



Aviation Investigation Final Report

Location:	Mesa, Arizona	Accident Number:	WPR23LA238
Date & Time:	June 16, 2023, 19:13 Local	Registration:	N28034
Aircraft:	Piper PA-28-181	Aircraft Damage:	Minor
Defining Event:	Hard landing	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The flight school reported that the student pilot was conducting his second solo flight. In the landing flare the student pilot floated and began porpoising; hitting the nose wheel several times and striking the prop on the runway. The nosewheel collapsed sustaining substantial damage to the engine mount. There were no preaccident 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 flare, which resulted in a hard landing on the nose gear.

Findings

Personnel issues	Decision making/judgment - Pilot
Personnel issues	Total experience - Pilot
Aircraft	Pitch control - Not attained/maintained

Factual Information

History of Flight

Landing	Hard landing (Defining event)
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Pilot Information

Certificate:	Student	Age:	19,Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	October 10, 2022
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 73 hours (Total, all aircraft), 73 hours (Total, this make and model), 1 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N28034
Model/Series:	PA-28-181	Aircraft Category:	Airplane
Year of Manufacture:	2020	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2881357
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	June 15, 2023 AAIP	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:	1 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3035 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C126 installed, not activated	Engine Model/Series:	IO-360-B4A
Registered Owner:	CAE Oxford Aviation Academy Phoenix	Rated Power:	180 Horsepower
Operator:	CAE Oxford Aviation Academy Phoenix	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:	KFFZ,1389 ft msl	Distance from Accident Site:	
Observation Time:	16:54 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	None /
Wind Direction:	290°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.74 inches Hg	Temperature/Dew Point:	1.1°C / -15.6°C
Precipitation and Obscuration:			
Departure Point:	Mesa, AZ	Type of Flight Plan Filed:	None
Destination:	Mesa, AZ	Type of Clearance:	VFR
Departure Time:		Type of Airspace:	Class D

Airport Information

Airport:	Falcon Field Airport FFZ	Runway Surface Type:	Asphalt;Concrete
Airport Elevation:	1394 ft msl	Runway Surface Condition:	Dry
Runway Used:	22L	IFR Approach:	None
Runway Length/Width:	5100 ft / 100 ft	VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Minor
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	33.460841,-111.72832

Administrative Information

Investigator In Charge (IIC):	Blum, Contessa
Additional Participating Persons:	Thomas Tilson; Scottsdale FSDO; Scottsdale, AZ
Original Publish Date:	October 26, 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=192447

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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](#).