

Aviation Investigation Final Report

Location: Brooksville, Florida Accident Number: ERA15LA306

Date & Time: August 10, 2015, 10:33 Local Registration: N9288

Aircraft: WRIGHT DANIEL J Volksplane VPAircraft Damage: Destroyed

Defining Event: Loss of engine power (partial) **Injuries:** 1 Serious

Flight Conducted Under: Part 91: General aviation - Flight test

Analysis

The sport pilot, who was also the builder of the single-seat, experimental, amateur-built airplane, stated that he had "some issues" during assembly of the experimental engine kit, but was finally able to achieve the desired engine rpm during static tests. Subsequently, during the airplane's takeoff roll on its first flight with the new engine, the pilot noted that the airplane was able to gain airspeed, but struggled to become airborne. The pilot stated that he should have aborted the takeoff at that point. The airplane reached a maximum altitude about 100 ft, the engine lost power, and the airplane descended into trees and was destroyed by a postimpact fire. The extent of the fire precluded detailed documentation of the engine and its associated systems; therefore, the reason for the loss of power could not be determined.

Probable Cause and Findings

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

The pilot's failure to abort the takeoff after determining that the engine was not producing adequate power. Contributing to the accident was the engine's inability to produce adequate power for reasons that could not be determined due to extensive postimpact fire damage.

Findings

Personnel issues Decision making/judgment - Pilot

Aircraft (general) - Not specified

Not determined (general) - Unknown/Not determined

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Factual Information

History of Flight

Takeoff Loss of engine power (partial) (Defining event)

Initial climb

Loss of engine power (partial)

Approach-VFR pattern
downwind

Collision with terr/obj (non-CFIT)

On August 10, 2015, at 1033 eastern daylight time, an experimental amateur-built Volksplane VP-1, N9288, was destroyed when it impacted trees and terrain during the initial climb after takeoff from Brooksville-Tampa Bay Regional Airport (BKV), Brooksville, Florida. The sport pilot, who was also the builder of the airplane, was seriously injured. Visual meteorological conditions prevailed, and no flight plan had been filed for the local test flight which was operating under the provisions of 14 *Code of Federal Regulations* Part 91.

According to information obtained from the Federal Aviation Administration (FAA), the airplane departed from runway 9 and appeared to climb no higher than 100 feet. It made a left turn beyond the departure end of the runway and eventually descended into a wooded area about 1/2 mile north of the approach end of runway 27.

According to the pilot, he purchased the preowned fuselage and wings in late 2012, and after assembling those, purchased landing gear, some instrumentation and a Sonex Aerovee 2180 engine kit. He also noted that he had "no experience building an aircraft engine or any engine for that matter." The pilot further stated that there were initially "some issues" with the engine's performance, but that it finally achieved [desired] static rpm on the ground.

The accident flight was the pilot's first in the single-seat airplane. During the takeoff roll, the airplane "gained speed but struggled to get off the ground at which time I should have aborted the takeoff. Trying to overcome the first flight anxiety and not knowing how this aircraft should behave," the pilot continued the takeoff. After being cleared for a left turn, the pilot continued the climb, but realized that the engine, "did not develop enough power to climb sufficiently." As the airplane began to turn downwind, the engine lost more power, and the airplane descended into trees. Hitting the trees, the airplane burst into flames, and the pilot passed out. When he awoke, the pilot was in the fuselage and his legs were on fire. After unbuckling the four-point safety harness, he climbed out of the fuselage and crawled away from the fire.

Photographs of the scene showed the airplane in multiple parts and mostly consumed by the fire. The responding FAA inspector noted that the extent of the fire precluded detailed examination of the engine and systems.

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Pilot Information

Certificate:	Sport Pilot	Age:	63,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Single
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Sport pilot	Last FAA Medical Exam:	
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	148 hours (Total, all aircraft), 0.1 hours (Total, this make and model), 25 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	WRIGHT DANIEL J	Registration:	N9288
Model/Series:	Volksplane VP-1	Aircraft Category:	Airplane
Year of Manufacture:	2010	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	42010
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	824 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	120 Hrs at time of accident	Engine Manufacturer:	AEROVEE
ELT:	Not installed	Engine Model/Series:	2180
Registered Owner:	On file	Rated Power:	80 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

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Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	BKV,75 ft msl	Distance from Accident Site:	
Observation Time:	10:37 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Few / 1300 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.98 inches Hg	Temperature/Dew Point:	29°C / 24°C
Precipitation and Obscuration:	No Obscuration; No Precipita	ition	
Departure Point:	Brooksville, FL (BKV)	Type of Flight Plan Filed:	None
Destination:	Brooksville, FL (BKV)	Type of Clearance:	VFR
Departure Time:	10:32 Local	Type of Airspace:	Class D

Airport Information

Airport:	BROOKSVILLE-TAMPA BAY RGNL BKV	Runway Surface Type:	Concrete
Airport Elevation:	75 ft msl	Runway Surface Condition:	Dry
Runway Used:	09	IFR Approach:	None
Runway Length/Width:	7002 ft / 150 ft	VFR Approach/Landing:	Unknown

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	Unknown
Total Injuries:	1 Serious	Latitude, Longitude:	28.473611,-82.455558(est)

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Administrative Information

Investigator In Charge (IIC):Cox, PaulAdditional Participating Persons:Linda M Nevin; FAA/FSDO; Tampa, FLOriginal Publish Date:May 1, 2017Last Revision Date:Investigation Class:Investigation Class:ClassNote:The NTSB did not travel to the scene of this accident.Investigation Docket:https://data.ntsb.gov/Docket?ProjectID=91744

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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