



# Aviation Investigation Final Report

<b>Location:</b>	Dayton, Ohio	<b>Accident Number:</b>	GAA18CA426
<b>Date &amp; Time:</b>	July 14, 2018, 14:15 Local	<b>Registration:</b>	N7492K
<b>Aircraft:</b>	Piper PA 20	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control on ground	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot of the tailwheel-equipped airplane reported that, during the landing flare, he felt a wind shift push the airplane left of centerline. He applied opposite rudder, but the airplane touched down "skewed" to the right. The airplane then exited the runway to the right and ground looped on an adjacent field.

The airplane sustained substantial damage to the left wing.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

The pilot reported that the wind was variable at 6 knots at the accident site. He added that, during the short final leg of the approach, the wind was from about 210° and that, during the landing flare, the wind shifted to from about 280°. The airport's automated weather observation station reported that, about 20 minutes before the accident, the wind was from 310° at 9 knots and that, about 30 minutes after the accident, the wind was from 180° at 8 knots. The pilot landed the airplane on runway 20.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's inadequate compensation for variable crosswind conditions during landing, which resulted in a runway excursion.

## Findings

<b>Personnel issues</b>	Aircraft control - Pilot
<b>Environmental issues</b>	Crosswind - Response/compensation
<b>Environmental issues</b>	Variable wind - Response/compensation
<b>Aircraft</b>	Directional control - Not attained/maintained

## Factual Information

### History of Flight

Landing-flare/touchdown	Other weather encounter
Landing-flare/touchdown	Loss of control on ground (Defining event)
Landing-flare/touchdown	Attempted remediation/recovery
Landing-flare/touchdown	Runway excursion

### Pilot Information

Certificate:	Private	Age:	31,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	March 16, 2015
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 19, 2018
Flight Time:	(Estimated) 82 hours (Total, all aircraft), 109 hours (Total, this make and model), 55 hours (Pilot In Command, all aircraft)		

### Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N7492K
Model/Series:	PA 20 Undesignat	Aircraft Category:	Airplane
Year of Manufacture:	1950	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	20-407
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	July 13, 2017 Annual	Certified Max Gross Wt.:	1799 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-235-C1
Registered Owner:		Rated Power:	108 Horsepower
Operator:		Operating Certificate(s) Held:	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>	KMGY,962 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	18:53 Local	<b>Direction from Accident Site:</b>	349°
<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>	180°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.09 inches Hg	<b>Temperature/Dew Point:</b>	32°C / 18°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Dayton, OH (MGY )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Dayton, OH (MGY )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	14:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	Dayton-Wright Brothers MGY	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	956 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	20	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5000 ft / 100 ft	<b>VFR Approach/Landing:</b>	Full stop;Straight-in;Traffic pattern

## 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>	39.58889,-84.224723(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Nepomuceno, Eleazar
<b>Additional Participating Persons:</b>	Mike Puehler; FAA; Cincinnati, OH
<b>Original Publish Date:</b>	September 26, 2019
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=97805">https://data.nts.gov/Docket?ProjectID=97805</a>

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