Aviation Investigation Final Report

Location:	Minden, Nevada	**Accident Number:**	LAX07CA066
Date & Time:	December 27, 2006, 13:00 Local	**Registration:**	N794G
Aircraft:	Burkhart Grob G-103A	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 Minor
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The glider drug a wing and ground looped during an off airport landing short of the airport. The CFI and student released the tow line at 8,500 feet in turbulent lift conditions. About 20 minutes into the flight, the tow pilot radioed from the ground that a snow squall was rapidly moving in from the north. The CFI had the student head toward the airport and they prepared for a straight-in approach to runway 34. The wind speed increased and the ceiling quickly lowered. The CFI took control when he determined that they would have to fly a lot faster to beat the storm. About 3 miles south of the field, he noted that the ceiling was descending rapidly enough that he would have to go below the glide slope in order to maintain cloud clearance. He descended with spoilers and told the student to prepare for an off airport landing in a farmer's field short of the airport. The CFI set up for landing. He had to turn and change his path at the last second when he noticed an irrigation sprinkler in his path. The right wing tip contacted the ground, and the glider ground looped during landing, which resulted in substantial damage to the tail boom. The pilot indicated that he had obtained an abbreviated weather brief via telephone and the internet. The weather at the nearest official reporting station, which was 28 nautical miles north of the accident site/departure airport, was similar for a 6-hour period up to an hour before the glider's departure. The weather reports noted 10 miles visibility; winds from the north about 14 knots; and ceilings above 14,000 feet. In the next 30 minutes, the weather deteriorated to 1-mile visibility in light snow; winds gusting 22 to 30 knots; and a 1,000-foot ceiling. In the next 10 minutes, the visibility dropped to 1/4 mile; 20 minutes later the visibility was 3/4 mile. Over the next hour, the weather improved to 10 miles visibility; winds 14 gusting to 22 knots; and overcast conditions at 6,000 feet.

Probable Cause and Findings

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

The flight's encounter with a low ceiling while on approach that necessatiated an off-airport precautionary landing on unsuitable terrain. Obstructions were a factor.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: APPROACH

Findings
1. (C) WEATHER CONDITION - LOW CEILING

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

Findings
2. (F) TERRAIN CONDITION - HIGH OBSTRUCTION(S)
3. (C) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - ENCOUNTERED - PILOT IN COMMAND(CFI)
4. PRECAUTIONARY LANDING - INTENTIONAL - PILOT IN COMMAND(CFI)

Factual Information

On December 27, 2006, about 1300 Pacific standard time, a Burkhart Grob G-103A glider, N794G, collided with terrain during an off airport landing near Minden, Nevada. Soar Minden was operating the glider under the provisions of 14 CFR Part 91. The certified flight instructor (CFI) pilot and the student pilot sustained minor injuries; the glider sustained substantial damage. The local instructional flight departed Minden about 1215. Visual meteorological conditions prevailed at the nearest official reporting station; instrument meteorological conditions prevailed at the accident site. No flight plan had been filed.

The pilot submitted a written report. The flight was to provide instruction on mountain wave conditions. The CFI and student released the tow line at 8,500 feet in turbulent lift conditions. The instructor took over the controls for the final minute of the tow due to the turbulence. After release, the student resumed control, and worked several small patches of lift south of the airport. About 20 minutes into the flight, the tow pilot radioed from the ground that a snow squall was moving in from the north.

The CFI had the student head toward the airport, and prepare for a straight-in approach to runway 34. The wind speed increased, and the ceiling quickly lowered. The CFI took control when he determined that they would have to fly a lot faster to beat the storm. About 3 miles south of the field, he noted that the ceiling was descending rapidly enough that he would have to go below the glide slope in order to maintain cloud clearance. He descended with spoilers, and told the student to prepare for an off airport landing in a farmer's field short of the airport.

The CFI set up for landing. He had to turn and change his path at the last second when he noticed an irrigation sprinkler in his path. The right wing tip contacted the ground, and the glider ground looped during landing, which resulted in substantial to the tail boom.

The instructor's report indicated that he had obtained an abbreviated weather brief via telephone and the internet from the National Weather Service.

