Aviation Investigation Final Report

Location:	Emigrant Gap, California	**Accident Number:**	GAA16CA489
Date & Time:	September 9, 2016, 14:30 Local	**Registration:**	N909G
Aircraft:	BURKHART GROB FLUGZEUGBAU G109	**Aircraft Damage:**	Substantial
Defining Event:	Loss of lift	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of a powered glider reported that while en-route to his planned destination, he became concerned about the glider's capability, even with the engine operating, to clear rising terrain ahead. The pilot further reported that he was advised by air traffic control that the nearest airport was about 5 nautical miles (NM) ahead and along his route. The pilot decided to continue to this airport, even though lower terrain was available behind him. During the diversion into the higher elevation, the pilot reported that the glider was "low over the terrain" and he determined that he had to make an off-airport landing. Subsequently, the pilot landed the glider into trees about ½ NM from the diversion airport.

The right wing and fuselage sustained substantial damage.

The pilot reported no preaccident mechanical malfunctions or failures with the powered glider that would have precluded normal operation.

About the time of the accident, at the diversion airport, an automated weather observing system reported the wind at 240 degrees true at 7 knots, a temperature of 80 degrees Fahrenheit (27 Celsius), and a dew point of 43 degrees Fahrenheit (6 Celsius). The airport's elevation was 5,283 feet above mean sea level (MSL) and the density altitude was 7,563 feet above MSL.

According to the Federal Aviation Administration Koch Chart, the powered glider would have experienced a 62% decrease to the normal rate of climb. The high density altitude likely contributed to the glider's inability to clear the trees en-route to the diversion airport.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inappropriate decision to continue the flight into higher elevation under high-density altitude conditions, which degraded the glider's climb performance and resulted in impact with trees short of the intended runway.

Findings

Personnel issues	Decision making/judgment - Pilot
Aircraft	Climb rate - Not attained/maintained
Environmental issues	High density altitude - Decision related to condition
Environmental issues	Tree(s) - Contributed to outcome
Environmental issues	High density altitude - Effect on operation

Factual Information

History of Flight

Enroute	Other weather encounter
Enroute	Loss of lift (Defining event)
Enroute	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	73,Male
Airplane Rating(s):	None	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Glider	**Restraint Used:**	4-point
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	Glider	**Toxicology Performed:**	No
Medical Certification:	None None	**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	August 21, 2016
Flight Time:	(Estimated) 2330 hours (Total, all aircraft), 796 hours (Total, this make and model), 2016 hours (Pilot In Command, all aircraft), 13 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BURKHART GROB FLUGZEUGBAU	**Registration:**	N909G
Model/Series:	G109 UNDESIGNAT	**Aircraft Category:**	Glider
Year of Manufacture:	1982	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	6134
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	March 2, 2016 Annual	**Certified Max Gross Wt.:**	1830 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	1095 Hrs at time of accident	**Engine Manufacturer:**	Limbach
ELT:	Not installed	**Engine Model/Series:**	2000
Registered Owner:	On file	**Rated Power:**	
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KBLU,5283 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	21:52 Local	**Direction from Accident Site:**	350°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:	240°	**Turbulence Severity Forecast/Actual:**	/ N/A
Altimeter Setting:	30.23 inches Hg	**Temperature/Dew Point:**	27°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	LINCOLN, CA (LHM)	**Type of Flight Plan Filed:**	None
Destination:	MINDEN, NV (MEV)	**Type of Clearance:**	VFR flight following
Departure Time:	14:00 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	BLUE CANYON - NYACK BLU	**Runway Surface Type:**	
Airport Elevation:	5283 ft msl	**Runway Surface Condition:**	Vegetation
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

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:**	39.281944,-120.711944(est)

Administrative Information

Investigator In Charge (IIC):	Gerhardt, Adam
Additional Participating Persons:	Harry Jones; FAA; Reno, NV
Original Publish Date:	December 15, 2016
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=94016