



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	WALDRON ISLAND, WA	<b>Accident Number:</b>	SEA01LA012
<b>Date &amp; Time:</b>	11/02/2000, 1155 PST	<b>Registration:</b>	N65923
<b>Aircraft:</b>	Cessna 172P	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## Analysis

The private pilot reported that upon arrival in the area of the private 2,700 foot long, gravel airstrip, he executed a descending 360-degree turn to lose altitude, and then lined up to land to the southeast under light and variable wind conditions. He reported sequentially lowering the flaps to 30 degrees on the approach and then experienced a rapid descent rate. The touchdown was reported as within the first third of the runway at 60 knots. He then applied braking but felt the aircraft was not decelerating adequately. He then applied heavier braking during which the brakes locked and the aircraft continued off the upwind end of the runway impacting trees. A commuter pilot who landed at the airstrip about one hour later reported, 'Skid marks were present in the gravel approximately the last 500 feet of the runway to where the aircraft was resting in the trees' and the airstrip was 'not for the inexperienced' pilot. The aircraft flight manual for the Cessna 172P provided a 'Short Field' landing distance planning table which showed that at sea level and a weight of 2,400 pounds (maximum gross weight) and 10 degrees Centigrade, a ground roll distance of 530 feet was expected with a total distance of 1,265 feet to clear a 50 foot obstacle. The landing criteria were based upon no wind, flaps 30 degrees, power off, and maximum braking on a level, dry, paved runway. No mechanical malfunction of the aircraft's brakes or wheels was noted following the accident.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper distance/speed during the approach, which lead to an overrun during the landing roll and subsequent collision with trees. A factor was the trees beyond the upwind end of the runway.

## Findings

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Occurrence #1: OVERRUN

Phase of Operation: LANDING - ROLL

Findings

1. (C) DISTANCE/SPEED - IMPROPER - PILOT IN COMMAND

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Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: LANDING - ROLL

Findings

2. (F) OBJECT - TREE(S)

## Factual Information

On November 2, 2000, approximately 1155 Pacific standard time, a Cessna 172P, N65923, registered to Pearson & Pearson Leasing, operated by Pearson Air, Inc., and being flown by a private pilot, was substantially damaged when the aircraft continued beyond the upwind end of the runway during the landing roll, and impacted trees. The accident occurred at Waldronaire airport, on Waldron, Island, Washington, and both occupants were uninjured. Visual meteorological conditions prevailed, and a VFR flight plan was in effect. The flight, which was personal, was operated under 14CFR91, and originated from Olympia, Washington, at 1040.

The private pilot reported that upon arrival in the Waldron Island area, he executed a descending 360-degree turn to lose altitude, and then lined up to land to the southeast. The private airstrip was equipped with a single runway (32/14) which was reported as 2,700 feet in length. The pilot reported that the landing surface was gravel with turf surrounding the runway and that the winds on landing were light and variable.

He reported sequentially lowering the flaps to 30 degrees on the approach and then experienced a rapid descent rate. The touchdown was reported as within the first third of the runway at 60 knots. He then applied braking but felt the aircraft was not decelerating adequately. He then applied heavier braking during which the brakes locked and the aircraft continued off the upwind end of the runway impacting trees. The pilot reported that the aircraft's main wheels rolled freely during the recovery from the accident site and that he experienced no brake malfunction.

The pilot was sent NTSB Form 6120.1/2 on November 3, 2000, with a second mailing via certified mail on February 2, 2001 (refer to Attachment USPS I). No response was received in either case.

The pilot was issued his private pilot certificate on April 23, 1999, and reported a total of 100 hours of flight experience at his last medical examination conducted July 12, 1999. His total flight time and experience in make and model at the time of the accident was not known.

An inspector from the Federal Aviation Administration (FAA) telephonically interviewed the pilot on the date of the accident (refer to Attachment RTC I). Additionally, the FAA inspector telephonically interviewed a commuter pilot who landed at the same airstrip about one hour later. The commuter pilot reported, "Skid marks were present in the gravel approximately the last 500 feet of the runway to where the aircraft was resting in the trees." Additionally he reported that "...the airstrip is approximately 3,000 feet in length and is surrounded by large Douglas Firs ranging in height from 100 to 150 feet..." the runway was "covered by loose gravel and golf-ball sized rocks..." and "...the airport is "not for the inexperienced" pilot..." (refer to attachment RTC II and CHART I).

The aircraft flight manual for the Cessna 172P provided a "Short Field" landing distance planning table which showed that at sea level and a weight of 2,400 pounds (maximum gross weight) and 10 degrees Centigrade, a ground roll distance of 530 feet was expected with a total distance of 1,265 feet to clear a 50 foot obstacle (refer to TABLE I). The landing criteria were based upon no wind, flaps 30 degrees, power off, and maximum braking on a level, dry, paved runway.

The operator reported that following the recovery of the aircraft an examination revealed no mechanical malfunction of the aircraft's brakes or wheels.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	33, 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>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	07/12/1999
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	100 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N65923
<b>Model/Series:</b>	172P 172P	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	17275923
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	09/04/2000, Annual	<b>Certified Max Gross Wt.:</b>	2400 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	7015 Hours	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-320-D2J
<b>Registered Owner:</b>	PEARSON & PEARSON LEASING	<b>Rated Power:</b>	160 hp
<b>Operator:</b>	PEARSON & PEARSON LEASING	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>	PEARSON AIR, INC.	<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	FHR, 109 ft msl	Distance from Accident Site:	11 Nautical Miles
Observation Time:	1153 PST	Direction from Accident Site:	160°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 6500 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	10°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	11° C / 6° C
Precipitation and Obscuration:			
Departure Point:	OLYMPIA, WA (OLY)	Type of Flight Plan Filed:	VFR
Destination:	(90WA)	Type of Clearance:	VFR
Departure Time:	1040 PST	Type of Airspace:	Class G

## Airport Information

Airport:	WALDRONAIRE AIRPORT (90WA)	Runway Surface Type:	Gravel
Airport Elevation:	140 ft	Runway Surface Condition:	Dry
Runway Used:	14	IFR Approach:	None
Runway Length/Width:	2700 ft / 300 ft	VFR Approach/Landing:	Full Stop

## Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	Steven A McCreary	Report Date:	07/02/2001
Additional Participating Persons:	DAVID MAY; RENTON, WA		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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