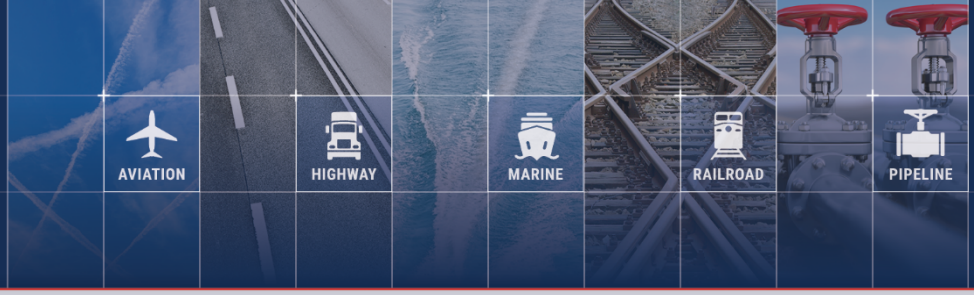

Aviation Investigation Final Report

Location:	WACONIA, Minnesota	**Accident Number:**	CHI00LA179
Date & Time:	July 1, 2000, 10:00 Local	**Registration:**	N256DN
Aircraft:	Norton VOLKSPLANE VP-1	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	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

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

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.

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 Medical--w/ 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:**	

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)

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:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=49590