Aviation Investigation Final Report

Location:	Phillipsburg, Pennsylvania	**Accident Number:**	NYC04LA187
Date & Time:	August 3, 2004, 17:45 Local	**Registration:**	N6311P
Aircraft:	Piper PA-24-180	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

After completing the warm-up and ground checks, the airplane departed from a 5,711-foot-long, 100-foot-wide, asphalt runway. During the initial climb, about 400 feet above the ground, the engine lost partial power, and the airplane began to descend. Suspecting that carburetor icing was present, the pilot applied carburetor heat. A few seconds later, the airplane impacted the ground, coming to rest about 1/4-mile from the end of the runway. The pilot additionally stated that he had experienced a similar problem with the engine losing partial power a few flights prior to the accident; however, it was an isolated event, and he attributed it to possibly being carburetor icing. The engine was test ran by a Federal Aviation Administration inspector after the accident, with no abnormalities noted.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of partial engine power for undetermined reasons.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

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

Findings
2. TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

On August 3, 2004, at 1745 eastern daylight time, a Piper PA-24-180, N6311P, was substantially damaged during a forced landing after departing from the Mid-State Airport (PSB), Phillipsburg, Pennsylvania. The certificated private pilot and two passengers were not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the local personal flight conducted under 14 CFR Part 91.

According to the pilot, the accident flight was the first flight of the day and the fuel tanks were full. After completing the warm-up and ground checks, the airplane departed from runway 34, a 5,711-foot-long, 100-foot-wide, asphalt runway. During the initial climb, about 400 feet above the ground, the engine lost partial power, and the airplane began to descend. Suspecting that carburetor icing was present, the pilot applied carburetor heat. A few seconds later, the airplane impacted the ground. The airplane came to rest about 1/4-mile from the end of the runway.

The pilot additionally stated that he had experienced a similar problem with the engine losing partial power a few flights prior to the accident; however, it was an isolated event, and he attributed it to possibly being carburetor icing.

A Federal Aviation Administration (FAA) inspector examined the wreckage after the accident. He observed substantial damage to both wings, and the forward fuselage. The inspector did not observe any anomalies with the flight or engine controls. The engine was test ran by the FAA inspector after the accident, with no abnormalities noted.

The weather reported at the airport, at 1755, included winds from 240 degrees at 4 knots, clear skies, a temperature of 81 degrees Fahrenheit, a dew point of 75 degrees Fahrenheit, and an altimeter setting of 29.91 inches Hg.

The density altitude calculated for the time of the accident was approximately 3,749 feet.

A review of a FAA carburetor icing probability chart placed the reported temperature and dew point in the "serious icing at glide power" area of the chart.

According to documents obtained during the investigation, a weight and balance was calculated for the flight, which estimated the aircraft weight as approximately 2,521 pounds.

According to the PA-24-180 Owner's Handbook, the maximum gross weight was 2,550 pounds.

Pilot Information

Certificate:	Private	**Age:**	36,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	October 1, 2003
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	May 1, 2004
Flight Time:	120 hours (Total, all aircraft), 80 hours (Total, this make and model), 41 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N6311P
Model/Series:	PA-24-180	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	24-1421
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	March 1, 2004 Annual	**Certified Max Gross Wt.:**	2550 lbs
Time Since Last Inspection:	50 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	6000 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-360
Registered Owner:	Michael T. Brobeck	**Rated Power:**	180 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:	PSB,1948 ft msl	**Distance from Accident Site:**	
Observation Time:	17:55 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Scattered / 4400 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	8 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	270°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.9 inches Hg	**Temperature/Dew Point:**	27°C / 24°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Phillipsburg, PA (PSB)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	18:15 Local	**Type of Airspace:**	

Airport Information

Airport:	Mid-State Airport PSB	**Runway Surface Type:**	Asphalt
Airport Elevation:	1948 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	34	**IFR Approach:**	None
Runway Length/Width:	5711 ft / 100 ft	**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	2 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	3 None	**Latitude, Longitude:**	40.884166,-78.087219

Administrative Information

Investigator In Charge (IIC):	Demko, Stephen
Additional Participating Persons:	Rick Thomas; FAA; Harrisburg, PA
Original Publish Date:	March 28, 2006
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=59860