



# Aviation Investigation Final Report

<b>Location:</b>	Hood River, Oregon	<b>Accident Number:</b>	SEA05FA038
<b>Date &amp; Time:</b>	January 20, 2005, 20:20 Local	<b>Registration:</b>	N6057M
<b>Aircraft:</b>	Cirrus SR22	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	3 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot, with his two passengers, were returning to Hood River, Oregon, on a dark, low overcast night. Radar data indicates that the airplane flew up the Columbia River, which has mountainous terrain on both sides, and was last recorded at 2,500 feet near North Bonneville, Washington. Family members reported the airplane overdue; no ELT signal was ever received. Search and rescue personnel located the airplane the following day on a ridge approximately 5 nautical miles from the intended destination. There were no survivors. No preimpact engine or airframe anomalies, which might have affected the airplane's performance, were identified.

## 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 terrain clearance. Contributing factors were the mountainous terrain, the low ceiling weather conditions, and dark night light conditions.

## Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: CRUISE

### Findings

1. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
2. (F) TERRAIN CONDITION - MOUNTAINOUS/HILLY

3. (F) WEATHER CONDITION - LOW CEILING
4. (F) LIGHT CONDITION - DARK NIGHT

## Factual Information

### HISTORY OF FLIGHT

On January 20, 2005, at approximately 2020 Pacific standard time, a Cirrus SR22, N6057M, was destroyed following impact with terrain near Hood River, Oregon. The commercial pilot and his two passengers were fatally injured. Son-Rise Development, Inc., was operating the airplane under Title 14 CFR Part 91. The airplane departed Salem, Oregon, at 1951, and was flying VFR to Hood River, Oregon. Several pilots at Ken Jernstedt Airfield, Hood River, Oregon, said the weather was instrument meteorological conditions at the time of the accident. The flight was estimated to have been 29 minutes in length.

The pilot and his passengers had departed Hood River, Oregon, in the morning of January 20, 2005, for business reasons. On their return flight, ATC (Air Traffic Control) tower personnel at Salem, Oregon, said that the airplane was cleared to taxi at 1945 and it was cleared to takeoff at 1951. Seattle Air Route Traffic Control Center (ARTCC) recordings indicate that the airplane climbed to 3,500 feet, and the pilot attempted to get flight following. He was given a discreet transponder code, but radar could not identify him. At approximately 1957, Seattle ARTCC suggested to the pilot that he change to a VFR transponder code of 1200, and contact Portland approach control. The pilot did change to a 1200 squawk, and he proceeded towards the Columbia River valley at a point approximately 8 to 10 nautical miles (nm) east of Troutdale, Oregon. At 2013:32, Seattle ARTCC recorded the last radar return from the airplane, at 2,500 feet, near North Bonneville, Washington.

Family members reported the airplane overdue; no ELT (Emergency Locator Transponder) signal was ever received. Air and ground search and rescue teams were initiated the next morning. Late in the afternoon, on January 21, a helicopter flying a direct path from North Bonneville, Washington, to the Hood River airport spotted the downed aircraft.

### PERSONAL INFORMATION

The pilot's most recent Federal Aviation Administration (FAA) flight medical exam (second class) was on July 31, 2004. FAA records indicate that he had received his Flight Instructors Certificate on June 30, 2004. The pilot's personal flight log-book suggest that he had approximately 1,140 hours of flight experience at the time of the accident. The pilot had completed a Cirrus SR22 initial training course on August 24, 2004.

### AIRCRAFT INFORMATION

The airplane was a single engine, propeller-driven, four seat airplane, which was manufactured by Cirrus Design Corporation, in July 2003. The airplane had a maximum takeoff gross weight

of 3,400 pounds. It was powered by a Continental IO-550-N7B, six cylinder, reciprocating, horizontally opposed, direct drive, air cooled, fuel injected engine, which had a maximum takeoff rating of 310 horsepower at sea level. Maintenance records indicate that the last annual inspection was completed on August 31, 2004. The airplane's Hobbs meter read 457 hours of flight, at the time of the accident. The owner purchased the airplane on August 30, 2004.

On the day of the accident, the pilot had initially filed an IFR flight plan to The Dalles, Oregon. On that flight plan, he said that he had 5.5 hours of fuel on board. He canceled that flight plan before departure; he flew the flight VFR.

#### METEOROLOGICAL INFORMATION

At 1953, the weather conditions at Portland-Troutdale Airport (elevation 39 feet), Portland, Oregon, 230 degrees for 28 nm from the accident site, were as follows: wind 080 degrees at 3 knots; visibility 2 statute miles; few clouds at 100 feet, and overcast clouds at 5,000 feet; temperature 51 degrees Fahrenheit; dew point 51 degrees Fahrenheit; altimeter setting 30.05 inches.

One of the pilots at the Hood River airport said "the weather was poor on the night of the accident and that there was a lot of heavy fog in the vicinity of the Hood river airport and the surrounding area."

