



# Aviation Investigation Final Report

<b>Location:</b>	PORT TOWNSEND, Washington	<b>Accident Number:</b>	SEA00LA049
<b>Date &amp; Time:</b>	March 10, 2000, 16:45 Local	<b>Registration:</b>	N4994A
<b>Aircraft:</b>	Cessna 180	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot, who was flying a tailwheel-equipped aircraft, thought he was landing into a quartering headwind. But according to pilot-rated witnesses, the wind shifted just prior to the aircraft crossing the threshold. After the aircraft touched down, the tailwind lifted its tail into the air, and the pilot began having difficulty maintaining directional control. During his attempts to remain aligned with the runway, the aircraft departed the side runway surface, and encountered soft, wet terrain. Soon after encountering the soft terrain, one of the main gear legs separated from the aircraft.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to adequately compensate for changing wind conditions during the landing roll in a tailwheel-equipped aircraft. Factors include a variable, shifting wind that changed from a quartering headwind to a quartering tailwind just prior to the aircraft touching down on the runway, and soft, wet terrain just off the edge of the runway surface.

## Findings

Occurrence #1: GEAR COLLAPSED  
Phase of Operation: LANDING - ROLL

### Findings

1. (C) COMPENSATION FOR WIND CONDITIONS - INADEQUATE - PILOT IN COMMAND

2. (F) WEATHER CONDITION - UNFAVORABLE WIND
3. (F) WEATHER CONDITION - TAILWIND
4. (F) TERRAIN CONDITION - SOFT
5. (F) TERRAIN CONDITION - WET

## Factual Information

On March 10, 2000, approximately 1645 Pacific standard time, a Cessna 180, N4994A, experienced a gear collapse during the landing roll at Jefferson County International Airport, Port Townsend, Washington. The private pilot, who was the sole occupant, was not injured, but the aircraft, which was owned in partnership by the pilot and another individual, sustained substantial damage. The 14 CFR Part 91 pleasure flight, which departed Snohomish County Airport, Everett, Washington, about 30 minutes earlier, was being operated in visual meteorological conditions. No flight plan had been filed, and there was no report of an ELT activation.

According to the pilot, he was landing on runway 26 into what he thought was a quartering headwind. After the aircraft touched down in a three-point attitude, it bounced back into the air and started drifting to the right. When it touched down a second time, the wind, which was now blowing from behind the aircraft, lifted the tail in the air, resulting in the pilot having difficulty maintaining directional control. The aircraft continued to the right, and the pilot began to apply braking and corrective action in an attempt to maintain alignment with the runway. During his attempts to get the aircraft to track back toward the center of the runway, it departed the right side of the runway and encountered soft, wet terrain. After encountering the soft terrain, one of the aircraft's main gear separated from the airframe and one wing impacted the ground.

Pilot-rated witnesses to the accident said that there were variable winds blowing at the time, and that the wind shifted from a quartering headwind to a quartering tailwind just prior to the aircraft crossing the threshold.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	63, 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 3 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	February 14, 2000
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1163 hours (Total, all aircraft), 754 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N4994A
<b>Model/Series:</b>	180 180	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal; Utility	<b>Serial Number:</b>	32391
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	February 24, 2000 Annual	<b>Certified Max Gross Wt.:</b>	2650 lbs
<b>Time Since Last Inspection:</b>	3 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	6544 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-470-K
<b>Registered Owner:</b>	HILL, GARY G & KREMER, DALE E	<b>Rated Power:</b>	230 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Unknown	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 2500 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	15 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	10°C
<b>Precipitation and Obscuration:</b>	Light - None - Rain		
<b>Departure Point:</b>	EVERETT , WA (PAE)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(059)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	16:15 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	JEFFERSON COUNTY INTL. 059	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	107 ft msl	<b>Runway Surface Condition:</b>	Wet
<b>Runway Used:</b>	26	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	3000 ft / 75 ft	<b>VFR Approach/Landing:</b>	Full stop

## 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>	48.030727,-122.83953(est)

## Administrative Information

**Investigator In Charge (IIC):** Anderson, Orrin

**Additional Participating Persons:** KEVIN MCKEE;

**Original Publish Date:** December 4, 2000

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.ntsb.gov/Docket?ProjectID=48763>

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