



# Aviation Investigation Final Report

<b>Location:</b>	Eugene, Oregon	<b>Accident Number:</b>	LAX07LA158
<b>Date &amp; Time:</b>	May 11, 2007, 16:15 Local	<b>Registration:</b>	N8170P
<b>Aircraft:</b>	Piper PA-24	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	4 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

As he approached the destination airport, the pilot placed the landing gear selector in the down position, but the gear initially did not extend. He reset the electric gear motor's circuit breaker and the gear extended. The pilot stated that he observed illumination of the landing gear's green position light, and believed that the gear was locked in the down position. The pilot made a normal touchdown, however, seconds later the gear collapsed. An examination of the landing gear extension system revealed it functioned properly when manually extended. Because of impact damage, the gear system could not be electrically operated during the examination. The reason for the gear's failure to fully extend to the locked down position was not determined.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Collapse of the landing gear during landing for undetermined reasons.

### Findings

Occurrence #1: GEAR COLLAPSED  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

#### Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED



## Factual Information

On May 11, 2007, about 1615 Pacific daylight time a Piper PA-24, N8170P, experienced the collapse of its landing gear during rollout on runway 34 at Eugene, Oregon. As the airplane slid to a stop, bulkheads were bent and the firewall was deformed. The airplane was substantially damaged. Neither the commercial pilot nor the three passengers were injured during the personal flight in the airplane, which the pilot owned and operated. Visual meteorological conditions prevailed at the time, and no flight plan had been filed. The flight was performed under the provisions of 14 Code of Federal Regulations Part 91, and it originated from Santa Rosa, California, about 1345.

According to the pilot, approaching the destination airport he attempted to extend the landing gear. When he moved the landing gear control to the down position, the gear did not extend. In an attempt to rectify the situation the pilot cycled the gear handle again, but the gear did not extend. The pilot further reported that he observed the airplane's generator was producing current. The pilot pulled and reset the landing gear circuit breaker, and again attempted to extend the gear. This time, the gear extended and the single green gear down light illuminated. The pilot opined that the gear was down and locked, and he proceeded to land. The touchdown was uneventful. However, after a couple of seconds the gear collapsed.

The airplane's landing gear extension system was subsequently examined under the direction of the National Transportation Safety Board investigator. According to the Chief Inspector, Flightcraft, Eugene, due to impact damage of the landing gear actuator aft mount, the landing gear could not be operated with electric power. The airplane's master switch was turned on, and no panel anomalies were observed. Each landing gear was then manually retracted and extended three times. Each time, when extended, the gear locked down over center, and a green down and locked light indication occurred. The gear motor was electrically activated, and the motor sounded normal. The reason for the gear's failure to fully extend to the locked down position was not ascertained.

## Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	25, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Glider	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	February 1, 2007
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	February 1, 2007
<b>Flight Time:</b>	1300 hours (Total, all aircraft), 46 hours (Total, this make and model), 840 hours (Pilot In Command, all aircraft), 103 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N8170P
<b>Model/Series:</b>	PA-24	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	24-3426
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	February 1, 2007 Annual	<b>Certified Max Gross Wt.:</b>	2900 lbs
<b>Time Since Last Inspection:</b>	45 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3897 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-540-A1C5
<b>Registered Owner:</b>	Comanche Cruisers	<b>Rated Power:</b>	250 Horsepower
<b>Operator:</b>	Eric S. Hyde	<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>	Day
<b>Observation Facility, Elevation:</b>	EUG,369 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	15:54 Local	<b>Direction from Accident Site:</b>	
<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>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	20°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.01 inches Hg	<b>Temperature/Dew Point:</b>	17°C / -9°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Santa Rosa, CA (STS )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Eugene, OR (EUG )	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	13:45 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Mahlon Sweet Field EUG	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	369 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	34	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	8009 ft / 150 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>	3 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	4 None	<b>Latitude, Longitude:</b>	44.127777,-123.220001

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Pollack, Wayne
<b>Additional Participating Persons:</b>	Bob Braze; Federal Aviation Administration; Portland, OR
<b>Original Publish Date:</b>	June 30, 2008
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=65772">https://data.nts.gov/Docket?ProjectID=65772</a>

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