#### AIRPORT INFORMATION

The Ken Jernstedt Airfield (elevation 631 feet), Hood River, Oregon, is not serviced by a control tower. The airfield has one runway: 07-25 which is 3,040 feet long and 75 feet wide. The airfield is serviced by a CTAF (Common Traffic Advisor Frequency) of 122.8 MHz.

#### WRECKAGE IMPACT INFORMATION

The airplane was found (N45 degrees, 41.05'; W121 degrees, 40.75'; elevation 2,150 feet) approximately 100 feet below the top of a steep North-South ridge line which was heavily forested with 100 to 150 foot high conifers. Topped trees, branches, and airplane debris were found on a longitudinal axis of 85 to 90 degrees. The airplane had been shattered into pieces; the cockpit area of the fuselage was identifiable. All of the airplane's major components were accounted for at the accident site. The flight control surfaces were all identified; the flap actuator assembly indicated that they were 50 percent down. There was no postimpact fire.

The external inspection of the engine revealed severe impact damage. The case was broken on the front and rear, and the internal components of the engine were visible. The crankshaft was broken at the #8 long-cheek, and the propeller flange had separated from the shaft. The magneto drive mount bays and top section of the accessory section had separated from the engine. The propeller blades remained attached to their hub, and the hub was still attached to

its flange. The blades exhibited cord wise striations, some "S" bending, and one exhibited aft bending.

The parachute of the Ballistic Recovery System (BRS) was found released from its storage envelope; however, the BRS rocket was found unexpended and separated from its firing fuse.

No preimpact engine or airframe anomalies, which might have affected the airplane's performance, were identified.

#### MEDICAL AND PATHOLOGICAL INFORMATION

The Oregon State Medical Examiner, Clackamas, Oregon, performed an autopsy on the pilot on January 22, 2005. They determined that the cause of death was multiple blunt trauma and sharp force injuries.

The FAA's Civil Aeromedical Institute (CAMI) in Oklahoma City, Oklahoma, performed toxicology tests on the pilot. According to CAMI's report (#200500031001), carbon monoxide and cyanide tests were not performed. The pilot's urine was tested for ethanol with negative results; his liver was tested for drugs with negative results.

#### ADDITIONAL INFORMATION

The airplane, including all components and logbooks, were released to a representative of the owner's insurance company, on February 4, 2005.

The Fixed Base Operations (FBO) manager at Salem, Oregon, said that the pilot generally flew from the right seat, and the owner of the airplane would occupy the left seat. Due to the time of their departure, on the day of the accident, he did not know who was in which seat during the accident flight. According to friends of the pilot and passenger, at the Troutdale Airport, the pilot and the owner of the airplane flew a similar business flight one or two days before January 20. On that day the weather was also very marginal, and according to these friends, the airplane landed there and the two men drove on to Hood River in the airport courtesy car.

The FBO manager at Salem, Oregon, said that the pilot spent much of the day at the FBO waiting for the owner to finish his business. During this time he checked the weather many times. The pilot also told him about "scud running" into Hood River Airport, and he had done so on several occasions. The pilot said that sometimes he would fly the instrument approach to The Dalles, Oregon, and then fly the 20 miles down the river to the Hood River Airport. The FBO manager said that he advised the pilot not to fly into Hood River Airport that night, because the weather was deteriorating.

## Pilot Information

<b>Certificate:</b>	Commercial; Private	<b>Age:</b>	41, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 2 None	<b>Last FAA Medical Exam:</b>	July 1, 2004
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	June 1, 2004
<b>Flight Time:</b>	1140 hours (Total, all aircraft), 110 hours (Last 90 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cirrus	<b>Registration:</b>	N6057M
<b>Model/Series:</b>	SR22	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	0622
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	August 1, 2004 Annual	<b>Certified Max Gross Wt.:</b>	3400 lbs
<b>Time Since Last Inspection:</b>	35 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	457 Hrs at time of accident	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-550-N7B
<b>Registered Owner:</b>	Son-Rise Development, Inc.	<b>Rated Power:</b>	310 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Instrument (IMC)	<b>Condition of Light:</b>	Night/dark
<b>Observation Facility, Elevation:</b>	TTD,39 ft msl	<b>Distance from Accident Site:</b>	28 Nautical Miles
<b>Observation Time:</b>	20:53 Local	<b>Direction from Accident Site:</b>	230°
<b>Lowest Cloud Condition:</b>	Few / 100 ft AGL	<b>Visibility</b>	2 miles
<b>Lowest Ceiling:</b>	Overcast / 5000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	3 knots / None	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	80°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.04 inches Hg	<b>Temperature/Dew Point:</b>	11°C / 10°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Salem, OR (SLE )	<b>Type of Flight Plan Filed:</b>	VFR
<b>Destination:</b>	Hood River, OR (4S2 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	19:55 Local	<b>Type of Airspace:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>	2 Fatal	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	3 Fatal	<b>Latitude, Longitude:</b>	45.688056,-121.679168

## Administrative Information

**Investigator In Charge (IIC):** Struhsaker, James

**Additional Participating Persons:** Robert Mabrey; FAA FSDO; Portland, OR

**Original Publish Date:** October 27, 2005

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=60896>

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