Aviation Investigation Final Report

Location:	Grove City, Pennsylvania	**Accident Number:**	ERA14LA358
Date & Time:	July 25, 2014, 11:08 Local	**Registration:**	N3831W
Aircraft:	WINDER ROBERT S VP1	**Aircraft Damage:**	Substantial
Defining Event:	Miscellaneous/other	**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

A witness saw the experimental amateur-built airplane as it performed takeoffs and landings in the airport traffic pattern. After completing several circuits, she again saw the airplane on final approach to land about ¼-mile from the runway threshold. The airplane suddenly "jerked" left, away from the runway centerline, and continued that track in a shallow descent until it impacted a berm off the left side of the runway about 750 ft beyond the threshold. The witness reported that, before impact, the engine sound was smooth and continuous and did not change in pitch or intensity. The engine sound continued uninterrupted until impact. The private pilot was unable to recall any details of the accident. Postaccident examination of the wreckage revealed no evidence of any preimpact mechanical malfunctions or failures of the airframe or engine that would have precluded normal operation; therefore, the reason for the deviation from the approach path and subsequent impact with terrain could not be determined.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

A collision with terrain during the landing approach for reasons that could not be determined based on available information.

Findings

Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Approach-VFR pattern final	Miscellaneous/other (Defining event)

On July 25, 2014, about 1108 eastern daylight time, an experimental amateur-built VP1, N3831W, was substantially damaged when it impacted terrain while attempting to land at Grove City Airport (29D), Grove City, Pennsylvania. The private pilot was seriously injured. Visual meteorological conditions prevailed, and no flight plan was filed for the local personal flight, which was conducted under the provisions of 14 *Code of Federal Regulations* Part 91.

According to an employee of the fixed base operator at 29D, the accident pilot was performing takeoffs and landings in the airport traffic pattern, and had completed three to four circuits when the accident occurred. She watched as the airplane was on final approach to land on runway 28; about 1/4-mile from the runway threshold, it suddenly "jerked" left, away from the runway centerline. The airplane continued on that track in a shallow descent until it impacted a berm about 200 feet south of the runway, about 750 feet beyond the threshold. Prior to impact, the engine sound was smooth and continuous, and did not change in pitch or intensity. The engine sound continued uninterrupted until impact. Medevac personnel based at the airport subsequently responded to the accident site to render assistance to the pilot.

Due to the nature of the injuries he sustained during the accident, the pilot was unable to recall any details of the accident.

The pilot, age 83, held a private pilot certificate with a rating for airplane single-engine land. His most recent Federal Aviation Administration third-class medical certificate was issued in June 2010 with the limitation "must wear corrective lenses." He also held an experimental aircraft builder repairman certificate for the accident airplane. None of the pilot's personal flight logs were available for inspection and his total flight experience could not be determined.

The airplane's airworthiness certificate was issued in December 2010. It was equipped with a Volkswagen 65 horsepower engine driving a Heagy fixed-pitch propeller. The airplane's most recent condition inspection was completed by the pilot on July 18, 2014, with no anomalies noted.

Federal Aviation Administration inspectors examined the wreckage after it was recovered from the accident site. During the examination, the inspectors confirmed flight control continuity for the elevator and ailerons. The rudder pedals had separated from the fuselage floor during impact, but were otherwise intact and connected to the rudder. The engine was separated from the fuselage, though the engine control cables remained connected and intact.

Continuity of the engine power and valvetrain was confirmed through rotation of the crankshaft, and thumb compression was noted on all cylinders. The spark plugs exhibited a clean appearance with a small amount of external corrosion. Fuel and a small quantity of dirt were found in the fuel filter and in the carburetor float bowl.

Pilot Information

Certificate:	Private	**Age:**	83,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Single
Other Aircraft Rating(s):	None	**Restraint Used:**	Unknown
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	June 14, 2010
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	3 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	WINDER ROBERT S	**Registration:**	N3831W
Model/Series:	VP1	**Aircraft Category:**	Airplane
Year of Manufacture:	2010	**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	01
Landing Gear Type:	Tailwheel	**Seats:**	1
Date/Type of Last Inspection:	July 18, 2014 Condition	**Certified Max Gross Wt.:**	
Time Since Last Inspection:	1 Hrs	**Engines:**	Reciprocating
Airframe Total Time:	3.7 Hrs as of last inspection	**Engine Manufacturer:**	Volkswagen
ELT:		**Engine Model/Series:**	
Registered Owner:	On file	**Rated Power:**	65
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	UCP,1070 ft msl	**Distance from Accident Site:**	13 Nautical Miles
Observation Time:	10:56 Local	**Direction from Accident Site:**	240°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.13 inches Hg	**Temperature/Dew Point:**	20°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Grove City, PA (29D)	**Type of Flight Plan Filed:**	None
Destination:	Grove City, PA (29D)	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	

Airport Information

Airport:	GROVE CITY 29D	**Runway Surface Type:**	Asphalt
Airport Elevation:	1371 ft msl	**Runway Surface Condition:**	
Runway Used:	28	**IFR Approach:**	None
Runway Length/Width:	4500 ft / 75 ft	**VFR Approach/Landing:**	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious	**Latitude, Longitude:**	41.14611,-80.167778(est)

Administrative Information

Investigator In Charge (IIC):	Diaz, Dennis
Additional Participating Persons:	James Olsen; FAA/FSDO; Pittsburgh, PA
Original Publish Date:	June 20, 2017
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=89737