



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Gardner, Kansas	Accident Number:	CEN23LA184
Date & Time:	May 13, 2023, 15:42 Local	Registration:	N8932L
Aircraft:	RANS S7	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was in the front seat and a passenger, who is a flight instructor, was in the rear seat. Due to his injuries, the pilot was unable to recall what happened during the accident sequence. The passenger reported that during the takeoff, the airplane began to drift to the right. The airplane came near another airplane that was on the grass and the pilot “pitched up” to avoid the other airplane. The airplane exceeded its critical angle of attack, which resulted in an aerodynamic stall and loss of airplane control at an altitude too low to allow for recovery. The passenger estimated the aerodynamic stall occurred at 50 ft agl. The airplane impacted terrain, came to rest upright, and a postimpact fire ensued. The airplane sustained substantial damage to the fuselage and both wings.

The passenger reported that the engine was producing full power until the time of impact, and he did not hear any abnormal engine noises during the accident flight. A postaccident examination confirmed flight control continuity for the airframe.

Probable Cause and Findings

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

The pilot’s exceedance of the airplane’s critical angle of attack during the takeoff, which resulted in an aerodynamic stall and loss of airplane control at too low of an altitude to recover.

Findings

Personnel issues	Aircraft control - Pilot
Personnel issues	Task monitoring/vigilance - Pilot
Aircraft	Airspeed - Not attained/maintained
Aircraft	Angle of attack - Not attained/maintained

Factual Information

History of Flight

Takeoff	Loss of control in flight (Defining event)
Takeoff	Aerodynamic stall/spin
Takeoff	Collision during takeoff/land
Post-impact	Fire/smoke (post-impact)
Post-impact	Evacuation

Pilot Information

Certificate:	Private	Age:	61,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	BasicMed Unknown	Last FAA Medical Exam:	August 15, 2022
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 0 hours (Total, all aircraft), 0 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	RANS	Registration:	N8932L
Model/Series:	S7 S	Aircraft Category:	Airplane
Year of Manufacture:	2022	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	0318630
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	1320 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Rotax Aircraft Engines
ELT:		Engine Model/Series:	912iS
Registered Owner:	On file	Rated Power:	100 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None
Operator Does Business As:	On file	Operator Designator Code:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KIXD,1055 ft msl	Distance from Accident Site:	3 Nautical Miles
Observation Time:	14:53 Local	Direction from Accident Site:	77°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	250°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	29°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Gardner, KS	Type of Flight Plan Filed:	None
Destination:	Gardner, KS	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class E

Airport Information

Airport:	GARDNER MUNI K34	Runway Surface Type:	Asphalt
Airport Elevation:	1049 ft msl	Runway Surface Condition:	Dry;Rough;Vegetation
Runway Used:	26	IFR Approach:	None
Runway Length/Width:	2399 ft / 36 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	38.810442,-94.953917(est)

Administrative Information

Investigator In Charge (IIC):	Hodges, Michael
Additional Participating Persons:	Tamara Tucci; FAA Kansas City FSDO; Kansas City, MO
Original Publish Date:	July 27, 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=174534

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](#).