



National Transportation Safety Board Aviation Accident Data Summary

Location:	Gallman, MS	Accident Number:	ERA09LA316
Date & Time:	06/02/2009, 1555 CDT	Registration:	N1399X
Aircraft:	Rick Campbell Zenith-STOL CH801	Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

After maintenance was performed that required the draining of the fuel tanks and removal and reinstallation of the right wing, the pilot-rated mechanics performed a test flight of the accident airplane in the airport traffic pattern. While turning from the base leg onto final approach for the runway, the airplane experienced a total loss of power. The pilot made a right turn in the direction of a field; the airplane then struck trees and impacted terrain in a nearly flat, inverted attitude. A postcrash fire then ensued. Examination of the wreckage revealed no evidence of any preimpact malfunctions of the engine or airplane. During examination of the fuel system it was revealed that the fuel system consisted of four fuel tanks, each with a single fuel outlet located at the lower rear corner of the fuel tank. Further examination of the fuel system and the existing burn patterns from the postcrash fire also revealed that the right main fuel tank and the left auxiliary fuel tank had contained little or no fuel in them prior to the accident. The lack of fuel in the right main fuel tank and the location of the fuel outlet, in combination with the airplane's nose-low attitude during descent to the runway and the left bank required to turn from the base to final leg of the traffic pattern, likely resulted in air entering the fuel system from the empty or nearly empty right main fuel tank.

Flight Events

Approach-VFR pattern base - Fuel starvation
Approach-VFR pattern final - Loss of engine power (total)
Emergency descent - Collision with terr/obj (non-CFIT)
Uncontrolled descent - Collision with terr/obj (non-CFIT)
Post-impact - Fire/smoke (post-impact)

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A total loss of engine power due to fuel starvation as a result of the flightcrew's improper fuel management.

Findings

Aircraft-Fluids/misc hardware-Fluids-Fuel-Fluid management - C
Personnel issues-Task performance-Planning/preparation-Fuel planning-Pilot - C

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	54
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	Airplane Single-engine
Flight Time:	(Estimated) 2670 hours (Total, all aircraft)		

Pilot Information

Certificate:	Private	Age:	34
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	(Estimated) 240 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Rick Campbell	Registration:	N1399X
Model/Series:	Zenith-STOL CH801	Engines:	1 Reciprocating
Operator:	On file	Engine Manufacturer:	Franklin
Air Carrier Operating Certificate:	None	Engine Model/Series:	6A-350-C1
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	HKS, 341 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	
Condition of Light:	Day	Wind Speed/Gusts, Direction:	6 knots, 170°
Temperature:	31 °C / 18 °C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Gallman, MS (M11)	Destination:	Gallman, MS (M11)

Airport Information

Airport:	Copiah County Airport (M11)	Runway Surface Type:	Asphalt
Runway Used:	17	Runway Surface Condition:	Dry
Runway Length/Width:	3000 ft / 75 ft		

Wreckage and Impact Information

Crew Injuries:	2 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC): Todd G Gunther

Adopted Date: 07/18/2011

Investigation Docket: <http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=73951>

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