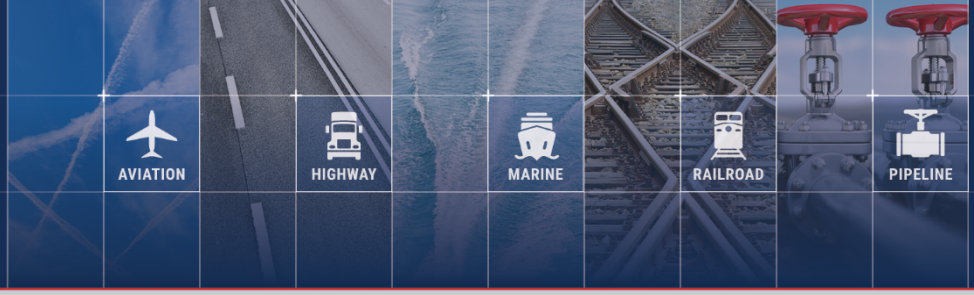

Aviation Investigation Final Report

Location:	Camas, Washington	**Accident Number:**	WPR11FA367
Date & Time:	August 3, 2011, 16:35 Local	**Registration:**	N6297P
Aircraft:	Piper PA-24-250	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control in flight	**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was on a visual flight rules cross-country flight over a sparsely populated area and was maneuvering in the traffic pattern for landing. A pilot-rated witness reported that he observed the accident airplane join what appeared to be the left downwind leg of the runway, about 2,000 feet above ground level. The witness reported that shortly after joining the downwind leg, the airplane banked left and continued in a descending left turn, until it impacted up-sloping terrain northeast of the airport. The airplane wreckage was found about one mile from the destination airport. The wreckage and impact signatures were consistent with a loss of airplane control followed by a steep-angle descent before impact with terrain. Postaccident examination of the engine and airframe revealed no preaccident mechanical malfunctions or failures that would have precluded normal operation.

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 control of the airplane while maneuvering in the traffic pattern.

Findings

Aircraft	(general) - Not attained/maintained
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Maneuvering	Loss of control in flight (Defining event)
Maneuvering	Collision with terr/obj (non-CFIT)

HISTORY OF FLIGHT

On August 3, 2011, about 1635 Pacific daylight time, a Piper PA 24-250 Comanche, N6297P, collided with the ground while maneuvering in the vicinity of Grove Field Airport (1W1) Camas, Washington. The airplane was substantially damaged and the private pilot, the sole occupant of the airplane, was fatally injured. The airplane was registered to the pilot, and operated under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed for the cross-county flight that originated from a private airstrip near Pendleton, Oregon, about 1525. The pilot's planned destination was 1W1; no flight plan was filed. The airframe and engine were extensively fragmented during the impact sequence.

A pilot rated witness reported that he observed the accident airplane join what appeared to be a left downwind for runway 07, about 2,000 feet above ground level. The witness reported that shortly after joining the downwind, the accident airplane banked left. The airplane continued in a descending left turn, until it impacted up-sloped terrain northeast of the airport.

The witness reported that he and the pilot flew to the private airstrip earlier in the day to repair the accident airplane and ferry it back to Camas. The repairs included the installation of a new propeller and repairs to a landing gear door subsequent to a gear up landing that occurred approximately one week before the accident. The witness stated that after the repairs were completed, he and the accident pilot departed as a flight of two with a planned destination of Camas.

PERSONNEL INFORMATION

The pilot, age 84, held a private pilot certificate with airplane single engine land and sea ratings. The pilot's most recent Federal Aviation Administration (FAA) third-class airman medical certificate was issued on July 28, 2010 with the limitation that the pilot must wear lenses for distance and must possess lenses for near vision.

The pilot's personal flight records were not recovered. On his last application for a medical certificate, he reported a total flight time of 4,000 hours.

AIRCRAFT INFORMATION

The airplane, a 1959 four-seat Piper Comanche PA 24-250 (Serial # 24-1408) was powered by a 250 horsepower, Lycoming O-540 engine. The airplane was equipped with retractable tricycle landing gear and the gross takeoff weight was 2,800 pounds. The airplane was equipped with a two bladed constant speed propeller. A review of the maintenance logbooks revealed that the most recent annual inspection of the airframe was completed on July 30, 2010 at a total time of 2,483 hours. The most recent annual inspection of the engine was completed on July 30, 2010; the engines total time since overhaul was 578 hours.

