Aviation Investigation Final Report

Location:	West Chester, Pennsylvania	**Accident Number:**	IAD01LA058
Date & Time:	May 21, 2001, 09:55 Local	**Registration:**	N4783M
Aircraft:	Beech 55	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that the airspeed indicator would not exceed 65 knots during the takeoff roll. He aborted the takeoff, but the airplane continued off the end of the runway, and came to rest in a parking lot. An airspeed calibration test was performed, and the airspeed indicator read about 10 knots higher than the test equipment. Further examination of the system revealed that the pitot tube was blocked with a "corrosion-type material". The airspeed indicator was then removed from the airplane and bench tested. The indicator read about 4-5 knots higher than the test equipment. The most recent pitot-static system check was performed on March 14, 2001.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The partial blockage of the pitot/static system, which led to an inaccurate airspeed indication, and resulted in an aborted takeoff and runway overrun. A factor was the wet runway.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: TAKEOFF

Findings

1. (C) PITOT/STATIC SYSTEM - BLOCKED(PARTIAL)
2. (C) FLIGHT/NAV INSTRUMENTS,AIRSPEED INDICATOR - INACCURATE

Occurrence #2: OVERRUN
Phase of Operation: TAKEOFF - ABORTED

Findings
3. ABORTED TAKEOFF - INITIATED - PILOT IN COMMAND
4. (F) AIRPORT FACILITIES,RUNWAY/LANDING AREA CONDITION - WET

Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: TAKEOFF - ABORTED

Findings
5. (C) OBJECT - VEHICLE

Factual Information

On May 21, 2001, approximately 0955 eastern daylight time, a Beech 55, N4783M, was substantially damaged when it impacted vehicles after an aborted takeoff at the Brandywine Airport (N99), West Chester, Pennsylvania. The certificated private pilot was not injured. Instrument meteorological conditions prevailed and an instrument flight rules flight plan was filed for the personal flight conducted under 14 CFR Part 91.

In a written statement the pilot stated:

"I was the only occupant. Departing N99 for an IFR flight to Reading, ultimate destination Colorado. Had full fuel. Pre-flight inspection was normal, no discrepancies. Pre-flight run-up was normal, no discrepancies. Taxi to runway 9 was normal. Received clearance and release from Philadelphia clearance for flight to RDG. Taxied onto runway 9. Ran engines up (with brakes). RPM and M.P. were normal and equal. Initial acceleration was normal. RPM and M.P. showed full power. Checked airspeed for redline (+5). Was at 65k. Scanned r.w., checked airspeed again. Still at 65k. Airspeed needle never hit redline (79kt). Aborted takeoff. Aircraft skidded and ran off end of runway. It was raining. Runway was wet. When I cut power and applied brakes, aircraft hydroplaned, skidded, and ran off the runway."

A Federal Aviation Administration (FAA) inspector performed an on-scene examination. According to the inspector, the airplane impacted several cars and came to rest in a parking lot off the end of the runway 9, a 3,347-foot runway. The inspector reported there were no skid marks on the runway, and that the airplane sustained substantial damage. The right wing and all three landing gear wheels were separated from the airplane, and the fuselage was "split open." Additionally, the airspeed indicator read 0 knots.

According to the FAA inspector, an airspeed calibration test was performed on the airplane and the airspeed indicator read about 10 knots higher than the test equipment. Further examination of the system revealed that the pitot tube was blocked with a "corrosion-type material". The airspeed indicator was then removed from the airplane and bench tested. The indicator read about 4-5 knots higher than the test equipment.

Examination of the airplane logbooks revealed that the most recent pitot-static system check was performed on March 14, 2001.

The pilot reported 864 hours of total flight experience, 40 of which were in make and model.

Weather at Philadelphia International Airport, about 16 miles to the southeast, at 0954, was reported as winds from 070 degrees at 8 knots, visibility 7 statute miles, overcast ceiling at 900 feet, temperature 14 degrees Celsius, dew point 13 degrees Celsius, and altimeter setting

30.08. According to surface observations recorded at the airport, rain had been falling since 2236, on May 20, 2000.

Pilot Information

Certificate:	Private	**Age:**	58,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 2 With waivers/limitations	**Last FAA Medical Exam:**	April 27, 2000
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	April 20, 2000
Flight Time:	864 hours (Total, all aircraft), 40 hours (Total, this make and model), 813 hours (Pilot In Command, all aircraft), 14 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N4783M
Model/Series:	55	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	TE-1131
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	May 3, 2000 Annual	**Certified Max Gross Wt.:**	5324 lbs
Time Since Last Inspection:	40 Hrs	**Engines:**	2 Reciprocating
Airframe Total Time:	2359 Hrs as of last inspection	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	IO-520
Registered Owner:	John Gustave	**Rated Power:**	285 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	PHL,38 ft msl	**Distance from Accident Site:**	16 Nautical Miles
Observation Time:	09:54 Local	**Direction from Accident Site:**	130°
Lowest Cloud Condition:		**Visibility**	7 miles
Lowest Ceiling:	Overcast / 900 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	8 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	70°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.07 inches Hg	**Temperature/Dew Point:**	14°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	West Chester, PA (N99)	**Type of Flight Plan Filed:**	IFR
Destination:	Reading, PA (RDG)	**Type of Clearance:**	None
Departure Time:	09:55 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Brandywine Airport N99	**Runway Surface Type:**	Asphalt
Airport Elevation:	466 ft msl	**Runway Surface Condition:**	Wet
Runway Used:	09	**IFR Approach:**	Unknown
Runway Length/Width:	3347 ft / 50 ft	**VFR Approach/Landing:**	Unknown

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	39.994445,-75.583335

Administrative Information

Investigator In Charge (IIC):	Andrews, Jill
Additional Participating Persons:	Jim Dornak; Federal Aviation Administration; Philadelphia, PA
Original Publish Date:	August 26, 2003
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=52319