



Aviation Investigation Factual Report

Location:	Glendale, Arizona	Accident Number:	LAX07CA007
Date & Time:	October 6, 2006, 11:07 Local	Registration:	N97811
Aircraft:	Cessna 172P	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Factual Information

On October 6, 2006, about 1107 mountain standard time, a Cessna172P, N97811, made a hard landing on runway 19 at the Glendale Municipal Airport, Glendale Arizona. A component in the airplane's nose gear steering assembly broke, and the crew lost directional control of the airplane. The airplane swerved off the runway and impacted a taxiway sign. The airplane's left wing lift strut bent. Angel Aviation, Inc., Glendale, operated the airplane under provisions of 14 CFR Part 91. Neither the certified flight instructor (CFI), who held a commercial pilot certificate, nor the student pilot was injured. The airplane was substantially damaged. Visual meteorological conditions prevailed, and no flight plan had been filed. The instructional flight originated from Glendale about 1015.

The CFI stated that prior to taking off, his student and he performed a ground inspection of the airplane. No evidence of any mechanical malfunction was observed. Also, during the flight, no mechanical malfunction occurred.

The CFI reported that during the flight with his 30-hour total flight time student, he directed that a series of takeoffs and landing be performed. Initially, the student landed on runway 01. Subsequently, they landed on runway 19. The CFI reported that during their last landing "we had a little bit of crosswind from the left," but we corrected with rudder to keep our nose wheel straight down the centerline. The airplane veered right during rollout, and the CFI took the controls. The CFI additionally indicated that he tried to correct the airplane's track by application of rudder pressure and brakes, but he was not successful.

Regarding airframe damage, the National Transportation Safety Board investigator interviewed the Director of Maintenance (DM) for Glendale Aviation. The DM opined that the airplane's nose gear assembly had been overstressed/overloaded during a hard touchdown event. The DM noted the following airframe damage: (1) the nose gear strut was flattened, devoid of nitrogen, its seals were ruptured, and the hydraulic fluid had discharged; (2) the bolt that holds the nose gear torque link together was missing; and (3) four of the lower rubber engines cowlings mounts were sheared. The DM opined that the airframe damage, which he observed, resulted from a hard landing.

The Safety Board investigator noted that at 1047, the airport reported its surface wind was coming from 120 degrees (true course), or about 108 degrees, magnetic. The wind's speed was 12 knots, with gusts to 18 knots.

According to the Federal Aviation Administration's "Airport Facility Directory," runway 19 has an asphalt surface. The runway is 7,150 feet long by 100 feet wide.

Flight instructor Information

Certificate:	Commercial; Flight instructor	Age:	28,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	January 1, 2004
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	678 hours (Total, all aircraft), 320 hours (Total, this make and model), 45 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft)		

Student pilot Information

Certificate:	Student	Age:	40,Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	March 1, 2006
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	30 hours (Total, all aircraft), 30 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N97811
Model/Series:	172P	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	17276232
Landing Gear Type:	Tricycle	Seats:	
Date/Type of Last Inspection:		Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	O-320-D2J
Registered Owner:	Angel Aviation, Inc.	Rated Power:	160 Horsepower
Operator:	Glendale Aviation	Operating Certificate(s) Held:	None
Operator Does Business As:	Glendale Aviation	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	GEU, 1071 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	10:47 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	20 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	12 knots / 18 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	108°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.84 inches Hg	Temperature/Dew Point:	29°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Glendale, AZ (GEU)	Type of Flight Plan Filed:	None
Destination:	Glendale, AZ (GEU)	Type of Clearance:	VFR
Departure Time:	10:15 Local	Type of Airspace:	

Airport Information

Airport:	Glendale Municipal GEU	Runway Surface Type:	Asphalt
Airport Elevation:	1071 ft msl	Runway Surface Condition:	Dry
Runway Used:	19	IFR Approach:	None
Runway Length/Width:	7150 ft / 100 ft	VFR Approach/Landing:	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	
Total Injuries:	2 None	Latitude, Longitude:	33.526943,-112.29528

Administrative Information

Investigator In Charge (IIC):	Pollack, Wayne
Additional Participating Persons:	Bruce Bassette; Federal Aviation Administration; Scottsdale , AZ
Report Date:	November 14, 2006
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=64703

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