The nearest official reporting stations was Reno, Nevada, which was 345 degrees at 28 nautical miles from the accident site. An aviation routine weather report (METAR) issued for Reno at 1056 stated: winds from 360 degrees at 14 knots; visibility 10 miles; skies 8,000 feet scattered, 12,000 feet broken, 14,000 feet overcast; temperature 6/42 degrees Celsius/Fahrenheit; dew point -1/30 degrees Celsius/Fahrenheit; altimeter 29.74 inches of mercury. METAR's for the previous 5 hours reported similar conditions.

A METAR for Reno at 1130 stated: winds from 340 degrees at 22 knots gusting to 30 knots; visibility 1 mile with light snow; skies 1,000 feet scattered, 4,000 feet overcast; temperature 2/36 degrees Celsius/Fahrenheit; dew point -1/30 degrees Celsius/Fahrenheit; altimeter 29.77

inches of mercury. A METAR at 1137 reported 1/4 mile visibility in light snow and fog, and overcast at 2,000 feet. The visibility was 3/4 mile, and winds were 330 degrees at 11 knots in a 1202 METAR; other conditions remained the same.

A METAR for Reno at 1256 stated: winds from 310 degrees at 14 knots gusting to 25 knots; visibility 10 miles; skies 6,000 feet overcast; temperature 3/37 degrees Celsius/Fahrenheit; dew point -4/25 degrees Celsius/Fahrenheit; altimeter 29.83 inches of mercury.

Flight instructor Information

Certificate:	Commercial; Flight instructor	**Age:**	63,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	
Other Aircraft Rating(s):	Glider	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	Yes
Instructor Rating(s):	Glider	**Toxicology Performed:**	No
Medical Certification:	Class 2	**Last FAA Medical Exam:**	February 1, 2006
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	1505 hours (Total, all aircraft), 555 hours (Total, this make and model), 753 hours (Pilot In Command, all aircraft), 60 hours (Last 90 days, all aircraft), 13 hours (Last 30 days, all aircraft)		

Student pilot Information

Certificate:	None	**Age:**	Male
Airplane Rating(s):	None	**Seat Occupied:**	
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	Yes
Instructor Rating(s):		**Toxicology Performed:**	No
Medical Certification:	None	**Last FAA Medical Exam:**	
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:	0 hours (Total, all aircraft), 0 hours (Last 90 days, all aircraft), 0 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Burkhart Grob	**Registration:**	N794G
Model/Series:	G-103A	**Aircraft Category:**	Glider
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	34007-K-240
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	1279 lbs
Time Since Last Inspection:		**Engines:**	0
Airframe Total Time:		**Engine Manufacturer:**	
ELT:		**Engine Model/Series:**	
Registered Owner:	Soar Minden	**Rated Power:**	
Operator:	Soar Minden	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	RNO	**Distance from Accident Site:**	45 Nautical Miles
Observation Time:	12:56 Local	**Direction from Accident Site:**	360°
Lowest Cloud Condition:		**Visibility**	10 miles
Lowest Ceiling:	Overcast / 6000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	14 knots / 25 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	310°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.82 inches Hg	**Temperature/Dew Point:**	3°C / -4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Minden, NV (MEV)	**Type of Flight Plan Filed:**	None
Destination:	Minden, NV	**Type of Clearance:**	None
Departure Time:	12:15 Local	**Type of Airspace:**	

Airport Information

Airport:	Minden MEV	**Runway Surface Type:**	Asphalt
Airport Elevation:	4726 ft msl	**Runway Surface Condition:**	Wet
Runway Used:	34	**IFR Approach:**	None
Runway Length/Width:	7400 ft / 100 ft	**VFR Approach/Landing:**	Full stop;Straight-in

Wreckage and Impact Information

Crew Injuries:	2 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	
Total Injuries:	2 Minor	**Latitude, Longitude:**	39.000278,-119.751113

Administrative Information

Investigator In Charge (IIC):	Plagens, Howard
Additional Participating Persons:	Ken Kelley; Federal Aviation Administration; Reno, NV
Original Publish Date:	March 26, 2007
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=65086