific to the aircraft make/model and/or equipment they are flying may be limited.

Although Federal Aviation Administration (FAA) regulations allow pilots to operate aircraft that are designated by a specific category and class, differences among different types of aircraft within the same category and class can be significant. Even if operating a specific type of aircraft is allowed by regulations, it does not mean the practice is safe.

What can you do?

- Obtain the necessary training from a flight instructor experienced in the aircraft that you plan to fly so that you understand the flight characteristics and emergency procedures for that aircraft. Meeting the minimum requirements does not mean that you are proficient.
- Obtain refresher training if you have not flown for a long period; long periods of no flying, even for high-time pilots, can have an adverse impact on your ability to respond to unusual situations and emergencies.
- Seek out a qualified test pilot to assist in flight testing homebuilt aircraft you are not familiar with.
- Seek out instruction for advanced avionics and systems. Identical make-and-model aircraft can have considerably different cockpit panels.

See <https://www.nts.gov/Advocacy/safety-alerts/Documents/SA-040.pdf> for additional resources.

The NTSB presents this information to prevent recurrence of similar accidents. Note that this should not be considered guidance from the regulator, nor does this supersede existing FAA Regulations (FARs).

Administrative Information

Investigator In Charge (IIC):	Young, Joshua
Additional Participating Persons:	Todd Clamp; FAA/FSDO; Columbia, SC
Original Publish Date:	November 9, 2023
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=193172

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](#).