



Aviation Investigation Final Report

Location:	West Mifflin, Pennsylvania	Accident Number:	ERA23LA213
Date & Time:	April 13, 2023, 16:00 Local	Registration:	N544TH
Aircraft:	TEXTRON AVIATION INC 172	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The student pilot reported that at about 8 to 10 ft above the ground the flight instructor shouted “FLARE, FLARE, FLARE!” The volume and intensity of the command startled the student pilot who pulled back sharply on the yoke and the airplane stalled. The flight instructor subsequently took control of the airplane and before he could take corrective action the airplane impacted the ground resulting in substantial damage to the lower fuselage. The flight instructor’s account of the event was similar to the student pilot’s. The operator 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 student pilot’s improper landing flare, and the flight instructor’s delayed remedial action, which resulted in a hard landing.

Findings

Aircraft	Landing flare - Not attained/maintained
Personnel issues	Aircraft control - Student/instructed pilot
Personnel issues	Delayed action - Instructor/check pilot

Factual Information

History of Flight

Landing-flare/touchdown	Hard landing (Defining event)
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Flight instructor Information

Certificate:	Commercial; Flight instructor	Age:	32, 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:	April 8, 2021
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	September 13, 2022
Flight Time:	248 hours (Total, all aircraft), 72 hours (Total, this make and model), 192 hours (Pilot In Command, all aircraft), 17 hours (Last 90 days, all aircraft), 13 hours (Last 30 days, all aircraft)		

Student pilot Information

Certificate:	Student	Age:	49, 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 Without waivers/limitations	Last FAA Medical Exam:	November 25, 2022
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	31 hours (Total, all aircraft), 31 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	TEXTRON AVIATION INC	Registration:	N544TH
Model/Series:	172 SP	Aircraft Category:	Airplane
Year of Manufacture:	2018	Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	172S12257
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	April 6, 2023 100 hour	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4069.4 Hrs as of last inspection	Engine Manufacturer:	LYCOMING
ELT:	C126 installed, not activated	Engine Model/Series:	IO-360-L2A
Registered Owner:	SCHREINER AIR INVESTMENTS LLC	Rated Power:	180 Horsepower
Operator:	Pittsburgh Flight Training Center	Operating Certificate(s) Held:	Pilot school (141)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	AGC,1244 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	15:53 Local	Direction from Accident Site:	83°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.93 inches Hg	Temperature/Dew Point:	27°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	West Mifflin, PA	Type of Flight Plan Filed:	None
Destination:	West Mifflin, PA	Type of Clearance:	VFR
Departure Time:		Type of Airspace:	Class D

Airport Information

Airport:	ALLEGHENY COUNTY AGC	Runway Surface Type:	Concrete
Airport Elevation:	1252 ft msl	Runway Surface Condition:	Dry
Runway Used:	28	IFR Approach:	None
Runway Length/Width:	6501 ft / 150 ft	VFR Approach/Landing:	Touch and go

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:	40.354305,-79.928554(est)

Administrative Information

Investigator In Charge (IIC): Young, Joshua

Additional Participating Persons: Scott Alexander; FAA/FSDO; Pittsburgh, PA

Original Publish Date: June 29, 2023

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=107202>

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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](#).