# Aviation Investigation Final Report

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| **Location:** | WESTMORE, Vermont | **Accident Number:** | NYC99LA221 |
| **Date & Time:** | September 6, 1999, 08:00 Local | **Registration:** | N8535B |
| **Aircraft:** | Valenza<br>VOLKSPLANE VP-II | **Aircraft Damage:** | Destroyed |
| **Defining Event:** | | **Injuries:** | 1 Fatal |
| **Flight Conducted Under:** | Part 91: General aviation - Ferry | | |

## Analysis

The pilot had recently bought the homebuilt airplane, which hadn't been flown in the previous 3 years, and he reassembled it at his airstrip. He conducted an engine ground test, and subsequently decided to change the original propeller to one with a smaller diameter in order to prevent ground strike damage. The pilot then decided to fly the airplane to another airport, where additional repairs could be made. It was his first flight in the accident airplane, and according to a witness, the takeoff was conducted under 'fairly calm' wind conditions. The airplane began its takeoff roll about 250 feet from the approach end of the grass airstrip, on a downwards slope. It lifted off after rolling about 1,000 feet, but did not gain enough altitude to avoid 50-foot trees at the far end. It turned toward the left, but then descended into two pine trees which were in a gully, and below the elevation of the airstrip. The airplane sheared off the treetops, then rolled inverted, and struck the ground. The engine was heard operating strongly throughout the takeoff attempt, and the wooden propeller blades were shattered. The pilot had about 300 hours of flight time.

## 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 adequate altitude/clearance from the trees. A related factor was the pilot's lack of familiarity with the airplane.

## Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. OBJECT - TREE(S)
2. (C) ALTITUDE/CLEARANCE - INADEQUATE - PILOT IN COMMAND
3. (F) LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND

## Factual Information

On September 6, 1999, about 0800 Eastern Daylight Time, a homebuilt Volksplane VP-II, N8535B, was destroyed during takeoff from a private airstrip near Westmore, Vermont. The certificated private pilot was fatally injured. Visual meteorological conditions prevailed at the time of the accident, and no flight plan was filed for the ferry flight to Newport State Airport (EFK), Newport, Vermont. The flight was conducted under 14 CFR Part 91.

According to a Federal Aviation Administration (FAA) Inspector, the pilot had recently bought the disassembled airplane, which hadn't been flown in the previous 3 years, and reassembled it at his airstrip. He conducted an engine ground test, and subsequently decided to change the original propeller to one with a smaller diameter in order to prevent ground strike damage. The pilot then decided to fly the airplane to Newport State, where additional repairs could be made. It was his first flight in the accident airplane.

A witness stated that the takeoff was conducted under "fairly calm" wind conditions. The airplane began its takeoff roll about 250 feet from the approach end of the grass airstrip. It lifted off after rolling about 1,000 feet, but did not gain enough altitude to negotiate 50-foot trees at the far end of the airstrip. The airplane turned toward the left, toward a low point in the tree line, but then hit two pine trees approximately 8 feet below their tops. It sheared off the treetops, then rolled inverted, and struck the ground. The witness heard the engine operating strongly throughout the takeoff attempt.

On-scene investigation revealed that the takeoff was made from a downwards slope, and that the trees which were hit, were in a gully, and below the airstrip's elevation. Airplane control continuity was confirmed, although the cables were separated, and the cable pulleys were loose. All control surfaces were accounted for at the accident site, and the wooden propeller blades were shattered. A 6-inch by 1-inch by 3-foot board was found bolted to, and centered on the underside of the empennage. It was beneath and parallel to the stabilator. Bailing wire held the pressure carburetor and manifold to the engine mount, and there were no nuts on either the left hand or right hand upper forward wing strut turnover bar. One aileron cable under the fuselage did not have a nut on an attachment bolt, another cable had a nut that was finger tight with no cotter key, neither aileron cable turnbuckle under the fuselage was safety-wired, and the forward pulley for the stabilator was missing.

An autopsy and toxicological testing were performed on the pilot's remains by the Vermont Department of Health, Burlington, Vermont.

The family of the deceased pilot would not provide pilot or maintenance logbooks. On the pilot's latest third class medical certificate application, dated August 22, 1997, he stated that he had 300 hours of flight time.

