Aviation Investigation Final Report

Location:	Valyermo, California	**Accident Number:**	LAX03FA206
Date & Time:	June 19, 2003, 12:32 Local	**Registration:**	N271EC
Aircraft:	Schleicher ASW-27B	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The glider impacted trees and mountainous terrain while trying to cross a ridgeline. The glider had released from the tow plane about 1 minute prior to the accident. The glider was equipped with a GPS Flight Data Recorder, which recorded the total duration of the flight as 6 minutes 28 seconds. The last data recorded was at an altitude of 5,941 feet mean sea level (msl), the ground speed was 59 mph. The last recorded location of the glider was 2,000 feet laterally, northwest of the accident site. The elevation at the accident site was 5,798 feet msl. No unusual or adverse weather conditions were reported in the vicinity. No preimpact malfunctions or failures were identified during examination of the wreckage. Lower terrain was located to the rear of the pilot's attempted flight track.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain adequate terrain clearance altitude and his delayed remedial action by not turning away from the ridge when a lack of lift became apparent..

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING

Findings
1. WEATHER CONDITION - NO THERMAL LIFT

2. TERRAIN CONDITION - MOUNTAINOUS/HILLY
3. OBJECT - TREE(S)
4. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
5. (F) REMEDIAL ACTION - DELAYED - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On June 19, 2003, at 1232 Pacific daylight time, a Schleicher ASW-27B glider, N271EC, collided with terrain while competing in a glider contest near Valyermo, California. The owner/pilot was operating the glider under the provisions of 14 CFR Part 91. The airline transport pilot, the sole occupant, sustained fatal injuries; the glider was destroyed. The personal cross-country flight departed Crystal Airport (46CN) Llano, California, at 1225, and was en route to Jean, Nevada. Day visual meteorological conditions prevailed, and no flight plan had been filed. The primary wreckage was located at 34 degrees 24 minutes north latitude and 117 degrees 48 minutes west longitude.

The accident glider was 1 of 25 gliders competing in the "Return to Kitty Hawk" contest. The glider was towed to the area of Pinion Ridge where the accident pilot released from the tow plane. The tow release point was located about 4 miles southeast of 46CN. No further contact was made with the pilot. The glider ground crew reported the glider missing after he failed to arrive at his destination, Jean. A search for the glider was initiated from 46CN about 1715. The wreckage was located at 1730, about 1/2 mile southeast of the point where the glider released from the tow plane.

All of the other gliders competing in the contest released in the general area of Pinion Ridge without incident.

PERSONNEL INFORMATION

A review of Federal Aviation Administration (FAA) airman records revealed the pilot held a airline transport pilot certificate with airplane single and multiengine land ratings, and commercial privileges for gliders and single engine sea. The pilot held a certified flight instructor certificate with airplane single and multiengine land ratings, gliders, and instrument airplane ratings.

The pilot held a second-class medical certificate that was issued on February 3, 2003. It had the limitations that the pilot must wear corrective lenses for near and distant vision.

An examination of the pilot's logbook indicated that as of June 15, 2003, he had accumulated a total flight time of 12,388.7 hours. He logged 39.3 hours in the last 90 days, and 16.6 in the last 30 days. He had an estimated 578.9 hours in this make and model.

AIRCRAFT INFORMATION

The composite material glider was a Schleicher ASW-27B, serial number 27149. A review of the airplane's logbooks revealed the glider accumulated a total airframe time of 486.6 hours at the last annual inspection. The last annual inspection was completed on December 10, 2002.

An interview with the glider ground crew confirmed that the glider was equipped with, and the pilot was utilizing, a water ballast system. The water ballast system had been filled to capacity prior to the accident flight. The ground crew said the pilot was very deliberate to maintain the center of gravity of the glider and to make sure that the wing tanks remained equal. The glider was observed by witnesses to be in a wings level attitude on takeoff.

METEOROLOGICAL INFORMATION

The closest official weather observation station was Palmdale Production (PMD), which was located 22 nautical miles (nm) northwest of the accident site. The elevation of the weather observation station was 2,543 feet mean sea level (msl). A routine aviation weather report (METAR) for PMD was issued at 1153. It stated: skies clear; visibility 10 statute miles; winds from 230 degrees at 17 knots; temperature 80 degrees Fahrenheit; dew point 55 degrees Fahrenheit; and altimeter 29.76 inches of mercury.

FLIGHT RECORDERS

The Glider was equipped with a Cambridge Aero Instruments, GPS Secure flight recorder, Model number 20, Serial number C103. The recorder was calibrated on November 14, 2002. The data was downloaded by the National Transportation Safety Board investigator-in-charge (IIC) using a computer program specified by the recorder manufacturer on June 20, 2003, at the Crystal Airport, and the data was retained on a compact disk.

