



Aviation Investigation Final Report

Location:	Mocksville, North Carolina	Accident Number:	ATL05LA117
Date & Time:	June 29, 2005, 15:32 Local	Registration:	N38341
Aircraft:	Piper J3C-65	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported a loss of engine power while making a left crosswind turn at 400 feet. The pilot elected to make an off airport landing. While maneuvering on the approach to land, the airplane collided with trees and subsequently the ground. Maintenance personnel observed that when the throttle was positioned at idle, the RPM fluctuated between 500 and 1300, and the engine oil pressure was constant at 40 pounds of pressure. The carburetor was disassembled and revealed "small particles of dirt or paint chips" located in the carburetor and gascolator. Some particles appeared large enough to block fuel flow to the engine if injected or in a position to enter the fuel jet nozzle. Post-accident examination of the engine included a field test run of the engine.

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 system contamination. A factor was trees.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: CLIMB

Findings

1. (C) FUEL SYSTEM - CONTAMINATION

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING

Findings

2. OBJECT - TREE(S)
3. TERRAIN CONDITION - GROUND

Factual Information

On June 29, 2005 at 1532 eastern daylight time, a Piper J3C-65, N38341, registered and operated by a private owner, collided with the ground after takeoff from Twin Lakes Airport, Mocksville, North Carolina. The flight was operated under the provisions of Title 14 CFR Part 91 personal flight. Visual meteorological conditions prevailed at the time of the accident and no flight plan was filed. The airplane sustained substantial damage and the pilot and passenger received minor injuries. The flight originated from the Twin Lakes Airport, Mocksville, North Carolina, on June 29, 2005 at 1530.

According to the pilot, he departed runway 27. After making a crosswind turn to the left, the pilot stated that the airplane lost power and "the engine quit about 400 feet above the ground." The pilot elected to make an off airport landing and collided with trees and the ground.

Post-accident examination of the airplane revealed the left wing was folded under the fuselage, right wing exhibited circular crush damage along the leading edge, bending damage to the left landing gear, propeller blade was bent aft, and the left horizontal stabilizer exhibited crush damage at the outboard tip.

Maintenance personnel observed that when the throttle was positioned at idle, the RPM fluctuated between 500 and 1300, and the engine oil pressure was constant at 40 pounds. The carburetor was disassembled and revealed "small particles of dirt or paint chips" located in the carburetor and gascolator. Some particles appeared large enough to block fuel flow to the engine if injected or in a position to enter the fuel jet nozzle, according to the maintenance personnel. Compression was noted on all cylinders. Both magnetos produced ignition sparks on all leads when rotated. Post-accident examination of the airplane included a functional test run of the engine.

Pilot Information

Certificate:	Airline transport; Commercial; Flight engineer; Flight instructor; Private; Student	Age:	49, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	Balloon	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	June 1, 2005
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	December 1, 2004
Flight Time:	17303 hours (Total, all aircraft), 100 hours (Total, this make and model), 15500 hours (Pilot In Command, all aircraft), 250 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N38341
Model/Series:	J3C-65	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	6949
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	April 1, 2005 Annual	Certified Max Gross Wt.:	1100 lbs
Time Since Last Inspection:	17 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	144.57 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	A&C65
Registered Owner:	Joseph Wilson	Rated Power:	65 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	GSO,195 ft msl	Distance from Accident Site:	25 Nautical Miles
Observation Time:	15:54 Local	Direction from Accident Site:	254°
Lowest Cloud Condition:	Scattered / 2600 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	28°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Mocksville, NC (8A7)	Type of Flight Plan Filed:	None
Destination:	Mocksville, NC (8A7)	Type of Clearance:	None
Departure Time:	16:00 Local	Type of Airspace:	

Airport Information

Airport:	TWIN LAKES 8A7	Runway Surface Type:	
Airport Elevation:	818 ft msl	Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	35.908889,-80.453887

Administrative Information

Investigator In Charge (IIC):	Powell, Phillip
Additional Participating Persons:	Pat Bruce; Greensboro FSDO-05; Greensboro, NC
Original Publish Date:	October 27, 2005
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=62064

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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](#).