



# Aviation Investigation Final Report

<b>Location:</b>	Princeton, Minnesota	<b>Accident Number:</b>	CEN23LA122
<b>Date &amp; Time:</b>	February 25, 2023, 15:00 Local	<b>Registration:</b>	N208SP
<b>Aircraft:</b>	Cessna 172S	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control on ground	<b>Injuries:</b>	3 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that during takeoff the airplane “started to slide to the left on the ice” on the snow and ice-covered runway. The pilot chose to abort the takeoff. During the abort, the airplane kept “pulling to the left” and impacted the terrain between the runway and taxiway. Upon impact, the airplane nosed over which resulted in substantial damage to the fuselage, wings, and wing struts. At the time of the accident, the pilot was taking off with a 40° right crosswind at 8 knots.

## 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. Contributing to the accident, was the runway condition combined with a right crosswind.

## Findings

<b>Personnel issues</b>	Aircraft control - Pilot
<b>Environmental issues</b>	Snow/slush/ice covered surface - Effect on operation
<b>Environmental issues</b>	Crosswind - Effect on operation



## Factual Information

### History of Flight

Takeoff-rejected takeoff	Loss of control on ground (Defining event)
Takeoff	Nose over/nose down

### Pilot Information

Certificate:	Private	Age:	44,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
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:	August 3, 2021
Occupational Pilot:	No	Last Flight Review or Equivalent:	January 30, 2023
Flight Time:	(Estimated) 103 hours (Total, all aircraft), 103 hours (Total, this make and model), 30 hours (Pilot In Command, all aircraft), 17 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 1 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:	Last Flight Review or Equivalent:
Flight Time:	

## Passenger Information

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

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N208SP
<b>Model/Series:</b>	172S	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1999	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal; Utility	<b>Serial Number:</b>	172S8208
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	February 17, 2023 Annual	<b>Certified Max Gross Wt.:</b>	2550 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	10851 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	C126 installed, activated, aided in locating accident	<b>Engine Model/Series:</b>	IO-360-L2A
<b>Registered Owner:</b>	208SP LLC	<b>Rated Power:</b>	180
<b>Operator:</b>	Twin Cities Flight Training, Inc	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KPNM, 979 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	14:55 Local	<b>Direction from Accident Site:</b>	101°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	200°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	29.96 inches Hg	<b>Temperature/Dew Point:</b>	-6°C / -12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Princeton, MN	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Blaine, MN (KANE)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	Princeton Municipal Airport PNM	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	980 ft msl	<b>Runway Surface Condition:</b>	Dry; Ice; Snow
<b>Runway Used:</b>	16	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	3900 ft / 75 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	2 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	3 None	<b>Latitude, Longitude:</b>	45.56005, -93.608366 (est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Finne, Andrew
<b>Additional Participating Persons:</b>	Thurston, Greg; FAA - FSDO; Minneapolis, MN
<b>Original Publish Date:</b>	March 30, 2023
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=106790">https://data.nts.gov/Docket?ProjectID=106790</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](#).