



# Aviation Investigation Final Report

<b>Location:</b>	Strausburg, Virginia	<b>Accident Number:</b>	IAD02LA036
<b>Date &amp; Time:</b>	March 10, 2002, 10:10 Local	<b>Registration:</b>	N3878A
<b>Aircraft:</b>	Schweizer SGS 1-26A	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The glider was towed to altitude by a tow plane, and once released, the pilot flew towards the northeast portion of a mountain ridge to take advantage of "booming ridge lift." As the glider approached the ridge, it encountered insufficient thermal lift to maintain altitude, and the pilot performed a forced landing to a field. The pilot flew a traffic pattern approach, and during the downwind leg, the glider continued to lose altitude. As the pilot made a right turn onto the base leg of the traffic pattern, the glider's right wing struck a tree and the glider impacted the ground in a 70-degree nose down attitude. The pilot received an "outlook" weather briefing about 24 hours before his flight, which forecasted the winds to be from 290 degrees at 20 knots, with higher gusts. He did not receive an additional weather briefing; however, his visual observation of two wind socks at the airport indicated the winds were in agreement with the forecast. Examination of the glider revealed no mechanical deficiencies.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate evaluation of weather resulted in a loss of thermal lift, which resulted in an impact with trees.

### Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

1. (C) WEATHER CONDITION - NO THERMAL LIFT
2. (C) WEATHER EVALUATION - INADEQUATE - PILOT IN COMMAND
3. OBJECT - TREE(S)

## Factual Information

On March 10, 2002, at 1010 eastern standard time, a Schweizer SGS 1-26A glider, N3878A, was substantially damaged during a forced landing near Strausburg, Virginia. The certificated private pilot received minor injuries. Visual meteorological conditions prevailed for the flight which originated at the Front Royal Airport (FRR), Front Royal, Virginia, at 1000. No flight plan was filed for the local personal flight conducted under 14 CFR Part 91.

According to the pilot, the glider was towed to altitude, about 3,800 feet, and when it was released, he flew towards the northeast portion of the Massanutten Ridge to use the "booming ridge lift." As the glider approached the ridge, it began to lose altitude, and the pilot found there was "no useable lift." The pilot performed a forced landing to a field, which was oriented on a 300-degree heading. He flew a traffic pattern approach to the field and during the downwind leg, the glider continued to lose altitude. As the pilot made a right turn onto the base leg of the traffic pattern, the glider's right wing struck a tree and it impacted the ground in a 70-degree nose down attitude.

The pilot stated that he received an "outlook briefing" about 24 hours before his flight, which forecasted the winds to be from 290 degrees at 20 knots, with higher gusts. He did not receive an additional weather briefing; however, his visual observation of two wind socks at the airport indicated the winds were in agreement with the forecast.

The pilot reported about 90 hours of total flight experience, all of which were accumulated in gliders. He also stated there were no mechanical deficiencies with the glider.

The glider was examined by a Federal Aviation Administration (FAA) inspector. According to the inspector, substantial damage was noted to the nose of the glider.

The winds reported at Front Royal, about 7 miles to the southwest, at 1000, were from 280 degrees at 21 knots gusting to 27 knots.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	41, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	Glider	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	December 10, 1999
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	November 29, 2001
<b>Flight Time:</b>	90 hours (Total, all aircraft), 40 hours (Total, this make and model), 66 hours (Pilot In Command, all aircraft), 4 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Schweizer	<b>Registration:</b>	N3878A
<b>Model/Series:</b>	SGS 1-26A	<b>Aircraft Category:</b>	Glider
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	38
<b>Landing Gear Type:</b>	Tailwheel; Skid	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>		<b>Certified Max Gross Wt.:</b>	800 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	
<b>Registered Owner:</b>	John Lewis	<b>Rated Power:</b>	
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	OKV,727 ft msl	<b>Distance from Accident Site:</b>	15 Nautical Miles
<b>Observation Time:</b>	10:00 Local	<b>Direction from Accident Site:</b>	30°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	21 knots / 27 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	280°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.15 inches Hg	<b>Temperature/Dew Point:</b>	4°C / -12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Front Royal, VA (FRR )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(FRR )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	10:00 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor	<b>Latitude, Longitude:</b>	38.950832,-78.319999

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Andrews, Jill
<b>Additional Participating Persons:</b>	Chris Monteleon; FAA/FSDO; Dulles, VA
<b>Original Publish Date:</b>	May 13, 2003
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=54320">https://data.ntsb.gov/Docket?ProjectID=54320</a>

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