



# Aviation Investigation Final Report

<b>Location:</b>	Troutdale, Oregon	<b>Accident Number:</b>	SEA01LA138
<b>Date &amp; Time:</b>	July 21, 2001, 08:30 Local	<b>Registration:</b>	N90077
<b>Aircraft:</b>	Cessna 120	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	1 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

While concentrating on flying just beyond the boundary of Class Delta airspace, the pilot focused in on the indications of his Global Positioning System (GPS), and inadvertently entered a low-level overcast cloud layer. Before he was able to initiate a 180 degree turn, the left wing of the aircraft impacted a tree. The pilot estimated that he was in the clouds for less than ten seconds when the aircraft collided with the tree.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's inadvertent visual flight rules (VFR) flight into instrument meteorological conditions (IMC) during cruise flight. Factors include his attention being diverted to the indications presented by his Global Positioning System (GPS), and low ceiling and clouds in the area he was transiting.

## Findings

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

### Findings

1. (C) VFR FLIGHT INTO IMC - INADVERTENT - PILOT IN COMMAND
2. (F) DIVERTED ATTENTION - PILOT IN COMMAND

3. (F) WEATHER CONDITION - LOW CEILING
4. (F) OBJECT - TREE(S)

## Factual Information

On July 21, 2001, approximately 0830 Pacific daylight time, a Cessna 120, N90077, collided with trees about seven miles east of Troutdale, Oregon. The private pilot, who was the sole occupant, received serious injuries, and the aircraft, which was owned and operated by the pilot, sustained substantial damage. The pilot departed Portland-Hillsboro Airport, Hillsboro, Oregon, about 30 minutes prior to the accident, and was en route to Baker City, Oregon. The 14 CFR, Part 91 personal cross-country flight, which the pilot intended to conduct under visual meteorological conditions, inadvertently entered instrument meteorological conditions just prior to impacting the trees. No flight plan had been filed. The ELT, which was activated by the impact sequence, was turned off at the scene.

According to the pilot, he intended to fly just beyond the southern border of Troutdale Airport's Class Delta airspace, and then enter the west end of the Columbia Gorge at 1,500 feet MSL. At the time of the accident, the overcast layer covering the west end of the gorge was lower than what had been forecast for the airport itself. In his efforts to keep clear of the Class Delta airspace, the pilot became focused on the indications of his hand-held Global Positioning System (GPS), and inadvertently entered the overcast. When he realized he had entered the clouds, he switched his attention to the aircraft's attitude indicator, with the intention of making a 180 degree turn. However, the instrument had tumbled, and was not useable as a point of attitude reference. The pilot therefore immediately switched his attention to his turn coordinator, and was about to initiate a turn when the aircraft's left wing impacted a tree. The pilot estimated that it was less than 10 seconds after he entered the clouds that the aircraft collided with the trees.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	47, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Glider	<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>	No
<b>Medical Certification:</b>	Class 3 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	June 5, 2001
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	September 23, 2000
<b>Flight Time:</b>	534 hours (Total, all aircraft), 214 hours (Total, this make and model), 398 hours (Pilot In Command, all aircraft), 18 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N90077
<b>Model/Series:</b>	120	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	9138
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	February 27, 2001 Annual	<b>Certified Max Gross Wt.:</b>	1450 lbs
<b>Time Since Last Inspection:</b>	25 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	5344 Hrs at time of accident	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	C90-12F
<b>Registered Owner:</b>	James A. Caufield, Jr.	<b>Rated Power:</b>	90 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>	Day
<b>Observation Facility, Elevation:</b>	KTTD,39 ft msl	<b>Distance from Accident Site:</b>	7 Nautical Miles
<b>Observation Time:</b>	10:30 Local	<b>Direction from Accident Site:</b>	270°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Overcast / 2000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	350°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.06 inches Hg	<b>Temperature/Dew Point:</b>	16°C / 11°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Hillsboro, OR (HIO )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Baker City, OR (BKE )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	08:00 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious	<b>Latitude, Longitude:</b>	45.520374,-122.350013(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Anderson, Kurt
<b>Additional Participating Persons:</b>	Mike Roberts; Portland FSDO
<b>Original Publish Date:</b>	September 19, 2001
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	The NTSB traveled to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=52795">https://data.nts.gov/Docket?ProjectID=52795</a>

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