



# Aviation Investigation Final Report

<b>Location:</b>	ARLINGTON, Washington	<b>Accident Number:</b>	SEA97LA167
<b>Date &amp; Time:</b>	July 12, 1997, 09:50 Local	<b>Registration:</b>	N4275N
<b>Aircraft:</b>	Cessna 140	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The tailwheel equipped airplane incurred substantial damage during a nose-over on the landing roll following the separation of the right-main wheel from its associated strut. The pilot reported that he touched down on his main wheels on the sod runway, bounced once, then 'seemed to settle into a normal run-out'. The pilot stated that 'a second or two later' he felt a heavy yaw to the right as the right landing gear dug into the turf. The landing-gear axle was found to have failed. The landing-gear strut dug into the turf, causing the aircraft to nose over.

## Probable Cause and Findings

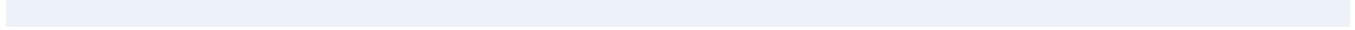
The National Transportation Safety Board determines the probable cause(s) of this accident to be: Failure of the right-main landing gear axle after landing.

## Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: LANDING - ROLL

Findings  
1. (C) LANDING GEAR,AXLE - FAILURE  
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Occurrence #2: NOSE OVER  
Phase of Operation: LANDING - ROLL



## Factual Information

### HISTORY OF FLIGHT

On Saturday, July 12, 1997, approximately 0950 Pacific daylight time, a Cessna 140, N4275N, registered to and being flown by a private pilot, incurred substantial damage during a nose-over on the landing roll following the separation of the right-main wheel from its associated strut. The accident occurred at the Arlington Municipal airport, Arlington, Washington, and the pilot and passenger were uninjured. No flight plan had been filed and visual meteorological conditions existed at the time. The flight, which was personal, was to have been operated under 14CFR91, and originated from Snohomish, Washington, approximately 0920.

The pilot reported that he arrived in the Arlington airport area and contacted the temporary control tower for instructions. The Arlington airport was hosting the annual Northwest Experimental Aircraft Association fly-in and there was considerable air traffic around the airport at the time. The pilot was given authorization to land on a "grass strip" being used as an alternate landing site adjacent to runway 34.

The pilot stated that while he was on short final approach, he noticed "several orange cones around some red plastic strips" at the approach end of the grass strip. The cones and strips represented a "X" to indicate that the glider strip was closed to powered aircraft due to fly-in activities. The pilot reported that he touched down on his main wheels, bounced once, then "seemed to settle into a normal run-out". The pilot stated that "a second or two later" he felt a heavy yaw to the right as the right landing gear dug into the turf. The landing-gear axle sheared off and the landing-gear strut dug into the turf, causing the aircraft to nose over.

According to the FAA representative on site, a different grass strip was intended for use during the fly-in.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	35, 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>	September 27, 1996
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	364 hours (Total, all aircraft), 263 hours (Total, this make and model), 332 hours (Pilot In Command, all aircraft), 44 hours (Last 90 days, all aircraft), 28 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N4275N
<b>Model/Series:</b>	140 140	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	13746
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	May 4, 1997 Annual	<b>Certified Max Gross Wt.:</b>	1450 lbs
<b>Time Since Last Inspection:</b>	40 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	6224 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	C-85-12F
<b>Registered Owner:</b>	CONOVER, MARK, A.	<b>Rated Power:</b>	85 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>	Scattered / 2500 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 5000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	300°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	16°C / 13°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	SNOHOMISH , WA (S43 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(AWO )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	09:00 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	ARLINGTON MUNICIPAL AWO	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	137 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	34	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	2000 ft / 75 ft	<b>VFR Approach/Landing:</b>	Full stop;Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	48.179439,-121.669204(est)

## Administrative Information

**Investigator In Charge (IIC):** McCreary, Steven

**Additional Participating Persons:** KEN SIMON; SEATTLE , WA  
MICHAEL STOCKHILL; SEATTLE , WA

**Original Publish Date:** February 15, 2000

**Last Revision Date:**

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

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=42656>

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