



Aviation Investigation Final Report

Location:	CHAMBERSBURG, Pennsylvania	Accident Number:	NYC99LA111
Date & Time:	May 11, 1999, 20:00 Local	Registration:	N5938Z
Aircraft:	Piper PA-22-108	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated that a successful preflight was performed prior to takeoff. During the takeoff, at about 150 feet above the ground, the engine began to decelerate, 'as if you pulled the throttle back to idle.' The pilot nosed the airplane over and performed a forced landing. The engine was removed from the airframe for a test run under the supervision of a FAA Inspector. Prior to the test run, crankshaft continuity and thumb compression were confirmed. The engine was then placed on a test stand and successfully run.

Probable Cause and Findings

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

Findings

Occurrence #1: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING - ROLL

Findings

1. OBJECT - FENCE POST
2. OBJECT - TREE(S)

Factual Information

On May 11, 1999, about 2000 Eastern Daylight Time, a Piper PA-22-108, N5938Z, impacted the ground during climbout from a private grass airstrip, in Chambersburg, Pennsylvania. The certificated private pilot and passenger were not injured. Visual meteorological conditions prevailed and no flight plan was filed for the local flight conducted under 14 CFR Part 91.

The pilot stated in a telephone interview that the airplane originated at the Chambersburg Municipal Airport, Chambersburg, Pennsylvania. The airplane was flown in the local area for about an hour, then the flight proceeded to Rock Top Airport to practice touch and go landings. After landing, the airplane was parked for about 45 minutes. The airplane was then started again and taxied to Runway 31, where a run-up was conducted. The engine was accelerated to 1700 Rpm's, and a check of the left and right magnetos, along with the carburetor heat, was performed. No discrepancies were observed, and the airplane departed. The total time from starting the engine to departure was estimated at 5 minutes.

As the airplane began to climb normally, the pilot mentioned to the passenger that the engine was performing quite well. At about 150 feet above the ground, the engine began to decelerate, "as if you pulled the throttle back to idle." The pilot nosed the airplane over to gain airspeed, and began to look for a place to land. The airplane touched down on all three wheels, in a dry creek bed, rolled about 50 feet, proceeded up a grass hill, then hit a fence post, shearing off the nose gear. The airplane continued past the fence and hit standing trees with the left wing, shearing the wing off. The airplane then nosed over and came to rest inverted. The pilot and passenger exited the airplane, and observed large amounts of fuel draining from the left side of the fuselage. The airplane was rolled back onto the main landing gear, stopping the fuel leak.

Examination of the wreckage at the accident site by a Federal Aviation Administration (FAA) Inspector revealed that there was about 5 gallons of fuel remaining in both wing tanks.

The engine was removed from the airframe and shipped to Textron Lycoming, Williamsport, Pennsylvania, for a test run under the supervision of a FAA Inspector. Prior to the test run, crankshaft continuity and thumb compression were confirmed. The engine was then placed on a test stand and successfully run.

Pilot Information

Certificate:	Private	Age:	54, 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 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	June 27, 1998
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	204 hours (Total, all aircraft), 204 hours (Total, this make and model), 194 hours (Pilot In Command, all aircraft), 2 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N5938Z
Model/Series:	PA-22-108 PA-22-108	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	22-9808
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	June 14, 1998 Annual	Certified Max Gross Wt.:	1650 lbs
Time Since Last Inspection:	32 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4505 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-235-C1B
Registered Owner:	STEPHEN K GILMAN	Rated Power:	108 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	HGR ,704 ft msl	Distance from Accident Site:	17 Nautical Miles
Observation Time:	19:53 Local	Direction from Accident Site:	200°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	150°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	22°C / 10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	, PA (PA58)	Type of Flight Plan Filed:	None
Destination:	(N68)	Type of Clearance:	None
Departure Time:	20:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	ROCK TOP AIRPORT PA58	Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	39.929233,-77.650787(est)

Administrative Information

Investigator In Charge (IIC):	Demko, Stephen
Additional Participating Persons:	DAVID SAKMAR; NEW CUMBERLAND , PA
Original Publish Date:	June 23, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=46307

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).