



Aviation Investigation Final Report

Location:	Knoxville, Tennessee	Accident Number:	ERA23LA145
Date & Time:	March 7, 2023, 13:05 Local	Registration:	N320CA
Aircraft:	CIRRUS DESIGN CORP SR22T	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Business		

Analysis

The pilot reported that during the takeoff roll the airplane encountered a gusting and shifting crosswind. The airplane departed the left side of the runway and the pilot applied the brakes and reduced engine power. The airplane subsequently struck a culvert, the landing gear partially collapsed, and the airplane’s firewall was substantially damaged. The pilot reported that there were no preaccident mechanical malfunctions or failures of 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 where a gusting and shifting crosswind prevailed.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Directional control - Not attained/maintained
Environmental issues	Crosswind - Response/compensation

Factual Information

History of Flight

Takeoff-rejected takeoff	Loss of control on ground (Defining event)
Takeoff-rejected takeoff	Runway excursion

Pilot Information

Certificate:	Private	Age:	59, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	September 14, 2022
Occupational Pilot:	No	Last Flight Review or Equivalent:	March 31, 2021
Flight Time:	1433 hours (Total, all aircraft), 1222 hours (Total, this make and model), 1433 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Passenger Information

Certificate:		Age:	
Airplane Rating(s):		Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	3-point
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	CIRRUS DESIGN CORP	Registration:	N320CA
Model/Series:	SR22T	Aircraft Category:	Airplane
Year of Manufacture:	2014	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	0822
Landing Gear Type:	Tricycle	Seats:	5
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	3400 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental
ELT:	Installed	Engine Model/Series:	TSIO550K1B
Registered Owner:	ARMSTRONG RESOURCE MANAGEMENT CORP	Rated Power:	315 Horsepower
Operator:	ARMSTRONG RESOURCE MANAGEMENT CORP	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KDKX,833 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	12:55 Local	Direction from Accident Site:	258°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	10°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.12 inches Hg	Temperature/Dew Point:	19°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Knoxville, TN (DKX)	Type of Flight Plan Filed:	IFR
Destination:	Newman, GA (CCO)	Type of Clearance:	IFR
Departure Time:	13:00 Local	Type of Airspace:	Class E

Airport Information

Airport:	KNOXVILLE DOWNTOWN ISLAND DKX	Runway Surface Type:	Asphalt
Airport Elevation:	833 ft msl	Runway Surface Condition:	Dry
Runway Used:	8	IFR Approach:	None
Runway Length/Width:	3499 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:	35.96424,-83.873305(est)

Administrative Information

Investigator In Charge (IIC):	Freeze, Christopher
Additional Participating Persons:	Angela Kachinski; FAA/FSDO; Nashville, TN
Original Publish Date:	June 23, 2023
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=106851

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](#).