The IIC reviewed data from the optionally installed onboard GPS flight data recorder. A computer program supplied by the manufacturer graphically plotted the tabular data from the recorder. The flight started at 12:25:42, and the total duration of the accident flight was 6 minutes 28 seconds. The track of the flight displayed the glider departing 46CN on runway 25 and making a right 270-degree turn, crossing midfield, and continuing in a southeasterly direction. The highest altitude recorded was 5,954 feet msl at 1231. The last data recorded was at 12:32:10, at 5,941 msl, with a depicted ground speed of 59 mph, at GPS coordinates of 34 degrees 24 minutes 51 seconds north latitude and 117 degrees 48 minutes 46 seconds west longitude. The distance from the last recorded position to the accident site was approximately 2,000 feet, on a heading of 136 degrees.

WRECKAGE AND IMPACT INFORMATION

Investigators from the Safety Board and the FAA examined the wreckage at the accident scene on June 20, 2003.

The accident site was located in the Angeles National Forest, approximately 4.5 miles

southeast of the departure airport 46CN.

The glider was on the western side of a ridgeline that runs northwest to southeast. The ridgeline is named Pinyon Ridge. The main wreckage was located on a 30-degree slope on a magnetic heading of 220 degrees. The elevation of the accident site was 5,798 feet msl.

All components of the glider were found at the main wreckage site. The wreckage displayed crush damage along the bottom of the fuselage and wings. The left wing was on the upslope side of the glider and was still attached to the fuselage. About 7 feet of the inboard section of the right wing remained attached to the fuselage. The balance of the outboard section of the right wing separated and was forward of the main fuselage.

The right wing aileron control tube was bent in a semicircular shape lying next to an oak tree that was at the 5-o'clock position to the main fuselage. On the oak tree there were marks, about 7 feet high on the trunk that were white in color, along with small pieces of composite materials embedded in the trunk.

Control continuity was established from the cockpit to all of the flight control surfaces. No mechanical deficiencies were found.

MEDICAL AND PATHOLOGICAL INFORMATION

The Los Angeles County Coroner completed an autopsy on June 22,2003. The coroner listed the cause of death as " Multiple blunt force injuries."

The FAA Toxicology and Accident Research Laboratory performed toxicological testing of specimens of the pilot. The results of analysis of the specimens were negative for carbon monoxide, cyanide, and tested drugs. The following positive results were obtained; 28(mg/dl, mg/hg) Ethanol detected in the Blood; 5(mg/dl, mg/hg) N-Butanol detected in the Blood; 29(mg/dl, mg/hg) Acetaldehyde detected in the Blood.

No Ethanol was detected in the brain, or the vitreous fluid.

According to the toxicology report, the ethanol found in this case was from "postmortem ethanol formation and not from the ingestion of ethanol."

ADDITIONAL INFORMATION

The wreckage was released to the owner's representative on August 13, 2003.

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	**Age:**	61,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	**Seat Occupied:**	Front
Other Aircraft Rating(s):	Glider	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Glider; Instrument airplane	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	February 3, 2003
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	January 8, 2003
Flight Time:	12389 hours (Total, all aircraft), 579 hours (Total, this make and model), 12116 hours (Pilot In Command, all aircraft), 50 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Schleicher	**Registration:**	N271EC
Model/Series:	ASW-27B	**Aircraft Category:**	Glider
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	27149
Landing Gear Type:	Retractable - Tailwheel	**Seats:**	1
Date/Type of Last Inspection:	December 10, 2002 Annual	**Certified Max Gross Wt.:**	1100 lbs
Time Since Last Inspection:		**Engines:**	0
Airframe Total Time:	486.6 Hrs as of last inspection	**Engine Manufacturer:**	
ELT:	Not installed	**Engine Model/Series:**	
Registered Owner:	Carpetyan, Eugene H. Trustee	**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:	PMD,2543 ft msl	**Distance from Accident Site:**	22 Nautical Miles
Observation Time:	11:53 Local	**Direction from Accident Site:**	300°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	17 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	230°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.76 inches Hg	**Temperature/Dew Point:**	27°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Llano, CA (L01)	**Type of Flight Plan Filed:**	None
Destination:	Jean, NV (0L7)	**Type of Clearance:**	None
Departure Time:	12:25 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	CRYSTAL L01	**Runway Surface Type:**	
Airport Elevation:	3420 ft msl	**Runway Surface Condition:**	Unknown
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	34.409999,-117.808052

Administrative Information

Investigator In Charge (IIC):	Jones, Patrick
Additional Participating Persons:	Frank Motter; Federal Aviation Administration; Van Nuys, CA
Original Publish Date:	December 28, 2004
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=57280