

# **Aviation Investigation Final Report**

Location:	BEND, Oregon	Accident Number:	SEA94LA156
Date & Time:	June 27, 1994, 15:34 Local	Registration:	N109KM
Aircraft:	BURKHART GROB G- 109B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

#### Analysis

WITNESSES OBSERVED THE MOTORIZED GLIDER MAKING LOW-LEVEL STEEP TURNS AND PORPOISING-TYPE MANEUVERS OVER THE PILOT'S PROPERTY AND NEAR A FAMILY MEMBER'S HOUSE. THE LEFT WING AND NOSE THEN DROPPED, AND THE GLIDER IMPACTED THE GROUND. TOXICOLOGICAL TESTS WERE POSITIVE FOR TETRAHYDROCANNABINOL (MARIHUANA) (0.002 UG/ML BLOOD), THC CARBOXYLIC ACID (MARIHUANA) (0.012 UG/ML BLOOD, 0.158 UG/ML URINE), ALPRAZOLAM (0.035 UG/ML BLOOD), DIAZEPAM (0.207 UG/ML BLOOD), AND NORDIAZEPAM (0.305 UG/ML BLOOD).

#### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S IMPAIRMENT OF JUDGMENT AND PERFORMANCE DUE TO DRUGS, WHICH LED TO HIS FAILURE TO MAINTAIN CONTROL OF THE AIRCRAFT.

#### **Findings**

Occurrence #1: LOSS OF CONTROL - IN FLIGHT Phase of Operation: MANEUVERING

Findings 1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND 2. (C) IMPAIRMENT(DRUGS) - PILOT IN COMMAND Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER Phase of Operation: MANEUVERING

### **Factual Information**

#### HISTORY OF FLIGHT

On June 27, 1994, at 1534 Pacific daylight time, a motorized Burkhart Grob G-109B, N109KM, collided with the terrain near Bend, Oregon. Visual meteorological conditions prevailed at the time and no flight plan was filed. The glider was substantially damaged and the private pilot, the sole occupant, was fatally injured. The flight had departed from Bend, Oregon, on June 27, 1994, at an unknown time.

Witnesses in the area reported that the glider was seen maneuvering at low levels near a family member's home and over the pilot's property. The glider was observed making a "porpoise" type maneuver before a left banking turn. The nose of the glider dropped and collided with the terrain in a nose and left wing low attitude. One witness stated that she heard a "popping" sound as the glider passed over her house. It then made a sharp U-turn and just cleared trees before visual contact was lost. Seconds later she heard the sound of the crash.

A Federal Aviation Administration Inspector from the Hillsboro, Oregon, Flight Standards District Office was in the area at the time of the accident. The inspector reported that control continuity was established at the accident site before it was moved to Redmond, Oregon.

The engine was inspected and found that one of the wooden propeller blades was broken off at the propeller hub. The other blade remained intact. The pitch of the blade was determined to be in the low pitch or unfeathered position. The crankshaft rotated easily and gear and valve train continuity was established. The oil screen was clean and clear of contaminants. The spark plugs displayed normal operating signatures. The magneto was destroyed. Engine control cable continuity was established from the firewall to the throttle, choke and carburetor heat.

#### MEDICAL AND PATHOLOGICAL INFORMATION

Dr. Roger A. Schneider, Physician/Pathologist, Central Oregon Pathology Consultants, Bend, Oregon, determined that the cause of death was due to massive blunt trauma.

Toxicological samples were taken and analyzed by the Federal Aviation Administration Civil Aeromedical Institute, Oklahoma City, Oklahoma. The tests confirmed positive results of Tetrahydrocannabinol (Marihuana), Tetrahydrocannabinol Carboxylic Acid, Alprazolam, Diazepam and Nordiazepam was detected in the blood and urine. Alpha-hydroxyalprazolam, Oxazepam, Temazepam and Salicylate was detected in the urine.

### **Pilot Information**

Certificate:	Private	Age:	42,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Glider	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Unknown Unknown	Last FAA Medical Exam:	
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	500 hours (Total, all aircraft)		

# Aircraft and Owner/Operator Information

BURKHART GROB	Registration:	N109KM
G-109B G-109B	Aircraft Category:	Glider
	Amateur Built:	
Normal	Serial Number:	6356
Ski/wheel	Seats:	2
Unknown	Certified Max Gross Wt.:	700 lbs
	Engines:	1 Reciprocating
	Engine Manufacturer:	AM FLUGPLATZ
	Engine Model/Series:	174
CENTRAL OREGON SOARING INC.	Rated Power:	
CENTRAL OREGON SOARING INC.	Operating Certificate(s) Held:	None
	Operator Designator Code:	
	Ski/wheel Unknown CENTRAL OREGON SOARING INC. CENTRAL OREGON SOARING	G-109B G-109BAircraft Category: Amateur Built:NormalSerial Number:NormalSerial Number:Ski/wheelSeats:UnknownCertified Max Gross Wt.:Image: Comparison of the series of th

### Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
<b>Observation Facility, Elevation:</b>		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	30 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:	No Obscuration; No Precipita	ation	
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	00:00 Local	Type of Airspace:	Class G

### **Airport Information**

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	43.979011,-121.269874(est)

#### Administrative Information

Investigator In Charge (IIC):	Eckrote, Debra		
Additional Participating Persons:	JERRY BAAS; HILLSBORO , OR		
Original Publish Date:	October 31, 1995		
Last Revision Date:			
Investigation Class:	<u>Class</u>		
Note:			
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=41958		

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available here.