



Aviation Investigation Final Report

Location:	Stuarts Draft, Virginia	Accident Number:	ERA20CA178
Date & Time:	May 11, 2020, 15:00 Local	Registration:	N514TW
Aircraft:	Schempp Hirth VENTUS 2CT	Aircraft Damage:	Substantial
Defining Event:	Loss of lift	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

After departing on a local flight, the pilot of the motor glider crossed a ridge line into a valley at an altitude of about 8,000 ft mean sea level, and then glided to the south in search of lift, but was unsuccessful. He decided to land on a brown, flat, field that appeared to be recently tilled. The pilot set up for a landing, and then deployed the glider's sustainer engine. The engine did not start, so he continued his approach to land. During the landing, the right wing struck the ground, the glider ground looped, and was substantially damaged. The flight manual for the sustainer engine advised that, the sustainer engine should only be extended and started when there was suitable terrain for landing within gliding distance, and furthermore, below 984 ft above ground level, starting attempts were to be avoided "so as to have a safe height left for planning the approach pattern should the engine fail to run!" The pilot stated that there was no mechanical malfunction or failure with the glider, and that he would recommend trying to start the sustainer engine at a higher altitude.

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 delayed attempted engine start.

Findings

Environmental issues	Thermal lifting - Effect on operation
Aircraft	Altitude - Not attained/maintained
Personnel issues	Use of equip/system - Pilot
Personnel issues	Delayed action - Pilot

Factual Information

History of Flight

Maneuvering	Loss of lift (Defining event)
Emergency descent	Attempted remediation/recovery
Landing	Off-field or emergency landing
Landing	Dragged wing/rotor/float/other
Landing	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	Age:	59, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land; Multi-engine sea	Seat Occupied:	Single
Other Aircraft Rating(s):	Glider; Helicopter	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Glider; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	July 3, 2019
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	March 2, 2020
Flight Time:	18000 hours (Total, all aircraft), 142 hours (Total, this make and model), 13732 hours (Pilot In Command, all aircraft), 81 hours (Last 90 days, all aircraft), 46 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Schempp Hirth	Registration:	N514TW
Model/Series:	VENTUS 2CT No Series	Aircraft Category:	Glider
Year of Manufacture:	2007	Amateur Built:	
Airworthiness Certificate:	Experimental (Special)	Serial Number:	191
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	January 26, 2020 Condition	Certified Max Gross Wt.:	1323 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2150.6 Hrs as of last inspection	Engine Manufacturer:	SOLO
ELT:	C91A installed, not activated	Engine Model/Series:	2350
Registered Owner:	On file	Rated Power:	26 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:	SHD,1201 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	14:55 Local	Direction from Accident Site:	18°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 5500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	16 knots / 21 knots	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.03 inches Hg	Temperature/Dew Point:	12°C / 0°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Amelia Court House, VA (2VA3)	Type of Flight Plan Filed:	None
Destination:	Amelia Court House, VA (2VA3)	Type of Clearance:	None
Departure Time:	12:30 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	37.9925,-78.981391(est)

Administrative Information

Investigator In Charge (IIC):	Gunther, Todd
Additional Participating Persons:	Joseph A Lewis; FAA FSDO; Richmond, VA
Original Publish Date:	February 2, 2021
Last Revision Date:	
Investigation Class:	Class 4
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=101264

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