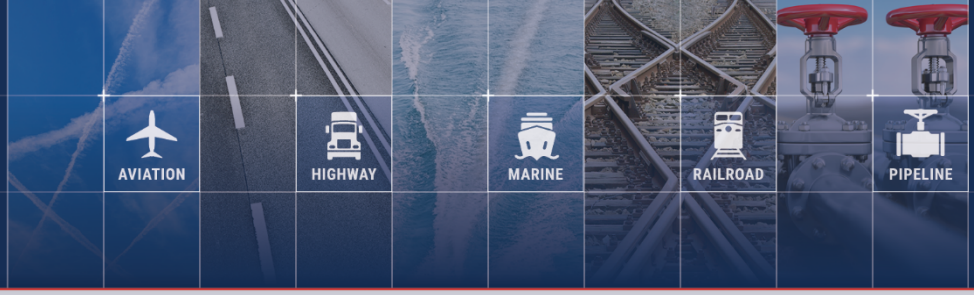

Aviation Investigation Final Report

Location:	IDAHO FALLS, Idaho	**Accident Number:**	SEA94FA052
Date & Time:	January 21, 1994, 16:15 Local	**Registration:**	N7805H
Aircraft:	PIPER PA-12	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Fatal, 1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

WHILE FLYING AT A VERY LOW LEVEL IN A NARROW CANYON, THE PILOT ATTEMPTED A TURN THAT REQUIRED A STEEP BANK. DURING THIS TURN THE PILOT ALLOWED THE LEFT WING OF THE AIRCRAFT TO COLLIDE WITH THE TERRAIN NEAR THE SHORE OF RIRIE RESERVOIR.

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 CLEARANCE FROM THE TERRAIN. FACTORS INCLUDE THE PILOT'S POOR INFLIGHT DECISION TO ATTEMPT LOW LEVEL MANEUVERS IN A NARROW CANYON.

Findings

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

Findings
1. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
2. (F) IN-FLIGHT PLANNING/DECISION - POOR - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On January 21, 1994, approximately 1615 mountain standard time (MST), a Piper PA-12, N7805H, impacted the terrain about 12 miles northeast of Idaho Falls, Idaho. The certificated flight instructor received fatal injuries, his passenger received serious injuries, and the aircraft sustained substantial damage. The personal pleasure flight, which was being operated in visual meteorological conditions at the time of the accident, had departed Fanning Field, Idaho Falls, Idaho, about one hour earlier. No flight plan had been filed, and the ELT, which was activated by the impact, was turned off at the scene.

According to witnesses, the CFI and one of his students returned to the airport after finishing an instructional flight. After parking the aircraft, the CFI found that his next student had canceled. He therefore invited the student whom he had just finished instructing to accompany him on a pleasure flight around the local area. She accepted his offer, and then switched seats with the instructor, who had been in the back seat while giving instruction. The aircraft departed Fanning Field and proceeded to the east about 1515 MST.

The next reported sighting of the aircraft was by a witness who saw it near Blacktail Park (see map) about 1600. This witness reported that the aircraft was coming from the south, and was just above ground level "...barely missing the sagebrush." He said that as the aircraft approached the rim of the plateau surrounding Ririe Reservoir, the engine sounded as if it was brought back to idle. Then the aircraft dove over the edge and dropped into the reservoir canyon. Soon after it dropped out of sight, the witness heard the engine "...throttle up again." Soon thereafter, the sound of the engine faded as the aircraft proceeded northward up the reservoir canyon. The witness said he watched and listened for the aircraft "...for a long time," but he did not see or hear the aircraft come back up out of the canyon.

In a post-accident interview, the passenger said that she remembered the pilot entering the south end of the Ririe Reservoir canyon, flying north to the area of Ririe Dam, and then heading back south inside the canyon. She said that during this portion of the flight the pilot was maneuvering the aircraft at a very low level over the frozen surface of the reservoir. The last thing she remembers about the flight was the pilot entering a low level steep left turn at the location where the aircraft impacted the terrain. According to this witness, she was not sure if the pilot was trying to reverse course, or whether he was just making the sharp left turn required to maneuver through this narrow part of the canyon. She did not remember there being any engine malfunction or control surface problems. The witness also said that she had been with the pilot a number of times before when he had maneuvered through this part of the canyon at very low level.

WRECKAGE AND IMPACT INFORMATION

The aircraft impacted the terrain on the western shore of Ririe Reservoir, at a point where the canyon changes course about 130 degrees. At the time of the accident, the aircraft was flying south at the bottom of the narrow Ririe Reservoir Canyon, which is about 300 feet deep at the point of impact. While in a steep left turn the left wing of the aircraft impacted the terrain 84 feet from the edge of the frozen reservoir surface. From the initial impact point, the aircraft traveled on a magnetic heading of 118 degrees for a total distance of 163 feet. About 30 feet from the initial impact were numerous small pieces of the front windshield of the aircraft, and an oil slick ran from the reservoir shoreline to the resting point of the main wreckage. Except for the left main gear, which was located 27 feet from the primary wreckage on a heading of 208 degrees, all portions of the aircraft structure and engine were located together on the frozen surface of the reservoir. Both lift struts were still attached to the wings and the fuselage longerons. The left wing spar attach fittings were both sheared, and the front wing spar carry-through was bent aft into the cabin area. The left wing tip had been ripped from the end of the wing, and the outboard four feet of both wings were crushed back between 35 and 40 degrees. Mechanical continuity was established to all flight control surface, except the stabilizer trim, which had both of it cables severed by the impact.

Both propeller blades showed chord-wise scarring and leading edge indentations. The carburetor was broken from its mount, and the front of the engine crankcase had broken during the impact. Fuel was found in the wing tanks and the carburetor, and mechanical continuity was established for all rotational and reciprocating components of the engine.

ADDITIONAL INFORMATION

An autopsy was performed by Dr. Gary Ellwein, and the cause of death was listed as "Multiple trauma associated with an aircraft accident."

A toxicological study was performed on the pilot by the FAA Forensic Toxicology and Accident Research Laboratory, and no drugs, carboxyhemoglobin, cyanide, or ethanol were detected.

The aircraft was released to Allan C. Gliege on January 22, 1994, at the scene of the accident.

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	48,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	**Seat Occupied:**	Front
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	**Toxicology Performed:**	Yes
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	January 14, 1994
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	**Registration:**	N7805H
Model/Series:	PA-12 PA-12	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	12-702
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	June 8, 1993 Annual	**Certified Max Gross Wt.:**	1220 lbs
Time Since Last Inspection:	104 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3510 Hrs	**Engine Manufacturer:**	LYCOMING
ELT:	Installed, activated, aided in locating accident	**Engine Model/Series:**	O-290-D2
Registered Owner:	CRUZ AIR	**Rated Power:**	135 Horsepower
Operator:	CRUZ AIR	**Operating Certificate(s) Held:**	On-demand air taxi (135)
Operator Does Business As:	POCATELLO AVCENTER	**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	IDA ,4741 ft msl	**Distance from Accident Site:**	12 Nautical Miles
Observation Time:	15:50 Local	**Direction from Accident Site:**	70°
Lowest Cloud Condition:	25000 ft AGL	**Visibility**	60 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	20°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	3°C / -6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	15:16 Local	**Type of Airspace:**	Class G

Airport Information

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

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Serious	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal, 1 Serious	**Latitude, Longitude:**	43.520484,-112.269096(est)

Administrative Information

Investigator In Charge (IIC):	Anderson, Orrin
Additional Participating Persons:	DAVE SHURR; SALT LAKE, UT
Original Publish Date:	December 2, 1994
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=41793