



National Transportation Safety Board Aviation Accident Data Summary

Location:	Marietta, PA	Accident Number:	NYC02FA152
Date & Time:	08/01/2002, 2030 EDT	Registration:	N81310
Aircraft:	Grumman American AA-5B	Injuries:	4 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

A witness observed the pilot was having difficulty starting the engine. After the engine started, the airplane was taxied to the runway. The witness then observed the airplane in a steep 45-degree left bank, until it disappeared behind corn stalks. A second witness observed the accident airplane depart from the airport and the engine "cut off and on five times" before descending to the ground. A third witness observed the airplane in a sharp bank, with the left wing tipped downward and the right wing pointed towards the sky, before it disappeared below a tree line. On a recent flight, the pilot was observed having difficulty starting the engine. He also requested maintenance assistance for a rough running magneto. The maintenance performed on the airplane included removal, cleaning, and verifying specifications of both magnetos, and all spark plugs. Review of the airplane's maintenance logs did not reveal any entries related to magneto or spark plug malfunctions. After the accident, neither the left or right magnetos could be tested due to impact and fire damage. A review of FAA-H-8083-3, Airplane Flying Handbook, revealed, "...If an actual engine failure should occur immediately after takeoff and before a safe maneuvering altitude is attained, it is usually inadvisable to attempt to turn back to the field from where the takeoff was made. Instead, it is safer to immediately establish the proper glide attitude, and select a field directly ahead or slightly to either side of the takeoff path." There were several non-populated clear areas/fields along, and on either side of, the departure path.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper decision to operate an airplane with known mechanical deficiencies, his improper decision to return to the airport with inadequate altitude remaining, and his failure to maintain airspeed. A factor related to the accident was the malfunction of the ignition system, which resulted in a loss of engine power.

Findings

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

Findings

1. (F) IGNITION SYSTEM - MALFUNCTION
2. (C) OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - IMPROPER - PILOT IN COMMAND

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

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

3. TERRAIN CONDITION - CROP
4. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
5. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
6. STALL - INADVERTENT - PILOT IN COMMAND
7. ALTITUDE/CLEARANCE - INADEQUATE - PILOT IN COMMAND

Pilot Information

Certificate:	Private	Age:	40
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	275 hours (Total, all aircraft), 20 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Grumman American	Registration:	N81310
Model/Series:	AA-5B	Engines:	1 Reciprocating
Operator:	Gerald L. Shenk	Engine Manufacturer:	Lycoming
Operating Certificate(s) Held:	None	Engine Model/Series:	O-360
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	LNS, 403 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None	Wind Speed/Gusts, Direction:	5 knots / , 360°
Temperature:	28° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Marietta, PA (N71)	Destination:	

Airport Information

Airport:	Donegal Springs (N71)	Runway Surface Type:	Asphalt
Runway Used:	28	Runway Surface Condition:	Dry
Runway Length/Width:	3250 ft / 50 ft		

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	3 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:	40.087778, -76.581944		

Administrative Information

Investigator In Charge (IIC):	Stephen M Demko	Adopted Date:	02/05/2004
Investigation Docket:	NTSB accident and incident docket serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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