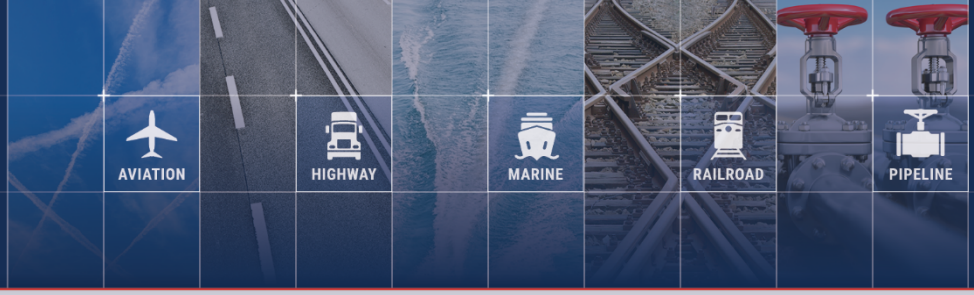

Aviation Investigation Final Report

Location:	Minden, Nevada	**Accident Number:**	LAX05LA281
Date & Time:	August 29, 2005, 09:55 Local	**Registration:**	N925G
Aircraft:	Burkhart Grob Flugzeugbau G102 Club Astir IIIB	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The glider collided with two parked gliders following a bounced landing. The accident flight was the student pilot's first flight in the accident glider make and model. Prior to his departure, the student pilot received a checkout in the glider from the flight school owner. The check out was approximately 10 minutes in duration. The student pilot was not shown how to operate the canopy latch. The canopy latch was not similar to the latch mechanism that the pilot used on the other glider that he had flown. The canopy was closed and the pilot did not check that it was locked prior to departure. The student pilot thought that the canopy locked into place once it was closed because there were springs on the latch. During the takeoff climb, as the tow airplane lifted the glider 300 feet above ground level, the canopy popped open. The student pilot reached up and grabbed the canopy. The student pilot attempted to hold down the canopy with his left arm and fly with his right hand. He then would remove his right hand from the control stick and attempt to latch the canopy, but the control forces from the airflow would not allow the latch to lock. After release from the tow airplane, the student pilot continued flying the glider holding down the canopy with his left arm and using his right hand to control the glider. He ensured that the landing pattern was clear and setup for landing. As he approached the runway, the glider was above its normal approach speed and the pilot released the canopy and partially applied the spoilers. The open canopy resulted in a drag condition and the glider sank rapidly and impacted the runway on its main wheel. The glider then bounced straight up approximately 200 hundred feet and the student pilot moved the stick forward to lower the nose, and in the second ground contact, impacted two gliders parked on the ramp. The student pilot had a total time of 35 hours in gliders, with 1.5 hours of solo flight. As required by 14 CFR 61.87 (c), the student pilot logbook was not endorsed by a certified flight instructor for solo flight in this model of glider.

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 ensure that the canopy was properly latched prior to departure. The inadequate supervision of the flight by the instructor and flight school was also causal.

Findings

Occurrence #1: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings
1. (C) WINDOW,CANOPY - NOT SECURED
2. (C) INSTRUCTIONS,WRITTEN/VERBAL - INADEQUATE - PILOT IN COMMAND(CFI)
3. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND(CFI)
4. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
5. DESCENT - EXCESSIVE - PILOT IN COMMAND

Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings
6. OBJECT - AIRCRAFT PARKED/STANDING

Factual Information

On August 29, 2005, at 0955 Pacific daylight time, a Burkhart Grob Flugzeugbau G102 Club Astir IIIB glider, N925G, collided with two parked gliders while landing at the Minden-Tahoe Airport (MEV), Minden, Nevada. Soar Minden, Inc., who was also the registered owner of the glider, was operating it under the provisions of 14 CFR Part 91. The accident glider sustained substantial damage and another parked glider, N301YC, also sustained substantial damage. A second parked glider, N54TH, sustained minor damage. The student pilot, the sole occupant, was seriously injured. Visual meteorological conditions prevailed, and no flight plan had been filed for the local area flight. The student departed Minden at 0940.

In an interview with the National Transportation Safety Board investigator immediately following the accident, the owner of Soar Minden reported that the accident flight was the student's first in the one-seat glider. Up until this flight, he had flown in a two-seat glider. Earlier that morning, the operator had given the student a checkout in the glider, which included instruction on operating the canopy latch. The glider's canopy latch was secured by sliding it via a pin that moved fore and aft. The canopy latch in the two-seat glider consisted of a handle that rotated 60 degrees to latch and unlatch. Immediately following takeoff, the student pilot discovered that the canopy was unlatched. He held the canopy closed until the release from the aero-tow at 3,300 feet above ground level. He then lost hold of the canopy. He attempted landing on the runway where he initially bounced prior to impacting two parked gliders on the ramp. The student had 35 hours in gliders with 0.3 in this make and model.

