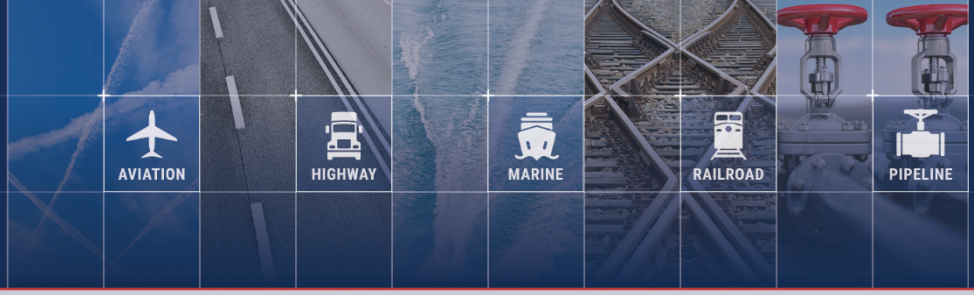

Aviation Investigation Final Report

Location:	Pinecliff, Washington	**Accident Number:**	SEA07LA249
Date & Time:	May 22, 2007, 12:40 Local	**Registration:**	N5180J
Aircraft:	Cessna 177	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot, who was on a VFR flight plan, was flying a nearly direct route from his point of departure to his planned destination. Near the end of his planned flight, he approached a mountain range that stood between him and his destination. Just before reaching the mountainous terrain, the pilot cancelled his VFR flight following, and began to descend. Once he entered the mountains, he encountered the forecasted clouds and low ceilings that kept him from continuing on his planned direct course. He continued to descend, and began maneuvering through the mountainous terrain in the general direction of his destination. After making three major course reversals, the pilot began following a road that would have taken him back to the last major town he had past while flying the direct part of his course. While following that road, he made another apparent course alteration, which placed the aircraft in a narrow valley with up-slopping terrain. As he continued up that valley, he reached a forested ridge that he did not clear, resulting in the aircraft colliding with a number of trees.

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 trees while maneuvering in mountainous terrain. Factors include the mountainous terrain, low ceilings, and trees in the area where the pilot was maneuvering.

Findings

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

Findings
1. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
2. (F) OBJECT - TREE(S)
3. (F) WEATHER CONDITION - LOW CEILING
4. (F) TERRAIN CONDITION - MOUNTAINOUS/HILLY

Factual Information

On May 22, 2007, approximately 1240 Pacific daylight time, a Cessna 177, N5180J, impacted trees in mountainous terrain approximately five miles southwest of Pinecliff, Washington. The private pilot, who was the sole occupant, received fatal injuries, and the aircraft, which was owned and operated by Pro-Flight Aviation, of Renton, Washington, was destroyed. The 14 CFR Part 91 personal pleasure flight, which departed Twin Falls, Idaho at 0952 mountain daylight time, was en route to Renton Municipal Airport, Renton, Washington. The pilot, who was operating in an area of reported instrument meteorological conditions (IMC), had filed and opened a Visual Flight Rules (VFR) flight plan.

On the morning of the flight, the pilot used the Internet to complete three sessions with the Direct User Access Terminal Service (DUATS). During each of the first two sessions he received a Quick Path Low Altitude Weather Brief, and during the third session he filed his VFR flight plan using the Quick Path Be Prompted for Plan program. The pilot departed Twin Falls in VFR conditions, and soon thereafter, contacted Boise Automated Flight Service Station (AFSS) to activate his VFR flight plan. Then, according to data retrieved from an onboard Garmin GPSMAP 496 Global Positioning System (GPS) unit, he climbed to his filed altitude of 10,500 feet mean sea level (MSL), while maintaining a course that would take the aircraft almost directly to Renton Airport. While en route, the pilot requested, and received VFR flight following, initially through Seattle Air Route Traffic Control Center (ARTCC), and then later from Chinook Approach Control. At 1214 Pacific daylight time, after passing Yakima, Washington, and approaching the Cascade Mountain Range, the pilot canceled his flight following services, and continued on en route without further FAA contact.

