



# Aviation Investigation Final Report

<b>Location:</b>	Pine Spring, Texas	<b>Accident Number:</b>	GAA18CA347
<b>Date &amp; Time:</b>	May 1, 2018, 21:48 Local	<b>Registration:</b>	N9494J
<b>Aircraft:</b>	Piper PA28	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Controlled flight into terr/obj (CFIT)	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that, while en route in mountainous terrain at night at 6,500 ft, he encountered turbulence and downdrafts, during which time, he "felt a couple of impacts on the left side." He continued to the destination airport, where he noticed the ELT was transmitting over the radio. During the landing, the left main landing gear collapsed. The pilot reported that he initially thought the airplane had struck a bird, but postaccident examination revealed that the left wing had impacted a tree.

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.

## 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 adequate altitude while flying over mountainous terrain in turbulent wind conditions at night, which resulted in a tree strike.

## Findings

<b>Aircraft</b>	Altitude - Not attained/maintained
<b>Personnel issues</b>	Aircraft control - Pilot
<b>Environmental issues</b>	Tree(s) - Effect on operation
<b>Environmental issues</b>	Terrain induced turbulence - Effect on operation
<b>Environmental issues</b>	Downdraft - Effect on operation
<b>Environmental issues</b>	Dark - Effect on personnel

## Factual Information

### History of Flight

<b>Enroute</b>	Other weather encounter
<b>Enroute</b>	Controlled flight into terr/obj (CFIT) (Defining event)
<b>Landing</b>	Landing gear collapse

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	47,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>	Unknown
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	August 9, 2017
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	May 8, 2016
<b>Flight Time:</b>	(Estimated) 3600 hours (Total, all aircraft), 3400 hours (Total, this make and model), 3550 hours (Pilot In Command, all aircraft), 50 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N9494J
<b>Model/Series:</b>	PA28 180	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1966	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	28-3613
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	July 1, 2018 Annual	<b>Certified Max Gross Wt.:</b>	2150 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3200 Hrs at time of accident	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-360 SER
<b>Registered Owner:</b>		<b>Rated Power:</b>	180 Horsepower
<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>	Night
<b>Observation Facility, Elevation:</b>	KGDP, 5456 ft msl	<b>Distance from Accident Site:</b>	5 Nautical Miles
<b>Observation Time:</b>	03:51 Local	<b>Direction from Accident Site:</b>	339°
<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>	10 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>	21°C / -12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Eldorado, TX (27R )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	El Paso, TX (ELP )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	20:50 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	31.758054,-104.77639(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Benhoff, Kathryn
<b>Additional Participating Persons:</b>	David A Jones; FAA; Albuquerque, NM
<b>Original Publish Date:</b>	November 5, 2018
<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=97480">https://data.nts.gov/Docket?ProjectID=97480</a>

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