



# Aviation Investigation Final Report

<b>Location:</b>	SPOKANE, Washington	<b>Accident Number:</b>	SEA83LA174
<b>Date &amp; Time:</b>	August 11, 1983, 13:40 Local	<b>Registration:</b>	N69604
<b>Aircraft:</b>	CESSNA 310Q	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	4 None
<b>Flight Conducted Under:</b>	Part 135: Air taxi & commuter - Non-scheduled		

## Analysis

WHILE LANDING WITH A SLIGHT LEFT X-WIND, THE PLT PURPOSELY TOUCHED DOWN ON THE LEFT MAIN GEAR FIRST. MOMENTARILY AFTER TOUCHING DOWN ON THE OTHER MAIN WHEEL, THE RIGHT GEAR COLLAPSED. AT FIRST, THE PLT THOUGHT THE RIGHT TIRE HAD BLOWN OUT & CORRECTIVE ACTION WAS TAKEN, BUT TO NO AVAIL. RUDDER & BRAKE EFFECTIVENESS DIMINISHED & THE ACFT CAME TO REST ON THE RIGHT SIDE OF THE RWY. AN EXAM REVEALED THAT THE RIGHT MAIN LANDING GEAR DRAG LINK UPPER BOLT, PN NAS464P4-26, HAD FAILED. THE BOLT & BUSHING WERE RUSTY & HAD SEIZED IN THE DRAG LINK ASSEMBLY. ALSO, SEVERAL OTHER BOLTS & BUSHINGS THROUGHOUT THE LANDING GEAR ASSEMBLY WERE FOUND TO BE RUSTY & HAD SEIZED. AN ANNUAL HAD BEEN ACCOMPLISHED ON 7/26/83. THE TOTAL FLT TIME ON THE ACFT SINCE THE INSPECTION WAS 20.3 HRS.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

### Findings

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

Findings

1. (C) LANDING GEAR,NORMAL RETRACTION/EXTENSION ASSEMBLY - BINDING(MECHANICAL)
2. (C) MAINTENANCE - INADEQUATE - OTHER MAINTENANCE PERSONNEL
3. (C) MAINTENANCE,ANNUAL INSPECTION - INADEQUATE - OTHER MAINTENANCE PERSONNEL
4. (F) LANDING GEAR,NORMAL RETRACTION/EXTENSION ASSEMBLY - FAILURE,TOTAL

## Factual Information

### Pilot Information

<b>Certificate:</b>	Airline transport; Flight instructor	<b>Age:</b>	34, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	January 4, 1983
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	5500 hours (Total, all aircraft), 182 hours (Total, this make and model), 5315 hours (Pilot In Command, all aircraft), 145 hours (Last 90 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N69604
<b>Model/Series:</b>	310Q 310Q	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	310Q0812
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	July 26, 1983 Annual	<b>Certified Max Gross Wt.:</b>	5300 lbs
<b>Time Since Last Inspection:</b>	20 Hrs	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	1582 Hrs	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-470-VO
<b>Registered Owner:</b>	PILGRIM SALES, INCORPORATED	<b>Rated Power:</b>	260 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)
<b>Operator Does Business As:</b>	SUN VALLEY AIRWAYS	<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>	GEG	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	13:56 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 3000 ft AGL	<b>Visibility</b>	15 miles
<b>Lowest Ceiling:</b>	Broken / 5500 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	160°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	19°C / 11°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	BOZEMAN , MT (BZN )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	SPOKANE , WA (GEG )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	12:00 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	SPOKANE INTERNATIONAL GEG	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	2372 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	21	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>	9000 ft / 150 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>	3 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	4 None	<b>Latitude, Longitude:</b>	

## Administrative Information

**Investigator In Charge (IIC):** Carrera, Candace

**Additional Participating Persons:**

**Original Publish Date:**

**Last Revision Date:**

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

**Note:**

**Investigation Docket:** <https://data.ntsb.gov/Docket?ProjectID=39752>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).