

Aviation Investigation Final Report

Location: Stevensville, Maryland Accident Number: ERA13CA305

Date & Time: June 25, 2013, 14:10 Local Registration: N33PV

Aircraft: CIRRUS DESIGN CORP SR22 Aircraft Damage: Substantial

Defining Event: Loss of control on ground **Injuries:** 2 None

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

The pilot/owner of the airplane stated that after a preflight inspection and before-takeoff checks revealed no anomalies, he initiated a soft-field takeoff from the turf runway. At an airspeed of 50 knots during the takeoff roll, the airplane became airborne after traveling over a "deep dip," then settled back onto the runway. The airplane then "swerved" to the left, and the pilot attempted to correct with aileron and rudder inputs. The airplane departed the left side of the runway, and came to rest about 300 feet beyond the runway's edge. Examination of the wreckage revealed substantial damage to the left wing, empennage, and tailcone. Examination of ground scars and the tailcone revealed damage consistent with dragging of the tail section on the runway. The pilot reported there were no mechanical deficiencies with the airplane that would have precluded normal operation. According to Federal Aviation Administration Publication FAA-H-8083-25A, Pilot's Handbook of Aeronautical Knowledge:

"The effect of torque increases in direct proportion to engine power, airspeed, and airplane attitude. If the power setting is high, the airspeed slow, and the angle of attack high, the effect of torque is greater. During takeoffs and climbs, when the effect of torque is most pronounced, the pilot must apply sufficient right rudder pressure to counteract the left-turning tendency and maintain a straight takeoff path."

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. Factors in the accident were the pilot's over-rotation at takeoff, and his failure to abort the takeoff prior to the runway

excursion.

Findings

Aircraft Directional control - Not attained/maintained

Personnel issues Aircraft control - Pilot

Personnel issues Decision making/judgment - Pilot

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Factual Information

History of Flight

Takeoff	Dragged wing/rotor/float/other
Takeoff	Loss of control on ground (Defining event)

Pilot Information

Certificate:	Private	Age:	52,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	July 30, 2012
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	300 hours (Total, all aircraft), 70 hours (Total, this make and model), 200 hours (Pilot In Command, all aircraft), 30 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft) hours (Last 24 hours, all aircraft)		

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Aircraft and Owner/Operator Information

Aircraft Make:	CIRRUS DESIGN CORP	Registration:	N33PV
Model/Series:	SR22	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1356
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	May 23, 2013 Annual	Certified Max Gross Wt.:	3400 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	663 Hrs at time of accident	Engine Manufacturer:	CONT MOTOR
ELT:	Installed	Engine Model/Series:	IO-550 SERIES
Registered Owner:	Derr Liquors, Inc	Rated Power:	300 Horsepower
Operator:	Antonio Quintans	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Vieual (VMC)	Condition of Light:	Dov
Conditions at Accident Site.	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	W29,15 ft msl	Distance from Accident Site:	4 Nautical Miles
Observation Time:	14:05 Local	Direction from Accident Site:	360°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	31°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Stevensville, MD (3W3)	Type of Flight Plan Filed:	Unknown
Destination:	Wilimington, DE (ILG)	Type of Clearance:	None
Departure Time:	14:10 Local	Type of Airspace:	

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Airport Information

Airport:	Kentmorr Airpark 3W3	Runway Surface Type:	Grass/turf
Airport Elevation:	10 ft msl	Runway Surface Condition:	
Runway Used:	10	IFR Approach:	None
Runway Length/Width:	2400 ft / 75 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	38.917499,-76.355278(est)

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Administrative Information

Investigator In Charge (IIC):	Rayner, Brian
Additional Participating Persons:	David Garey; FAA/FSDO; Baltimore, MD
Original Publish Date:	July 23, 2013
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=87305

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.

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