



Aviation Investigation Final Report

Location:	Houston, Texas	Accident Number:	CEN14LA474
Date & Time:	July 27, 2014, 18:30 Local	Registration:	N2148J
Aircraft:	Piper PA 28RT-201T	Aircraft Damage:	Substantial
Defining Event:	Landing gear collapse	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

While on a visual departure, the pilot noted that the red landing gear unsafe light was illuminated after he retracted the landing gear. The pilot attempted to extend the landing gear using emergency extension procedures, but the green right main landing gear light did not illuminate. The pilot contacted a tower air traffic controller at an en route airport to request a visual report on the landing gear. The tower controller reported that the landing gear appeared to be down. The pilot then proceeded to the destination airport to land. During the landing roll, the right main landing gear collapsed. Following the accident, a mechanic replaced the landing gear hydraulic pump, solenoids, and springs. After these components were replaced, the landing gear operated normally during ground testing. The maintenance actions were performed before investigators examined the landing gear.

Probable Cause and Findings

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

The landing gear's failure to extend for reasons that could not be determined based on the available evidence.

Findings

Aircraft	Main landing gear - Failure
Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Initial climb	Landing gear not configured
Landing-landing roll	Landing gear collapse (Defining event)

On July 27, 2014, about 1830 central daylight time, a Piper PA-28RT-201T airplane, N2148J, was substantially damaged during landing rollout at Ellington Airport (EFD), Houston, Texas. The pilot was not injured. The airplane was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed during the flight, which departed without a flight plan from La Porte Municipal Airport (T41), La Porte, Texas about 1715.

While departing from T41, the pilot noted the landing gear unsafe light (red) was illuminated after retracting the landing gear. After extending the landing gear using emergency extension procedures, the right main landing gear light (green) did not illuminate. The pilot accomplished a low approach and received a visual report of his landing gear condition from tower personnel at Scholes Airport (GLS), Galveston, Texas, who informed him the landing gear appeared to be down. The pilot proceeded from GLS to EFD for landing. During rollout at EFD, the right main landing gear collapsed, damaging the right aileron.

Following the accident, a mechanic replaced the landing gear hydraulic pump, solenoids, and springs. After these components were replaced, the landing gear operated normally during ground testing. These maintenance actions were performed without the awareness or approval of the Federal Aviation Administration inspector conducting the investigation.

Pilot Information

Certificate:	Private	Age:	50
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	July 29, 2014
Occupational Pilot:	No	Last Flight Review or Equivalent:	March 1, 2013
Flight Time:	(Estimated) 227 hours (Total, all aircraft), 158 hours (Total, this make and model), 159 hours (Pilot In Command, all aircraft), 14 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N2148J
Model/Series:	PA 28RT-201T	Aircraft Category:	Airplane
Year of Manufacture:	1978	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	28R-7931012
Landing Gear Type:	Retractable - Tricycle	Seats:	
Date/Type of Last Inspection:	November 3, 2013 Annual	Certified Max Gross Wt.:	2749 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3687 Hrs as of last inspection	Engine Manufacturer:	CONT MOTOR
ELT:	Installed, not activated	Engine Model/Series:	TSIO-360 SER
Registered Owner:	STOCKSTILL FRANK T	Rated Power:	200 Horsepower
Operator:	STOCKSTILL FRANK T	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KEFD,32 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	17:50 Local	Direction from Accident Site:	360°
Lowest Cloud Condition:	Scattered / 4500 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.02 inches Hg	Temperature/Dew Point:	33°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	La Porte, TX (T41)	Type of Flight Plan Filed:	None
Destination:	Houston, TX (KELD)	Type of Clearance:	None
Departure Time:	17:15 Local	Type of Airspace:	Class D

Airport Information

Airport:	Ellington Airport KELD	Runway Surface Type:	Concrete
Airport Elevation:	32 ft msl	Runway Surface Condition:	Dry
Runway Used:	17R	IFR Approach:	None
Runway Length/Width:	9000 ft / 150 ft	VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	29.597778,-95.164169(est)

Administrative Information

Investigator In Charge (IIC):	Folkerts, Michael
Additional Participating Persons:	Jefferson A Riff; Flight Standards District Office; Houston, TX
Original Publish Date:	February 23, 2015
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=90008

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](#).