



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Glencoe, Minnesota	Accident Number:	CEN24LA051
Date & Time:	November 29, 2023, 17:15 Local	Registration:	N92505
Aircraft:	Piper PA28	Aircraft Damage:	Substantial
Defining Event:	Wildlife encounter (non-bird)	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

During the landing roll on an airport at dusk, 3 or 4 deer ran out across the runway traveling right to left. The airplane collided with two of the deer and the engine lost power as one of the propellers struck a deer. Substantial damage was sustained to the engine mount, firewall, and right forward fuselage.

The flight instructor reported there were no preimpact mechanical malfunctions or failures with the airframe or the engine that would have precluded normal operation. The Federal Aviation Administration (FAA) Airport Directory information for the airport listed a warning for deer on and in the vicinity of the airport. A review of the NTSB accident database and FAA wildlife strike database did not locate other incidents of wildlife strikes at this airport. The flight instructor further reported that the accident could have been prevented if deer fencing was installed at the airport.

Probable Cause and Findings

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

The collision with deer during the landing rollout.

Findings

Environmental issues

Animal(s)/bird(s) - Contributed to outcome

Factual Information

History of Flight

Landing-landing roll	Wildlife encounter (non-bird) (Defining event)
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Pilot Information

Certificate:	Commercial; Flight instructor	Age:	23, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	November 13, 2023
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	July 24, 2022
Flight Time:	802 hours (Total, all aircraft), 162 hours (Total, this make and model), 710 hours (Pilot In Command, all aircraft), 188 hours (Last 90 days, all aircraft), 59 hours (Last 30 days, all aircraft)		

Student pilot Information

Certificate:	Student	Age:	18, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	September 6, 2023
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	14 hours (Total, all aircraft), 8 hours (Total, this make and model), 11 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N92505
Model/Series:	PA28 181	Aircraft Category:	Airplane
Year of Manufacture:	1994	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2890211
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	November 22, 2023 100 hour	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:	12.45 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	12433.4 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C91A installed, not activated	Engine Model/Series:	O-360-A4M
Registered Owner:	THUNDERBIRD AVIATION INC	Rated Power:	180 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dusk
Observation Facility, Elevation:	KGYL, 992 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	16:40 Local	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	28.95 inches Hg	Temperature/Dew Point:	6°C / -4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Minneapolis, MN (KGYL)	Type of Flight Plan Filed:	None
Destination:	Glencoe, MN	Type of Clearance:	None
Departure Time:	17:06 Local	Type of Airspace:	Class G

Airport Information

Airport:	GLENCOE MUNI GYL	Runway Surface Type:	Asphalt
Airport Elevation:	992 ft msl	Runway Surface Condition:	Dry
Runway Used:	13	IFR Approach:	None
Runway Length/Width:	3300 ft / 75 ft	VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	44.756006,-94.081461

Administrative Information

Investigator In Charge (IIC):	Aguilera, Jason
Additional Participating Persons:	Greg Thurston; FAA FSDO; Minneapolis, MN
Original Publish Date:	March 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=193455

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](#).