



Aviation Investigation Final Report

Location:	Opelousas, Louisiana	Accident Number:	DFW08LA130
Date & Time:	May 2, 2008, 19:00 Local	Registration:	N4515Z
Aircraft:	Piper PA-22-108	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The commercial pilot was maneuvering around weather, destined for his home airport, when the engine lost power due to exhaustion of the right fuel tank. While attempting to change from the right tank to the left tank the fuel selector became impeded by a loose screw on the fuel placard. The pilot attempted to switch tanks several times before committing to a forced landing. The pilot successfully landed the airplane in a wheat field. During the landing roll out, the nose gear contacted a rut resulting in damage to the nose gear and subsequently allowed the airplane to nose over coming to rest in the inverted position.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Loss of engine power due to starvation of the right fuel tank and the inability to select the left fuel tank. Contributing to airplane damage was the hidden obstruction in the field selected for the forced landing.

Findings

Aircraft	Fuel selector/shutoff valve - Damaged/degraded
Environmental issues	(general) - Not specified
Environmental issues	Hidden/submerged object - Not specified

Factual Information

History of Flight

Enroute-cruise	Loss of engine power (total) (Defining event)
Landing-landing roll	Landing gear collapse

On May 2, 2008, at approximately 1900 central daylight time, a single-engine Piper PA-22-108 airplane, experienced a total loss of engine power and was substantially damaged during the forced landing roll out. The commercial pilot, the sole occupant of the airplane, sustained minor injuries. The newly acquired airplane was owned and operated by the pilot. No flight plan was filed for the Title 14 Code of Federal Regulations Part 91 personal flight. The 92 nautical mile cross country flight originated from the Mc Comb Airport (MCB), Mc Comb, Mississippi, and was destined for the St. Landry Parish Airport (OPL), Opelousas, Louisiana.

In a telephone interview with the NTSB investigator-in-charge, the pilot reported that he had purchased the airplane the day prior and was flying back to his home airport. On the final leg to his destination, the airplane's engine experienced a total loss of power after the pilot depleted fuel in the right fuel tank. The pilot attempted to switch from the right fuel tank to the left tank. The pilot stated that the fuel selector would not engage the left tank detent. After several attempts to seat the fuel selector in the left tank position the pilot elected to perform a forced landing to a wheat field. During landing roll, the nose gear impacted a rut which damaged the nose gear and resulted in the airplane coming to rest in the inverted position. The pilot was able to egress the airplane without assistance. The pilot walked several hours before reaching a road and receiving assistance from a passing motorist.

The airplane was examined by the NTSB with the assistance of a technical representative from Piper Aircraft. All position detents could be identified from the fuel selector and the positions were verified from both wing tanks to the engine fuel line. Movement from the right tank to the left tank required a clockwise rotation which was impeded by a round head screw that was found slightly raised from the flush position. The screw secured the fuel selector placard to the side of the cockpit and when properly seated allowed for unrestricted movement of the fuel selector to all positions.

Pilot Information

Certificate:	Commercial	Age:	79, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	June 1, 2007
Occupational Pilot:	No	Last Flight Review or Equivalent:	August 1, 2006
Flight Time:	4000 hours (Total, all aircraft), 450 hours (Total, this make and model), 3500 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 9 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N4515Z
Model/Series:	PA-22-108	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	22-8017
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	March 1, 2008 Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4387.3 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed	Engine Model/Series:	O-320
Registered Owner:	On file	Rated Power:	160 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:	LFT	Distance from Accident Site:	
Observation Time:	18:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Scattered / 1900 ft AGL	Visibility	8 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	11 knots / 16 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.8 inches Hg	Temperature/Dew Point:	25°C / 21°C
Precipitation and Obscuration:			
Departure Point:	MC COMB, MS (MCB)	Type of Flight Plan Filed:	None
Destination:	OPELOUSAS, LA (OPL)	Type of Clearance:	None
Departure Time:		Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	30.519283,-92.07946(est)

Administrative Information

Investigator In Charge (IIC):	Aguilera, Jason
Additional Participating Persons:	Laurel Johnson; FAA FSDO; Baton Rouge, LA Michael McClure; Piper Aircraft; Dallas, TX
Original Publish Date:	July 30, 2008
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=67937

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).