



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

# Aviation Investigation Final Report

<b>Location:</b>	Benton, Pennsylvania	<b>Accident Number:</b>	ERA11LA104
<b>Date &amp; Time:</b>	January 2, 2011, 19:17 Local	<b>Registration:</b>	N42997
<b>Aircraft:</b>	Piper PA-28-161	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Controlled flight into terr/obj (CFIT)	<b>Injuries:</b>	1 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

The instrument-rated pilot was on the return leg of a three-leg cross country flight at night when he encountered clouds in his path. He considered climbing above the clouds, but he was concerned that he would not be able to descend back down through them. He elected to descend below the clouds, and misjudged the distance between the clouds and the ground. The airplane collided with trees and terrain at an elevation of about 2,200 feet in a remote, wooded area. The airplane sustained substantial damage by impact forces and post-crash fire. The pilot reported he did not see the trees or the terrain prior to the collision. Additionally, he stated that there were no mechanical issues with the airplane during the flight.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain clearance from terrain during the night flight.

## Findings

<b>Environmental issues</b>	Clouds - Contributed to outcome
<b>Personnel issues</b>	Incorrect action selection - Pilot

# Factual Information

## History of Flight

Enroute-cruise	VFR encounter with IMC
Enroute-cruise	Controlled flight into terr/obj (CFIT) (Defining event)

On January 2, 2011, about 1917 eastern standard time, a Piper PA-28-161, N42997, was destroyed following an in-flight collision with trees and terrain near Benton, Pennsylvania. The airplane was operated by Tech Aviation Flight School. The certificated private pilot sustained serious injuries. Night instrument meteorological conditions were present in the area, and no flight plan was filed for the solo instructional flight. The flight was conducted under the provisions of 14 Code of Federal Regulations Part 91. The flight originated at Williamsport, Pennsylvania (IPT) about 1900, and was destined for Wilkes-Barre/Scranton Airport (AVP), Wilkes-Barre, Pennsylvania.

An inspector with the Federal Aviation Administration responded to the accident site and examined the wreckage. The airplane crashed in a remote, wooded area, about 32 nautical miles (nm) west of AVP, at an elevation of about 2,200 feet. He reported that the airplane was completely destroyed by fire. The cockpit and all flight instruments were burned beyond recognition. Both wings were torn from the fuselage and were found next to the fuselage.

A Pennsylvania State Patrolman responded to the accident site and spoke with the pilot. According to the patrolman, the pilot reported that he was trying to maneuver under a cloud when the accident occurred.

After recovering from his injuries, the pilot was interviewed by the NTSB investigator-in-charge on April 5, 2011. The pilot reported that he was on the return leg of a three-leg cross country, at night, with no flight plan filed, when he encountered clouds in his path. He considered climbing above the clouds, but was concerned that he would not be able to descend back down through them. He decided to go under the clouds, and misjudged the distance between the clouds and the ground. He "...just ran out of space." He did not see the ground or the trees before he crashed. He stated that there were no mechanical issues with the airplane during the flight.

The pilot held a private pilot certificate with airplane single engine land and instrument airplane ratings.

Weather, recorded at AVP at 1901, included winds from 340 degrees at 7 knots, visibility 10 statute miles, sky broken at 2,600 feet, temperature 2 degrees C, dew point -3 degrees C, an altimeter setting of 29.96 inches Hg.

Weather, recorded at IPT at 1854, included winds from 290 degrees at 14 knots, visibility 10

statute miles, sky clear, temperature 2 degrees C, dew point -8 degrees C, an altimeter setting of 30.04 inches Hg. IPT was located about 22 nm west of the accident site.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	22, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	July 27, 2007
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	July 17, 2010
<b>Flight Time:</b>	170 hours (Total, all aircraft), 170 hours (Total, this make and model)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N42997
<b>Model/Series:</b>	PA-28-161	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	28-8316062
<b>Landing Gear Type:</b>		<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	December 3, 2010 Annual	<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	11625 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	O-320 SER
<b>Registered Owner:</b>	FBO AIR WB LEASING INC	<b>Rated Power:</b>	160 Horsepower
<b>Operator:</b>	Tech Aviation Flight School	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Instrument (IMC)	<b>Condition of Light:</b>	Night
<b>Observation Facility, Elevation:</b>	AVP,962 ft msl	<b>Distance from Accident Site:</b>	37 Nautical Miles
<b>Observation Time:</b>	19:01 Local	<b>Direction from Accident Site:</b>	85°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 2600 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	7 knots / None	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	340°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.96 inches Hg	<b>Temperature/Dew Point:</b>	2°C / -3°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Williamsport, PA (IPT )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Wilkes-Barre, PA (AVP )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	19:00 Local	<b>Type of Airspace:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	On-ground
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious	<b>Latitude, Longitude:</b>	41.292221,-76.430831

## Administrative Information

Investigator In Charge (IIC):	Hicks, Ralph
Additional Participating Persons:	Richard Thomas; FAA/FSDO; Allentown, PA
Original Publish Date:	July 12, 2011
Last Revision Date:	
Investigation Class:	<a href="#">Class</a>
Note:	
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=78084">https://data.nts.gov/Docket?ProjectID=78084</a>

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