The student pilot was interviewed via telephone by the Safety Board investigator on September 28. The pilot had about 35 hours in gliders with 1.5 hours of solo flight. His last flight was about 1 week prior to the accident. The student pilot received a checkout in the glider from the owner of Soar Minden. The pilot had about five different instructors during his training over 2 years, but this was his first instruction with the flight school owner. The checkout was approximately 10 minutes in duration. During the checkout just prior to the accident flight, he was given a visual reference for a proper landing angle (this was accomplished by the checkout pilot lifting the tail surface), and he was shown the various instruments in the glider. The student pilot was not shown how to operate the canopy latch. The canopy latch was not similar to the latch mechanism that the pilot used on the other glider that he had flown. The pilot did not feel that the checkout was adequate.

The glider was towed to the flight line with a golf cart and a rope was tied to the tow airplane. The canopy was closed and the pilot did not check that it was locked prior to departure. The student pilot thought that the canopy locked into place once it was closed because there were springs on the latch. As the tow airplane lifted the glider 300 feet above ground level, the canopy popped open. The student pilot reached up and grabbed the canopy and his handheld radio slipped from his grasp and fell to an inaccessible location. The student pilot attempted

to hold down the canopy with his left arm and fly with his right hand. He then would remove his right hand from the control stick and attempt to latch the canopy, but the control forces from the airflow would not allow the latch to lock.

The student pilot remained behind the tow airplane until reaching 8,000 feet mean sea level and then the student released the glider from the tow airplane. He again attempted to close the canopy but was unsuccessful. The student pilot continued flying the glider holding down the canopy with his left arm and using his right hand to control the glider. He ensured that the landing pattern was clear and setup for landing for runway 30.

Prior to landing, he decided that upon flaring the glider he would release the canopy and apply the spoilers. As he approached runway 30, the glider was above its normal approach speed and the pilot released the canopy and partially applied the spoilers. The open canopy resulted in a drag condition that the student pilot was not prepared for, and the glider sank rapidly and impacted the runway on its main wheel. The glider then bounced straight up approximately 200 hundred feet and the student pilot moved the stick forward to "get the nose down" and then impacted two gliders parked on the ramp.

The student pilot reported that the canopy was still on the airframe when the glider stopped, and was removed when medical services arrived.

Prior to his departure as required by 14 CFR 61.87 (c), the student pilot logbook was not endorsed by a certified flight instructor for solo flight in this model of glider.

Two Federal Aviation Administration (FAA) inspectors responded to the accident scene. The inspectors reported that the canopy frame to the glider was underneath the wing and the Plexiglas was broken away. The latch consists of a 1/4-inch bar about 2 1/2 feet long that moves back and forth and it is spring loaded forward. There are two openings on the fuselage of the glider, similar to eye hooks that the bar fits into. The spring mechanism holds the bar in the eye hooks when the canopy is properly latched. The inspectors reported that they could not test the latch on the glider because the frame was deformed; however, the latch appeared to work properly when actuated by hand.

Pilot Information

Certificate:	Student	**Age:**	60,Male
Airplane Rating(s):	None	**Seat Occupied:**	Single
Other Aircraft Rating(s):	None	**Restraint Used:**	
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:	35 hours (Total, all aircraft), 2 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Burkhart Grob Flugzeugbau	**Registration:**	N925G
Model/Series:	G102 Club Astir IIIB	**Aircraft Category:**	Glider
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	5587
Landing Gear Type:	Tailwheel	**Seats:**	1
Date/Type of Last Inspection:	July 1, 2005 Annual	**Certified Max Gross Wt.:**	838 lbs
Time Since Last Inspection:	105.9 Hrs	**Engines:**	0
Airframe Total Time:	5880.2 Hrs as of last inspection	**Engine Manufacturer:**	
ELT:	Not installed	**Engine Model/Series:**	
Registered Owner:	Soar Minden, 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:	RNO,4415 ft msl	**Distance from Accident Site:**	30 Nautical Miles
Observation Time:	09:56 Local	**Direction from Accident Site:**	340°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.92 inches Hg	**Temperature/Dew Point:**	29°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Minden, NV (MEV)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	09:40 Local	**Type of Airspace:**	

Airport Information

Airport:	Minden MEV	**Runway Surface Type:**	Asphalt
Airport Elevation:	4718 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	30	**IFR Approach:**	None
Runway Length/Width:	5300 ft / 75 ft	**VFR Approach/Landing:**	Precautionary landing

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:**	39.000278,-119.750556

Administrative Information

Investigator In Charge (IIC):	Dunks, Kristi
Additional Participating Persons:	Gordon Kraus; Federal Aviation Administration; Reno, NV
Original Publish Date:	May 30, 2006
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=62373