Aviation Investigation Final Report

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

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

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

Certificate:	Private	**Age:**	46,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	August 23, 2016
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	March 31, 2017
Flight Time:	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

Aircraft Make:	Piper	**Registration:**	N40956
Model/Series:	PA-28R-200	**Aircraft Category:**	Airplane
Year of Manufacture:	1973	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	28R-7435144
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	April 19, 2019 Annual	**Certified Max Gross Wt.:**	2325 lbs
Time Since Last Inspection:	0 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	4195.5 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	Installed	**Engine Model/Series:**	IO-380-C1C
Registered Owner:		**Rated Power:**	200
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	STC,1030 ft msl	**Distance from Accident Site:**	0 Nautical Miles
Observation Time:	08:53 Local	**Direction from Accident Site:**	0°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	13 knots / 20 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	180°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.78 inches Hg	**Temperature/Dew Point:**	12°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Sauk Centre, MN (D39)	**Type of Flight Plan Filed:**	None
Destination:	St. Cloud, MN (STC)	**Type of Clearance:**	None
Departure Time:	09:14 Local	**Type of Airspace:**	

Airport Information

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

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:**	45.548053,-94.069725

Administrative Information

Investigator In Charge (IIC):	Silliman, James
Additional Participating Persons:	Ed Martin; Minneapolis FSDO; Minneapolis, MN
Original Publish Date:	February 11, 2020
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=99296