Aviation Investigation Final Report

Location:	Blacksburg, Virginia	**Accident Number:**	ERA15LA375
Date & Time:	September 24, 2015, 14:52 Local	**Registration:**	N710JC
Aircraft:	SCHEMPP-HIRTH VENTUS 2CT	**Aircraft Damage:**	Substantial
Defining Event:	Loss of lift	**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was flying the motor glider in an annual soaring competition. The pilot reported that the motor glider was towed to 2,500 ft and then released. He subsequently performed a routine test of the engine and observed no anomalies; he then shut down the engine and stowed it before beginning the first leg of the competition. About 20 miles from the departure airport, the motor glider began losing altitude due to a loss of thermal lift, and the pilot then prepared for an off-airport landing. He deployed the retractable engine and attempted to start it but was unsuccessful. The pilot set up for landing to a field. He did not see power lines bordering the approach end of the field, and the motor glider impacted the power lines and then descended to the ground in a nose-down attitude.

Probable Cause and Findings

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

A loss of thermal lift during a motor glider flight, which resulted in an off-airport landing. Contributing to the accident was the pilot's failure to maintain adequate clearance from power lines during the off-airport landing attempt.

Findings

Environmental issues	Thermal lifting - Effect on operation
Personnel issues	Monitoring environment - Pilot
Aircraft	Altitude - Not attained/maintained
Environmental issues	Wire - Awareness of condition

Factual Information

History of Flight

Maneuvering	Loss of lift (Defining event)
Emergency descent	Off-field or emergency landing
Landing	Collision with terr/obj (non-CFIT)

On September 24, 2015, about 1452 eastern daylight time, a Schempp-Hirth Ventus 2CT motorglider, N710JC, was substantially damaged when it impacted a wire and trees during an off-airport landing in Blacksburg, Virginia. The commercial pilot was seriously injured. Visual meteorological conditions prevailed, and no flight plan was filed for the local flight, which originated from Virginia Tech/Montgomery Executive Airport (BCB), Blacksburg, Virginia. The personal flight was conducted under the provisions of Title 14 Code of Federal Regulations Part 91.

According to the pilot, he was flying in an annual soaring competition. He departed from BCB about 1215 with a tow up to an altitude of 2,500 feet, then released from the tow plane. He subsequently performed a routine test run of the 20-horsepower engine and observed no anomalies. He then shut down and stowed the engine before beginning the first leg of the competition. About 20 miles from BCB, he had difficulty finding thermals for lift. The glider began losing altitude and he prepared for an off airport landing. He deployed the glider's retractable engine; however, as he attempted to start the engine, it "sputtered" and would not run. In a post accident statement, he postulated that he held the decompression valve open long enough for the engine to build rpm, but was not sure due to the circumstances of being low and preparing for an off airport landing. He set up for landing in a field, but did not see the power lines bordering the approach end of the field, and contacted the wires before impacting the ground.

According to a witness, they heard the motorglider fly over and "the engine was loud and seemed to be struggling or missing. It did not sound normal."

The pilot reported 2,500 hours of total flight experience and 255 of those hours were in the same make and model as the accident motorglider. He held a commercial pilot certificate for airplane single-engine land and instrument airplane. The pilot's last flight review was on May 2, 2015. He did not have a medical certificate, nor was he required to when operating a glider.

Examination of the wreckage at the accident site by a Federal Aviation Administration inspector revealed that the motorglider struck a wire and trees and impacted the ground in a nose down attitude. The forward fuselage was crushed, and the right wing was fractured and separated about one-third span from the wing tip. The fuel shut off valve and the fuel pump switch were in the off position.

The 1455 recorded weather observation at BCB, located about 7 nautical miles southwest of the accident site, included wind from 100 degrees at 8 knots, visibility 10 statute miles clear skies, temperature 23 degrees C, dew point 12 degrees C; barometric altimeter setting of 30.28 inches of mercury.

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	70,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Single
Other Aircraft Rating(s):	Glider	**Restraint Used:**	4-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Glider	**Toxicology Performed:**	No
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	July 26, 2002
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	May 2, 2015
Flight Time:	2500 hours (Total, all aircraft), 255 hours (Total, this make and model), 2350 hours (Pilot In Command, all aircraft), 23 hours (Last 90 days, all aircraft), 13 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	SCHEMPP-HIRTH	**Registration:**	N710JC
Model/Series:	VENTUS 2CT NO SERIES	**Aircraft Category:**	Glider
Year of Manufacture:	2012	**Amateur Built:**	
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	231
Landing Gear Type:	Retractable -	**Seats:**	1
Date/Type of Last Inspection:	March 1, 2015 Annual	**Certified Max Gross Wt.:**	1323 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	283 Hrs at time of accident	**Engine Manufacturer:**	SOLO
ELT:	Not installed	**Engine Model/Series:**	2350
Registered Owner:	On file	**Rated Power:**	20 Horsepower
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:	KBCB,2132 ft msl	**Distance from Accident Site:**	7 Nautical Miles
Observation Time:	18:55 Local	**Direction from Accident Site:**	230°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	10 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	100°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.28 inches Hg	**Temperature/Dew Point:**	23°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Blacksburg, VA (BCB)	**Type of Flight Plan Filed:**	None
Destination:	Blacksburg, VA (BCB)	**Type of Clearance:**	None
Departure Time:	12:15 Local	**Type of Airspace:**	Class G

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:**	37.155834,-80.324447(est)

Administrative Information

Investigator In Charge (IIC):	Boggs, Daniel
Additional Participating Persons:	Nilolas Kubli; FAA/FSDO; Richmond, VA
Original Publish Date:	January 21, 2016
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=92056