



# Aviation Investigation Final Report

<b>Location:</b>	Wagener, South Carolina	<b>Accident Number:</b>	ERA21LA395
<b>Date &amp; Time:</b>	April 22, 2021, 12:45 Local	<b>Registration:</b>	N571RD
<b>Aircraft:</b>	Schempp Hirth Ventus C	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of lift	<b>Injuries:</b>	1 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot was participating in a glider contest where about 50 other gliders would also be flying. The surrounding terrain had areas of clear-cut, (stumps and scrub brush) standing trees, isolated buildings, rural roads, farm fields, and a residential area near the airport. The terrain was flat, and the gliders were being launched about every minute. The pilot's glider was the seventh glider launched. The plan was for each glider to be towed to an altitude of 2,000 ft agl before release. The tow path resulted in the pilot flying north-east, parallel to the runway, opposite the direction of takeoff. The pilot released about 100' lower as he felt a significant surge of upward moving air (lift) and wanted to exploit it to gain altitude for the balance of the flight. When he felt the lift, he cleared the area and released to the right, followed by an immediate 270° left turn to search for the lift, however he was unable to find it, and proceeded to search over ground that appeared favorable for the generation of thermals. Finding none after circling five times, he proceeded to head south-southwest back towards the airport in case he would need to land. At this time, he was at approximately 1,000 agl and 1.8 miles from the airport. About 1.7 miles from the airport, he encountered significant sinking air, which reduced his altitude to approximately 600 ft when he was about 1.5 miles from the airport. He believed that he probably would not make it to the airport to land safely. He then encountered a strong thermal and tried to circle and catch it as he believed that it would likely be his only chance to save the flight. He then circled three times, but only lost more altitude. He then identified a small field to attempt to land in. The field was surrounded by trees and was only a 500-to-600-foot long. He tried to land on the field from the south as low and slow as possible but was not able to reach the field before impacting the trees at the northern edge, which resulted in substantial damage to the glider.

In a summary statement, the pilot further described the factors that he believed contributed to the accident. He stated in part, *"There were a combination of stressful factors which*

*contributed to this accident, but it all got down to not staying with the decision to get to the airport after encountering the big sinking air. I probably could have made it to the airport had I just kept going, but the rapid loss of altitude was so alarming that my decision-making switched to survival mode.”*

## Probable Cause and Findings

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

Impact with trees during a forced landing in atmospheric lift conditions that were insufficient to maintain flight. Contributing was the pilot’s delayed decision to return to the airport.

### Findings

Environmental issues	Thermal lifting - Effect on operation
Aircraft	Altitude - Attain/maintain not possible
Personnel issues	Decision making/judgment - Pilot

## Factual Information

### History of Flight

<b>Maneuvering</b>	Loss of lift (Defining event)
<b>Approach</b>	Collision with terr/obj (non-CFIT)

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	62, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Single
<b>Other Aircraft Rating(s):</b>	Glider	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	None None	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	April 27, 2020
<b>Flight Time:</b>	234 hours (Total, all aircraft), 83 hours (Total, this make and model), 203 hours (Pilot In Command, all aircraft), 27 hours (Last 90 days, all aircraft), 22 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Schempp Hirth	<b>Registration:</b>	N571RD
<b>Model/Series:</b>	Ventus C	<b>Aircraft Category:</b>	Glider
<b>Year of Manufacture:</b>	1987	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	355
<b>Landing Gear Type:</b>	Retractable - Tandem	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	February 1, 2021 Condition	<b>Certified Max Gross Wt.:</b>	1157 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	0
<b>Airframe Total Time:</b>	2437.38 Hrs at time of accident	<b>Engine Manufacturer:</b>	
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	XNO,321 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	12:56 Local	Direction from Accident Site:	100°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	290°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.2 inches Hg	Temperature/Dew Point:	14°C / -12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Perry, SC (SC95)	Type of Flight Plan Filed:	None
Destination:	Perry, SC (SC95)	Type of Clearance:	None
Departure Time:	12:36 Local	Type of Airspace:	Class G

## Airport Information

Airport:	Perry International Airport SC95	Runway Surface Type:	Grass/turf
Airport Elevation:	438 ft msl	Runway Surface Condition:	Dry
Runway Used:	25	IFR Approach:	None
Runway Length/Width:	5000 ft / 100 ft	VFR Approach/Landing:	

## Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	33.644327,-81.348606

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Gunther, Todd
<b>Additional Participating Persons:</b>	Stephen K. Brown; FAA / FSDO; Burlington, MA
<b>Original Publish Date:</b>	October 6, 2022
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=104912">https://data.nts.gov/Docket?ProjectID=104912</a>

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