



# Aviation Investigation Final Report

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<b>Location:</b>	St. Cloud, Minnesota	<b>Accident Number:</b>	CEN19LA125
<b>Date &amp; Time:</b>	April 20, 2019, 09:46 Local	<b>Registration:</b>	N40956
<b>Aircraft:</b>	Piper PA-28R-200	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Runway excursion	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

The private pilot reported that the airplane operated normally during the personal flight. He stated that before touchdown at the destination airport, he applied left rudder and had the right wing down into the wind to counter the crosswinds and maintain the center line of the runway. At touchdown, he held the control yoke to the right and was applying the brakes; however, the airplane veered left and exited the runway. The airplane traveled about 50 ft into the grass, and the right main landing gear collapsed; the right wing struck the ground and sustained substantial damage. Postaccident examination confirmed flight control continuity. The airplane was equipped with an engine monitoring system, and data indicated that the engine and propeller operated normally during the flight. The pilot reported no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation. Weather at the destination airport about 1 hour before the accident was wind from 180° at 13 knots gusting to 20 knots; the automated weather report that the pilot received en route was similar. The crosswind component was within the maximum demonstrated crosswind component for this airplane; however, the pilot stated, "Looking back, I should have never gone up with crosswinds that high, with little to no practice in crosswinds logged in the last 30, 60, [or] 90 days." Thus, it is likely that the pilot failed to maintain directional control during landing in crosswind conditions.

## 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 a crosswind landing. Contributing to the accident was the pilot's decision to land in crosswind conditions given his lack of recent experience in those conditions.

## Findings

<b>Aircraft</b>	Directional control - Not attained/maintained
<b>Personnel issues</b>	Aircraft control - Pilot
<b>Environmental issues</b>	Crosswind - Effect on operation
<b>Environmental issues</b>	Crosswind - Response/compensation
<b>Personnel issues</b>	Decision making/judgment - Pilot

## Factual Information

### History of Flight

Landing-landing roll	Other weather encounter
Landing-landing roll	Runway excursion (Defining event)
Landing-landing roll	Landing gear collapse

*\*\*\*This report was modified on 12/11/2019. Please see the docket for this accident to view the original report.\*\*\**

On April 20, 2019, about 0946 central daylight time, a Piper PA-28R-200 airplane, veered off the left side of runway 13 during landing at the St. Cloud Regional Airport (STC), St. Cloud, Minnesota. The pilot and passenger were not injured; the airplane sustained substantial damage to the right wing. The airplane was owned and operated by the Blue Sky Benefit Solutions, Inc. under the provisions of Title 14 *Code of Federal Regulations* Part 91 as a personal flight. Visual meteorological conditions prevailed during the flight, which was not operating under a flight plan. The flight departed the Sauk Centre Municipal Airport (D39), Sauk Centre, Minnesota, about 0914 with STC as the destination.

The pilot reported that the accident flight was the first flight after the airplane had undergone an annual maintenance inspection. The pilot reported that the airplane operated normally during the flight and he planned to land on runway 13 (7,500 ft by 150, asphalt) at STC. The approach and descent rate were stable as he "crabbed" the airplane into the wind to compensate for the right crosswind. He selected 25° of flaps when the indicated airspeed was 80 kts. He stated that before touchdown, he applied left rudder and had the right wing down into the wind to counter the crosswinds and to maintain the center line of the runway. At touchdown, he had the control yoke to the right and was applying the brakes; however, the airplane veered to the left and exited the runway. The airplane traveled about 50 ft into the grass when the right main landing gear collapsed. The right wing struck the ground resulting in substantial damage to the wing.

The examination of the flight controls confirmed flight control continuity from the flight controls to the control surfaces. The airplane was equipped with an engine monitoring system. The data was downloaded, and the data indicated that the engine and propeller operated normally during the flight. The pilot reported no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation. The pilot stated, "Looking back, I should have never gone up with crosswinds that high, with little to no practice in crosswinds logged in the last 30, 60, [or] 90 days."

At 0853, the surface weather observation at STC, was wind 180° at 13 knots gusting to 20 knots; visibility 10 miles; sky clear; temperature 12° C; dew point -1° C; and altimeter 29.78 inches of mercury. The pilot reported that before departing D39, the weather briefing at D39 was sky clear, wind 180° at 9 knots. About 30 nautical miles out from STC, the pilot received the automated weather from STC, which was sky clear, wind 180° at 12 to 20 knots.

According to the airplane manufacturer's pilot operating handbook, the maximum demonstrated crosswind component for this make/model airplane is 17 knots.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	46, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	August 23, 2016
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	March 31, 2017
<b>Flight Time:</b>	368 hours (Total, all aircraft), 317 hours (Total, this make and model), 340 hours (Pilot In Command, all aircraft), 3 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N40956
<b>Model/Series:</b>	PA-28R-200	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1973	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	28R-7435144
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	April 19, 2019 Annual	<b>Certified Max Gross Wt.:</b>	2325 lbs
<b>Time Since Last Inspection:</b>	0 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	4195.5 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	IO-380-C1C
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	200
<b>Operator:</b>	On file	<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>	STC,1030 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	08:53 Local	<b>Direction from Accident Site:</b>	0°
<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>	13 knots / 20 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	180°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.78 inches Hg	<b>Temperature/Dew Point:</b>	12°C / -1°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Sauk Centre, MN (D39 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	St. Cloud, MN (STC )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	09:14 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	St. Cloud Regional Airport STC	<b>Runway Surface Type:</b>	Concrete
<b>Airport Elevation:</b>	1030 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	13	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	7500 ft / 150 ft	<b>VFR Approach/Landing:</b>	Full stop

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	45.548053,-94.069725

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Silliman, James
<b>Additional Participating Persons:</b>	Ed Martin; Minneapolis FSDO; Minneapolis, MN
<b>Original Publish Date:</b>	February 11, 2020
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</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=99296">https://data.nts.gov/Docket?ProjectID=99296</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](#).