



National Transportation Safety Board Aviation Accident Data Summary

Location:	Wittmann, AZ	Accident Number:	WPR11LA067
Date & Time:	12/01/2010, 1045 MST	Registration:	N4122F
Aircraft:	PIPER PA 28-181	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

The student pilot was making a solo cross-country flight involving four flight legs. Before beginning the final return leg, he completed multiple full stop landings and touch-and-go landings that he had not included in his preflight planning. During the final leg, the engine began to lose power. The student pilot switched the fuel selector valve to the left tank, but then switched it back to the right tank after a short period of time. The engine subsequently lost all power, and the student pilot made a forced landing in rough terrain. Postaccident examination revealed that the right fuel tank was not breached and was empty of fuel. The left fuel tank was breached, and the soil beneath the tank was wet with fuel. After the wreckage was recovered, a fuel delivery system was rigged, and the engine was started and continued to run as the fuel selector was positioned to both the right and left fuel tank positions. According to the pilot operating handbook for the airplane, if the pilot allows a tank to run dry and the engine loses power, it may take up to 10 seconds for fuel to reach the engine after the other tank is selected. It is likely that, after running the right tank dry, the pilot did not leave the selector in the left tank position for long enough to allow fuel to reach the engine.

Flight Events

Enroute-cruise - Fuel starvation
Enroute-cruise - Loss of engine power (total)
Enroute-descent - Off-field or emergency landing
Landing-landing roll - Collision with terr/obj (non-CFIT)

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
The pilot's improper fuel management, which resulted in a total loss of engine power due to fuel starvation.

Findings

Aircraft-Fluids/misc hardware-Fluids-Fuel-Fluid management - C
Aircraft-Fluids/misc hardware-Fluids-Fuel-Fluid level - C
Personnel issues-Task performance-Use of equip/info-Use of equip/system-Pilot - C

Student Pilot Information

Certificate:	Student	Age:	21
Airplane Rating(s):	None	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	61 hours (Total, all aircraft), 61 hours (Total, this make and model), 7 hours (Pilot In Command, all aircraft), 61 hours (Last 90 days, all aircraft), 33 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	PIPER	Registration:	N4122F
Model/Series:	PA 28-181	Engines:	1 Reciprocating
Operator:	TransPac Aviation Academy	Engine Manufacturer:	Lycoming
Air Carrier Operating Certificate:	None	Engine Model/Series:	O-360-A4M
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	LUF, 1085 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	None
Condition of Light:	Day	Wind Speed/Gusts, Direction:	1 knots, Variable
Temperature:	14° C / -8° C	Visibility:	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Wickenburg, AZ (E25)	Destination:	Phoenix, AZ (DVT)

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC):	Patrick H Jones	Adopted Date:	08/15/2012
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=77916		

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