Aviation Investigation Final Report

Location:	Sylacauga, Alabama	**Accident Number:**	ERA14LA391
Date & Time:	August 17, 2014, 15:20 Local	**Registration:**	N266SE
Aircraft:	LET L 23 SUPER BLANIK	**Aircraft Damage:**	Substantial
Defining Event:	Aerodynamic stall/spin	**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The student pilot was maneuvering the glider to land at the conclusion of a local solo flight. While turning to allow for spacing with another glider in the airport traffic pattern, the pilot "vaguely" recalled the glider entering an aerodynamic stall. The glider subsequently impacted a tree, resulting in serious injury to the student pilot and substantial damage to the glider. Two witnesses observed the accident glider in the traffic pattern, and both recounted that it entered a right spin before descending to ground impact. The pilot stated that her preflight inspection of the glider revealed no anomalies and that the glider performed normally throughout the flight. She further stated that she felt nauseated the morning of the accident, had taken an over-the-counter decongestant medication, and was not properly hydrated before or during the flight.

Probable Cause and Findings

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

The student pilot's failure to maintain adequate airspeed while maneuvering, which resulted in an aerodynamic stall and spin. Contributing to the accident was the student pilot's failure to properly assess her physical condition prior to conducting the flight.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Airspeed - Not attained/maintained
Aircraft	Angle of attack - Capability exceeded
Personnel issues	(general) - Pilot

Factual Information

History of Flight

Maneuvering	Aerodynamic stall/spin (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

On August 17, 2014, about 1520 central daylight time, a Let L-23 Super Blanik glider, N266SE, was substantially damaged when it impacted trees and terrain while maneuvering for landing at Merkel Field Sylacauga Municipal Airport (SCD), Sylacauga, Alabama. The student pilot was seriously injured. Visual meteorological conditions prevailed, and no flight plan was filed for the local instructional flight, which was operated under the provisions of Title 14 Code of Federal Regulations Part 91.

The pilot stated that she conducted a preflight inspection of the glider and added ballast for the solo flight. She described the tow as "normal," and after about 30 minutes of flight, elected to return to the airport. Her last recollection was turning the glider at an altitude of about 1,800 feet and airspeed of 45 knots to allow room for another glider in the pattern to land. She then "vaguely" remembered the glider entering an aerodynamic stall. She recalled impacting a tree, and subsequently egressing the glider. She stated that the glider performed normally throughout the flight, with no mechanical malfunctions or anomalies.

In a statement to a Federal Aviation Administration (FAA) inspector, the pilot stated that she felt nauseated on the morning of the accident, and had also taken an over-the-counter decongestant around 0800. She further stated that she was not properly hydrated before or during the flight, which may have contributed to her general condition.

The pilot's flight instructor was flying with another student at the time of the accident. He did not witness the accident, but recalled seeing the accident glider in the traffic pattern for runway 27 at an altitude about 1,800 feet, and felt that it was "in a good position" to land behind his glider.

A witness reported to the FAA inspector who responded to the scene that he observed the accident glider approach SCD from the north. He watched the glider enter a steep right bank followed by a stall. The glider recovered before subsequently entering a right spin. The witness observed the glider complete two full rotations in a near-vertical attitude before it disappeared from view behind a tree line.

A second witness recounted that the accident glider was on the right downwind leg of the traffic pattern for runway 27 when it stalled and entered a spin. After about one half rotation, it appeared to recover before entering a second spin to the right. He stated that the glider completed two rotations before disappearing from view.

The glider came to rest in a near-vertical position in trees approximately 1 mile north of runway 27 at SCD, and sustained substantial damage to the forward cabin area and wings.

The pilot held a student pilot certificate, and reported 33 total hours of flight experience, of which 3 hours were in the accident glider make and model.

According to FAA airworthiness records, the glider was manufactured in 1993. Its most recent annual inspection was completed in April 2014.

The 1535 weather observation at Thomas C Russell Field Airport (ALX), Alexander City, Alabama, located about 23 miles southeast of the accident site, included wind from 200 degrees at 10 knots with gusts to 15 knots, 10 miles visibility, clear skies, and an altimeter setting of 30.01. Remarks noted distant lightning in all quadrants.

Student pilot Information

Certificate:	None	**Age:**	16
Airplane Rating(s):	None	**Seat Occupied:**	Front
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:	None None	**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	(Estimated) 33 hours (Total, all aircraft), 3 hours (Total, this make and model), 6 hours (Pilot In Command, all aircraft), 6 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	LET	**Registration:**	N266SE
Model/Series:	L 23 SUPER BLANIK	**Aircraft Category:**	Glider
Year of Manufacture:	1993	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	938107
Landing Gear Type:	Retractable - Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	April 7, 2014 Annual	**Certified Max Gross Wt.:**	925 lbs
Time Since Last Inspection:		**Engines:**	
Airframe Total Time:	1896 Hrs at time of accident	**Engine Manufacturer:**	
ELT:	Not installed	**Engine Model/Series:**	
Registered Owner:	CENTRAL ALABAMA SOARING ASSOCIATION	**Rated Power:**	
Operator:	CENTRAL ALABAMA SOARING ASSOCIATION	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	ALX	**Distance from Accident Site:**	23 Nautical Miles
Observation Time:	15:35 Local	**Direction from Accident Site:**	132°
Lowest Cloud Condition:		**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	10 knots / 15 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	200°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Sylacauga, AL (SCD)	**Type of Flight Plan Filed:**	None
Destination:	Sylacauga, AL (SCD)	**Type of Clearance:**	None
Departure Time:	14:50 Local	**Type of Airspace:**	

Airport Information

Airport:	MERKEL FIELD SYLACAUGA MUNI SCD	**Runway Surface Type:**	
Airport Elevation:	569 ft msl	**Runway Surface Condition:**	Vegetation
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

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:**	33.170326,-86.260833(est)

Administrative Information

Investigator In Charge (IIC):	Diaz, Allison
Additional Participating Persons:	Jack E Clark; FAA/FSDO; Birmingham, AL
Original Publish Date:	January 14, 2015
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=89899