



# Aviation Investigation Final Report

<b>Location:</b>	Westminster, Maryland	<b>Accident Number:</b>	GAA18CA326
<b>Date &amp; Time:</b>	May 25, 2018, 23:00 Local	<b>Registration:</b>	N789EP
<b>Aircraft:</b>	Cessna 172	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Hard landing	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that, during short final at night, he reduced power to idle, and the airplane descended rapidly and landed hard in a flat attitude. He added that, after touchdown, the airplane bounced, and he applied full power to go around. He entered the traffic pattern and then landed without further incident.

Postaccident examination 3 days after the accident revealed that the airplane sustained substantial damage to the fuselage.

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 improper landing flare, which resulted in a hard landing.

## Findings

<b>Aircraft</b>	Landing flare - Not attained/maintained
<b>Personnel issues</b>	Aircraft control - Pilot



## Factual Information

### History of Flight

<b>Landing</b>	Hard landing (Defining event)
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### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	38, 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>	April 4, 2017
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	February 12, 2018
<b>Flight Time:</b>	(Estimated) 59.7 hours (Total, all aircraft), 59.7 hours (Total, this make and model), 24.6 hours (Pilot In Command, all aircraft), 8.3 hours (Last 90 days, all aircraft), 6.4 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N789EP
<b>Model/Series:</b>	172 S	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1999	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	172S8135
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	March 16, 2018 Annual	<b>Certified Max Gross Wt.:</b>	2558 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	6735.6 Hrs at time of accident	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	C91A installed, not activated	<b>Engine Model/Series:</b>	IO-360-L2A
<b>Registered Owner:</b>		<b>Rated Power:</b>	180 Horsepower
<b>Operator:</b>		<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>	KDMW,789 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	02:55 Local	<b>Direction from Accident Site:</b>	155°
<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>	6 knots /	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>	190°	<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	29.9 inches Hg	<b>Temperature/Dew Point:</b>	25°C / 19°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	WILDWOOD, NJ (WWD )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Westminster, MD (DMW )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	21:40 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	CARROLL COUNTY RGNL/JACK B POA DMW	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	789 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	16	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5100 ft / 100 ft	<b>VFR Approach/Landing:</b>	Full stop;Go around;Traffic pattern

## 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>	39.610832,-77.009719(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Benhoff, Kathryn
<b>Additional Participating Persons:</b>	Timothy MacBryde; FAA; Baltimore, MD
<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=97414">https://data.nts.gov/Docket?ProjectID=97414</a>

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