



Eric Alleyne
Air Safety Investigator
National Transportation Safety Board
Office of Aviation Safety - Eastern
Region

NTSB Case Number: ERA20FA063

Aircraft: Vans RV-6, N420PW

Accident Date: 1/5/2020

Subject: FAA Inspector Porter
Mayberry accident summary

The below summary was given to the NTSB investigator by the FAA as a summary of the accident event. The FAA inspector reviewed all logbook records and was on scene during the wreckage examination.

"Upon arrival to the scene there was a Vans RV-6 (experimental aircraft) N420PW (S.N. 20181) located in the grass on the left side of the north taxiway. The aircraft was destroyed with both victims still inside. There was no post-crash fire and no smell of fuel at the site. The aircraft impacted the ground nose first, at what appeared to be a slight nose heavy angle with no forward momentum noted. The propeller was buried in the ground, with only a portion of one side of the prop exposed. Ground scarring left imprints of both wings and the underside of the aircraft imprinted in the soil. Both leading edges were bent upwards from the impact. Both the right and left leading edge wing fuel tanks were compromised in the crash. The aircraft was bent to the right, aft of the cockpit at the forward section of the empennage bending toward the passenger side of the aircraft.

Review of Airport surveillance footage indicated the following. The Pilot and his daughter entered the airport gate at 12:28. They entered the hanger where N420PW was being stored at 12:31. The aircraft taxied to the edge of the taxiway to perform an engine run-up at 12:40. Aircraft taxied to runway at 12:41. The aircraft crashed at 12:42. (All times Central Standard Time CST)

Several witness statements collaborated, after take-off they heard a loud pop or loud noise and stated the pilot tried to execute a sharp 180-degree turn back to the runway. At approximated 300 – 400 feet the aircraft lost airspeed, stalled and struck the ground.

On January 6, 2020, NTSB Investigator arrived on scene at approximately 0900. Lycoming Investigator J. arrived a short time later. During the aircraft examination, continuity of all flight controls was confirmed. (Ailerons, elevators and rudder) The fuel selector valve was positioned between the right and left position. Note: After researching, when this type of selector valve is in the middle position, it only provides fuel to the engine from the left-wing tank.

Engine examination revealed the following information. The engine was rotated using a tool inserted in the vacuum pump drive pad and continuity of the crankshaft to the rear gears and to the valve train confirmed. Compression and suction were observed from all four engine cylinders. The interiors of the cylinders were observed using a lighted borescope and no anomalies noted. The propeller was partially buried in the soft soil of the impact crater. Propeller inspection revealed the following. The propeller remained attached to the engine crankshaft flange, but the flange was separated from the engine crankshaft. One propeller blade was bent aft about 45 degrees about 12 inches outboard of the propeller hub. The other blade was bent forward about 10 degrees about 14 inches inboard of the blade tip. The propeller governor remained attached to the engine. The propeller governor control cable remained attached to the governor control arm, but the control shaft was impact fractured. The governor oil screen was absent of metallic debris. The engine driven fuel pump remained attached to the engine and no damage was noted. The pump was removed and produced air from the outlet port when actuated by hand. Liquid with an odor consistent with aviation gasoline drained from the pump when it was removed and tilted. The pump was partially disassembled, and no damage noted to the internal check valves or the rubber diaphragms. No liquid drained from the fluid line from the airframe to the engine driven fuel pump or the fluid line from the pump to the carburetor when they were removed. Both magnetos produced spark from all ignition towers when rotated by hand.

During a review of the aircraft logbooks and records, the following information was revealed. The last condition inspection to determine airworthiness was accomplished 8/26/2014. There is an entry in the propeller log stating the prop is in a condition for safe operation, but no specific date has been annotated. The last documented engine inspection was completed 08/18/2014.”