## Pilot Information

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| **Certificate:** | Private | **Age:** | 59,Male |
| **Airplane Rating(s):** | Single-engine land | **Seat Occupied:** | Center |
| **Other Aircraft Rating(s):** | Helicopter | **Restraint Used:** | |
| **Instrument Rating(s):** | None | **Second Pilot Present:** | No |
| **Instructor Rating(s):** | None | **Toxicology Performed:** | Yes |
| **Medical Certification:** | Class 3 Valid Medical--w/ waivers/lim | **Last FAA Medical Exam:** | August 22, 1997 |
| **Occupational Pilot:** | No | **Last Flight Review or Equivalent:** | |
| **Flight Time:** | 300 hours (Total, all aircraft) | | |

## Aircraft and Owner/Operator Information

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| **Aircraft Make:** | Valenza | **Registration:** | N8535B |
| **Model/Series:** | VOLKSPLANE VP-II VOLKSPLANE | **Aircraft Category:** | Airplane |
| **Year of Manufacture:** | | **Amateur Built:** | Yes |
| **Airworthiness Certificate:** | Experimental (Special) | **Serial Number:** | V2-12-79-SV |
| **Landing Gear Type:** | Tailwheel | **Seats:** | 1 |
| **Date/Type of Last Inspection:** | September 6, 1999 Unknown | **Certified Max Gross Wt.:** | 750 lbs |
| **Time Since Last Inspection:** | 0 Hrs | **Engines:** | 1 Reciprocating |
| **Airframe Total Time:** | | **Engine Manufacturer:** | Volkswagen |
| **ELT:** | Not installed | **Engine Model/Series:** | VW 1600 |
| **Registered Owner:** | ROLLAND L STURTEVANT | **Rated Power:** | 50 Horsepower |
| **Operator:** | | **Operating Certificate(s) Held:** | None |
| **Operator Does Business As:** | | **Operator Designator Code:** | |

## Meteorological Information and Flight Plan

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| **Conditions at Accident Site:** | Visual (VMC) | **Condition of Light:** | Day |
| **Observation Facility, Elevation:** | BTV ,330 ft msl | **Distance from Accident Site:** | 50 Nautical Miles |
| **Observation Time:** | 07:54 Local | **Direction from Accident Site:** | 260° |
| **Lowest Cloud Condition:** | Unknown | **Visibility** | 10 miles |
| **Lowest Ceiling:** | None | **Visibility (RVR):** | |
| **Wind Speed/Gusts:** | 8 knots / | **Turbulence Type Forecast/Actual:** | / |
| **Wind Direction:** | 140° | **Turbulence Severity Forecast/Actual:** | / |
| **Altimeter Setting:** | 30 inches Hg | **Temperature/Dew Point:** | 23°C / 19°C |
| **Precipitation and Obscuration:** | No Obscuration; No Precipitation | | |
| **Departure Point:** | , VT (NONE) | **Type of Flight Plan Filed:** | None |
| **Destination:** | NEWPORT , VT (EFK ) | **Type of Clearance:** | None |
| **Departure Time:** | 08:00 Local | **Type of Airspace:** | Class G |

## Airport Information

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| **Airport:** | | **Runway Surface Type:** | Grass/turf |
| **Airport Elevation:** | 1000 ft msl | **Runway Surface Condition:** | Dry;Vegetation |
| **Runway Used:** | 0 | **IFR Approach:** | None |
| **Runway Length/Width:** | 1500 ft | **VFR Approach/Landing:** | None |

## Wreckage and Impact Information

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| **Crew Injuries:** | 1 Fatal | **Aircraft Damage:** | Destroyed |
| **Passenger Injuries:** | | **Aircraft Fire:** | None |
| **Ground Injuries:** | N/A | **Aircraft Explosion:** | None |
| **Total Injuries:** | 1 Fatal | **Latitude, Longitude:** | |

## Administrative Information

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| **Investigator In Charge (IIC):** | Cox, Paul |
| **Additional Participating Persons:** | TRENT GIVENS; PORTLAND, OR |
| **Original Publish Date:** | April 20, 2000 |
| **Last Revision Date:** | |
| **Investigation Class:** | Class |
| **Note:** | |
| **Investigation Docket:** | https://data.ntsb.gov/Docket?ProjectID=47318 |