



National Transportation Safety Board

Aviation Accident Data Summary

Location:	Lumberport, WV	Accident Number:	ERA14FA138
Date & Time:	03/01/2014, 1215 EST	Registration:	N7203E
Aircraft:	BEECH F33	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The private pilot was conducting a local personal flight. Radar data indicated that the airplane took off from its home airport and flew westbound for about 23 minutes and then reversed course back toward the airport. Radar data indicated no major course deviations after the turn, but the data did indicate that the airplane's altitude deviated many times. Toward the end of the flight, the airplane started to descend, and the last two recorded altitudes indicated that the airplane reached a descent rate of 9,600 ft per minute. The airplane subsequently impacted a ridgeline, during which the airplane was highly fractured, with debris coming to rest on the downslope beyond the ridgeline. No preexisting mechanical anomalies were found that would have precluded normal operation, and propeller blade signatures were consistent with the engine producing power at the time of impact.

The pilot had a history of hypertension, depression, and anxiety and had experienced a stroke 6 years before the accident. His personal physician at that time, who was also a Federal Aviation Administration (FAA) designated aviation medical examiner (AME), prescribed multiple medications for these conditions during visits for personal medical care 5 and 6 years before the accident, including two medications the FAA considered disqualifying for use by pilots. Neither the pilot nor the AME reported these conditions or their treatment to the FAA when the pilot obtained aviation medical certificates 4 and 2 years before the accident. The AME only provided medical records up to 5 years before the accident.

The pilot's autopsy was limited by the degree of damage to his body. The local medical examiner identified mirtazapine and ethanol in the muscle, and subsequent testing at the FAA Civil Aerospace Medical Institute identified amlodipine, mirtazapine, and valsartan but no ethanol.

Mirtazapine is an antidepressant whose mechanism is unknown. Although the pilot had been diagnosed and treated for depression and anxiety, there were no available records describing the effectiveness of the treatment or the extent of the pilot's symptoms around the time of the accident. Although mirtazapine can be sedating, the pilot had apparently been using it for several years. The family reported that the pilot had planned to travel in the weeks following the accident, and there were no reports of new or increased stressors. The ethanol identified by the medical examiner likely resulted from postmortem production rather than ingestion and did not contribute to the accident. Amlodipine and valsartan are used to lower blood pressure, and although the pilot's hypertension and its treatment likely did not contribute directly to the accident, it increased his risk of recurrent stroke or other cardiovascular event.

There were no records provided nor any reports from the family about who prescribed the pilot's current medications or who might have been treating him in the 5 years before the accident if not his personal physician/AME. Current recommendations for treatment following strokes are designed to decrease the likelihood of a recurrent event. Guidelines include ongoing treatment with antiplatelet medications, such as aspirin or clopidogrel, evaluation and aggressive treatment of cholesterol, and careful management of hypertension and diabetes. However, there was no evidence from available records or the toxicology results indicating that the pilot was using antiplatelet medication or a cholesterol-lowering agent.

If the pilot and his AME had fully reported the pilot's medical conditions and medications to the FAA, additional testing, such as brain imaging and neuropsychiatric and neurocognitive testing, would have been required for FAA issuance of a medical certificate. Without further testing, the extent of any impairment from the pilot's illnesses or their treatment could not be determined. According to the available evidence, the pilot's stroke risks were inadequately treated and put him at a high risk for a recurrent stroke or a cardiovascular event. These risks likely led to the pilot's acute impairment or incapacitation, which resulted in his flight into terrain.

Flight Events

Enroute - Miscellaneous/other
 Enroute - Altitude deviation
 Enroute - Collision with terr/obj (non-CFIT)

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
 A stroke or cardiovascular event, which resulted in the pilot's acute impairment or incapacitation and his subsequent flight into terrain.

Findings

Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Altitude-Not attained/maintained - C
 Personnel issues-Physical-Impairment/incapacitation-Cardiovascular-Pilot - C

Pilot Information

Certificate:	Private	Age:	68
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	(Estimated) 1550 hours (Total, all aircraft), 50 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BEECH	Registration:	N7203E
Model/Series:	F33 A	Engines:	1 Reciprocating
Operator:	On file	Engine Manufacturer:	Continental
Air Carrier Operating Certificate:	None	Engine Model/Series:	IO-520-BB
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	CKB, 1203 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	Overcast / 7500 ft agl
Condition of Light:	Day	Wind Speed/Gusts, Direction:	15 knots/ 24 knots, 240°
Temperature:	7° C / -3° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fairmont, WV (4G7)	Destination:	Fairmont, WV (4G7)

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	Paul R Cox	Adopted Date:	05/16/2016
Note:	The NTSB traveled to the scene of this accident.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=88863		

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