



# Aviation Investigation Final Report

<b>Location:</b>	Greeley, Colorado	<b>Accident Number:</b>	CEN19LA183
<b>Date &amp; Time:</b>	June 24, 2019, 10:25 Local	<b>Registration:</b>	N5866P
<b>Aircraft:</b>	Piper PA24	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Abnormal runway contact	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot stated that the final approach and touchdown were uneventful, but then the airplane's right wing “dipped,” the nose veered left, and the airplane departed the runway surface. Witnesses reported that, during the landing, the nose gear contacted the runway first and then the airplane became airborne again. After the second touchdown, the airplane veered left into the grass.

Examination of the airplane revealed that the right main landing gear sustained damage consistent with an excessive side load during landing. There was no evidence of a preimpact mechanical malfunction that would have precluded normal operation. Based on the available information, the accident is consistent with the pilot’s improper landing flare, which resulted in touchdown on the runway with a side load on the landing gear, failure of the right main gear, and a loss of control.

## 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 failure of the right main landing gear and a subsequent loss of control.

## Findings

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<b>Personnel issues</b>	Incorrect action performance - Pilot
<b>Personnel issues</b>	Aircraft control - Pilot
<b>Aircraft</b>	Directional control - Not attained/maintained

## Factual Information

### History of Flight

<b>Landing-flare/touchdown</b>	Abnormal runway contact (Defining event)
<b>Landing-landing roll</b>	Aircraft structural failure

On June 24, 2019, about 1025 mountain daylight time, a Piper PA-24 airplane, N5866P, was substantially damaged when it was involved in an accident near Greeley, Colorado. The private pilot and passenger were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that he completed a touch-and-go landing, which was uneventful, and he planned his next landing to be a full-stop landing. The pilot stated everything "was good" until touching down, when the airplane's right wing "dipped" and the nose veered left, causing the airplane to exit the runway surface. The airplane hit a taxiway light and continued into the grass on the south side of the runway, where it came to rest.

A flight instructor who witnessed the accident stated that, during the landing, the nose landing gear hit the runway first and the airplane bounced and became airborne again before he lost sight of it.

Examination of the airplane revealed that the side brace stud of the right main gear side brace upper link assembly was disconnected from the main gear side brace support fitting assembly. The roll pin inserted through the threading on the stud that connected to the support fitting was sheared and the threads of the stud were stripped. The push/pull (conduit) cable assembly arm that connected to the main gear side brace upper link assembly and actuated the landing gear was bent upward. No mechanical anomalies that would have precluded normal operation of the landing gear were found.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	57, 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>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	BasicMed Without waivers/limitations	<b>Last FAA Medical Exam:</b>	September 6, 2018
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	September 9, 2018
<b>Flight Time:</b>	(Estimated) 395 hours (Pilot In Command, all aircraft), 1 hours (Last 90 days, all aircraft)		

## Passenger Information

<b>Certificate:</b>		<b>Age:</b>	Male
<b>Airplane Rating(s):</b>		<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	Lap only
<b>Instrument Rating(s):</b>		<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>		<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N5866P
<b>Model/Series:</b>	PA24 250	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1959	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	24-949
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	August 9, 2018 Annual	<b>Certified Max Gross Wt.:</b>	2899 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-540 SERIES
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	250 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Unknown	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KGXY,4697 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	09:56 Local	<b>Direction from Accident Site:</b>	146°
<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>	/
<b>Wind Direction:</b>	190°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.95 inches Hg	<b>Temperature/Dew Point:</b>	21°C / 11°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Greeley, CO (GXY)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Greeley, CO (GXY)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	10:15 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	Greeley-Weld County GXY	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	4696 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	28	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5801 ft / 100 ft	<b>VFR Approach/Landing:</b>	Full stop;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>	40.4375,-104.633331 (est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Liedler, Courtney
<b>Additional Participating Persons:</b>	Sean Shambo; FAA; Denver, CO
<b>Original Publish Date:</b>	February 16, 2022
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 3</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=99704">https://data.nts.gov/Docket?ProjectID=99704</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](#).