



Aviation Investigation Final Report

Location:	South Canaan, Pennsylvania	Accident Number:	ERA12LA335
Date & Time:	May 13, 2012, 18:00 Local	Registration:	N98568
Aircraft:	Piper J3C-65	Aircraft Damage:	Substantial
Defining Event:	Windshear or thunderstorm	Injuries:	1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

After flying passengers throughout the day, the pilot attempted to take off once again from the turf runway. However, during the last takeoff roll, the airplane was slow to accelerate, and the takeoff point was farther along the runway than usual. After the airplane became airborne, the pilot thought that it would not clear trees at the end of the runway, so he reduced power, lowered the nose, and applied left rudder to force the airplane back on the ground. The pilot subsequently thought that the airplane's left brake might have been binding because he had to use right rudder to maintain a straight track down the runway. However, no preexisting mechanical anomalies were noted with the airplane. A carburetor probability icing chart revealed the probability of severe carburetor icing at idle power; however, the pilot stated that he had utilized carburetor heat while taxiing the airplane and had removed it just prior to takeoff. Neighbors, who did not see the airplane but did hear its engine rev up, noted rapid and intense wind shifts, similar to destructive winds they had seen once before in the area. The shifting winds then ceased shortly after the airplane's engine stopped making noise.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's delayed decision to abort the takeoff during shifting wind conditions.

Findings

Personnel issues	Delayed action - Pilot
Environmental issues	Sudden wind shift - Effect on operation

Factual Information

History of Flight

Takeoff	Windshear or thunderstorm (Defining event)
Takeoff-rejected takeoff	Abnormal runway contact

On June 13, 2012, about 1800 eastern daylight time, a Piper J3C-65, N98568, was substantially damaged when it impacted terrain during an aborted initial climb after a takeoff at Reed Airport (2PA3), South Canaan, Pennsylvania. The certificated commercial pilot sustained minor injuries and the passenger was not injured. Day visual meteorological conditions prevailed, and no flight plan had been filed for the local personal flight, which was conducted under the provisions of 14 Code of Federal Regulations Part 91.

According to a responding Federal Aviation Administration (FAA) inspector, the pilot had flown family members throughout the day, but during the last takeoff roll, the airplane was slow to accelerate, and the takeoff point was farther along the turf runway than usual. After the airplane became airborne, the pilot felt that it would not clear trees at the end of the runway, so he reduced power, lowered the nose and applied left rudder to force the airplane back on the ground. The airplane hit the ground hard, knocking off the landing gear, twisting the fuselage and damaging the engine firewall.

The pilot also stated to the inspector that he thought that the airplane's left brake might have been binding because he had to apply right rudder to maintain a straight track before rotation.

FAA inspectors found no evidence of preexisting mechanical anomalies with the airplane, and noted that carburetor heat was not being utilized at the time of the accident.

FAA aircraft registry information indicated that the airplane was manufactured in 1946, and one of the FAA inspectors stated that it had been owned by the pilot since 1951. The pilot stated that he had over 5,000 hours of flight time, with 4,000 hours in make and model.

Reed Airport runway 15/33 was 1,200 feet long and 200 feet wide, at an elevation of 1,400 feet above sea level.

The nearest weather-reporting airport, 17 nautical miles (nm) to the southwest, was Wilkes Barre/Scranton International Airport (AVP), Avoca, Pennsylvania, at 962 feet above sea level. Weather, recorded there at 1754, included winds from 350 degrees true at 13, gusting to 19 knots, temperature 22 degrees C, and dew point 11 degrees C.

The next closest weather-reporting airport, 22 nm to the south, was Pocono Mountains Municipal Airport (MPO), Mount Pocono, Pennsylvania, at 1,915 feet above sea level. Weather,

recorded there at 1753, included winds from 010 degrees true at 13, gusting to 20 knots, temperature 20 degrees C, and dew point 7 degrees C.

Utilizing a temperature of 22 degrees C (72 degrees F), and dew point of 11 degrees C (52 degrees F), an FAA carburetor icing probability chart indicated a probability of serious carburetor icing at glide power.

During a subsequent interview with the pilot, he stated that he had attempted the takeoff from runway 33, and had flown from that airport since 1950 with thousands of takeoffs there, but that he had never felt the airplane react the way it did. All of a sudden, the flight controls "didn't feel right; the airplane felt like a dog." He also stated that he felt that the airplane wouldn't clear obstacles at the end of the runway, so he cut the power and forced the airplane back down onto the ground. The airplane then landed hard and hit some mud, but did not nose over. The pilot further noted that he was fully aware of a carburetor icing potential and per his normal procedure, had applied carburetor heat on the ground and had removed it for takeoff.

The pilot also stated that the next door neighbors subsequently advised him that the wind had shifted during the takeoff attempt. It had happened once before in the local area, and at that time it resulted in the uprooting of a number of trees that surrounded the airport.

A neighbor stated that the land in that area was located on a high plateau next to a ridge. She also noted that winds generally came from the east, or just to the right of the takeoff runway, but have been known to rapidly shift.

The neighbor further related an incident that occurred years earlier, when the sky darkened to a shade of green, and the winds suddenly shifted, resulting in numerous 100-foot trees being uprooted. It was significant to the neighbor and her husband because one tree fell on a tractor that he had previously been riding.

The neighbor also noted that at the time of the accident, she and her husband were outside when the sky again started to turn a shade of green, and the winds began to rapidly swirl around them. They looked at each other and commented that the same thing was happening, but within 2 minutes, the winds subsided to where they were almost calm.

The neighbor further noted that she could not see the airplane taking off, but heard the engine rev up to take off, and subsequently cease making noise during the swirling winds. She later went to the accident site and spoke to the pilot, who stated that he couldn't understand what happened and that he just couldn't get the airplane to climb.

Pilot Information

Certificate:	Commercial	Age:	86, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	August 31, 2007
Occupational Pilot:	No	Last Flight Review or Equivalent:	July 9, 2011
Flight Time:	5029 hours (Total, all aircraft), 4000 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N98568
Model/Series:	J3C-65	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	18787
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	July 1, 2011 Annual	Certified Max Gross Wt.:	12001 lbs
Time Since Last Inspection:	6 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2093 Hrs as of last inspection	Engine Manufacturer:	CONT MOTOR
ELT:	Installed, not activated	Engine Model/Series:	A&C65 SERIES
Registered Owner:	OGDEN WALTER L	Rated Power:	65 Horsepower
Operator:	OGDEN WALTER L	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	AVP,962 ft msl	Distance from Accident Site:	17 Nautical Miles
Observation Time:	17:54 Local	Direction from Accident Site:	230°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Overcast / 10000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.1 inches Hg	Temperature/Dew Point:	23°C / 8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	South Canaan, PA (2PA3)	Type of Flight Plan Filed:	None
Destination:	South Canaan, PA (2PA3)	Type of Clearance:	None
Departure Time:		Type of Airspace:	

Airport Information

Airport:	Reed Airport 2PA3	Runway Surface Type:	Grass/turf
Airport Elevation:	1400 ft msl	Runway Surface Condition:	Dry
Runway Used:	33	IFR Approach:	None
Runway Length/Width:	1200 ft / 200 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 1 None	Latitude, Longitude:	41.499721,-75.408332(est)

Administrative Information

Investigator In Charge (IIC):	Cox, Paul
Additional Participating Persons:	Harry N Soudas; FAA/FSDO; Allentown, PA
Original Publish Date:	October 9, 2012
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=83624

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