National Transportation Safety Board
Aviation Accident Final Report

Location:	El Paso, TX	**Accident Number:**	CEN12LA605
Date & Time:	09/01/2012, 1100 MDT	**Registration:**	N5489X
Aircraft:	BURKHART GROB G 103 TWIN II	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control in flight	**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Glider Tow		

Analysis

The glider club was launching gliders via a mechanical ground winch. On the first launch attempt, the glider overflew the tow cable and it automatically disconnected when the glider was low to the ground. The glider was able to make a safe landing on the runway. The pilot was overheard saying that the first launch failed because he should have initiated the climb sooner. On the second attempt, the glider once again overran the tow cable. Before the tow cable released, the pilot lowered the nose to pick up the slack in the cable and he instructed the winch operator to go faster. These two steps appeared to have corrected the problem, and the pilot initiated a climb. Shortly after, the glider began to overfly the cable again and it disconnected. The glider entered free flight just above stall speed about 75 feet above the runway. A witness saw the glider nose over and thought the pilot was going to land. Instead, the glider descended rapidly and drifted to the left toward a taxiway. The witness saw the wings of the glider rock back and forth before it impacted the ground hard. Examination of the glider and release hook revealed no mechanical anomalies. The ground winch's engine was reportedly running rough and most likely was unable to produce enough speed to launch the glider.

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 glider control while attempting to take off using a ground winch, which resulted in an inadvertent stall low to the ground. Contributing to the accident was the ground winch, which was unable to produce enough speed for a successful glider launch.

Findings

Aircraft	Towing - Related operating info (Cause) Airspeed - Not attained/maintained (Factor) Misc hardware - Not specified (Factor)
Personnel issues	Aircraft control - Pilot (Cause)

Factual Information

On September 1, 2012, about 1100 mountain daylight time, N5489X, a Burkhart Grob G103 Twin II glider, sustained substantial damage when it landed hard during an attempted takeoff using a ground winch at the Horizon Airport (T27) near El Paso, Texas. The commercial pilot was fatally injured. The glider was registered to and operated by the El Paso Soaring Society Incorporated, El Paso, Texas. Visual meteorological conditions prevailed and no flight plan was filed for the local flight conducted under 14 Code of Federal Regulations Part 91.

The El Paso Soaring Society was using the ground winch to launch gliders because their tow airplane was down for maintenance. The winch was set up on the overrun area on the east side of Runway 08.

According to a witness, a week before the accident, he attended a class on how to launch a glider using the ground winch. The class was given by the pilot and the person who operated the winch on the day of the accident. The witness said the class was taught from both a pilot and winch-operating perspective.

The following weekend, the witness returned to the airport to assist with the glider launches. He said that on the first launch attempt, he ran alongside the glider's wing until it got airborne. When the glider was approximately 15 feet above the ground, it overran the winch cable and the center of gravity (CG) hook automatically disconnected. The glider landed straight ahead without incident.

While ground-towing the glider back to the takeoff area, the witness heard the pilot telling the winch operator to do the same exact thing with the winch as he did on the first attempt. The pilot felt the first launch had failed because he didn't initiate a climb soon enough.

During the second attempt, the witness said the glider once again overflew the winch cable. He said, "According to the class [the pilot] gave the previous week, he performed the correct procedure - he lowered the nose to let the slack out of the cable. As this happened, he also came on the radio and directed the winch to go "faster". Then, once it started pulling him again, he raised the nose up as he was supposed to do in order to initiate a climb. After he did this, the cable once again seemed to develop some slack and the glider out ran it." The witness said the cable disconnected and the glider was in free-flight approximately 75 feet above the ground and appeared to be traveling just above stall speed. He then saw the glider nose over as if the pilot was preparing to land. But the glider began to sink rapidly as it drifted to the left toward the taxiway. The witness then saw the wings of the glider rock back and forth before it hit the ground "very hard."

According to an inspector with the Federal Aviation Administration (FAA), the glider came to rest just north of the taxiway. The area was damaged and the tail had separated from the airframe. Examination of the CG hook revealed no mechanical deficiencies and functioned normally when tested. The inspector also said the ground winch utilized a 350-cubic-inch Chevrolet engine with a two-speed automatic transmission. Club members reported the winch had only been used about 9 times in the last 4 years. The pilot's son, who was standing behind the winch on both launch attempts, said the winch engine sounded as if it was producing a high RPM, but was running rough.

The pilot held a commercial pilot certificate for airplane single-engine land and glider. He also had a certified flight instructor certificate for gliders. The pilot's last FAA Third Class medical

was issued on December 28, 2011. At that time, he reported a total of 1,500 flight hours.

Weather at El Paso International Airport (ELP), El Paso, Texas, approximately 9 miles northwest of T27, at 1051, was reported as wind from 150 degrees at 4 knots, visibility 10 miles, clear skies, temperature 30 degrees Celsius, dewpoint 6 degrees Celsius, and a barometric pressure setting of 30.16 inches Hg.

History of Flight

Takeoff	Glider tow event
	Loss of control in flight (Defining event)

Pilot Information

Certificate:	Flight Instructor; Commercial	**Age:**	76, Male
Airplane Rating(s):	Single-engine Land	**Seat Occupied:**	Rear
Other Aircraft Rating(s):	Glider	**Restraint Used:**	Seatbelt, Shoulder harness
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	Glider	**Toxicology Performed:**	No
Medical Certification:	Class 3 With Waivers/Limitations	**Last Medical Exam:**	12/28/2011
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	(Estimated) 1500 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BURKHART GROB	**Registration:**	N5489X
Model/Series:	G 103 TWIN II	**Aircraft Category:**	Glider
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	3877-K-115
Landing Gear Type:	None	**Seats:**	2
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	0
Airframe Total Time:		**Engine Manufacturer:**	
ELT:	Not installed	**Engine Model/Series:**	
Registered Owner:	EL PASO SOARING SOCIETY INC	**Rated Power:**	
Operator:	EL PASO SOARING SOCIETY INC	**Air Carrier Operating Certificate:**	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	ELP, 4007 ft msl	**Observation Time:**	1051 MDT
Distance from Accident Site:	9 Nautical Miles	**Condition of Light:**	Day
Direction from Accident Site:	330°	**Conditions at Accident Site:**	Visual Conditions
Lowest Cloud Condition:	Clear	**Temperature/Dew Point:**	30°C / 6°C
Lowest Ceiling:		**Visibility**	10 Miles
Wind Speed/Gusts, Direction:	4 knots, 150°	**Visibility (RVR):**	
Altimeter Setting:	30.16 inches Hg	**Visibility (RVV):**	
Precipitation and Obscuration:			
Departure Point:	El Paso, TX (T27)	**Type of Flight Plan Filed:**	None
Destination:	El Paso, TX (T27)	**Type of Clearance:**	None
Departure Time:	1300 MDT	**Type of Airspace:**	

Airport Information

Airport:	Horizon Airport (T27)	**Runway Surface Type:**	Asphalt
Airport Elevation:	4007 ft	**Runway Surface Condition:**	Dry
Runway Used:	08	**IFR Approach:**	None
Runway Length/Width:	6885 ft / 50 ft	**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Substantial
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal		

Administrative Information

Investigator In Charge (IIC):	Leah D Yeager	**Adopted Date:**	06/19/2013
Additional Participating Persons:	Donald Halbert; FAA/FSDO; Albuqueque, NM		
Publish Date:	06/19/2013		
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=84928		