



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Highgate, Vermont	Accident Number:	ERA24LA046
Date & Time:	October 29, 2023, 11:56 Local	Registration:	N289WW
Aircraft:	Piper PA-39	Aircraft Damage:	Substantial
Defining Event:	Landing gear not configured	Injuries:	4 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that during the landing rollout on a 3,001-ft-long, asphalt runway, he intended to retract the flaps, but instead he retracted the landing gear. The result was that all three of the landing gear assemblies retracted into their respective wheel wells during the landing roll. The lower fuselage stringers were substantially damaged. The pilot added that there were no preimpact mechanical malfunctions with the airplane.

The airplane was equipped with a squat switch on the left main landing gear that was designed to prevent the landing gear from inadvertently retracting; however, the switch required that sufficient weight be on the landing gear in order to work effectively. The pilot stated, and a video of the landing confirmed, that the airplane was still moving at relatively high speed when he selected the landing gear handle to the retracted position. The pilot reported that the squat switch was tested at the last annual inspection and that it operated normally during the inspection. Based on this information, it is likely that the airplane's wings were still generating lift when the landing gear handle was selected to the retracted position and the gear struts was not compressed enough to activate the squat switch.

Probable Cause and Findings

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

The pilot's inadvertent retraction of the landing gear during landing rollout, which resulted in a landing gear collapse.

Findings

Personnel issues

Incorrect action selection - Pilot

Aircraft

Gear extension and retract sys - Unintentional use/operation

Factual Information

History of Flight

Landing-landing roll	Landing gear not configured (Defining event)
Landing-landing roll	Landing gear collapse
Landing-landing roll	Abnormal runway contact

Pilot Information

Certificate:	Airline transport	Age:	64, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	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 1 With waivers/limitations	Last FAA Medical Exam:	September 8, 2023
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	April 22, 2023
Flight Time:	25600 hours (Total, all aircraft), 154 hours (Total, this make and model), 20800 hours (Pilot In Command, all aircraft), 108.5 hours (Last 90 days, all aircraft), 44.9 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N289WW
Model/Series:	PA-39 NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:	1971	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	39-84
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	November 15, 2022 Annual	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:	76.6 Hrs	Engines:	2 Reciprocating
Airframe Total Time:	7836.5 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C126 installed, not activated	Engine Model/Series:	IO-320-B1A
Registered Owner:	On file	Rated Power:	160 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:	FSO, 2279 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	11:55 Local	Direction from Accident Site:	0°
Lowest Cloud Condition:	Scattered / 4300 ft AGL	Visibility	9 miles
Lowest Ceiling:	Overcast / 5000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	70°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.24 inches Hg	Temperature/Dew Point:	4.7°C / -0.7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Highgate, VT (FSO)	Type of Flight Plan Filed:	None
Destination:	Highgate, VT (FSO)	Type of Clearance:	None
Departure Time:	11:56 Local	Type of Airspace:	Class G

Airport Information

Airport:	FRANKLIN COUNTY STATE FSO	Runway Surface Type:	Asphalt
Airport Elevation:	227 ft msl	Runway Surface Condition:	Dry
Runway Used:	01/19	IFR Approach:	None
Runway Length/Width:	3001 ft / 60 ft	VFR Approach/Landing:	Full stop;Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	3 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 None	Latitude, Longitude:	44.940278,-73.097472(est)

Administrative Information

Investigator In Charge (IIC):	Gibson, Kurt
Additional Participating Persons:	John Keefe; FAA/FSDO; Portland, ME
Original Publish Date:	January 25, 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=193415

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](#).