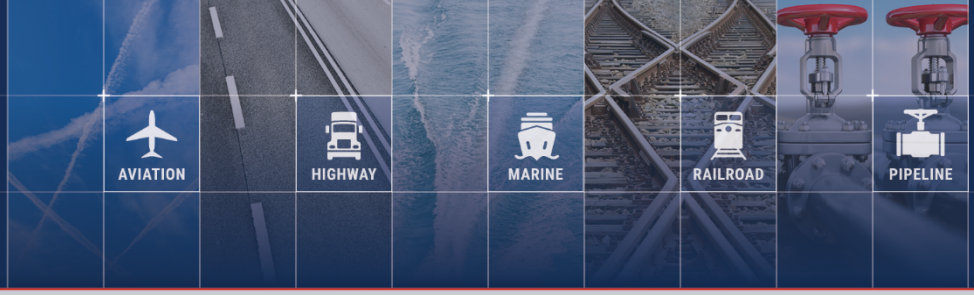

Aviation Investigation Final Report

Location:	LLANO, California	**Accident Number:**	LAX99LA285
Date & Time:	August 23, 1999, 15:10 Local	**Registration:**	N8013K
Aircraft:	Burkhart Grob TWIN II G 103	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

As the student pilot began his landing flare approximately 10 feet above the runway surface, he observed a dust devil move onto the runway directly in front of him. He applied down elevator control but the glider ascended about 50 feet above the ground into the dust devil. The glider stalled and landed hard on the runway, then ground looped. Ground witnesses observed a 'large and violent dust devil' touching down on the runway in the path of the landing glider just as it was in the landing flare.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's encounter with a sudden and violent dust devil, which caused the student pilot to lose control of the aircraft during the landing flare/touchdown.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings
1. (C) WEATHER CONDITION - DUST DEVIL/WHIRLWIND
2. (C) WEATHER CONDITION - UPDRAFT
3. AIRCRAFT CONTROL - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #2: HARD LANDING
Phase of Operation: DESCENT - UNCONTROLLED

Findings
4. STALL - ENCOUNTERED - PILOT IN COMMAND
5. (C) AIRCRAFT CONTROL - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings
6. GROUND LOOP/SWERVE - ENCOUNTERED - PILOT IN COMMAND

Factual Information

On August 23, 1999, at 1510 hours Pacific daylight time, a Burkhart Grob G 103 Twin II, N8013K, landed hard after encountering a dust devil while landing at the Crystal Gliderport in Llano, California. The glider, operated by Great Western Soaring School, Llano, was substantially damaged. The student glider pilot, who held a private pilot certificate with an airplane single engine land rating, was not injured. The local area instructional flight was conducted under the provisions of 14 CFR Part 91 and had originated from the Crystal Gliderport at 1349. Visual meteorological conditions prevailed and no flight plan was filed.

The pilot reported that he was preparing to land on runway 25, and that the tetrahedron indicated the wind was coming straight down the runway. As he was flaring approximately 10 feet above the runway surface, he observed a dust devil move onto the runway directly in front of him. He applied down elevator control but the glider ascended about 50 feet above the ground into the dust devil. The pilot stated that the glider stalled and landed hard on the runway numbers. The glider's right wing tip caught on the ground and the glider ground looped 180 degrees on the runway. During this process, the empennage broke off at the aft fuselage boom just forward of the fin. The tail wheel and nose wheel tires blew out.

Ground witnesses provided statements that were consistent in the observation that a "large and violent dust devil" touched down on the runway in the path of the landing glider just as it was in the landing flare.

Pilot Information

Certificate:	Private	**Age:**	43,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Front
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:	136 hours (Total, all aircraft), 13 hours (Total, this make and model), 28 hours (Pilot In Command, all aircraft), 13 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Burkhart Grob	**Registration:**	N8013K
Model/Series:	G 103 TWIN II G 103 TWIN	**Aircraft Category:**	Glider
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	3702
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	July 5, 1999 Annual	**Certified Max Gross Wt.:**	1279 lbs
Time Since Last Inspection:	84 Hrs	**Engines:**	Unknown
Airframe Total Time:	884 Hrs	**Engine Manufacturer:**	
ELT:	Not installed	**Engine Model/Series:**	
Registered Owner:	DOUGLAS TURNER	**Rated Power:**	
Operator:	GREAT WESTERN SOARING SCHOOL	**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

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:**	16 Nautical Miles
Observation Time:	14:53 Local	**Direction from Accident Site:**	300°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	Unknown	**Visibility (RVR):**	
Wind Speed/Gusts:	21 knots / 25 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	250°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	37°C / 10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(L01)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	13:49 Local	**Type of Airspace:**	Class E

Airport Information

Airport:	CRYSTAL GLIDERPORT L01	**Runway Surface Type:**	Asphalt
Airport Elevation:	3420 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	25	**IFR Approach:**	None
Runway Length/Width:	4500 ft / 250 ft	**VFR Approach/Landing:**	Full stop;Traffic pattern

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:**	34.490081,-117.770576(est)

Administrative Information

Investigator In Charge (IIC):	Mars, Noelani
Additional Participating Persons:	LADD SCOTT; VAN NUYS , CA
Original Publish Date:	August 14, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=47233