Aviation Investigation Final Report

Location:	Rock Island, Washington	**Accident Number:**	SEA01LA147
Date & Time:	August 7, 2001, 13:30 Local	**Registration:**	N5768S
Aircraft:	Schweizer SGS 1-26B	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The accident flight was intended to be a solo cross-country instructional glider flight over a distance of about 29 nautical miles. The flight instructor stated that he instructed the student to climb to at least 6,000 feet above sea level (4,751 feet above the departure airport and 4,724 feet above the destination airport) prior to leaving the local area. The glider had a maximum lift-to-drag ratio of 23. The instructor reported that when the student failed to find lift, and after waiting until too low to return to the departure airport, he delayed selecting a safe landing site until only one option remained. The student's approach was high and was made with a tail wind. The glider overshot its intended landing area, a 400-foot-long open field, and landed between trees near a cherry orchard approximately 2 miles from the departure airport, sustaining substantial damage in the landing. The flight instructor reported that no mechanical malfunction or failure was involved in the accident. The student pilot's certificate was issued about 1 1/2 months before the accident, and the student pilot's flight instructor reported that the student had 30 hours total pilot time including 8 hours in the accident make and model.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The student pilot's improper inflight planning and decision (delay in establishing an approach to a suitable landing area) and his subsequent failure to attain the proper glidepath for the selected landing area, resulting in an overshoot of the selected landing area and collison with trees during landing. Factors included the pilot's lack of experience, and trees in the vicinity of the landing site.

Findings

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

Findings
1. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. (F) LACK OF EXPERIENCE - PILOT IN COMMAND
3. (F) WEATHER CONDITION - TAILWIND
4. (C) PROPER GLIDEPATH - NOT ATTAINED - PILOT IN COMMAND
5. PROPER TOUCHDOWN POINT - NOT ATTAINED - PILOT IN COMMAND
6. (F) OBJECT - TREE(S)

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: LANDING

Factual Information

On August 7, 2001, approximately 1330 Pacific daylight time, a Schweizer SGS 1-26B glider, N5768S, operated by Cascade Soaring Society Inc. of East Wenatchee, Washington, and being flown by a student pilot, was substantially damaged in an off-airport landing near Rock Island, Washington. The pilot of the single-seat glider was not injured in the accident. The 14 CFR 91 instructional flight had departed approximately 1300 from Pangborn Memorial Airport, Wenatchee, Washington, on an intended cross-country flight to Ephrata, Washington. Visual meteorological conditions prevailed and no flight plan was filed for the flight.

The student pilot's certificate was issued on June 29, 2001. The student pilot's flight instructor, who towed the student to altitude on the accident flight and who completed an NTSB accident report form on behalf of the student, reported that the student had 30 hours total pilot time, including 8 hours in the accident make and model. The flight instructor stated:

> ...[The student] had been instructed to climb to at least 6,000 [feet] MSL prior to leaving the local area. He may have left too low. When he failed to find lift and [too] low to return to Pangborn without finding lift he delayed selecting a safe landing site until only one option remained. His approach was high and a tail wind spoiled his [judgment]. His landing was 150 feet from a cherry orchard (with 400 feet of open field behind). He aimed between trees and received no injuries.

The off-airport landing site was approximately 2 miles east of the airport. The flight instructor reported that no mechanical malfunction or failure was involved in the accident.

According to the 1997 Soaring Sailplane Directory, published by the Soaring Society of America, the SGS 1-26B has a maximum lift/drag ratio (L/D max) of 23 at 43 knots. Pangborn Memorial's elevation is 1,249 feet above sea level, and Ephrata Municipal Airport (approximately 29 nautical miles east-southeast of Pangborn Memorial) is 1,276 feet above sea level. The flight instructor reported that winds at the time were from 250 degrees at 7 to 8 knots.

Pilot Information

Certificate:	Student	**Age:**	18,Male
Airplane Rating(s):	None	**Seat Occupied:**	Center
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	June 28, 2001
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	30 hours (Total, all aircraft), 8 hours (Total, this make and model), 30 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Schweizer	**Registration:**	N5768S
Model/Series:	SGS 1-26B	**Aircraft Category:**	Glider
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Aerobatic	**Serial Number:**	394
Landing Gear Type:		**Seats:**	1
Date/Type of Last Inspection:	June 19, 2001 Annual	**Certified Max Gross Wt.:**	575 lbs
Time Since Last Inspection:	27 Hrs	**Engines:**	0
Airframe Total Time:	1557.9 Hrs	**Engine Manufacturer:**	
ELT:	Not installed	**Engine Model/Series:**	
Registered Owner:	Cascade Soaring Society Inc.	**Rated Power:**	
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots / 8 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	250°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	26°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Wenatchee, WA (EAT)	**Type of Flight Plan Filed:**	None
Destination:	Ephrata, WA (EPH)	**Type of Clearance:**	None
Departure Time:	13:00 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Pangborn Memorial EAT	**Runway Surface Type:**	
Airport Elevation:	1249 ft msl	**Runway Surface Condition:**	Unknown
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Full stop

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	47.31015,-120.080947(est)

Administrative Information

Investigator In Charge (IIC):	Nesemeier, Gregg
Additional Participating Persons:	Will Hicks; FAA - Spokane FSDO; Spokane, WA
Original Publish Date:	June 3, 2002
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=52997