



# Aviation Investigation Final Report

<b>Location:</b>	Allentown, Pennsylvania	<b>Accident Number:</b>	ERA23LA055
<b>Date &amp; Time:</b>	November 9, 2022, 11:25 Local	<b>Registration:</b>	N8543E
<b>Aircraft:</b>	Piper PA-28-140	<b>Aircraft Damage:</b>	None
<b>Defining Event:</b>	AC/prop/rotor contact w person	<b>Injuries:</b>	1 Serious, 1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

After engine start, the student pilot and the flight instructor realized that the airplane’s nosewheel chock was still in place. The flight instructor decided to deplane to remove the chock without shutting down the engine. After removing the chock, the flight instructor moved to signal the student pilot that the chock was removed. In the process, the flight instructor made physical contact with the spinning propellor, resulting in serious injury. The flight instructor reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

## Probable Cause and Findings

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

The flight instructor’s decision to remove the nosewheel chock while the engine was still operating.

## Findings

<b>Personnel issues</b>	Decision making/judgment - Instructor/check pilot
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## Factual Information

### History of Flight

<b>Standing-engine(s) operating</b>	AC/prop/rotor contact w person (Defining event)
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### Pilot Information

<b>Certificate:</b>	Student	<b>Age:</b>	23
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 3	<b>Last FAA Medical Exam:</b>	October 11, 2022
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	31 hours (Total, all aircraft), 31 hours (Total, this make and model), 0 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 2.1 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

### Flight instructor Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	21,Female
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 3	<b>Last FAA Medical Exam:</b>	May 21, 2019
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	549.8 hours (Total, all aircraft), 110.4 hours (Total, this make and model), 460.1 hours (Pilot In Command, all aircraft), 185.2 hours (Last 90 days, all aircraft), 58.2 hours (Last 30 days, all aircraft), 2.3 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N8543E
<b>Model/Series:</b>	PA-28-140	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1976	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal; Utility	<b>Serial Number:</b>	28-7625140
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	September 5, 2022 Annual	<b>Certified Max Gross Wt.:</b>	2150 lbs
<b>Time Since Last Inspection:</b>	81 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	13975 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	C91 installed, not activated	<b>Engine Model/Series:</b>	O-320-E2A
<b>Registered Owner:</b>	ACE PILOT TRAINING INC	<b>Rated Power:</b>	150 Horsepower
<b>Operator:</b>	ACE PILOT TRAINING INC	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	ABE,385 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	15:51 Local	<b>Direction from Accident Site:</b>	287°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.65 inches Hg	<b>Temperature/Dew Point:</b>	8°C / -4°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Allentown, PA	<b>Type of Flight Plan Filed:</b>	VFR
<b>Destination:</b>	Allentown, PA	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class C

## Airport Information

<b>Airport:</b>	Lehigh Valley International Airport ABE	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	394 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious, 1 None	<b>Aircraft Damage:</b>	None
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious, 1 None	<b>Latitude, Longitude:</b>	40.64828,-75.440586(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Freeze, Christopher
<b>Additional Participating Persons:</b>	Johnny Williams; FAA - Allentown FSDO; Allentown, PA
<b>Original Publish Date:</b>	March 2, 2023
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=106274">https://data.ntsb.gov/Docket?ProjectID=106274</a>

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](#).