



# Aviation Investigation Final Report

<b>Location:</b>	Tacoma, Washington	<b>Accident Number:</b>	WPR09CA252
<b>Date &amp; Time:</b>	May 18, 2009, 08:47 Local	<b>Registration:</b>	N70083
<b>Aircraft:</b>	Cessna 185E	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control on ground	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation		

## Analysis

The pilot stated that after performing a wheel landing on Runway 17, the tailwheel-equipped airplane initially tracked straight along the runway centerline. During the landing roll, the airplane started to veer to the right. Despite his control inputs, the airplane continued to veer to the right and ground looped. The airplane came to rest in a nose-low attitude on the right side of the runway. Examination of the airplane by a Federal Aviation Administration inspector revealed that both wings were structurally damaged. The weather reporting station located at the airport reported wind from 220 degrees at 8 knots six minutes after the time of the accident. The pilot reported no anomalies with the airplane's flight control system prior to the accident.

## 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 directional control while landing with a crosswind.

### Findings

<b>Personnel issues</b>	Aircraft control - Pilot
<b>Aircraft</b>	Directional control - Not attained/maintained
<b>Environmental issues</b>	Crosswind - Effect on operation

## Factual Information

### History of Flight

<b>Landing-landing roll</b>	Loss of control on ground (Defining event)
<b>Landing-landing roll</b>	Nose over/nose down

### Pilot Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	52, Male
<b>Airplane Rating(s):</b>	Single-engine sea; Multi-engine land; Multi-engine sea	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	January 20, 2009
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	July 21, 2008
<b>Flight Time:</b>	11028 hours (Total, all aircraft), 390 hours (Total, this make and model), 10860 hours (Pilot In Command, all aircraft), 162 hours (Last 90 days, all aircraft), 44 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N70083
<b>Model/Series:</b>	185E	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	18501950
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	July 10, 2008 Annual	<b>Certified Max Gross Wt.:</b>	3350 lbs
<b>Time Since Last Inspection:</b>	54 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	7663 Hrs at time of accident	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-520
<b>Registered Owner:</b>	Air Rainier, Inc	<b>Rated Power:</b>	285 Horsepower
<b>Operator:</b>	Air Rainier, Inc	<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>	TIW,292 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	08:53 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Overcast / 800 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	220°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	11°C / 7°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Port Angeles, WA (CLM )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	Tacoma, WA (TIW )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	08:05 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Tacoma Narrows TIW	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	292 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	17	<b>IFR Approach:</b>	ILS
<b>Runway Length/Width:</b>	5002 ft / 150 ft	<b>VFR Approach/Landing:</b>	Full stop;Straight-in

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<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 None	<b>Latitude, Longitude:</b>	47.268054,-122.578056

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Cawthra, Joshua
<b>Additional Participating Persons:</b>	Katy Radcliffe; Federal Aviation Administration; Seattle, WA
<b>Original Publish Date:</b>	August 13, 2009
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=73874">https://data.nts.gov/Docket?ProjectID=73874</a>

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