



Aviation Investigation Final Report

Location:	Camarillo, California	Accident Number:	WPR14LA105
Date & Time:	January 28, 2014, 15:15 Local	Registration:	N5977Y
Aircraft:	Piper PA 23-250	Aircraft Damage:	Substantial
Defining Event:	Landing gear collapse	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that he was performing touch-and-go landings and that, during the second landing, the right wing contacted the ground. The airplane then came to a stop on the runway. Postaccident examinations revealed that the right main gear landing (MLG) downlock was not in the locked position and that the right MLG had collapsed during landing. During the teardown of the hydraulic powerpack, a damaged O-ring was found on the gear selector shaft. The damaged O-ring did not allow the hydraulic fluid to build pressure and the downlock to hold, which prevented the downlock from locking the right MLG in the extended position.

Probable Cause and Findings

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

The inadequate hydraulic pressure due to a damaged O-ring in the hydraulic powerpack, which prevented the right main landing gear (MLG) downlock from locking in the extended position and allowed the right MLG to collapse during landing.

Findings

Aircraft	Hydraulic, main system - Failure
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Factual Information

History of Flight

Landing-flare/touchdown	Landing gear collapse (Defining event)
Landing-landing roll	Collision during takeoff/land

On January 28, 2014, about 1515 Pacific standard time, a Piper PA-23, N5977Y, sustained substantial damage following the collapse of the right main landing gear during the landing roll out at the Camarillo Airport (CMA), Camarillo, California. The airplane was registered to Red State, LLC and was operated by the pilot under the provisions of 14 Code of Federal Regulations, Part 91 as a personal flight. The commercial pilot and the pilot rated passenger were not injured. The flight originated from Bob Hope Airport (BUR), Burbank, CA, at 1440 with a planned destination of CMA. Visual meteorological conditions prevailed for the flight and no flight plan was filed.

The pilot reported in a written statement to the National Transportation Safety Board (NTSB), investigator-in-charge (IIC), that the purpose of the flight was landing operations and airplane familiarization at CMA for the commercial pilot. After completing a touch-and-go landing in the traffic pattern at CMA, the pilot performed prelanding procedures and landed a second time on runway 26. He stated that after touching down, the right wing contacted the ground and the airplane came to a stop on the runway. The right aileron was substantially damaged.

A postaccident examination of the airplane was conducted by a local mechanic. The examination revealed that the right main landing gear was down and the downlock was not in the locked position during landing. No mechanical anomalies were noted with the landing gear system. The hydraulic power-pack was sent to a repair shop for further examination. According to the repair shop, the hydraulic power-pack was bench tested which revealed that it was bypassing the detent internally. During the teardown of the unit, a damaged o-ring was found on the gear selector shaft. This damaged o-ring was not allowing the fluid to build pressure and hold. The repair shop further reported that the unit's oil and internal surface was very dirty.

Pilot Information

Certificate:	Commercial	Age:	26
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	October 8, 2013
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	June 1, 2013
Flight Time:	992 hours (Total, all aircraft), 1 hours (Total, this make and model), 720 hours (Pilot In Command, all aircraft), 193 hours (Last 90 days, all aircraft), 95 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N5977Y
Model/Series:	PA 23-250 250	Aircraft Category:	Airplane
Year of Manufacture:	1966	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	27-3148
Landing Gear Type:	Retractable - Tricycle	Seats:	3
Date/Type of Last Inspection:	December 19, 2013 100 hour	Certified Max Gross Wt.:	5200 lbs
Time Since Last Inspection:	67 Hrs	Engines:	2 Reciprocating
Airframe Total Time:	11369 Hrs at time of accident	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	IO-540-C4B5
Registered Owner:	On file	Rated Power:	250 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KCMA,65 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	22:55 Local	Direction from Accident Site:	62°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	30.04 inches Hg	Temperature/Dew Point:	18°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	BURBANK, CA (BUR)	Type of Flight Plan Filed:	None
Destination:	Camarillo, CA (CMA)	Type of Clearance:	VFR;VFR flight following
Departure Time:	14:35 Local	Type of Airspace:	Class D

Airport Information

Airport:	CAMARILLO CMA	Runway Surface Type:	Asphalt;Concrete
Airport Elevation:	77 ft msl	Runway Surface Condition:	Dry
Runway Used:	26	IFR Approach:	None
Runway Length/Width:	6013 ft / 150 ft	VFR Approach/Landing:	Touch and go;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	34.21389,-119.089996(est)

Administrative Information

Investigator In Charge (IIC): Swick, Andrew

Additional Participating Persons: Jerry Badillo; FAA-FSDO; Van Nuys, CA

Original Publish Date: June 1, 2015

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=88731>

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