



Aviation Investigation Final Report

Location:	Troutdale, Oregon	Accident Number:	SEA01LA138
Date & Time:	July 21, 2001, 08:30 Local	Registration:	N90077
Aircraft:	Cessna 120	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	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

Certificate:	Private	Age:	47,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Glider	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	June 5, 2001
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	September 23, 2000
Flight Time:	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

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

Wreckage and Impact Information

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

Administrative Information

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

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