



# Aviation Investigation Final Report

<b>Location:</b>	BUTTE FALLS, Oregon	<b>Accident Number:</b>	SEA94FA208
<b>Date &amp; Time:</b>	August 10, 1994, 19:45 Local	<b>Registration:</b>	N3555A
<b>Aircraft:</b>	PIPER PA-22	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	2 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

A GROUND WITNESS OBSERVED THE AIRPLANE CIRCLING AT A LOW ALTITUDE OVER HIS PROPERTY. THE AIRPLANE THEN STRUCK A 100-FOOT TALL FIR TREE AND IMPACTED TERRAIN. BRANCHES FROM THE TREE WERE CUT BY THE PROPELLER AND FOUND ALONG THE WRECKAGE PATH. NO EVIDENCE OF PRE-IMPACT MECHANICAL DEFICIENCIES WAS FOUND. THE GROUND WITNESS WAS AN ACQUAINTANCE OF THE PILOT AND STATED THAT THE PILOT HAD FLOWN OVER HIS PROPERTY ON PREVIOUS OCCASIONS. THE PILOT HAD RECEIVED HIS PRIVATE PILOT CERTIFICATE LESS THAN THREE MONTHS PRIOR TO THE ACCIDENT.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT-IN-COMMAND'S FAILURE TO MAINTAIN ADEQUATE ALTITUDE AND CLEARANCE FROM TREES WHILE MANEUVERING.

## Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: MANEUVERING

- Findings  
1. OBJECT - TREE(S)

2. (C) LOW ALTITUDE FLIGHT/MANEUVER - ATTEMPTED - PILOT IN COMMAND
3. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

## Factual Information

### HISTORY OF FLIGHT

On August 10, 1994, about 1945 hours Pacific daylight time, N3555A, a Piper PA-22, operated by the owner/pilot, impacted a tree and was destroyed while maneuvering over Butte Falls, Oregon. The private pilot and his passenger were fatally injured. Visual meteorological conditions prevailed and a flight plan was not filed. The local flight departed from Prospect, Oregon, and was conducted under 14 CFR 91.

According to relatives of the pilot, the pilot decided to take a visiting friend for an airplane ride on the day of the accident. The airplane was kept at an airport in Prospect, Oregon, located about 10 nautical miles north of the accident site. The pilot and his passenger departed from Prospect at an unknown time.

According to the owner of a private grass strip located near the accident site, the airplane circled over the strip at least three times at an altitude of 500 feet above the ground just prior to the accident. After circling overhead, the airplane was observed flying away from the house at a lower altitude while banking to the right and descending into a valley. The engine noise sounded "clear and strong" according to the owner of the grass strip. Sight of the airplane was lost as it flew behind trees, and the sound of a loud "whack" was heard about three seconds later. The airplane impacted the top of a 100-foot tall tree, then impacted the ground and burned. The owner of the grass strip was an acquaintance of the pilot, and stated that the pilot had flown over his house on previous occasions.

The accident occurred during the hours of daylight at 42 degrees, 36.54 minutes North and 122 degrees, 37.60 minutes West.

### PERSONNEL INFORMATION

The pilot, seated in the left front seat, age 37, was granted a private pilot certificate with a rating for single engine land airplanes on May 20, 1994, less than three months prior to the date of the accident. According to FAA records, the pilot was issued a FAA Third Class Medical Certificate on June 22, 1993, with no limitations. The pilot's logbook was not recovered.

### AIRCRAFT INFORMATION

The aircraft, a 1953 Piper PA-22 "Pacer", was purchased by the pilot on June 8, 1993. The single-engine, four-place, high wing airplane received a conversion to a tail-wheel configuration. An examination of the airplane's engine and airframe logbooks did not reveal

any unresolved discrepancies prior to departure the day of the accident.

## WRECKAGE AND IMPACT INFORMATION

The airplane wreckage was examined at the accident site on August 11, 1994. The accident site was located about one-half mile from a private grass strip owned by the witness. The examination revealed that the airplane was completely destroyed by a ground fire. A 100-foot tall fir tree was found about 250 feet from the wreckage. The top of this tree had been sheared off. Several branches were found lying on the ground between the fir tree and the aircraft wreckage. The branches had all been cleanly cut. One branch was measured to be 8 inches in diameter and was found 115 feet from the tree. A wing inspection plate was also found between the tree and the main aircraft wreckage. The magnetic bearing from the tree to the wreckage was 172 degrees.

The airplane came to rest in a nose-down attitude on level terrain. The magnetic bearing of the airplane's longitudinal axis was about 205 degrees. The entire airframe was found within the confines of its pre-impact dimensions. All primary and secondary flight control surfaces were accounted for at the accident site. No evidence was found to indicate a flight control deficiency. The engine was crushed rearward into the cockpit area. The engine and propeller remained attached to the airframe and were embedded into the ground in a nose down attitude.

Both wing fuel tanks and associated fuel lines were compromised by heat and impact damage.

The instrument panel was destroyed by fire. No indications from the cockpit controls and instruments could be read.

The engine, a Lycoming O-290, and propeller were examined. No evidence of pre-impact mechanical malfunctions were found. An examination of the two-bladed metal propeller revealed evidence of "S" bending about eight inches from the tip of one blade.

## MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot by Dr. James N. Olson, M.D., of the Jackson County Medical Examiners Office, Medford, Oregon, on August 8, 1994. A toxicological analysis (report attached) was performed by the Armed Forces Institute of Pathology, Washington, D.C., on specimens taken from the pilot.

## ADDITIONAL INFORMATION

The aircraft wreckage was released to Ms. Louise Jones, Prospect, Oregon, on August 11, 1994. Ms. Jones is representing the estate of the registered owner of the airplane.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	37, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 3 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	June 22, 1993
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	80 hours (Total, all aircraft), 80 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	PIPER	<b>Registration:</b>	N3555A
<b>Model/Series:</b>	PA-22 PA-22	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	22-1829
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	October 15, 1993 Annual	<b>Certified Max Gross Wt.:</b>	1950 lbs
<b>Time Since Last Inspection:</b>	80 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2557 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-290
<b>Registered Owner:</b>	READ, BRIAN R.	<b>Rated Power:</b>	135 Horsepower
<b>Operator:</b>	READ, BRIAN R.	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	MFR ,1331 ft msl	<b>Distance from Accident Site:</b>	18 Nautical Miles
<b>Observation Time:</b>	19:53 Local	<b>Direction from Accident Site:</b>	107°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	30 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	9 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	29°C / 4°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	PROSPECT , OR (64S)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	00:00 Local	<b>Type of Airspace:</b>	Class D;Class G

## Airport Information

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

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>	1 Fatal	<b>Aircraft Fire:</b>	On-ground
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Fatal	<b>Latitude, Longitude:</b>	42.530555,-122.53083(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Guzzetti, Jeffrey
<b>Additional Participating Persons:</b>	WILL HICKS; HILLSBORO , OR
<b>Original Publish Date:</b>	May 9, 1995
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=41819">https://data.nts.gov/Docket?ProjectID=41819</a>

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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](#).