National Transportation Safety Board
Aviation Accident Final Report

Location:	Taylorsville, GA	**Accident Number:**	ERA12FA057
Date & Time:	11/01/2011, 1642 EDT	**Registration:**	N262MA
Aircraft:	ECKENRODE CARL J VANS RV-6	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control in flight	**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The 70-year-old pilot and owner of the amateur-built airplane was conducting a cross-country flight in visual meteorological conditions. The airplane was at an altitude of 6,500 feet when the pilot contacted an en route air traffic control facility. The pilot was provided an altimeter setting and was instructed to remain clear of nearby Class B airspace, which he acknowledged. There were no further communications from the pilot. During the next 8 minutes, the airplane's altitude fluctuated, increasing about 500 feet, before the airplane turned to the right and entered a steep descent. The airplane impacted a field in an almost straight nose down attitude and was highly fragmented. Examination of the wreckage did not reveal any preimpact mechanical malfunctions. The airplane had been operated for about 50 hours since its most recent condition inspection, which was performed about 10 months before the accident.

The nature of the airplane's departure from controlled flight was consistent with the pilot becoming incapacitated. However, the pilot's son described the pilot as very active and said that he was not aware of the pilot experiencing any health issues. The pilot's health was described as "fine" by his primary care physician during an examination about 6 months before the accident. During the pilot's most recent Federal Aviation Administration medical examination about 7 months before the accident, the pilot reported a history of hypertension, which was previously reported and "well controlled" by three prescription medications that he had previously reported. The injuries sustained by the pilot precluded a determination of whether natural disease caused or contributed to the accident and death.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The airplane's entry into an uncontrolled descent for reasons that could not be determined because postaccident examination of the airplane and the pilot’s medical history did not reveal any anomalies that would have precluded normal operation.

Findings

Personnel issues	Aircraft control - Not specified (Cause)
Not determined	Not determined - Unknown/Not determined (Cause)

Factual Information

HISTORY OF FLIGHT

On November 1, 2011, about 1642 eastern daylight time, an experimental amateur-built Vans RV-6, N262MA, operated by a private individual, was substantially damaged when it impacted terrain in Taylorsville, Georgia. The certificated private pilot was fatally injured. Visual meteorological conditions prevailed and no flight plan had been filed for the flight that departed Mount Sterling-Montgomery County Airport (IOB), Mount Sterling, Kentucky, about 1500, destined for Weedon Field Airport (EUF), Eufaula, Alabama. The personal flight was conducted under the provisions of 14 Code of Federal Regulations Part 91.

According to the pilot's son, the airplane was based at Hendricks Field (NK16), Gouverneur, New York during the summer, and the pilot was in the process of flying the airplane from NK16 to EUF, where it would be based for the winter. The pilot also maintained a residence in the Eufaula area.

According to information obtained from the Federal Aviation Administration (FAA), the flight was receiving visual flight rules flight advisories and was at an altitude of 6,500 feet msl, when pilot contacted the Atlanta Approach Control Satellite-F sector at 1633. The pilot was provided an altimeter setting and instructed to remain clear of the Atlanta Class B airspace, which he acknowledged. There were no further communications from the pilot. Radar data showed that the airplane continued to track to the southwest; however, it gradually climbed to an altitude of approximately 7,100 feet, when radar contact was lost about 1642.

A witness, who lived near the accident site, stated that she heard a very loud engine noise. She looked out the window and saw an airplane "nose diving toward the ground, very fast and very steep." The airplane was almost straight nose down and was not spinning. The airplane struck the ground and debris scattered. She did not observe any smoke or fire before or after the impact. In addition, she described the weather at the time of the accident as clear skies and sunny.

PERSONNEL INFORMATION

The pilot, age 70, held a private pilot certificate, with ratings for airplane single-engine land and airplane single-engine sea. His most recent FAA third-class medical certificate was issued on April 5, 2011.

