



# **Aviation Investigation Final Report**

Location: Centralia, Illinois Accident Number: GAA18CA531

Date & Time: September 2, 2018, 14:20 Local Registration: N2204X

Aircraft: Piper PA44 Aircraft Damage: Substantial

**Defining Event:** Landing gear not configured **Injuries:** 2 None

Flight Conducted Under: Part 91: General aviation - Instructional

### **Analysis**

The flight instructor in the twin-engine airplane reported that, during the second simulated single-engine failure approach, the pilot under instruction reduced the left engine power setting to 12 inches of manifold pressure, which activated the landing gear auditory warning horn. On downwind, the student performed the prelanding checks and asked the instructor if he should deploy the landing gear. The instructor told the student to delay the action and deploy the landing gear during the final landing checks because the student was struggling to maintain altitude. Shortly after turning to final, the student performed the final landing checks and provided verbal cues of completion but did not include the landing gear check.

The instructor stated that he was distracted and focused on corrections because the student was struggling to maintain altitude and the runway centerline during the final approach. The instructor did not verify that the gear was extended. During the landing flare, the instructor realized that the landing gear was not extended, and he immediately took the controls. He leveled the airplane and landed on the runway with the gear retracted.

The airplane sustained substantial damage to the engines.

The instructor reported that there were no preaccident mechanical failures or malfunctions 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 pilot receiving instruction's failure to extend the landing gear and the flight instructor's failure to verify that the landing gear was extended before landing. Contributing to the accident was the flight instructor's delayed remedial action and distraction.

### **Findings**

Aircraft	Gear extension and retract sys - Not used/operated	
Personnel issues	Forgotten action/omission - Instructor/check pilot	
Personnel issues	Forgotten action/omission - Student/instructed pilot	
Personnel issues	Delayed action - Instructor/check pilot	
Personnel issues	Attention - Instructor/check pilot	

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## **Factual Information**

## **History of Flight**

Landing gear not configured (Defining event)
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## Flight instructor Information

Certificate:	Airline transport; Flight instructor	Age:	63,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Glider	Restraint Used:	Unknown
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	February 1, 2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	February 28, 2018
Flight Time:	(Estimated) 5612.7 hours (Total, all aircraft), 185.3 hours (Total, this make and model), 5231.3 hours (Pilot In Command, all aircraft), 294.8 hours (Last 90 days, all aircraft), 140.1 hours (Last 30 days, all aircraft), 6.5 hours (Last 24 hours, all aircraft)		

## **Student pilot Information**

Certificate:	Private	Age:	21,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	April 1, 2017
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated)		

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### **Aircraft and Owner/Operator Information**

Aircraft Make:	Piper	Registration:	N2204X
Model/Series:	PA44 180	Aircraft Category:	Airplane
Year of Manufacture:	1979	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	44-7995281
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	August 17, 2018 Unknown	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:	10084.3 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O 360-E1A60
Registered Owner:		Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KENL,534 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	19:15 Local	Direction from Accident Site:	270°
<b>Lowest Cloud Condition:</b>	Scattered / 4300 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.11 inches Hg	Temperature/Dew Point:	32°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Centralia, IL (ENL )	Type of Flight Plan Filed:	None
Destination:	Centralia, IL (ENL )	Type of Clearance:	None
Departure Time:	13:50 Local	Type of Airspace:	Class G

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#### **Airport Information**

Airport:	Centralia Muni ENL	Runway Surface Type:	Asphalt
Airport Elevation:	534 ft msl	Runway Surface Condition:	Dry
Runway Used:	18	IFR Approach:	None
Runway Length/Width:	5001 ft / 75 ft	VFR Approach/Landing:	Stop and go

#### **Wreckage and Impact Information**

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	38.514999,-89.09111(est)

#### **Administrative Information**

Investigator In Charge (IIC):	Nepomuceno, Eleazar
Additional Participating Persons:	Nicholas Loftus; FAA; Springfield, IL
Original Publish Date:	March 20, 2020
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=98242

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.

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