METEOROLOGICAL INFORMATION

The weather at Troutdale, Oregon (approximately 5 miles south of the accident site) at 1653 was temperature 28 degrees Celsius, dew point 12 degrees Celsius and clear skies. The wind was variable at 5 knots and the altimeter setting was 29.87 inches hg.

WRECKAGE AND IMPACT INFORMATION

The wreckage was located in an open field that gradually sloped upwards in a South to North direction. The wreckage debris field from initial impact to the last found piece of wreckage was approximately 230 feet in an overall south to north orientation. The first identified point of contact with terrain was a ground scar that contained fragments of the left wing red navigation light lens.

The main wreckage consisted of the right wing, empennage, main fuselage, cabin, engine and the inboard portion of the left wing. The fuselage sustained extensive impact damage and was mostly fragmented. The top cabin roof section was separated from the fuselage and was fragmented. The seat assemblies separated from the structure. The cabin floor area sustained impact damage and was heavily fragmented. The landing gear transmission assembly and manual flap handle were separated from the floor. The forward cabin area and engine section separated from the fuselage and sustained extensive impact damage. The fuel selector valve was located. Air was blown through the valve and it was determined that the selector was in the left tank position.

The right wing was separated from the fuselage. The wing exhibited ground impact signatures and wrinkling deformation, but was otherwise mostly intact. The flap remained attached to the wing but sustained impact damage. The aileron separated from the wing and extensive wrinkle type deformation was noted. The right wing fuel tank bladder was located in the wing; the bladder was breached.

The left wing was separated from the fuselage. The wing sustained extensive impact damage and was mostly fragmented. The wing was fragmented outboard of the wheel well area. The aileron and flap were separated from the wing and were heavily fragmented. The bladder fuel tank was fragmented and no fuel was noted.

The empennage was separated from the fuselage and was damaged. Leading edge crushing was noted along the vertical tail surface. The rudder remained attached to the vertical stabilizer. The rudder counterweight was separated from the surface and was located within the debris field. The horizontal stabilizer remained attached to the empennage. The left side horizontal was broken and separated about mid span. The right side horizontal was intact. The balance weight arm was intact.

The engine remained attached to the fuselage by the engine mount assembly. The engine sustained extensive ground impact damage. Several engine accessories separated from the engine and were scattered along the debris field.

The propeller assembly was separated from the engine and was located in the confines of the main impact crater. One blade separated from the hub. The second blade remained attached to the hub assembly. Both blades exhibited torsional twisting and chordwise striations. One blade exhibited “S” bending. The second blade exhibited forward bending about mid-span.

Examination of the airframe and engine revealed no evidence of a preimpact mechanical malfunction or failure that would have precluded normal operation.

The complete wreckage exam report and documentation is contained in the public docket for this accident.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot on August 5, 2011. The autopsy report listed multiple specific injuries and the cause of death was reported as multiple blunt force injuries.

Forensic toxicology was performed by the FAA Bioaeronautical Sciences Research Laboratory, Oklahoma City, Oklahoma. The toxicology report stated no ethanol was detected in the liver or the muscle; trace amounts of Doxazosin and Warfarin were detected in the muscle and lung.

Pilot Information

Certificate:	Private	**Age:**	84,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	July 28, 2010
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	4000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N6297P
Model/Series:	PA-24-250	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	24-1408
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	July 30, 2010 Annual	**Certified Max Gross Wt.:**	2800 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	2483 Hrs as of last inspection	**Engine Manufacturer:**	LYCOMING
ELT:	Installed, not activated	**Engine Model/Series:**	O-540 SERIES
Registered Owner:	On file	**Rated Power:**	250 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KTTD,39 ft msl	**Distance from Accident Site:**	5 Nautical Miles
Observation Time:	16:53 Local	**Direction from Accident Site:**	180°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.87 inches Hg	**Temperature/Dew Point:**	28°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Pendleton, OR	**Type of Flight Plan Filed:**	None
Destination:	Camas, WA (1W1)	**Type of Clearance:**	None
Departure Time:	15:25 Local	**Type of Airspace:**	

Airport Information

Airport:	Grove Field Airport 1W1	**Runway Surface Type:**	Asphalt
Airport Elevation:	429 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	07	**IFR Approach:**	None
Runway Length/Width:	2710 ft / 40 ft	**VFR Approach/Landing:**	Traffic pattern

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:**	45.633335,-122.383331

Administrative Information

Investigator In Charge (IIC):	Hogenson, Dennis
Additional Participating Persons:	Tim Moon; FAA FSDO; Hiilsboro, OR
Original Publish Date:	February 12, 2013
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=81381