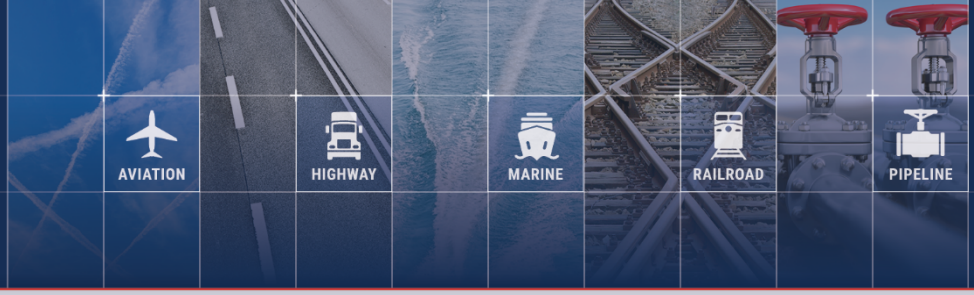

Aviation Investigation Factual Report

Location:	Tucson, Arizona	**Accident Number:**	WPR10LA051
Date & Time:	November 7, 2009, 17:00 Local	**Registration:**	N2165M
Aircraft:	Piper PA-32R-300	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (partial)	**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Factual Information

On November 7, 2009, at 1700 mountain standard time, a Piper PA-32R-300, N2165M, experienced a partial loss of engine power in cruise flight and made an emergency landing on a highway about 32 miles northwest of the Tucson International Airport (TUS), Tucson, Arizona. The owner/pilot operated the airplane under the provisions of 14 Code of Federal Regulation Part 91, as a personal flight. The private pilot and one passenger were not injured. The airplane sustained structural damage to the fuselage after departing the highway and impacting a road sign and cacti prior to coming to rest upright. Visual meteorological conditions prevailed for the local area flight that departed Phoenix-Mesa Gateway Airport (IWA), Phoenix, Arizona, at 1616. No flight plan had been filed.

According to the pilot's written statement, he had been cleared direct to TUS via global positioning system (GPS) at 6,500 feet mean sea level (msl). About 35 miles northwest of TUS, he started the descent to 4,500 feet msl. As the airplane passed through 5,000 feet, he configured the manifold pressure and rpm (24/2,400) per the airplane's pilot operating handbook (POH) for 4,000 feet at 75 percent power. Shortly thereafter, he felt the airplane 'lurch,' as if the engine had lost rpm's. He increased the engine power, the fuel mixture, and moved the propeller to the FULL in position in an attempt to get more engine power. The pilot stated that the engine continued to run, and the propeller was still spinning, it just was not enough power to hold altitude; he noted a 500-foot-per-minute descent that he was not able to arrest.

The pilot radioed TUS to report a partial engine failure and his current position. TUS tower personnel gave him vectors to a closer airport; however, as he made the turn toward the airport, the airplane lost altitude too quickly and he knew that the airplane would not make the airport. The pilot stated that there was a road below the airplane and he attempted to land on the road. He believes that about 20 feet above the ground, the engine quit, and the airplane landed hard. Upon touchdown, he heard a 'thud' and ascertained that the airplane had departed the roadway and onto the adjacent desert floor. After the accident, the pilot reported that the airplane had struck a road sign.

An engine inspection was performed by investigators from the National Transportation Safety Board (NTSB) and from Lycoming Engines. Under the supervision of the NTSB investigator, the cowling was removed. There were no obvious signs of a mechanical failure. All fuel lines were secure, and no fluid leaks were observed. The magnetos were secure and tight on their respective mounting pads. Manual rotation of the propeller produced thumb compression in all six cylinders. The servo plug remained in place and was secured by safety wire. No mechanical anomalies were noted that would have precluded normal operation.

Pilot Information

Certificate:	Private	**Age:**	38,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	October 21, 2008
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	October 8, 2009
Flight Time:	121 hours (Total, all aircraft), 22 hours (Total, this make and model), 30 hours (Pilot In Command, all aircraft), 33 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N2165M
Model/Series:	PA-32R-300	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	32R-7880053
Landing Gear Type:	Retractable - Tricycle	**Seats:**	
Date/Type of Last Inspection:	April 1, 2009 Annual	**Certified Max Gross Wt.:**	
Time Since Last Inspection:	23 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	15362 Hrs as of last inspection	**Engine Manufacturer:**	Lycoming Engines
ELT:	Installed, not activated	**Engine Model/Series:**	IO-540-K1G5
Registered Owner:	On file	**Rated Power:**	300 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:	TUS,2643 ft msl	**Distance from Accident Site:**	32 Nautical Miles
Observation Time:	16:53 Local	**Direction from Accident Site:**	30°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.87 inches Hg	**Temperature/Dew Point:**	28°C / -3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Mesa, AZ (IWA)	**Type of Flight Plan Filed:**	None
Destination:	Tucson, AZ (TUS)	**Type of Clearance:**	VFR
Departure Time:	16:16 Local	**Type of Airspace:**	

Airport Information

Airport:	Tucson International Airport TUS	**Runway Surface Type:**	
Airport Elevation:	2643 ft msl	**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	32.540832,-111.206665(est)

Administrative Information

Investigator In Charge (IIC):	Cornejo, Tealeye
Additional Participating Persons:	Frank J Loscalzo; Federal Aviation Administration; Scottsdale, AZ
Report Date:	March 1, 2012
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=75036