



Aviation Investigation Final Report

Location:	ROLLA, Missouri	Accident Number:	GAA18CA402
Date & Time:	June 27, 2018, 21:00 Local	Registration:	N7104F
Aircraft:	Piper PA28	Aircraft Damage:	Substantial
Defining Event:	Wildlife encounter (non-bird)	Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The flight instructor reported that, during the takeoff roll at night with the student pilot on the controls, the airplane's left wing struck a deer on the runway. They maneuvered the airplane off the runway without further incident.

The airplane sustained substantial damage to the left wing.

The instructor reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

The Federal Aviation Administration Airport Facility Directory, Airport Remarks, for the accident airport stated, in part, that there is wildlife on and in the vicinity of the airport.

Probable Cause and Findings

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

A collision with a deer on the runway during the takeoff roll at night.

Findings

Environmental issues	Animal(s)/bird(s) - Effect on operation
Environmental issues	Dark - Effect on operation

Factual Information

History of Flight

Takeoff	Wildlife encounter (non-bird) (Defining event)
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Flight instructor Information

Certificate:	Commercial; Flight instructor; Private	Age:	24,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	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	April 19, 2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	October 15, 2017
Flight Time:	(Estimated) 1900 hours (Total, all aircraft), 36 hours (Total, this make and model), 1805 hours (Pilot In Command, all aircraft), 145 hours (Last 90 days, all aircraft), 38 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Student pilot Information

Certificate:	Student	Age:	20,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:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	June 30, 2015
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 35 hours (Total, all aircraft), 35 hours (Total, this make and model), 7 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N7104F
Model/Series:	PA28 151	Aircraft Category:	Airplane
Year of Manufacture:	1976	Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	28-7715197
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	March 12, 2018 Annual	Certified Max Gross Wt.:	2325 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	7286.9 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C126 installed, not activated	Engine Model/Series:	O-320 E3D
Registered Owner:		Rated Power:	151 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Night
Observation Facility, Elevation:	KVIH, 1137 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	01:53 Local	Direction from Accident Site:	18°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	90°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.87 inches Hg	Temperature/Dew Point:	27°C / 25°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ROLLA, MO (VIH)	Type of Flight Plan Filed:	VFR
Destination:	ROLLA, MO (VIH)	Type of Clearance:	None
Departure Time:	21:00 Local	Type of Airspace:	Class E

Airport Information

Airport:	Rolla National VIH	Runway Surface Type:	Asphalt
Airport Elevation:	1148 ft msl	Runway Surface Condition:	Dry
Runway Used:	31	IFR Approach:	None
Runway Length/Width:	5500 ft / 100 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	38.127498,-91.769447(est)

Administrative Information

Investigator In Charge (IIC):	Nepomuceno, Eleazar
Additional Participating Persons:	Andrew Strader; FAA; St. Louis, MO
Original Publish Date:	June 5, 2019
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=97715

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).