Review of the pilot's logbook revealed that at the time of the accident, he had accumulated approximately 1,100 hours of total flight experience, which included about 75 hours during the 1 year preceding the accident, of which about 50 hours were flown in the accident airplane.

The pilot's most recent biennial flight review was conducted on August 1, 2011.

AIRCRAFT INFORMATION

The two-seat, low-wing, tail-wheel, all-metal airplane, serial number 20265, was originally issued an experimental airworthiness certificate 1993. It was powered by a Lycoming O-320-E2D, serial number L-36039-27A, 150-horsepower engine, equipped with a Catto three-bladed 68X72 wooden propeller assembly. In addition, the airplane was equipped with a Trutrak two-axis autopilot system.

According to FAA records, the airplane was purchased by the pilot through a corporation on

January 27, 2011.

Examination of maintenance records revealed that the airplane's most recent condition inspection was performed on January 15, 2011, at an airplane and engine total time of 607.2 hours. The airplane had been operated for about 50 hours since the condition inspection.

METEOROLOGICAL INFORMATION

The reported weather at Cartersville Airport (VPC), elevation 759 feet, at 1653, was: wind 020 degrees at 3 knots; visibility 10 statute miles; clear skies; temperature 20 degrees Celsius (C); dew point -1 degrees C; altimeter 30.26 inches of mercury.

According to Lockheed Martin Flight Services, prior to departing IOB, the pilot contacted the Princeton Contracted Flight Service Station for a weather briefing. The weather reported during the briefing included that there were no clouds below 12,000 feet, nor any weather advisories, and unrestricted visibility.

WRECKAGE INFORMATION

The airplane impacted in a cow pasture and was highly fragmented. All major portions of the airplane were accounted for within about 150 feet of a debris field located between 160 and 240 degrees, which began at an impact crater that was about 6 feet long, by 7 feet wide. The main wreckage consisted of an approximate 4 by 4-foot portion of the front cabin, which included the two seats and the empennage. The left and right wing spars extended from the main wreckage; however, the respective wing structure, which included both ailerons, was located in the debris field. The rudder, horizontal stabilizer and both elevators were crushed into each other.

The airplane's flight controls were actuated by a series of push-pull tubes. Due to the fragmented nature of the wreckage, flight control continuity could not be confirmed. In addition, the condition of the airplane's autopilot system could not be evaluated.

The engine was located within the impact crater at a depth of about 5 feet. The crankcase was impact damaged. The left side of the crankcase was fractured above the Nos. 2 and 3 cylinders and a portion of the crankcase forward of the No. 2 cylinder was separated, which exposed the forward portion of the crankshaft. The No. 2 cylinder was partially separated. The accessory section was separated from the crankcase and all engine accessories, which included both magnetos and the carburetor were destroyed. The No. 2 top spark plug was separated. The remaining top spark plugs were removed. Their electrodes were intact and dark gray in color. The engine could not be rotated due to impact damage. A borescope inspection of all cylinders did not reveal any preimpact malfunctions. In addition, the cylinder rocker arm and valve assemblies were intact.

All three wooden propeller blades were fragmented and separated at their respective hubs.

Portions of two Garmin 496 global positioning system receivers were recovered from the debris field and forwarded to the NTSB Vehicle Recorders Laboratory, Washington, DC, for further examination and data download.

Examination of the GPS receivers revealed that one was missing its non-volatile memory chip;

however, the chip was present in the second GPS receiver and was successfully downloaded.

Data retrieved from the GPS receiver indicated that at 1634, the airplane was at a GPS altitude of 6,554 feet, a ground speed of 143 knots, and a heading of 191 degrees. Approximately 1 minute later, the airplane was at GPS altitude of 6,737 feet, a ground speed of 137 knots, and a heading of 226 degrees.

