



# Aviation Investigation Final Report

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<b>Location:</b>	Hot Springs, Arkansas	<b>Accident Number:</b>	CEN10CA332
<b>Date &amp; Time:</b>	June 14, 2010, 14:00 Local	<b>Registration:</b>	N70906
<b>Aircraft:</b>	Piper J3C-65	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of engine power (total)	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

The pilot/owner and a commercial-rated pilot departed in a tandem, two-seat, tailwheel-equipped airplane on a local flight. On the return leg to the airport the commercial pilot was flying the airplane. The commercial pilot, who was seated in the rear seat, did his before-landing checks to set up for the landing; however, during the approach to the runway the engine lost power. Unable to regain engine power, they elected to conduct a forced landing in a vacant lot. During the forced landing the airplane sustained damage to the left wing and fuselage. After the accident the pilot/owner and commercial pilot discovered that the engine's fuel shut-off valve was in the (pulled) off position. The commercial pilot reported that he flew a Cub Special (PA-11), but never the accident airplane (J3), and that the fuel shut-off valve in the J3 was in the same place as the carburetor heat in the PA-11. The commercial pilot added that the shut-off valve was not color coded or marked, and that he pulled the fuel shut-off knob mistaking it for the carburetor heat.

## Probable Cause and Findings

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 pilot's inadvertent closure of the fuel valve. Contributing to the accident were the unmarked fuel shutoff valve and the pilot's inexperience in the accident airplane.

## Findings

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<b>Aircraft</b>	Fuel selector/shutoff valve - Unintentional use/operation
<b>Personnel issues</b>	Incorrect action performance - Pilot
<b>Personnel issues</b>	Total experience w/ equipment - Pilot
<b>Aircraft</b>	Fuel selector/shutoff valve - Related operating info

## Factual Information

### History of Flight

<b>Approach-VFR pattern final</b>	Fuel starvation
<b>Approach-VFR pattern final</b>	Loss of engine power (total) (Defining event)
<b>Emergency descent</b>	Collision with terr/obj (non-CFIT)

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	23, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Rear
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Unknown	<b>Last FAA Medical Exam:</b>	June 14, 2010
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	November 25, 2009
<b>Flight Time:</b>	(Estimated) 1700 hours (Total, all aircraft), 0 hours (Total, this make and model), 1500 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Pilot Information

<b>Certificate:</b>	Airline transport; Flight engineer	<b>Age:</b>	64, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Unknown	<b>Last FAA Medical Exam:</b>	February 18, 2010
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	(Estimated)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N70906
<b>Model/Series:</b>	J3C-65	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	17927
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	July 20, 2009 Annual	<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3325 Hrs at time of accident	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	C91A installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	C85 Series
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	85 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KHOT	<b>Distance from Accident Site:</b>	1 Nautical Miles
<b>Observation Time:</b>	13:53 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Few / 3900 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	210°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.06 inches Hg	<b>Temperature/Dew Point:</b>	31°C / 22°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Hot Springs, AR (KHOT)	<b>Type of Flight Plan Filed:</b>	Unknown
<b>Destination:</b>	Hot Springs, AR (KHOT)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Hot Springs Memorial Field KHOT	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	Unknown
<b>Runway Used:</b>	13	<b>IFR Approach:</b>	Visual
<b>Runway Length/Width:</b>	4099 ft / 100 ft	<b>VFR Approach/Landing:</b>	Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	34.478054,-93.096107(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hatch, Craig
<b>Additional Participating Persons:</b>	Tommy J Arnold; FAA FSDO; Little Rock, AR
<b>Original Publish Date:</b>	October 21, 2010
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=76380">https://data.nts.gov/Docket?ProjectID=76380</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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