



Aviation Investigation Final Report

Location:	Mesa, Arizona	Accident Number:	WPR22LA170
Date & Time:	May 2, 2022, 07:40 Local	Registration:	N3390A
Aircraft:	Piper PA22/135	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The pilot of the tailwheel equipped airplane reported that, during an instructional flight practicing landings to a full stop, the airplane veered left, directional control was lost and the left wing and left elevator were substantially damaged when they contacted the runway surface during a ground loop. The pilot 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's failure to maintain directional control during landing, which resulted in a ground loop.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Directional control - Not attained/maintained

Factual Information

History of Flight

Landing-landing roll	Loss of control on ground (Defining event)
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Pilot Information

Certificate:	Private	Age:	24, Male
Airplane Rating(s):	Single-engine land	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 3 Without waivers/limitations	Last FAA Medical Exam:	May 11, 2021
Occupational Pilot:	No	Last Flight Review or Equivalent:	December 8, 2021
Flight Time:	57.7 hours (Total, all aircraft), 4 hours (Total, this make and model), 12.7 hours (Pilot In Command, all aircraft), 4.1 hours (Last 90 days, all aircraft), 1.4 hours (Last 30 days, all aircraft), 1.4 hours (Last 24 hours, all aircraft)		

Flight instructor Information

Certificate:	Airline transport	Age:	68, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	3-point
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine; Helicopter	Toxicology Performed:	
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	April 11, 2022
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	0 hours (Total, all aircraft), 0 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N3390A
Model/Series:	PA22/135	Aircraft Category:	Airplane
Year of Manufacture:	1954	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	22-1661
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	July 1, 2021 Annual	Certified Max Gross Wt.:	1950 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2543 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-360 A1F6D
Registered Owner:	On file	Rated Power:	180 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KIWA,1382 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	07:45 Local	Direction from Accident Site:	231°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	130°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.9 inches Hg	Temperature/Dew Point:	22°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Mesa, AZ (FFZ)	Type of Flight Plan Filed:	None
Destination:	Mesa, AZ (IAW)	Type of Clearance:	VFR
Departure Time:	06:22 Local	Type of Airspace:	Class D

Airport Information

Airport:	Phoenix-Mesa Gateway Airport IWA	Runway Surface Type:	Concrete
Airport Elevation:	1356 ft msl	Runway Surface Condition:	Dry
Runway Used:	12L	IFR Approach:	None
Runway Length/Width:	9300 ft / 150 ft	VFR Approach/Landing:	Stop and go;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	33.307824,-111.65545

Administrative Information

Investigator In Charge (IIC):	Johnson, Scott
Additional Participating Persons:	Frank Waterhouse; Federal Aviation Administration; Scottsdale, AZ
Original Publish Date:	August 12, 2022
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=105025

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](#).