



National Transportation Safety Board Aviation Accident Data Summary

Location:	Peru, WV	Accident Number:	ERA12FA012
Date & Time:	10/02/2011, 2045 EDT	Registration:	N115CL
Aircraft:	PIPER PA-32R-300	Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The non-instrument-rated pilot, who was also the owner of the airplane, departed on a night visual flight rules (VFR) flight. Weather conditions at the departure airport were VFR, the weather conditions en route were a combination of marginal VFR and instrument flight rules (IFR), and the weather at the destination airport was IFR. The pilot had obtained a weather briefing earlier in the evening, during which he was informed that VFR flight was not recommended. About 30 minutes before the accident, the pilot's in-flight weather briefing indicated that instrument meteorological conditions, including low ceilings and mountain obscuration, were forecast for their intended route and at their destination. About 4 minutes before the accident, the pilot advised air traffic control personnel that "we are losing VFR, I need a deviation." Radio and radar contact were then lost. A postaccident examination of the wreckage indicated that the airplane struck the top of a tree, rolled inverted, and impacted the ground. No preimpact mechanical malfunctions or failures with the airplane that would have precluded normal operation were noted. The only navigational charts found at the accident scene were folded VFR charts and airport facility directories. No IFR charts were found.

Analysis of the radar data and wreckage information revealed that the airplane made a series of erratic maneuvers, including a 360-degree heading change, before entering a descent and impacting the ground at high speed. These maneuvers took place in the last few minutes of the flight and were consistent with spatial disorientation. FAA guidance indicates that spatial disorientation can occur when there is no natural horizon or surface reference, such as a night flight in sparsely populated areas similar to that of the accident area and conditions. Although about 34 percent of the moon's disk was potentially illuminated at the time of the accident, given the cloud coverage in the area it is unlikely that the moon provided any illumination over the accident site. FAA guidance also indicates that spatial disorientation is more likely to occur if a pilot lacks proficiency in instrument flying.

Flight Events

Prior to flight - Preflight or dispatch event
Enroute-cruise - VFR encounter with IMC
Uncontrolled descent - Collision with terr/obj (non-CFIT)

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The non-instrument rated pilot's improper decision to continue visual flight into instrument meteorological conditions, which resulted in spatial disorientation and subsequent in-flight collision with mountainous terrain.

Findings

Personnel issues-Psychological-Perception/orientation/illusio-Spatial disorientation-Pilot - C

Personnel issues-Task performance-Planning/preparation-Weather planning-Pilot
 Environmental issues-Conditions/weather/phenomena-Ceiling/visibility/precip-Below VFR minima-
 Decision related to condition - C
 Environmental issues-Physical environment-Terrain-Mountainous/hilly terrain-Not specified

Pilot Information

Certificate:	Private	Age:	52
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	111 hours (Total, all aircraft), 40 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	PIPER	Registration:	N115CL
Model/Series:	PA-32R-300	Engines:	1 Reciprocating
Operator:	WINGS R US	Engine Manufacturer:	LYCOMING
Air Carrier Operating Certificate:	None	Engine Model/Series:	IO-540-K1G5D
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	W99, 963 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Instrument Conditions	Lowest Ceiling:	Broken / 3600 ft agl
Condition of Light:	Night/Dark	Wind Speed/Gusts, Direction:	Calm
Temperature:	8° C / 6° C	Visibility	10 Miles
Precipitation and Obscuration:	Light - Drizzle; No Obscuration		
Departure Point:	Danville, VA (DAN)	Destination:	Johnstown, PA (JST)

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	2 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC):	Shawn Etcher	Adopted Date:	07/18/2013
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=82007		

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