National Transportation Safety Board
Aviation Accident Factual Report

Location:	New Tazewell, TN	**Accident Number:**	ATL07LA067
Date & Time:	04/02/2007, 0830 EDT	**Registration:**	N30465
Aircraft:	Piper PA28-181	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

On April 2, 2007, at 0830 eastern daylight time, a Piper PA-28-181, N30465, lost control in-flight over New Tazewell, Tennessee. The airplane was substantially damaged, and the certificated private pilot was killed. Instrument meteorological conditions prevailed at altitude, and no flight plan was filed for the personal flight that departed Armstrong Airport (AXV), Wapakoneta, Ohio, destined for the Gatlinburg-Pigeon Forge Airport (GKT), Sevierville, Tennessee. The flight was conducted under the provisions of 14 Code of Federal Regulations (CFR) Part 91.

Personnel at the Dayton Federal Contract Facility (FCF) Automated Flight Service Station reported that on the afternoon of April 1, 2007, at 1325, the pilot contacted them to request predicted flight weather conditions for a VFR flight from AXV to GKT on April 2, 2007. However, due to a malfunction at the flight briefer position, neither a transcript or voice recording could be provided. Additionally, the specialist who provided the services to the pilot was no longer employed with Lockheed Martin Flight Services, and therefore they were unable to obtain an official personnel statement from the specialist.

According to witnesses, the airplane was observed coming down out of the "clouds" and then climbing back up into the clouds. The second time they saw it come down out of the "clouds it was on its side" and then went out of site and they heard a loud crash. The witnesses called 911 and reported the accident.

The pilot, age 58, held a private pilot certificate with ratings for airplane single engine land. His certificate was issued on January 18, 2005. He held a third-class medical certificate issued on August 15, 2005, with limitations for corrective lenses. The pilot's most recent medical certificate showed that he had accumulated 100 hours of flight time. The pilot's logbook was not recovered for review.

The nearest weather reporting facility was Knoxville, Tennessee. On the day of the accident at 0853, winds were 230 degrees at 6 knots, visibility was 7 statute miles, clouds scattered at 3300 feet, clouds scattered at 4000 feet, altimeter-setting 30.12 inches of mercury.

On-scene examination of the airplane by a Federal Aviation Administration Inspector, found that it had impacted into a densely wooded area contacting several trees during the impact sequence. The engine had separated from the airframe, and the airframe was fragmented. The airplane was recovered from the site, and examined on April 17, 2007. Examination found that the fuselage was destroyed and the cabin area was crushed. The instrument panel and throttle quadrant received impact damage. The throttle lever and mixture lever were found in the mid position. The flap handle remained in the 00-degree flap position. The fuel selector valve was found over extended from the right tank position, and fuel was found in the fuel selector valve. The valve was field tested by applying low-pressure air through its ports. All ports were free from blockage. Flight control continuity was established to all flight controls, except for impact and recovery related separations.

The left wing was separated at the wing root. The wing was destroyed and fragmented. The right wing was destroyed and separated at the wing root. The empennage was separated from the fuselage. The left side of the stabilator had impact damage and was separated. The leading edge of this section was crushed aft. The left outboard 2-foot section was separated. The right side was damaged and remained attached. The rudder was damaged and remained attached. The vertical fin was cut and separated from the fuselage. No preimpact airframe anomalies were noted during the examination.

Examination of the engine found it displaced to the left and remained partially attached to the airframe by the engine mounts. The exhaust muffler was impact separated and the exhaust and intake tubes were impact damaged. The starter remained attached to the engine and no damage was noted. The alternator was destroyed. The carburetor was fractured across the throttle bore and separated from the engine. The engine driven fuel pump mounting flange was fractured.

The engine was suspended from a lift and partially disassembled to facilitate the examination. The vacuum pump, carburetor, engine driven fuel pump, magnetos, sparkplugs, oil cooler, oil filter and oil suction screen were removed.

The vacuum pump was rotated by hand producing air pressure at the outlet port. When the pump was disassembled, the carbon rotor and carbon vanes were found intact.

The carburetor fuel inlet screen was removed and no contaminants were noted. The carburetor bowl halves were separated and no fuel was found in the float bow. No obstruction was noted in the main fuel nozzle. The engine driven fuel pump was removed and a small amount of a liquid with an odor consistent with aviation gasoline drained from the pump when it was tilted on its side. The pump mounting flange was fractured and the pump could not be actuated.

The magnetos were removed and rotated by hand. Both magnetos produced spark from all four towers. The sparkplugs were removed and exhibited gray coloration and normal wear patterns.

The oil filter was removed and cut open. No contaminants were noted when the oil filter media was examined. The oil suction screen was removed and no contaminants were noted.

The engine was rotated by means of a tool inserted in the vacuum pump drive pad. Compression and suction were observed at all four cylinders as the engine was rotated. Continuity of the crankshaft to the rear gears and to the valve train was confirmed. There was no indication of pre-impact damage to or failure of the engine as observed.

The propeller remained attached to the crankshaft flange. One propeller blade was curled aft approximately 90 degrees about 18 inches outboard of the propeller hub. This blade exhibited "S" bending of the trailing edge, cord wise scarring of the cambered face and leading edge nicks. The other blade was also curled aft approximately 90 degrees about 18 inches outboard of the hub. That blade exhibited cord wise scarring and forward bending of the propeller tip.

An autopsy was performed on the pilot on April 4, 2007, by the University of Pathologists, Knoxville, Tennessee. The cause of death was reported as multiple blunt force injuries. Forensic toxicology was performed on specimens from the pilot by the Federal Aviation Administration Bioaeronautical Sciences Research Laboratory, Oklahoma City, Oklahoma.

The toxicology report stated no carbon monoxide, or cyanide was detected in blood and no ethanol was detected in vitreous.

Ranitidine was present in blood and urine.

Acetaminophen was detected in urine.

Pilot Information

Certificate:	Private	**Age:**	58, Male
Airplane Rating(s):	Single-engine Land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Seatbelt, Shoulder harness
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 3 With Waivers/Limitations	**Last FAA Medical Exam:**	08/01/2005
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:	100 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N30465
Model/Series:	PA28-181	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	28-7990092
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	03/01/2006, Annual	**Certified Max Gross Wt.:**	2550 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	2399 Hours as of last inspection	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-360-A4M
Registered Owner:	Larry W. Sanders	**Rated Power:**	180 hp
Operator:	Larry W. Sanders	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:	TYS, 981 ft msl	**Distance from Accident Site:**	40 Nautical Miles
Observation Time:	0853 CDT	**Direction from Accident Site:**	330°
Lowest Cloud Condition:	Scattered / 3300 ft agl	**Visibility**	7 Miles
Lowest Ceiling:	Obscured	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	230°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.12 inches Hg	**Temperature/Dew Point:**	18°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Wapakoneta, OH (AXV)	**Type of Flight Plan Filed:**	None
Destination:	Pigeon Forge, TN (GKT)	**Type of Clearance:**	None
Departure Time:	0700 EDT	**Type of Airspace:**	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Substantial
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	36.405556, -83.750556

Administrative Information

Investigator In Charge (IIC):	Butch Wilson
Additional Participating Persons:	Bruce Bolton; Nashville FSDO; Nashville, TN Robert P Martellotti; Piper Aircraft; Vero Beach, FL James M Childers; Lycoming Engines; Elizabethton, TN
Investigation Docket:	NTSB accident and incident dockets 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.ntsb.gov/pubdms/.