



Aviation Investigation Final Report

Location: WACONIA, Minnesota Accident Number: CHI00LA179

Date & Time: July 1, 2000, 10:00 Local Registration: N256DN

Aircraft: VOLKSPLANE VP-1 Aircraft Damage: Destroyed

Defining Event: 1 Fatal

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

The experimental amateur built airplane impacted terrain during climbout from the departure runway. Witnesses reported hearing engine noise while the airplane was in the climb. A witness added that the airplane was in right wing low nose up attitude, which then quickly changed to a nose down vertical descent. Inspection of the airplane revealed no anomalies.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the inadvertent stall by the pilot. The low attitude at the time of the stall was a contributing factor.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: CLIMB

Findings

1. (C) STALL - INADVERTENT - PILOT IN COMMAND

2. (F) ALTITUDE - LOW

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

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Factual Information

HISTORY OF FLIGHT

On July 1, 2000, at 1000 central daylight time, an experimental amateur built Norton Volksplane VP-1, N256DN, piloted by a commercial pilot, was destroyed on impact with terrain during climbout from runway 27 (2,700 feet by 100 feet, turf) at Molnau Airpark Airport, Waconia, Minnesota. Visual meteorological conditions prevailed at the time of the accident. The 14 CFR Part 91 personal flight was not operating on a flight plan. The pilot was fatally injured. The flight was originating at the time of the accident.

A witness reported, "I heard the plane first before I saw him. He came over the last hanger at the airport and flew over me. He was climbing up into the air when he went to make what looked like a small turn when all of a sudden he turned and went straight down. It didn't look like he was having any trouble before that. I didn't see the crash because he went behind a tree line that blocked him from my view..."

A second witness reported, "I saw the plane when it was approx. 150 to 200 feet in the air and slipping toward the ground. The motor was running normal when it fell from my view and the plane was silent. My friend and myself knew it must have crashed as it was too low to recover from the slide..."

A third witness reported, "I heard and aircraft departing Rwy 27 @ Waconia, MN (1MN5). It was between 150 and 200 ft above the ground in a rt wing low nose up attitude, quickly changing to nose down vertically. The engine was loud as in full power with no change in sound. The hill between me and the site of the crash prohibited me from seeing the last 20 feet of the aircraft's flight path. There was no crash sound or smoke..."

PERSONNEL INFORMATION

The 48-year-old pilot held a commercial pilot certificate with airplane single engine land and instrument ratings. He also held a certified flight instructor certificate with and an airplane single engine land rating. A total flight time of 400 hours was reported on the application of his third class medical certificate on August 4, 1999, which had the restriction, "must have available glasses for near vision."

AIRCRAFT INFORMATION

The airplane was manufactured by the pilot and was registered as an experimental amateur built on March 25, 1999. The airplane received a special airworthiness certificate on May 9, 2000. The tail wheel airplane was constructed of wood and fabric and has a useful load of 210

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lbs.

WRECKAGE AND IMPACT INFORMATION

Flight control continuity and engine continuity was established by the Federal Aviation Administration. Fuel was present in the fuel pump lines and in the carburetor. Examination of the wreckage revealed no preexisting anomalies.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy of the pilot was conducted by the Minnesota Regional Coroner's Office, Hastings, Minnesota.

Federal Aviation Administration toxicological test results of the pilot were negative for all substances tested.

TESTS AND RESEARCH

Advisory Circular 61-21A, Flight Training Handbook, states under Stall Characteristics, "...when the airplane is in a nose-high turning attitude, the angle of bank has a tendency to increase. This occurs because with the airspeed decreasing, the airplane begins flying in a smaller and smaller arc. Since the outer wing is moving in a larger radius and thus traveling faster than the inner wing, it has more lift and causes an overbanking tendency. At the same time, because of the decreasing lift on both wings, the pitch attitude tends to lower. ..."

ADDITIONAL INFORMATION

The Federal Aviation Administration was a party to the investigation.

The wreckage and all parts were released on July 11, 2000.

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Pilot Information

Certificate:	Commercial	Age:	48,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medicalw/ waivers/lim	Last FAA Medical Exam:	August 4, 1999
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	400 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Norton	Registration:	N256DN
Model/Series:	VOLKSPLANE VP-1 VOLKSPLANE	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	19941999
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	880 lbs
Time Since Last Inspection:		Engines:	1 Unknown
Airframe Total Time:		Engine Manufacturer:	
ELT:	Not installed	Engine Model/Series:	
Registered Owner:	DAVID NORTON	Rated Power:	
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

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Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	GYL ,992 ft msl	Distance from Accident Site:	20 Nautical Miles
Observation Time:	09:55 Local	Direction from Accident Site:	215°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	15 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	79°C / 64°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(1MN5)	Type of Flight Plan Filed:	VFR
Destination:		Type of Clearance:	
Departure Time:	00:00 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	Grass/turf
Airport Elevation:	1000 ft msl	Runway Surface Condition:	
Runway Used:	27	IFR Approach:	
Runway Length/Width:	2700 ft / 100 ft	VFR Approach/Landing:	

Wreckage and Impact Information

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:	44.839557,-93.789581(est)

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Administrative Information

Investigator In Charge (IIC):	Gallo, Mitchell	
Additional Participating Persons:	CASEY HEGGERSTON; MINNEAPOLIS , MN	
Original Publish Date:	December 18, 2001	
Last Revision Date:		
Investigation Class:	<u>Class</u>	
Note:	The NTSB traveled to the scene of this accident.	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=49590	

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 Code of Federal Regulations section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 United States Code section 1154(b)). A factual report that may be admissible under 49 United States Code section 1154(b) is available here.

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