



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Stafford, Virginia	Accident Number:	ERA24LA138
Date & Time:	March 7, 2024, 17:24 Local	Registration:	N6339P
Aircraft:	Piper PA24	Aircraft Damage:	Substantial
Defining Event:	Sys/Comp malf/fail (non-power)	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that while landing at his initial destination, the right main landing gear partially collapsed. He stated that the initial touchdown was normal, and not hard or side loaded. Once the right main gear partially collapsed, the pilot aborted the landing and attempted to retract the landing gear; however, it would not retract, and the landing gear circuit breaker tripped. The pilot contacted a mechanic and attempted to troubleshoot the problem during the pilot's flight back to his home airport. During the troubleshooting, the pilot attempted to utilize the manual landing gear extension without success. The pilot performed multiple low passes for the mechanic to visually observe the landing gear. The mechanic reported that the left main landing gear appeared to be almost fully extended; however, the right main and nose gear were in a mid-transit position. After multiple failed attempts to correct the landing gear problem in the air, the pilot landed at his home airport. During the landing, the landing gear fully collapsed resulting in substantial damage to the fuselage and the wing spar.

Examination of the landing gear by the mechanic revealed that the left and right main landing gear push tubes were bent, consistent with the push rods being overloaded. An operational test of the landing gear motor revealed that it operated normally.

Probable Cause and Findings

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

An overloading of the landing gear push/pull cable rod ends, which resulted in the landing gear being seized in an intermediate position during the subsequent landing.

Findings

Aircraft	Landing gear actuator - Damaged/degraded
Aircraft	Gear extension and retract sys - Malfunction

Factual Information

History of Flight

Landing	Sys/Comp malf/fail (non-power) (Defining event)
Landing-flare/touchdown	Landing gear collapse

Pilot Information

Certificate:	Private	Age:	20, Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	November 15, 2019
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 8, 2023
Flight Time:	644.5 hours (Total, all aircraft), 24.2 hours (Total, this make and model), 424.5 hours (Pilot In Command, all aircraft), 22.4 hours (Last 90 days, all aircraft), 10.3 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N6339P
Model/Series:	PA24 180	Aircraft Category:	Airplane
Year of Manufacture:	1959	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	24-1449
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	October 21, 2023 Annual	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:	65.5 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	6476.8 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C91 installed, not activated	Engine Model/Series:	O-360-A1A
Registered Owner:	On file	Rated Power:	180 Horsepower
Operator:	Aviation Adventures	Operating Certificate(s) Held:	Pilot school (141)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	RMN, 212 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	17:15 Local	Direction from Accident Site:	255°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Overcast / 5000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	30°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.99 inches Hg	Temperature/Dew Point:	22°C / 10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Tangier, VA (TGI)	Type of Flight Plan Filed:	None
Destination:	Stafford, VA	Type of Clearance:	VFR flight following
Departure Time:	15:10 Local	Type of Airspace:	Class G

Airport Information

Airport:	STAFFORD RGNL RMN	Runway Surface Type:	Asphalt
Airport Elevation:	211 ft msl	Runway Surface Condition:	Dry
Runway Used:	15	IFR Approach:	None
Runway Length/Width:	5000 ft / 100 ft	VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	38.398111,-77.455472(est)

Administrative Information

Investigator In Charge (IIC):	Gibson, Kurt
Additional Participating Persons:	David G Reese; FAA/FSDO; Washington, DC
Original Publish Date:	June 21, 2024
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=193917

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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](#).