According to the GPS data, the pilot maintained a direct course to Renton until reaching a point about six miles northeast of Bumping Lake, Washington, whereupon he turned to a course about thirty degrees to the left of what he had been holding. At the time of that course change, the aircraft was approximately 7,600 feet MSL. While continuing to descend, the pilot held that course for a little over one minute, and then turned back to the right, past his original direct course by about forty degrees. He held that course for about thirty seconds, and then initiated a left turn of about 270 degrees, which placed him in a position less than a mile north of State Highway 410. At that time the aircraft was about 5,500 feet MSL. Once he rolled out of that turn, the pilot tracked northeast, parallel to or over Highway 410, until he reached the point where highway 410 makes an abrupt 90 degree right turn toward Yakima (about seven miles northeast of where he rolled out of the turn). At that point, after having descended to an altitude of about 4,000 feet MSL, the pilot turned about 120 degrees to the left, which placed him on a northwest course, paralleling the Little Naches River for about 10 miles. Then, after reaching a point about 10 miles from where he turned northwest, the pilot reversed course, and tracked back southeast at about 4,500 feet MSL, while keeping almost directly over the Little Naches river. When he again reached the location where Highway 410 turns abruptly right

(southeast) toward Yakima, the pilot continued to follow the river (and Highway 410), on a course that ultimately would have taken him back to Yakima if he had continued on in that direction. Instead, after traveling about another eight miles southeast, to a point about one-half mile southeast of Pinecliff, the pilot initiated a right turn of about 120 degrees. This turn, which he initiated at about 3,600 feet MSL, resulted in the aircraft flying along a narrow valley toward up-sloping terrain. The pilot continued in that direction for about another two minutes before colliding with the tops of a number of trees near the top of a ridge about two miles west of State Highway 410.

There were no known emergency transmissions, and no ELT transmission were detected in the general area after the accident. It was approximately three and one-half months later when a hiker came across the wreckage at 46:52.435 North, 121:02.907 West.

The aircraft was recovered and taken to the facilities of AvTech Services, in Maple Valley, Washington, for further examination. That examination did not reveal any evidence of anomalies or malfunctions associated with the aircraft's structure, engine, or systems.

A review of the recorded DUATS information that the pilot received on the morning of the flight revealed that the area forecast included Airman's Meteorological Information (AIRMET) Sierra, which called for mountain obscuration by clouds and mist. In addition, the weather synopsis for the Cascade Mountains called for areas with visibilities between three and five miles, possible isolated light rain and snow showers. It was also determined that the 1219 surface aviation weather observation (METAR) for Stampede Pass (located about 10 miles north of the aircraft's most northerly position) showed winds variable at six knots, visibility one-quarter mile, fog, a 200 foot broken ceiling, a 700 foot overcast, with a temperature of 04 degrees Celsius, and a dew point of 03 degrees Celsius.

Pilot Information

Certificate:	Private	**Age:**	53,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	August 1, 2006
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	60 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N5180J
Model/Series:	177	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	17701382
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	September 1, 2006 Annual	**Certified Max Gross Wt.:**	2500 lbs
Time Since Last Inspection:	80 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	5900 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	Installed	**Engine Model/Series:**	O-360-A1F6
Registered Owner:	Pro-Flight Aviation, Inc.	**Rated Power:**	180 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KSMP,3800 ft msl	**Distance from Accident Site:**	25 Nautical Miles
Observation Time:	12:19 Local	**Direction from Accident Site:**	310°
Lowest Cloud Condition:		**Visibility**	0.25 miles
Lowest Ceiling:	Broken / 200 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots / None	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.21 inches Hg	**Temperature/Dew Point:**	4°C / 3°C
Precipitation and Obscuration:			
Departure Point:	Twin Falls, ID (KTWF)	**Type of Flight Plan Filed:**	VFR
Destination:	Renton, WA (KRNT)	**Type of Clearance:**	None
Departure Time:	09:52 Local	**Type of Airspace:**	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	46.873889,-121.048332

Administrative Information

Investigator In Charge (IIC):	Anderson, Orrin
Additional Participating Persons:	Ellsworth Shewell; Seattle FSDO Michael Koonce; Cessna Aircraft Company
Original Publish Date:	January 31, 2008
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=66582