The recorded data further indicated the following GPS altitudes, grounds speeds and headings:

At 1640:42, 6,884 feet, 138 knots, 219.2 degrees

At 1640:53, 6,939 feet, 133 knots, 218.7 degrees

At 1641:00, 6,844 feet, 140 knots, 215.3 degrees

At 1641:11, 6,759 feet, 147 knots, 212.2 degrees

At 1641:20, 6,786 feet, 149 knots, 214.9 degrees

At 1641:30, 6,841 feet, 145 knots, 216.8 degrees

At 1641:31, 6,851 feet, 143 knots, 223.2 degrees

At 1641:35, 6,939 feet, 134 knots, 241.1 degrees

The last recorded data point was at 1641:37, at a GPS altitude of 6,899 feet, a ground speed of 131 knots, and a heading of 268 degrees.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot by the Georgia Bureau of Investigation Division of Forensic Sciences, Decatur, Georgia. The autopsy report revealed the cause of death as "blunt force injuries due to airplane crash." In addition, the medical examiner reported that the injuries sustained by the pilot precluded the ability to exclude if natural disease caused or contributed to the accident and death.

Toxicological testing performed on the pilot by the FAA Bioaeronautical Science Research Laboratory, Oklahoma City, Oklahoma, was negative for drugs and alcohol in liver tissue.

During the pilot's most recent FAA medical examination, he reported a history of hypertension, was previously reported and "well controlled." He also indicated that he was taking Hyzaar, Sectral, and Potassium, which were all previously reported.

The pilot's most recent examination by his primary care physician was conducted on May 17, 2011, for routine follow-up. At that time, his physician noted that he was "doing fine" with normal laboratory results for sugar, kidneys and hemoglobin levels.

The pilot's son described the pilot as very active and said that he was not aware of the pilot experiencing any health issues. He saw the pilot the day before the accident, who seemed fine, and displayed no unusual behavior. The pilot's son was not able to provide any information regarding the pilot's sleep/awake history prior to the accident.

History of Flight

Enroute-cruise	Loss of control in flight (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)
Unknown	Unknown or undetermined

Pilot Information

Certificate:	Private	**Age:**	70, Male
Airplane Rating(s):	Single-engine Land; Single-engine Sea	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 3 With Waivers/Limitations	**Last Medical Exam:**	04/05/2011
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	08/01/2011
Flight Time:	1100 hours (Total, all aircraft), 50 hours (Total, this make and model), 1010 hours (Pilot In Command, all aircraft), 18 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	ECKENRODE CARL J	**Registration:**	N262MA
Model/Series:	VANS RV-6	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental	**Serial Number:**	20265
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	01/15/2011, Conditional	**Certified Max Gross Wt.:**	1600 lbs
Time Since Last Inspection:	50 Hours	**Engines:**	1 Reciprocating
Airframe Total Time:	607 Hours	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-320
Registered Owner:	P-L AIR INC	**Rated Power:**	150 hp
Operator:	P-L AIR INC	**Air Carrier Operating Certificate:**	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	VPC, 759 ft msl	**Observation Time:**	1653 EDT
Distance from Accident Site:	5 Nautical Miles	**Condition of Light:**	Day
Direction from Accident Site:	70°	**Conditions at Accident Site:**	Visual Conditions
Lowest Cloud Condition:	Clear	**Temperature/Dew Point:**	20°C / -1°C
Lowest Ceiling:	None	**Visibility**	10 Miles
Wind Speed/Gusts, Direction:	3 knots, 20°	**Visibility (RVR):**	
Altimeter Setting:	30.26 inches Hg	**Visibility (RVV):**	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Mount Sterling, KY (IOB)	**Type of Flight Plan Filed:**	None
Destination:	Eufaula, AL (EUF)	**Type of Clearance:**	VFR Flight Following
Departure Time:	1500 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		

Administrative Information

Investigator In Charge (IIC):	Luke Schiada	**Adopted Date:**	11/07/2012
Additional Participating Persons:	Steven T Newcomer; FAA/FSDO; Atlanta, GA		
Publish Date:	11/07/2012		
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=82219		