



National Transportation Safety Board Aviation Accident Final Report

Location:	New Braunfels, TX	Accident Number:	CEN14CA227
Date & Time:	05/02/2014, 1700 CDT	Registration:	N7308P
Aircraft:	PIPER PA 24-250	Aircraft Damage:	Substantial
Defining Event:	Fuel exhaustion	Injuries:	4 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot with three passengers planned to depart and return on a cross-country flight. The pilot stated that the airplane's left fuel tank was filled to an inch below the collar, and the right fuel tank was filled to two inches below the collar. He estimated that the airplane had 40-45 gallons of fuel on board, with a planned en route time of 57 minutes, and about a 10 knot tailwind. Once at a cruise altitude of 7,500 feet, he set the manifold pressure at 21 inches and engine rpm at 2,300 for a fuel burn of 12.3 gallons/hr per the pilot operating handbook. The pilot reported for the return leg he again visually checked the fuel level in each tank. He estimated 12-15 gallons in the left tank and 10 in the right, for a total of 22-25 gallons. The pilot added that fuel burn seemed normal and he decided not to add fuel, he also stated that estimations are not an accurate science and that a fuel stick was not provided to confirm the fuel level. After departing for the return flight, he switched fuel tanks from the left side to the right side. About 15 minutes later, the pilot noticed a reduction in power and switched back to the left side fuel tank. Engine power was restored, and the pilot stated that he did not feel that the fuel had been exhausted from the right side based on his calculations. A few minutes later, the engine lost power and the pilot performed a forced landing to a construction site. A post-crash examination of the airplane revealed substantial damage to the airplane's fuselage and left wing during the forced landing. Additionally, the fuel tanks were empty and were not breached in the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power due to fuel exhaustion, which resulted from the pilot's inadequate preflight planning and inflight decision making.

Findings

Aircraft	Fuel - Fluid level (Cause)
Personnel issues	Fuel planning - Pilot (Cause) Decision making/judgment - Pilot (Cause)

Factual Information

History of Flight

Enroute-cruise	Fuel exhaustion (Defining event)
Emergency descent	Off-field or emergency landing

Pilot Information

Certificate:	Private	Age:	48
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 With Waivers/Limitations	Last Medical Exam:	01/14/2013
Occupational Pilot:	No	Last Flight Review or Equivalent:	07/23/2013
Flight Time:	397 hours (Total, all aircraft), 7.6 hours (Total, this make and model), 345 hours (Pilot In Command, all aircraft), 10.4 hours (Last 90 days, all aircraft), 6.2 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	PIPER	Registration:	N7308P
Model/Series:	PA 24-250 250	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	24-2483
Landing Gear Type:	Retractable - Tricycle	Seats:	
Date/Type of Last Inspection:	100 Hour	Certified Max Gross Wt.:	2899 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	0-540 SERIES
Registered Owner:	ANDERSON THOMAS DBA	Rated Power:	250 hp
Operator:	Anderson Aviation	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KBAZ	Observation Time:	1751 CDT
Distance from Accident Site:	5 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:		Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Thin Broken / 11000 ft agl	Temperature/Dew Point:	27° C / -1° C
Lowest Ceiling:	Broken / 11000 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	5 knots, 290°	Visibility (RVR):	
Altimeter Setting:	29.96 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:			
Departure Point:	Houston, TX (KDWH)	Type of Flight Plan Filed:	
Destination:	Bulverde, TX (1T8)	Type of Clearance:	VFR Flight Following
Departure Time:	1658 CDT	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	3 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 None		

Administrative Information

Investigator In Charge (IIC):	Craig Hatch	Adopted Date:	06/05/2014
Additional Participating Persons:	John H Attebury; FAA FSDO; San Antonio, TX		
Publish Date:	07/09/2015		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=89160		

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