



# **Aviation Investigation Final Report**

Location: Page, Arizona Accident Number: WPR18LA184

Date & Time: June 16, 2018, 13:00 Local Registration: N621PG

Aircraft: Piper PA31 Aircraft Damage: Substantial

**Defining Event:** Loss of control on ground **Injuries:** 2 None

Flight Conducted Under: Part 91: General aviation - Instructional

### **Analysis**

The pilot stated that, during the landing roll, he was unable to maintain directional control, and the airplane veered right and exited the runway, where the nose landing gear collapsed.

Examination of the airplane revealed that the nose gear steering/centering mechanism was fractured, which resulted in the improper alignment of the nose landing gear when it was extended, and a subsequent loss of directional control. Three skid marks were visible from the runway centerline to where the airplane came to rest. The center skid mark was consistent with the nose landing gear and was darker and was about 2-3 times the width of the marks from the main tires; consistent with the nose landing gear's misalignment during the landing roll.

### **Probable Cause and Findings**

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

The failure of the airplane's nose wheel steering/centering mechanism, which resulted in a loss of directional control and subsequent runway excursion.

#### **Findings**

Aircraft Nose/tail gear strut/axle - Failure

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#### **Factual Information**

#### **History of Flight**

Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Runway excursion
Landing-landing roll	Landing gear collapse

On June 16, 2018, about 1300 mountain standard time, a Piper PA-31-350 airplane, N621PG, was substantially damaged when it was involved in an accident near Page, Arizona. The two commercial pilots were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the pilot, during the landing roll, the airplane veered to the right and he was unable to maintain directional control. The airplane subsequently exited the runway and the nose landing gear collapsed.

Examination of the airplane by a Federal Aviation Administration inspector revealed that the nose steering/centering mechanism had fractured and separated from the nose wheel assembly, resulting in a misalignment when the gear was extended.

According to the airport manager, no foreign object debris was located on the runway or grassy area off the right side of the runway where the airplane came to rest after the landing. A review of accident site pictures revealed that three skid marks were visible from the runway centerline to where the airplane came to rest. The center skid mark, corresponding to the nose landing gear, was darker and about 2 to 3 times wider than the outside skid marks, which corresponded to the main landing gear.

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#### **Pilot Information**

Certificate:	Commercial	Age:	51,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:			

### **Pilot Information**

Certificate:	Commercial	Age:	46,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Unknown	Last FAA Medical Exam:	
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:			

# **Aircraft and Owner/Operator Information**

Aircraft Make:	Piper	Registration:	N621PG
Model/Series:	PA31 350	Aircraft Category:	Airplane
Year of Manufacture:	1975	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	31-7652049
Landing Gear Type:	Retractable - Tricycle	Seats:	
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycomng
ELT:	Installed	Engine Model/Series:	TIO-540 Series
Registered Owner:		Rated Power:	
Operator:		Operating Certificate(s) Held:	On-demand air taxi (135)

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# Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PGA,4316 ft msl	Distance from Accident Site:	
Observation Time:	12:53 Local	Direction from Accident Site:	
<b>Lowest Cloud Condition:</b>	Scattered / 7500 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 10000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	10 knots / 17 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.78 inches Hg	Temperature/Dew Point:	26°C / 11°C
Precipitation and Obscuration:	Light - None - Rain		
Departure Point:		Type of Flight Plan Filed:	
Destination:	Page, AZ (PGA )	Type of Clearance:	Unknown
Departure Time:		Type of Airspace:	

# **Airport Information**

Airport:	Page Muni PGA	Runway Surface Type:	Asphalt
Airport Elevation:	4316 ft msl	<b>Runway Surface Condition:</b>	Dry
Runway Used:	15	IFR Approach:	None
Runway Length/Width:	5950 ft / 150 ft	VFR Approach/Landing:	Unknown

# Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	36.926109,-111.448333(est)

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#### **Administrative Information**

Investigator In Charge (IIC): Nixon, Albert

Additional Participating Persons: Bruce Thompson; Federal Aviation Administration; Las Vegas, NV

Original Publish Date: June 24, 2021 Investigation Class: 3

Note: The NTSB did not travel to the scene of this accident.

Investigation Docket: https://data.ntsb.gov/Docket?ProjectID=97639

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.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available here.

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